

## VOLUME XXV

## TRAVANCORE

## PART I-REPORT

BY

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[As rexised by Goyernment]

## PREFACE

The Synoptic Essay has taken the place of the compartmental Reports of the past decades.

In the words of Mr. M. W. W. M. Yeatts, the Census Commissioner for India, "the essay should be an essay; a kind of theme pisture, the theme being the life of the State as an organic whole. It must be the product of a mind which has digested all the outstanding features of the State's decade history and experience and presents the results of such digestion in a single, uniform product. It means that the viesw is single and individual but at the same time comprehensive."

The omnibus character of the Census Report has often detracted from its readability, particularly for those who are anxious to get a comprehensive view of a State or Province. As years roll on, every topic of human interest is progressively brought under the discerning eye of the specialist, followed by the devastating criticism of the expert. To cater to the exaoting demands of this smill, though powerful, group is beyond the capacity of the Census Commissioner who, even if he is a specialist, cannot in the course of a couple of years, evolve into an omnicompetent personage. At any rate, the expectations of the 99 percent. of the educated laymen, who are anxious to steer clear of the mysterious expert and the superficial chronicler, must be given reasonable satisfaction. The Synoptic Essay, it is hoped, would satisfy the intellectuat craving of those people who expect to read in this Census barometer the record of the country's progress in the last decade.

Boiling down the several details collected during the Census operations into a connected whole, without resorting to the simpler device of presenting them piecemeal under separate chapters, was no easy task. My office staff, wedded to the compartmental system of 1931, found it difficult to adjust themselves to the change in the form of presentation of the results of the data collected during the Census operations. It was with no small difficulty, therefore, that the marginal tables were extracted and notes prepared on relevant data for use in the elaboration of the different topics in the Essay.

In the present Census attention was focussed on certain fundamental aspects of the day to day life of the people of the State in general. The evolution of the caste system, a peep into the past regarding the nature and origin of the various customs and ceremonies prevalent among the different castes or sects, or an anthropological or ethnological survey of the small tribal element in the population could not therefore find a place in the present scheme. The Census Commissioner for India has also expressed the view that the Census has done all it could really produce in the direction of caste study. Tendencies and developments are more in place in a Synoptic Essay than 'wearisome screeds' on caste question. There is also the chance of one missing the wood for the trees if one tries to cover too much technical ground within the short compass of a Synoptic Fissay. The topics which demand a technical treatment like Fertility, Vital Statistics and Sampling have been dealt with separately in the Appendices.

A eareful perusal of the enumeration card of 1941 will convince any one that emphasis has been placed, and that rightly, on the occupational trends of the people, to find out how they live. The details about age, sex and civil condition lead on to the means of
livelihood. The important question of density and its incidence forms the preface to the problem of pressure of population and unemployment and here again age-composition and civil condition throw light on the whole problem. The questions of religion, language, and literacy are not viewed in isolation; they are integrated with the cultural evolution of the people as a whole to ascertain how they live the higher life. The questions regarding married women embodied in the enumeration card have given the right lead in focussing public attention on a topic of vital importance to society, for in a highly literate country like Travancore, it would be possible to get correct data from the large number of literate mothers who could easily be convinced of the importance and usefulness of this enquiry.

A word now about the general scheme. The Introduction is intended to give a bird's eye view of the State, setting out the most outstanding facts regarding its historical evolution, geographical compactuess and its progress in the economic, social and political spheres down the centuries. It also gives a foretaste of the lines on which the scheme is worked out. While unity and continuity are kept up, the division into General, Occupational and Cultural, gives the view-points in the main theme, the unfolding of it being done through individual topics such as movement of population, age, sex, cifil condition, means of livelihood, religion, language, literacy, etc. These three categories should not be looked upon as "bound within uncrossable frontiers". The unity of the whole piece is emphasised by the Census Commissioner when he says that one has to think of the concluding sentence before beginning to write. The maps and diagrams have been reduced to the absolute minimum as there is just the possibility of missing the point by too many. illustrations. The main consideration in preparing and including them has been to stress important points or clear genuine difficulties which otherwise would have involved lengthy verbal description. The maps in particular and the diagrams have also been so carefully designed as to prove useful not merely to the general reader but to those specially engaged in the field of education.

There is sufficient scope for repetition in a Census Report, if only one is inclined that way as the marginal tables, diagrams and even maps lend themselves to elaboration in words, to the wearisome annoyance of the impatient reader who, like the intelligent papil, cannot tolerate repetition. This boredom has been carefully avoided as may be clear from the rather elaborate table of contents rendered necessary in the absence of separate chapters and marginal headings, which may hinder the even flow of a continuous narrative. While the Table of Contents specifies the topic of each paragraph and the relation of each to the main theme through the various sub-topics, reference to individual facts is facilitated by the detailed Index at the end.

The Report is published in four parts, Part I containing the Report proper and the Appendices, Part II the Imperial Tables and Part III the State Tables, Part IV being. the Administrative Volume. To effect a saying in expenditure and to facilitate ready reference and verification, Parts I and $I I$ are bound together.

Census was considered a 'gigantic undertaking' even by the talented Census Commissioner for Travancore in 1875 and the Census Commissioner for India has characterised the Census of 1941 as the "most difficult of all India's Censuses". The work was therefore one of no small magnitude and particularly for me, it was like changing horse midstream, as I had to take over from my predecessor five months after he was appointed as Census Commissioner or, to be more exact, nine months after, if his part-time work is also taken inta
account. I had also to be constantly on the move even after the Population Census was over, for inspecting the field work connected with the Economic Survey at a stage when my predecessors in the past were poring over voluminous literature in the shape of reports, treatises, or other useful publications on population and allied problems. Add to this, the change in the method of Census reporting elaborated abo re made me doubt the possibility of publishing this work before the date corresponding to that on which the 1931 Report was ready for publication. Circumstances have now compelled me to publish it three months earlier as it is wanted urgently for offcial purposes.

This was the first occasion on which an educational officer was selected for the responsible post of Census Commissioner. Though to the large Census ustaff already working in the various centres I was a novus homo, I experienced little difficulty in rallying round me the veterans in the subordinate service of the Revenue and Public Health Departments. The silent and devoted service of nearly 6,000 of my colleagues in the Department of Education was of considerable help to me in clearing many an obstacle in the Census track and covering the last lap of the final count with confidence and satisfaction. It has given me no small encouragement that my appeal to the public elaborating the importance of the Census and soliciting their co-operation had its desired effect in their intelligent response in furnishing the requisite details with dependable accuracy. The non-simultaneous enumeration which was a new feature of the 1941 Census made it possible to dispense with the services of a large number of inexperienced enumerators for the final counting and thus avoid the possibility of double-enumeration. - The results of the final count were announced on 3rd March 1941. The Sorting and Compilation work took nearly eight months. For the former a staff consisting of 250 Sorters, 10 Compilers, 30 Supervisors (one for each taluq), 3 Divisional Superintendents for the three Revenue Divisions, 3 Record Keepers, (one for each Division) and one Accountant, was appointed and placed under the immediate control of the Chief Superintendent. A bifurcation was effected this time by putting the Manager and Statistical Superintendent entirely in charge of statistical work and entrusting the control and supervision of the large staff to the Chief Superintendent. This had the desired effect of ensuring accuracy and thoroughness in sorting and compilation. For the Compilation work the Chief Superintendent who was also Head Compiler was assisted by the 3 Divisional Superintendents as Divisional Compilers, 3 Record Keepers and 30 Compilers (one for each taluq), the Statistical Superintendent being left free to give directions in the work of compilation and check the figures from time to time.

The several Troperial and Subsidiary Tables were completed according to schedule and submitted to the Census Commissioner.for India for approval as soon as they were ready. Imperial Table VIII (Means of Livelihood), the most complicated of them, was completed on 24th January 1942 and received the approval of the Census Commissioner on 24th February.

The inspection of the field work connected with the Economic Survey and of the work regarding Fragmentation of Holdings along with the organisation of the Tabulation Sections of these two and the Population Census kept me fally occupied for over six months. from 1st March 1941. The Census Commissioner for India was expected to visit Travancore by about the middle of Angust and I was looking forward to having a full discussion with him on the Imperial Tables and the scope of the Essay thereby making up for my not getting the advantage of attending the Census Conference at Delhi in February 1940. It was a disappointment to me, as it was to him, that he had to cancel the proposed
tour to the South for unavoidable reasons. I could start the necessary reading for preparing the draft of my Report only by about the second week of September 1941. I first took up the Cultural Section for which the necessary data were then available. After preparing a working draft of the Introductory and Cultural sections, I had the opportunity of meeting the Census Commissioner for India at Delhi in the 2nd week of February last. I am deeply grateful to him for the detailed comments and helpful suggestions he gave me after going through my drafts and for his kind assurance of all possible assistapce.

On my return I started working up the General section and took up the Occupational section last. The months of July, Augast and September 1942 kept me fully occupied with a complete revision of the draft already prepared, to give it proper shape and synthetic unity. From the middle of July onwards, the report was sent to the Press, section by section, the remaining part of the limited time available being utilised in the preparation of the Appendices. As each section reached the machine-proof stage, a copy was sent to the Census.Commissioner for India for prior comment and approval.

It has been my earnest endeavour to reduce the Census expenditure to the absolute minimum. A proportionate addition to the expenditure incurred in 1931 warranted by the population increase in 1941 was not budgeted for: The Census of 1931 cost Government Rs. $1,39,800 i$ : e., Rs. 50,341 more than the 1921 Census excluding, in both cases, the cost of printing. The results of the Economic Enquiry were published as an Appendix in 1931. This time, however, the report on Economic Survey is being pablished separately, as along with the Tables, it is expected to cover nearly 200 pages. The total cost of the Census of 1941 (excluding printing, but including the Economic Survey and the Fragmentation of Holdings) comes to Rs. $1,36,021$ which is Rs. 3,779 less than the corresponding expenditure incurred in 1931. The cost per mille therefore works out to Rs. $22-6$ as. in 1941 as against Rs. 27 7 as. in 1931.

I consider it my primary duty to express my deep indebtedness to the Government of His Highness the Maharaja for the confidence placed in me and for the generous support extended to me throughout my work and I am profoundly grateful to Deswan Sachivottama Sir C. P. Ramaswami Aiyar for the kindness and consideration he has shown and for the helpful directions he has given to me during the successive stages of the Census operations.

The Census Commissioners have always had to conduct the field work with the aid of the subordinate staff of other Departments. The active co-operation of the Heads of Departments is an essential pre-requisite for the success of the Census operations and the accuracy of the returns. I am happy to be able to record the fact that my brother officers and their subordinates heartily co-operated with me but for which it would not have been possible for me to rork the complicated Census machinery without hitch or hindrance. My sincere thanks are due to Mr. M. Govinda Pillai from whom I took over the Census Commissionership in September 1940, for the preliminary work he had done in connection with the Census before he went on leave preparatory to retirement. Dr. U. Sivaraman Nair of the Mathematics Department of the Travancore University, who was appointed as Statistical Adviser for the Economic Survey, was of considerable help to me in the Population Census also, particularly in analysing the age-composition of the population and literacy figures. I am thankful to him for his valuable help. I am happy to acknowledge the ungrudging services of the Municipal Presidents, Tahsildars and the Divisional Forest Officers who had to shoulder the heavy responsibility imposed upon them as Charge Superintendents in addition to their normally heavy work. I feel very thankful
to the Managers of the various Estates-particularly to the General Manager of the K.D.H.P. Company-and their staffs for their hearty co-operation in Census work during its several stages till the final enumeration.

The strength of my office staff fluctuated with the quantity of work left over after each stage, drastic reduction being effected towards the close. Mr. G. R. Pillai was the Personal Assistant when I took charge. I wish to place on record my appreciation of the hard and willing work done by him, particularly during the first six months, when I had to be constantly on the move. Mr. K. J. Leenose, who was appointed my Personal Assistant in July 1942, ably assisted me during the strenuous three months preceding the publication of this Report. I wish to place on record my high appreciation of his thorough and efficient work. I am sincerely grateful to him for the ungrudging assistance he has rendered. I wish to record my sincere appreciation of the hard and taxing work of calculation continuously carried on throughout the period by Mr. N. Parameswaran Pillai as Manager and Statistical Superintendent. The Chief Superintendent and Head Compiler, Mr. K. S. Rama Aiyer, with his characteristic thoroughness executed the work entrusted to him to my entire satisfaction. It stands to his lasting credit that the elaborate Imperial Tables have been systematically and methodically prepared with meticulous accuracy in regard to the innumerable details. Mr. S. Thandaveswara Aiyer with his experience in the 1931 Census was also helpful in expediting the work. Mr. N. Chandrasekharan who was Divisional Superintendent and Divisional Compiler deserves my sincere appreciation for the work which he did so ably and well. I wish to place on record my high appreciation of the loyal and efficient services of my Stenographer Mr. G. Sivasankara Pillai, whose varied experience in the State Manual Office made it possible for me to put him on to different items of work demanding trust and confidence. I had the advantage of getting as Draftsman Mr. P. Ramakrishna Pillai, whose intelligent understanding of my requirements combined with his artistic taste and technical skill enabled him to bring out the maps and charts to my entire satisfaction. Mr. P. Muthukrishna Pillai who was one of the Typists was also working as a Machinist in my office. I sincerely appreciate his marvellous speed and high technical talent. The other members of the staff working at the Population Census did the work allotted to them satisfactorily. Mr. M. T. Joseph and Mr. S. Varadarajan Nair were put in charge of the special Enquiries and did their work creditably.

During none of the past seven Censuses had so many hundreds of pages of Tables alone to be printed as in the present Census. The Imperial Tables, State Tables, and those connected with the Economic Survey and Fragmentation of Holdings together constituted no less than 1,500 pages. The printing of these along with the Reports proper, in accordance with the rather exacting requirements of the new scheme of presentation, is certainly a stupendous task. If to this is added nearly 8 million enumeration cards and several thousands of forms for the different purposes during the different stages, not to mention the Census Code, the whole work assumes gigantic proportions. The fact that most of all this printing had to be done on short notice speaks highly of the sense of duty and efficiency of the Government Press staff. My warmest thanks and sincere gratitude are due to Mr. P. E. Mathew, the Superintendent of the Government Press, who has met the varied and exacting demands of this Department, particularly during the last three months, with the utmost patience, characteristic courtesy and unfailing promptness. The Maps were lithographed in the Trivandrum Art Printing Works and I am happy to testify to their neat and careful execution.

Trivivandrum,
29th September 1942.

A. Narayanan Tampi, Census Commissioner.

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## EVOLUTION OF MODERN TRAVANCORE

## Scale 1 Inch $=20$ Miles



Litho?:'he Art Printing Works, Trivandrum.

# CENSUS OF TRAVANCORE 

1941

## INTRODUCTORY

Political circumstances no less than geographical situation determined the course of the evolution of modern Travancore. Nature helped her much in the work of political, consolidation. The Arabian Sea washes her western shores ; the Western Ghats protect her eastern boundary. The sea and the mountains meet in the extreme south where the country tapers down almost to a point. Here the forbidding rocks, the outstretched arms of the Western Ghats, and the tumultuous sea proclaim their joint responsibility in guarding this much-prized land. The Western Ghats barred the way against a hostile army from the east except in the extreme south where the low altitude permitted the passage of a foreign army. It was fortunate, therefore, for Travancore that the work of conquest and consolidation proceeded from the south to the north. With Vilinjam, Colachẹl and Leapuram bringing in all the wealth to the country by foreign trade and the loyal marcher lords effectively guarding the south-east frontier against foreign invasions, the Kings of Travancore found the whork of conquest of the territories further north comparatively easy. If conquest had proceeded from the north to the south, it is more than doubtful if Travancore would ever have been consolidated into a unified kingdom. The menace from the south which adjoined the powerful kingdoms beyond the Ghats would have stood against any attempt. at consolidation. Further, the Portuguese and the Dutch would certainly have been tempted to pursue a policy of territorial aggrandisement if they had not encountered a strong ruler in the south.
2. It was a fortunate circumstance again that Travancore was never under the domination of a
foreign ruler, long enough for him to impose a foreign civilization or a foreign culture on this land. The successes that attended the armies of the conquering Cholas and the Pandyas were only short-lived and the territories which came under their temporary sway slipped baok to normal life under their old rulars almost immediately the army of occupation withdrew. . The development of a oultural unity thus rendored possible considerably facilitated the political consolidation which came in later. It was another stroke of good fortune that the territories to the north of Travancore were ruled by Kings whóse cultural kinship with Travancore made the chances of irreconcilable hostility and a war of extermination very remote. Otherwise what happened to Vijayanagar at Talikota might have been repeated here also if a powerful ruler, alien in oivilization and in culture, had ruled over the territories which were under the sway of the Raja of Coohin and the Zamorin of Calicut. Cochin acted as a buffer betwoen Travancore and Malabar. If to the north of Travancore the powerful Zamorin with his vast territories had ruled and Cochin had been flung to the north of Malabar, the history of Travancore would, perhaps, have been different. Except for occasional jealousies, Cochin has always stood with Travancore; and the great and valuable help rendered to Cochin by Maharaja Rama Varma, when the Zamorin from the north had occupied practically the whole State, cemented this friendship.
3. The policy pursued by Travancore in re* lation to the East India Company, which later on became the Suzerain Power in India, eecured for the State a valuable and powerful ally. In the
work of political consolidation, this friendship was of great importance in strengthening the hands of the rulera against their enemies.
4. Early in the 18th century, Travancore, after having secured control over the south, started on a career of expansion. Marthanda. Varma, the maker of modern Travancore, aided by his talented nephew, Prince Rama Varma, and his faithful Dalawa, Rama Iyen, took the conquering armies of the State to the borders of Cochin. The victorious king thereafter set his hands to consolidate his kingdom and give it peace and prosperity. The shrewd ruler realised that the claims of conquest could only be temporary and that the State should be established on firmer foundations if it were to survive. The Thrippadidanam performed by His Highness was a master-stroke of political sagacity. The ancient lineage of His Highness and his unbroken succession from the great Cheras of South India, the extent of the territory which came under his sway by the might of his armies and the spiritual position which he occupied as a result of the Thrippadi danam, gave him a position of unrivalled supre* macy in Travancore. Even the people who lived in the territories which he had conquered found in their new Sovereign not a military adventurer or an ambitious Viceroy of a foreign potentate; but one who combined in limself spiritual exaltation, high birth and tradition, martial valour and heroism. The Ruler assumed the role of the Sovereign of the State and ceased to be primus inter pares. As the trustee of Sri Padmanabha he succeeded in securing implicit obedience from the feudal hierarchy. His authority was, however, based on the willing support of the people. The victories which Marthanda Varma won over the feudal nobility, who became restive on account of the restrictions placed upon their political independence, wore mainly the result of the unstint. ed support which he had from the large majority of the people in the land. The traditional loyalty of the Travancoreans to the Rulers has
contributed not a little to the uninterrupted monarchical rule in Travancore in contrast to the chequered history of the kingdoms beyond the Ghats. The great Cholas, the Pandyas and the Pallavas, who founded empires in South India have recorded their once-mighty rule only in inscriptions and in monuments. No king today rules over the land which was ruled by Raja Raja the Great, Nedumjeliyan or Narasimha Varman, while in Travancore the monarchy is centuries old, tracing its descent from the Great Cheras of South India. Marthanda Varma's role as an admini. strator is even more brilliant than his achievements as a conqueror. History has recorded his intense personal interest in improving the lot of the cultivator by opening up irrigation works, improving means of communication and introducing reforms in the collection of revenue and the administration of justice. Monarchical absolutism : was thus established in law and institutions. His personal example of dedication to the publio weal was consistently followed by his illustrious successors.
5. . If the conquering hero had died without a competent successor, Travancore would not have risen to the eminence which she attained in the latter half of the 18th century. Maharaja Kartika Thirunal, popularly acclaimed as the 'Dharma Raja' not only inherited the martial traditions of his illustrious house but proved himself to be as able a statesman as his great predecessor. His conquests of Alangad and Parur, the two taluks adjoining the Cochin State, secured for Travancore a strategic boundary against invasion from the north, (See map on the evolution of modern Travancore) while the aequisition of the taluk of Shenkotta more than made up for the loss of Kalacaud and Valliyur further south. The invasion of Travancore by the redoubtable Sultan of Mysore put the new-founded kingdom to an acid test. The conquering army of Tippu Sultan, after subjugating the Zamorin and reducing to vassalage the chiefs of the various principalities further south, right up to the borders of Travancore,
-met with a different fate at the hands of the
State militia under the able generalship of Raja Kesava Das. Tippu's ignominious retreat saved the State from a . srisis which would have em: broiled her in the disastrous consequences atten. dant upon the revival of feudal anarchy and arrested her progressive development to a consi-: derable extent. The Maharaja was left in peace after this to pursue unhindered his far-reaching schemes of consolidation and reform. Since the repulse of Tippu Sultan, the State has enjoyed comparative peace and security from foreign invasion. During this long period she made steady and rapid progress under a galaxy of illustrious Rulers who identified themselves completely with the interests and aspirations of the people.
6. The State had also the unique advantage of being ably served during this formative period by a succession of warrior-statesmon as Ministers; whose sense of duty and attachment to the throne are chronicled in the heart of every Travancorean and whose sacrifices in their country's cause are commemorated in ballards and folklore.
7. The Sovereigns placed implicit trust in their able and patriotic Ministers and this paved the way for the gradual, yet unconscious, evolution of the constitutional convention "the King can do no wrong'. This bealthy convention has resulted in the development of constitutional monarchy in Travancore. Broad-based on the instinctive loyalty of the people, sereened off from public critioism by the spiritual exaltation of the Ruler, combined with the convention of ministerial responsibility, tucked away from the rest of India by the protecting wings of the Western Ghats, monarchy in Travancore retained its prestige and popularity against the dark days cof chaos and confusion which came in the wake of the downfall of the Moghul Empiro:
8. Whon the political horizon cleared by the progressive establishment of British supremacy in India, Travancore had in the Suzerain Power an old ally and a trusted friend.
9. The heritage of administrative efficiency gave momentum to the economie development of
the country. The economic problems oonnected with a growing population came within the purview of Government from very eauly times. Though systemstio census.taking began only in the latter half of the 19th century, the idea of counting heads and correlating the results to the resources of the country is at least two centuries old.
10. It will be clear from the above that political histoxy is intimately connected with the economic prosperity of the State. Iravancore, rich in natural resourees, was a tempting prize for the ambitious rulers beyond the Ghate who hovered round it. "The maritime nations who coveted its wealth were anxious for its possession. The State could thus have been the cockpit of South India, a covetable prize for any suceessful adventurer who might be able to defeat and subdue his rivals in the field. Economio ruin would have been the fate of this rich country if such a calamity had fallen to her lot. By the close of the 18th century she was out of this danger; and the 19th oeptury left her free to develop her vast resources with the active and cousistent support of the Suzorain Power: The 20th century saw her assuming the role of a 'Model State' in India, with her high percentage of literacy and commendable progress made in the nation-building activities of a modern civilized State. It was left to our gracious Maharaja in the last decade, to raise to glorious eminence this magnificent edifice ateadily reared by the patient and self-sacrificing efforts of His Highness's illustrious ancestors in the past.
11. Maharaja Marthanda Varma gave Travancore a geographical unity as a result of his conquests. (Seo map on evolution of modern Travancore). The Sahyadris cover half of its northern and the whole of its eastern frontiers tapering down to Cape Comorin in the South. The Arabian Sea flanke its long western boundary. The 7,662 sq. miles of territory within these frontiers can broadly be divided into three natural regions, the Highland; the Midland and the Lowland. This physical configuration is rosponsible for this
varieties in climate and vegetation. Lord Curzon, when he visited the State in 1900, described this country in his inimitable language. "Here nature has spent upon the land her richest bounties, the sun fails not by day, the rain falls in due season and an eternal summer gilds the scene. Where the land is capable of cultivation, there is no denser population ; where it is cccupied by jungle; backwater or lagoon, there is no more fairly land scape." No extremes of climate are experienced and no barren waterless traots exist, The natural regions are interpersed from the east to the west by a large, number of sivers. Those in the north and central regions, are longer and broader and are navigable to country boats for more than half their length, while the' rivers in the south, though , not used very much as means of communication, yet afford some scope for the development of irrigation.
12. The alluvial silt, brought down by these rivers from the rich mountains from which they rise, has, through long centuries, made the Lowland area immensely fertile. The sandy coast in the Lowland region is wonderfully suited for coconuts. The 'smell of the sea'. is very helpful to the growth of the cocoanat palm and the periodic monsoons feed it with water The fisher-folk live along this narrow belt. The annual yield of more than 90,000 tons of fish is equal to the catch in Sweden and Denmark put together with all their improved facilities for deep-sea fishing. Here is a source of wealth with possibilities for immense development. To the large number of poor people who live along the shores, fish forms an almost indispensable item of food. To the east of the sandy belt lie the rich rice-fields with coconut groves scattered ' about in axeas less clayey but better suited for the cocount palm. To an aerial observer this area will appear as one lopg green belt with the foliage of the coconut palm decorating the top, the placid lakes and the grepn fields lending colour and charm to this tumultuots profession of vegetation. The Midland region occupies more than a third of tho State with an
area of 2.722 sq . miles. A temperate and bracing climate with plentiful rainfall has made the Midland so densely populated. The Highland region is nostly covered with forests. Out of an area of 3,566 sq miles, only 496 sq . miles are actually under cultivation. The evergreen forests present an exuberant variety of tropical vegetation. In the north, the mountains rise to a height of over8,000 ft Anamudy the highest peak being. $8,841 \mathrm{ft}$. above seav: level. The cooler olimate: of the hills has attracted the Europeans. The major portion in this area is taken up by tea, doffee and cardamom plantations.
13. To one who views Travancore as a whole; there unfolds before the eye a vast amphitheatre, the land rising tier upon tier, the top terrace skirting the Sahyadris at a height of over $8,000 \mathrm{ft}$. above sea level. In between these several terraces, the fertile valleys form a suitable area forthe cultivation of rice, the staple food of the large population, and coconut and pepper, the chief money-crops available to the large majority of the common people of the land. The ubiquitous tapioca has kept famine away from the doors of thousands of people during successive years. Few of the millions who live on tapioca during times of scarcity, when through freaks of pature the. crops fail, realise that the introduction of this crop in Travancore was : the result of the patient research of ai benevolent Ruler who squeezed intothe short, span of five years the work of a lifetime. The rice produced in the State is sufficient to meet only just over 40 per cent. of the requirements of the State. At no time has the State rear lised this so keenly as during the present war when the stoppage of the import from Burma is threatened. The anxiety of the State in this respect is seen in the prompt measures taken for the . farther development of Kayal reclamations by the supply of cheap electric power to work the innumerable pumps and in the experiments made to bring more and more acres under double-crop by lift irrigation. Rice requires plenty of water while double-crop lands require it practically throughout the year. The large number of rivers which:
irrigate these fields will run dry unless there is plentiful rainfall. In Travancore rainfall is fairly good except in the extreme south, where the rich fields of Nanjanad are irrigated by the Kothayar Project. The rainfall varies from $75^{\prime \prime}$ to $100^{\prime \prime}$ near the coast, rises to about $150^{\prime \prime}$ at the foot of the hills and goes up to $180^{\prime \prime}$ in the mountainous regions. In the south, the improvements of the Pandyan Kal and the Putheriar irrigation works by Marthanda Varma have allayed, to a certain extent, the anxiety of the ryots about the supply of water to the rice-fields in Kalkulam and Vilavancode taluks. Schemes are also under the consideration of Government to augment the supply of water in the Pechup para reservoir whioh feeds the rich fields of Nanjanad and Edanad. By the improvements now effected, and with the completion of the irrigation schemes proposed, it may be possible almost to double the yield of paddy in the course of a few years. If the country has to be safe from starvation during periods of international crisis, the only method is to cultivate every inch of land and increase the yield by the introduction of scientific methods. The disappearance of the small landowner should be the prelude to this agricultural revolution which will usher in the era of scientific agriculture, with its large farms, steam plough, chemical manure and rotation of crops.
14. The rich variety of the money crops produced in the State is, in a large measure, responsible for the favourable economic balance sheet of the agriculturist from year to year. Ginger, pepper and rubber of the Midland, coffee, cardamom and tea of the Highland arelsources of wealth which have not been fully developed. The forests produce a variety of good timber, teak, blackwood and other species of hard wood, which is a fruitful source of revenue to the State. In reeds and softwood, we have almost a monopoly in South India. These resources are only just being tápped and a careful and economic plan for their exploitation will bring in large revenue to the State.
15. The country is rioh' in minerals of a. variety found in fer other plaoes in India. Monazite, ilmenite, ziroon and rutile which arefound along the coast, and mioa and plumbago in the Midlands are minerals for most of which. Travancore can claim a monopoly. The rioh deposits of clay at Kundara (Midland) and thevariety of uses to which it can be put, preesge a. branch of industrial activity whioh will not only enhance the revenue of the State but will solve. the problem of unemployment to a certain extent. ${ }^{4}$ Travancore is rich in what has been culled in America, 'White Coal.' The courses of herxivers make the development of this form of energy possible. Rushing down through steep. gorges they afford convenient facilities for thedevelopment of Hydro-Electric power. In the survey conduoted by the State to find out the possibilities for this, it was discovered that thare. are at least seven rivers by the harnessing of which power could be generated. Only one of these has, so far, been tapped and that is the Muthirapula river. The Pallivasal Soheme is. able to supply cheap power to several centres in North and Central Travancore and also to the Cochin State. Cheap power is bound to play an important part in the industrialisation of the State and even if every town and bamlet develops into a bee-hive of industry, it will not suffer fcr want of cheap electric power. When it is realised that the State possesses no coal depositg, her policy of progressive industrialisation could not be said to have made any headway if nature had. not given her in her mountain torrents potential - sources of an almost unlimited reserve of electric power.
16. Down below in their passage through the Midland, the xivers afford facilities for the cheae transport of agricultural produce and timberwhich are grown on their banks. The lift irrigation which has been made possible by the supply of power from Pallivasal will help to provide enough water to several acres of high level lands which require only that to make them fit.
for cultivation. When the rivers reach the Lowland, they deposit all their accumulated silt, thus increasing the natural fertility of the plains besides affording cheap and easy means of oommunication.
17. The lie of the land has considerably influenced the development of communications. In the Lowland, the navigable rivers and lakea have, from very early times, been the chief means of communication. It is possible to travel by boat from Trivandrum right up "to the frontier s of Cochin. This ronte was considered important not only for passenger traffic but for purposes of commerce as, well. "Large sums of money were expended during successive docades for constructing and improving canals which link up the lakes and rivers.' Neärly ten out of the thirty taluks of the State are benefited by this route.: Eyen today rice, pepper, rubber, coconuts, vegetables and a host of other commodities are transported by the cheaper native craft inspite of the severe competition of motor transport. This cheap, though slow, means of transport which was available from vary early times must have contributed not a littio to the development of the Lowland region where the density of population bias been the highest in successive decades.
18. Travancore roughly taikee the shape of ain isosceles triangle with its apex in the south and its base in the north and hence in engineering projects for developing the means of communication one must take into account the length of the State from north to south. The three main roads radiate from the capital to the north. The West Coast Road runs almost parallel to the sea through the taluks of Quilon, Karunagappally, Karthikappally, Mavelikara, Ambalapula and Sherthals and terminates at Aroor in the Sherthala tatuk from where there are barely two furlongs of water to cross over to the Cochin temritory. The Main Centrial Road ( 155 miles) passes through the taluks of Trivandrum, Nedumangad, Chirayinkil, Kottarakkara, Kunnathur, Thiruvella, Changanachary, Kottayam, Minachil.

Muvattupula and Kunnathunad and terminatos at the Kaladi ferry (see map on communications) very near the Cochin frontier. The TrivandrumShenkotta road passes through the taluks of Trivandrum, Nedumangad, Pathanapuram and Shenkotta where it joins the British territory.
19. Roads form the chief means of communication in South Travancore where there are practically no navigable rivers or lakes. The wisdom of an illustrious Maharaja conceived the plan of connecting Colachel with Trivandrum by water. The Anantha Victoria Marthandan Canal formed the beginning of a system of waterways designed for the transport of heavy goods to the markets of South India from the safe harbour of Colachel. The development of this natural harbour and the "improvement of this canal would be a boon to South Tra vancore almost in equal measure as the Kothayar Irrigation Project, which has converted large tracts of uncultivated lands into the rich rice-fields of today. The 54 miles of magnificent dustless road which runs from Trivandrum to Cape Comorin may, in time, with the development of Colachel harbour and the waterways connecting it, help in the re-establishment of commercial supremacy which South Travancore enjoyed in the early centuries.
20. So far the system of main roads and waterways has been described which link up the Sarious parts of Travancore. In addition to the chief means of communication mentioned above there is a net-work of roads which link up the rural areas with the main roads. There is hardly another State or Province in India which has been spending during successive years such large portions of its revenue on Public Works. Public lnstruction and Public Works have together taken up practically fiffy per cent, of the revenues of the State. It is no wonder, therefore, that the State has 4,689 miles of excellent road providing on the average 9 mile of road for 1 sq . mile of territory (excluding Reserve Forests). There are 679 bridges to facilitate road traffic. It is possible to traverse by car the entire length of the State from.

Cape Comorin to Parur, a distance of 200 odd miles in the course of an afternoon without having to suffer the irritating inconveniencos of a farry. If the present scheme of bridges is completed, there will be no necessity for ferries oven for those who use the branch rosds.
21. The only railway within the State ia the Trirandrum-Shencottah railway which covers a distance of 99 miles. The network of canals and backwaters along with an excellent road system throughout the State has rendered it unreconomical, to undertake any extension of the railway scheme within the State.
22. The progressive programme of the State in the development of the means of communication has"successfully' tackled the problem' of bringing Travanoore nearer to the rest of India. The Trunk Telephone 'with its ramifications within the State, connecting the important mofussil centres with the capital city, has brought the rest of India also neares." The State has, in the last ten years, been getting more and more air-minded to keep pace with the rest of the "world and already there are two aerodromes, one at the capital and the other at Quilon. There is a regular weekly service from Trivandrum to 'Bombay. If the war had not intervened, air services would have been considerábly expanded.
5. 23. The maritime activity of the State in .overseas trade and commerce has unfortunately not been in propertion to her long coastline. : Leapuram, Colachel and Vilinjam had seen prosperous days; yet ciroumstances bave helped in the development of the harbour in the neigh;bouring State of Cochin. Though trade follows the flag, if it is left alone, cheaper and easier communications will determine its trend. Travancore in the 16th, 17 th and even in the 18 th centuries Thad a virtual monopoly of the sea-borne trade in South India. With the development of Tuticorin and Madras, trade shifted from the west to the east and we ceased to be the common carriers
for South India. It has been the attempt of isuccessive administrationa to regain lost ground. - Large sums of money have been spentin develop. ing the Alleppey, Quilon and. Trivandrum ports sund in constructing the Pirmede and Pallivasal roads, tor etimulate and enrich trade and oom. merce.

2立. Travancore once had a good share in the coastal • trado. Her Pathamans (oountry-made aboats) carried on a thriving trade not only between the ports of Travancore but even with faroff Surat and Bombay: The steamship praotically eliminated this trade and ithe serious difficulties onconntered in the last few years, :ohiefly during the last war, have convinced the anthorities of the necessity of resuscitating this form of sea-borne trade. With the revival of interest notioeable throughout Indis towards the development of an Indian Navy and the improvement of her mercantile marine, Travancore as a maritime State, will have in the near future to play an important role.
25. The rapid development of communications has, to a certain extent, removed the isolation of the village. This also considerably influenced the urbanisation of the more flourishing villages. The present census has disclosed that there are as many as 163 places where the population is over 5,000. Though all these places have nots been officially Egrouped under towns, yet they partake of most of the characteristics of an urbanised area. The number of such places has increased from 17 in 1901 to 163 in 1941. . This rapid urbanisation accounts for the comparative absence of the village system, which is such a marked feature in the countries bejond the Ghats. The traveller will be struck by the almost uninterrupted chain of houses on: either side of the road from Cape Comorin to the northern boundaries of the State. Ibn Batuta observed that "it is not a place/of villages but every man will have his own garden and home
in the midst of it." The individual in Travaucore is ustually identified, not so mueh by his - personal as by his family name; which will invariably bear the name of the locality in which his family home is situated. A cluster of hoases in a few square miles, then vast expanses of uninhabited fields, plains and meadows for miles together and then another cluster of houses form the characteristic feature of the British territory adjoining Travancore. + These , characteriatics appear only in those fringes of territory which adjoin the British tracts, as in Shenkotta in the east and Nagercoil and Thovala in the south. Professor Vinogradoff told me on his return: to Oxford after visiting: Travancore that he was particularly struck by the 'walled houses' he saw in endless succession from one ond of the country to the other.
26. The oircumstances that necessitated the evolution of the village in South India did not exist in Travancore. The net-work of rivers and lakes in the "Lowlands induced the essentially agricultural population to distribute themselves in the arable area. The comparative "peace and security which they enjoyed from very early times worked in favour of scattered holdings. 'It may be mentioned in passing that, even during the troublous days when chieftain fought ohieftain, the cultivator was left in peace and the smiling fields, the main source of his wealth, were not destroyed by the combatant armies. They wisely refrained from killing the goose which laid the golden egg. When population moved out to new fields and pastures due to increasing numbers, the adventurous ipathfinders and pioneers took with them the scatitered-holding tradition.
27. The system of taxation has worked towards the elimination of the individuality of the village system. The 'Travancora rulers never adopted a system of farming their revennes and entrusting the collection to unscrupulous adventurers. Land-tax was an important source of revenue and the central government framed
detailed regulations for its just, and faircollection without .. leaving it to the whims and eaprices of the village officer. It will be seon from the above that forces were at work even from very early times towards progressive contralisation. There was no dearth of talent in the State and it was possible to recruit capable and honest persons for serving in the different branches of administration. This, combined with the desire of the ?rulers to root out corruption and incompetence compensated, to a certain extent, for the absence of village life with its possibilities of developing local independence and administrative experience. But for this early centralisation, the jenmi with his customary rights and vested interests, owning practically the whole of the village, would have presented a serious problem and a practical menace to the 'administration. The ' jenmi' is the heritage of foudal times; and but for the strong arms of the centual government, he would have turned out to. be an oppressor of the people. His petent weapon of eviction was a sword of Damocles hanging over the heads of a number of tenants under him. The courts of law were powerless ; for, custom in Travancore was "transcendental law." The Jenmi Kudiyan. Act passed in 1896 by theTravancore Legislature took away most of the arbitrary powers from the all-powerful jenmi giving to thousands of tenants in Travancore security of possession and freedom from illegal eviction. This piece of legislation is hailed as the Magna Carta of the ryots in Travancore. The progress of centralisation has, on the whole, been for the benefit of the people. No rude -shook was given during this process to custom: and convention, the State interfering only in cases of miscarriage of justice. The development. of Kingship in Travancore bears a close parallel to that in England in the 12th and 13th centuries. The King never permitted himself to be considered as a feudal overlord in the position of a primus. inter pares. He was a Sovereign and the rest. of his people were his subjects, including thoser.

Who owned vast territories and exeroised con-. siderable influence in the locality. The chieftains or the Rulers of the 'various principalitios which were brought under the political control of Travancore were subjects first, and whatever privilege or prestige they enjoyed, was the result of sufferance by the Sovereign, not to :be claimed as a right. The Sovereigns on their part used their power and prestige for the benefit of the State and for the welfare of their subjects.
28. This democratic basis of monarchy in Travancore is responsible for the early !introduc. tion of popular legislatures whose constitutional position and privileges have. developed from decade to decade. The legislature inaugurated by a Royal Proclamation in 1888 was the first of its kind in an Indian State. This epooh-making event was the happy prologue of the glorious reign of a Mahaxaja who, in the words of an eminent British Resident, "was orthodox but tolerant, retiring bat not inaccessible, diffident in manner but decided in his views, simple but dignified" and during whose long and eventful reign the State was placed in the vanguard of
progressive India. The membership and functions of this legislature were enlarged in 1898, 1919 and. 1921. During the last deoade, important changes. were introduced in the constitution and functions of the legislature:: For the first time a bicameral logislature was constituted in an Indian State: The Lower House is elected on a very wide franchise. The political disabilities of women have been removed and in the matter of voting nio distinction is maintained. The Upper House is olected on a more restricted franchise. In both houses there is, a pon-official majority, Powers to initiate and pass logislation, discuss the annual budgets, interpollate Government and. ask supplementary questions on matters of genaral public interest are, rested in both houses. The verdict of the House is respected by Government. The new legislature with cenlarged powers has pushered in an era of intense logislative activity. The attention of the legislature has been focussed on all aspects of the life of the people. Its record of legislative achievement in the social, political and economic spheres has, under the inspiring guidance of a scholar-statesman, far outstripped that of the 'Councils' of the' previous deoades.
129. The Census :taken on : Ist March 1941 'has reerrded à population of $6,070,018$. This figure represents the population actually present within the boundaries of the State on the Census"date. The counting was done in two stages-the Preliminary and the Final. The simaltaneous enomeration of 1931 was not followed in the final counting. The final count was spread over a period of one week; when a further checking of what was recorded at the Preliminary enumeration was made. The non-simultaneons enumeration enabled the staff to visit each house again during the week and scrutinise the cards further and make the necessary corrections on account of births and deaths, arrivals and depar. tures, etc.. in the interval between the preliminary and the final onumeration. This system also made it possible to dispense with the envolment of a large number of ( 35,981 in 1931) inexperienced enumerators for the final counting and avoided the possibility of double enumeration.
30. Every effort was made to ensure that a correct record was obtained at the final census. Even before the preliminary onumeration, the normal resident population of the State was ascertained by means of a house register, prepared by the subordinates of the Revenue Department. Casual visitors and servants and inmates of special institutions like jails, lock-ups, hospitals and asylums, were 'not included in this register. The resident population thus recorded numbered 5,846,179.
31. The preliminary enumeration was started on lat December 1940 after the completion of the house register. It took six weeks to complete the work. According to the preliminary enumera. tion, a population of $5,920,088$ was recorded. This figuxe included servants and visitors, who were expected to stay on till after 1st March, but not included in the house register. The population of special blocks like hospitals, jails, lockups and asylums, and a few estates in which migration of labour was expected before the pre.
liminary enumeration was over, was howeve: excluded from the count. It was possible, there fore, to cheok the figures with those of the hous register by the data obtained at the preliminar enumeration. A third checking was possibl during the final census. Thus every attempt wa made to secure the maximum degree of accuracy The figures obtained at the final census have ale been tested by the latest statistical methods ant the results have provided further amplification of the reliability of the present figures.
32. In framing the family budget, the intelli gent householder will have to take into accoun the number of children and adults, male ani female, who are dependent upon the earning members in the family or, to put it in the census language, he will have to distribute his family into convenient age-groups and divide them into fully dependent, partly dopendent and independent, if he has to spend his income wisely and well Though such a conscious systematisation in the allotment of the family income is not generally practised, yet a similar process is being unconsciously worked out in the expenditure of the family income. What obtains in the family should, in much larger measure, exist in the State where the process should be deliberate and definitely systematic as it deals not with private fortunes but with public revenue.
33. No scheme for the improvement of the primary education of a country can possibly be undertaken without knowing the number of children below 10; or if a campaign is to be started for the improvement of adult literacy, we must have some estimate of the adult population that can be brought under this scheme. Similarly, in any economic scheme for the improvement of the wealth -and wellare of the people, a coxirect estimate of the gainful workers in a country is essential before the scheme could be given any definite shape. In any public health programme to bring under control the periodic epidemics which devastate the country, a correct estimate
of the population under broad age-groups is - besential. A thorough saratiny of the figures under broad agegroups is therefore imperative, -as otherwise it will considerably dislocate the administrative maohinery if schemes are formula: ted and policies'shaped on insufficient data. An attempt is therefore made to show in proper perspective the trends in the growth of popula-- tion.
34. The population recorded in 1941 shows an increase of $19^{\circ} 1$ por oent. over that of 1931. The population of 1941 consists of ( $i$ ) the survivors - of the 1931 population and (ii) the survivors in - the 0-10 agegroup of 1941 . So the increase in population oan mostly be accounted for by the . number of children surviving in the age-group - 0 - 10 , the effect of migration being negligible "The survivors in $0-10$ group in 1941 number 1713,291. Normally the proportion of this group - to the total' population cannot be expected to .show violent fluctuations from decade to decade. The subjoined table gives the proportion of the
Proportion of the 0-10 group per mille of the
total population.
Year.
Numbertper mille of
total population.

- A- 10 group per thousand of the total population during successive decades from 1901.

35. It will be noticed that in 1931 the $0-10$ group shows an erratic increase. To locate the erratic increase more definitely the quinary group $0-5$ where the infant mortality rate is fairly high and the $0-1$ group. where the infant mortality rate is at the maximum, were analysed and the subjoined tables give the proportion of these two groups per thousand

of the total population. A more pronounced increase is noticeable in these age-groups in 1931.
36. Whether this erratic inarease is seen in the other age-gronps also during successive docades was then examined. It will be clear from the subjoined table that the proportion of the population in the other agegroups during these decades keeps fairly normal.

Agegroup.: Proportion per mille of total population.

| $\cdots$ - | 1901 | 1811 | 1821 | 1981 | 1941 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0-5$ | ${ }^{-182.0}$ | 135.8 | 182.8 | $172 \cdot 1$ | 144.6 |
| 5-10 | $181 \cdot 2$ | $134 \%$ | $135 \cdot 2$ | $192 \cdot 1$ | 1877 |
| 10-15 | 118.4 | 1217 | - 127.6 | 121.8 | 128*2 |
| 15-20 | 88.4 | $95 \cdot 3$ | 88.2 | 95.7 | 102.5 |
| 20-25 | $88^{\circ} 0$ | $88 \%$ | $91: 2$ | 80.5 | 86.9 |
| 20--80 | $95 \cdot 4$ | 90:8 | 87.0 | 78.4 | 76.9 |
| 80-35 | 75.4 | 70.7 | 68.8 | 70.8 | 87.2 |
| 35-40 | 69.8 | 876 | $65^{\prime} 8$ | 56.6 | $59 \%$ |
| 40-45 | 54.8 | 52.2 | 51.4 | $48^{\circ} 4$ | $49^{\circ} 0$ |
| 45--50 | 42.5 | 42.9 | 42.6 | 38.2 | 41.5 |
| 80-55 | 35.8 | 88.7 | 341 | $82 \cdot 6$ | 32.8 |
| 55-60 | 21.4 | 23.4 | $\bigcirc 22.2$ | 28.3 | 26.2 |
| 60 and above | 42.8 | $43^{\prime}{ }^{\circ}$ | 48.6 | 41.6 | 47*4 |

37. This fluctuation is most pronounoed in the percentage of increase of the 0-5 group from decade to deoade as will be clear from the subjoined table. The Census Commissioner for 1931

The percentage increase of the 0 - group from 1901.

| $1901-11$ |  |  | $19^{\circ} 8$ |
| :--- | :--- | :--- | :--- |
| $1911-21$ |  |  | 14.2 |
| $1921-31$ |  |  | $64^{\circ} 8$ |
| $1981-41$ |  |  | 0.03 |

has stated in explanation that there was underenumeration in 1921. The method of calculation adopted by him in explaining the shooting up of the 1931 figures above the general trend was adopted for testing the corresponding figures for 1941.. The $0-5$ group of 1931 becomes the 10-15 group of 1941. In calculating the survivorship in this group, I had the advantage of testing the accuracy of the enumeration of 1941 with the help of the data obtained by the survey of vital occurrences conducted along with the present Census.
38. The Vital Statistios "Enquiry. on the Sampling basis disclosed a crude mortality-rate of '15 per thousand and a birth-rate of 28 por thousand. Calculated on this basis, 877,242 under $0-5$ group in 1931 shows a distinct over-estimation. The above points tend towards the confirmation of an eccentricity noticeable in the age-group 0-5 "and most pronounced in the age-group $0-1$ in 1931. It may be added that in the social or economic conditions prevailing in Travancore, there seems to have happened nothing extiraordinary or unusual which tended to a violent fluctuation in the birthrrate. The variations in the per. :centage of married women between 15 and 40 to the total female population from decade to decade aulso do not zearrant such a marked fluctuation as has been noticed in 1931, (vide Subsidiary Table (iii) on Imperial Table VII). The improvement in the public health conditions of the State, as disclosed:by the annual administration reports of the Public Health Department in the last decade, has resulted in a definite-increase in survivorship. The almost complete absonce of early marriages and the better knowledge of health and hygiene as a result of the increasing literaoy and intensive propaganda have considerably reduced infantile mortality. The Vital Statistices Enquiry has disclosed a crude death-rate of 15 in a thousand which is a considerabte improvement on the conditions prevailing a decade ago. Even granting that the conditions in 1921.1931 were as bright as those of the last decade, it does not warrant a number above 823,000 in 1931 in 0-5 group.
39."The results of the Vital Statistice Enquiry which was conducted alocg with the prosent Census and which extended for nearly one year, were compared with the number of births according to the population census to verify if the figure for 1941 is correct. The actual number of births in the 28 centres selected for the special :enquiry for one year was 7,432 . The census population. of the area between $0-1$ was 7,446. The almost absolute agreement between these two figures is a further indication of the accuracy of the enumeration in 1941.
1.40. The fluctuations indicated above make it necessary to ascertain correctly the trends in the growth of population since 1901 before we can definitely establish the actual percentage of increase in the last decade. The figures from 1901 have been graduated to determine the exact trend in the gxowth of population. The following diagram represents the difference between thercensus figures and the graduated figures.

41. From the graduated figures it becomes clear that the trends in the growth of population have been keeping normal. The percentage of error has been found to be almost negligible for 1941 ('98) which further confirms the accuraey of the enumeration (vide subjoined table). When according to graduation the percentage of increase from 1921 is reduced from $27^{\circ} 2$ to $21^{\prime} 4$

|  | Census figures |  | Graduated figures. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| YEAR. | Population. | Percentage increase. | Population. | $\begin{gathered} \text { Percent } \\ \text { age } \\ \text { increase. } \end{gathered}$ | Percentage of error. |
| 1901 | 2,952,157 | . | 2,943,229 | . | 0.30 |
| 1911 | $3,428,975$ | 16.2 | 3,430,063 | 16.5 | 0.03 |
| 1921 | 4,006,062 | 16.8 | 4,080,662 | 18.9 | 1.83 |
| 1831 | 5,095,973 | $27.2{ }^{\text {" }}$ | 4,952,739 | 21.4 | $2 \cdot 89$ |
| 1941 | 6,070,018 | $19 \cdot 1$ | 6,130,245 | $23 \cdot 8$ | 0.98 |

the percentage for the last decade will automatically rise from $19^{\circ} 1$ to $23^{\circ} 8$.
42. The rate of growth of population recorded during the present decade has, however, been lower than that during the previous decade. The changes in the decennium in the operation of the factors contributing to the phonomenon of population increase are examined below.
43. The State had not escaped from the disastrous rosults of the world-wide economic de" pression when the decade started. Low prices had already crippled the resources of the agriculturist and the freaks of nature conspired with economic laws to reduce his. vitality to the minimum.
44. The State suffered from a steady decrease of rainfall from 1933. That year was one of severe drought throughout the State. More serious than the reduction in the total rainfall was its uneven distribution. The situation alightly improved in 1936. But from 1937 onwards, it worsened by the recurrence of a shortage in the total rainfall and an erratic distribution. Though .therefore, the State figures for the decade have shown a slightly higher average rainfall than those for the previous decade, yet its irregulax incidence and uneven distribution.
made the seasons less favourable to agriculture. For the production of crops, the proper distribution of rainfall throughout the yoar is evon more important than its total quantity; and this is particularly true of Travancore where the soils generally are light and easily drained. The effect, therefore, of the rathor unsatisfactory rainfall on the staple crops was to reduce the yield to a low level throughout the period. The prices of agricultural products atood below normal throughout the decade. The general trend marked a fall by more than 50 per oent. of the prices of the previous decade. The price of paddy was invariably low, ranging from Rs. 4-8-0 to Rs. 6 per bag. There was a fall in the price of copra and coconut-oil, interrupted only by transient rise at intervals. Thore was an appreciable improvement in the price of ginger sinca 1937. The fall in the price of pepper was almost catastrophic. Freakish increase in prices due to diminished yield or fluctuating demand dislocated rather than steadied the market (See diagram).
45. Trade too was consequently dull throughout the period. The fall in the prices of agricultural products was, to a certain extent, responsible for the comparative shrinkage in the value of both exports and imports in. the decade except for a slight upward trend between 1939-1940.
46. The State tackled the problem of economio depression in two ways. The policy of progressive industrialisation went hand in hand with the. prompt measures taken for agricultural relief. The opening of the Ceramic Factory at Kundara, the facilities provided for the rapid expansion of the rabber industry by the revival of the Rubber Factory at Trivandrum, the great stimulus given to the textile industry and the encouragement given to the starting of minor industries, are some of the measures which, while augmenting the revenues of the State, brought considerable relief by providing employment to a large number of people who were thrown out of work as a result of the economic.depression. Government directed their
attention to the exploitation of the minerals for most of which the State could claim almost a monopoly. The cottage industries were placed on a level of economic stability. Great impetus was given to the fishing industry by a progressive programme of education of fishermen and the active measures taken to spread the idea of cooperation among them. The development of industries has been considerably facilitated by the possibility of obtaining cheap electric power from Pallivasal. This has been responsible for the starting of rice mills, saw mills, oil mills and sugarmaking concerns in various parts of north and central Travancore. The immediate effects of these are seen in the rapid increase in the number of persons engaged in organised industries from 103,490 in 1931 to 145,291 in 1941. The scare of unemployment was allayed to a considerable extent by these measures.
47. Improvement and extension of irrigation made up, to a certain extent, for the loss to the agriculturists caused by the uneven distribution of rainfall. Punja cultivation in North Travancore was made less precarious by the introduction of the more powerful electric pumps to pump out water from the fields. Cheap electric power from Pallivasal made this scheme possible. Government also started on a definite policy of restoring the numerous irrigation tanks in South Travancore which were bsing progressively converted into rice-fields by too optimistic an estimate of the resources of the Kothayar reservoir. The rich rioo-fields of Kuttanad and Nanjanad, the two granaries af Travancore, were thus given reasonable security against the, uncertainty of the monsoons which often threatened their prosperity. The minor irrigation works inaugurated by Government considerably relieved the distress of the agriculturists in the other parts of the State. The depressing effects of agricultural conditions were thus counterbalanced, to a certain extent, by the progressive industrialisation of the country and the variety of relief granted to the agriculturists from time to time.
48. The improved facilities granted to the agriculturists or the encouragement given to the development of industries could not by themselves have afforded sufficient relief unless they were followed up by an extension and improvement of communications providing easy facilities for marketing the goods. Great progress has been achieved in this direction in the last decade.
49. From very early times, the system of communications in Travancore has been so designed as to transport the rich money crops of the State like pepper, ginger, cardamom, rubber and tea, to the nearest harbour by the cheapest and safost route for exportation. So, the roads and waterways generally radiate from the several ports linking up the important commercial and industrial centres- Travancore also aspired to regain her past glory as common carriers for South India. The scheme of communications planned by the State further intensified these objects. The successful pursuit of the same demanded a centralised control over the various means of communication in the State. A start has been made by bringing under State control the important motor transport system along the main trunk roads. It may have to be followed up with a similar control over the chief waterways in the State. A unified and centralised control could eventually work towards greater efficiency and economy. It would also be possible for the State in time to find sufficient funds from the profits to improve the communications.
50. Government also tackled the problem of agricultural indebtedness. The Travancore ryot, like his brother across the Ghats, never understood or cared to find out the best market for his produce. Rural reconstruction centres function. ing with diverse programmes encouraged and developed the maxketing of agricultural products. Ignorance and indifference combined to keep the agriculturist perpetually under the thumb of the money-lender. The failure of crops on account of the uneven monsoons made his condition worse.

Government came to his rescue by generous remissions during the decade. The economic dependence of the cultivator was relieved, to a considerable extent, by the Debt Relief Act and the inauguration of the Crodit Bank. The commercial and mercantile laws were consolidated and brought up-to-date. Loans on low interest to agriculturists were distributed through the cooporative societies. Government also spent large sums of money for issuing agricultural and industrial loans. While combating thus the negative forces of depression, Government were able to keep even the economic foress and ensure, to a certain extent, a smooth and satisfactory life for the citizen. This is reflected in the general improvement in the balance of trade(vide subjoined table.)

Index numbers of

| YEAR | Exports | Imports |
| :--- | :---: | ---: |
|  | (1931 is the base year) |  |
|  |  |  |
|  | 100 | 100 |
| $1930-31$ | 78 | 85 |
| $1931-32$ | 80 | 84 |
| $1932-83$ | 81 | 82 |
| $1983-34$ | 87 | 103 |
| $1934-85$ | 85 | 97 |
| $1935-36$ | 96 | 97 |
| $1936-37$ | 98 | 99 |
| $1937-38$ | 99 | 100 |
| $1938-39$ | 116 | 122 |

51. The decade as compared with its predecessor prosented a more satisfactory publio haalth record. No great epidemic devastated the country asq a whole, though periodic visitations of commuricable diseases were registered in certain localities. Except for a violent outbreak of the malaria epidemic in 1935 in Neyyattinkara in South Travancore and a fairly serious outbreak of plague in Alleppey at about the same time, the decade proved a comparatively satisfactory pariod from the health point of view. Both these epidemics were localised and combated efficiently by
prompt measures. The health conditions of the State were always the subject of anxious consideration by'Government. Publio bealth administration was organised in 1933. The Sanitary Department which functioued till that year was amalgamated with the new Public Health Department and a Public Hoalth Direstor was appointed. The State was divided into two Districts with a District Hoalth Offiear for each and subordinate officars for the smaller units in each District. A comprehensive public health programme with the advice and active co-operation of the Interna. tional Health Division of the Rockefeller Founda. tion was inaugurated. A Health Unit representing the intensive type of health organisation needed for rural areas was organised at Neyyattinkara as a model for village health work. Rural sanitation, maternity and ohildwelfare work and health inspection of school-going children wore organised on a scientific basis. The chief epidemics were thus brought under effective control by preventive measures. Effective steps were also taken to control and prevent the spread of malaria, filaria and hookworm. General mosquitocontrol work was introduced in almost all the urban areas. A state-wide programme of vaccination reduced the toll of small-pox to a considerable degree. Between 80 and 90 por ceatt. of the population has now been protected against this scourge. Preventive measures on a wide soale have beon taken against the constant ravages of plague, typhoid and dysentery. Vaccines are being prepared in the Public Health Laboratory, Trivandrum, and supplied free in deserving cases. In the case of leprosy and tuberculosis, the danger to the public is perhaps even greater than from othor communicable diseases because in the earlier stages these diseases are not easily detected. It is said that a tubercular patient going about spitting rhoum is as dangerous to humanity as a homicidal maniac running amuck with a naked aword. In the case of lepers also, their mixing with the healthy population can work equal havoc. The opening of the Nuraned Leper Colony in a healthy centre where all the
modern convenionces are prozided, gave an attractive horne to the leper who, before the founding of the colony, tried his best to evade the authorities. The Thberculosis Hospital opened in. South Travancore affords considerable relief to a large number of patients who suffer from this dire disease. Government also provided clinics in important District Hospitals for their detection and cure. The vigorous and prompt action ' taken by Government in mitigating the harm caused by people who suffered from these diseases by their not being isolated from the healthier population was a real act of humanity and contributed, in a laxge measure, to the creditable record of public health registered in the last decade. A taluk health organisation scheme is being worked in representative taluks. By these measures the incidence of moxtality has been kept down considerably.
52. In order to assess the true incidence of the various factors, social or economic, which affect the growth of population, it is necessary that one should have a knowledge of the specific birth-rates and the specifio mortality-rates. Ordinarily the actual increase in population is determined by the balance of births over deaths. In addition to the balance of the actual births over actual deaths, it is important to balance the 'force of birth' against the 'force of death.' It may seem strange that, although births exceed deaths in a country, yet the population of that country may not be replacing itself because the increase depends not merely on fertility and mortality-rates but also upon the age-constitution of the population. With changes in the age constitution, corresponding changes are bound to occur in the crude birth and death-rates even if the fertility and mortality-rates remain the same. So it will be necessary to ascertain correctly the age-constitution to show if the population is replacing itself. To ascertain this it is necessary to have specific fertility rates calculated. In order to calculate the net reproduction rate, we require data regarding not only specific fertility
but specific mortality also. By using the data available from the Census, from the Fertility and Mortality Enquiry and from the Vital Statistics Enquiry, it is possible to determine whether the population is replacing itself and whether the conditions are such that a healthy survivorship can normally be expected. No comparisons are, however, possible with the previous years; for the data available from the Public Health and Land Revenue Departments cannot be relied upon as there is almost cent. per cent. divergence between those and the figures of the population census.
53. The specific birth-rates for various agegroups of mothers, obtained as a result of the Vital Statistics Einquiry are given below. The

| Age-group of <br> mother | Number of children born in <br> a year per 1,000 mothers living <br> in the age-group. |
| :--- | :---: |
|  | $\ddots$ |

results agree with the general law of higher birth-rates for the younger mothers and progressive decrease with the advancing age of the mother. Approximate specific birth-rates have also been calculated from the fertility data, collected along with the census. 'When the above specific birth-rates were applied to the ageconstitution of the married women living at the time of the census a crude birth-rate of 28 per mille was obtained. This is the same as the crude birth-rate obtained for the areas in which the Vital Statisties Enquiry was conducted. (Vide Appendix II).
54. Just as the specific birth-rate varies with the age of married women, so also the specific mortality-rate varies with the different ages of the deceased. The results of the Vital Statistics Enquiry are indicated below. It will be observed

| Age-group. | Number of deathe pr 1,000 living in the age-group. |
| :---: | :---: |
| 0-1 | $127 \cdot 6$ |
| 1-5 | 21.6 |
| 5-10 | $4 \cdot 2$ |
| 10-15 | - 2.6 |
| 15-20 | $4 \cdot 1$ |
| 20-25 | $5 \cdot 2$ |
| 25-30 | $7 \cdot 4$ |
| 30-35 | $6 \cdot 8$ |
| 35-40 | $7 \cdot 9$ |
| 40-45 | $10 \cdot 6$ |
| 45--50 | $13 \cdot 7$ |
| 50-55 | $15 \cdot 4$ |
| 55-60 | $25 \cdot 6$ |
| 60-65 | 42.0 |
| 65-70 | 59.8 |
| 70 and over | 128.3 |

that the mortality-rates are very high for children between $0-1$ and for persons above 70. It is lowest for the $10-15$ group. This is in keeping with the general law of variation of mortality. The crude mortality-rate of 15 per mille revealed by the Vital Statistics Enquiry has been confirmed by the percentage of survivorship (about 85 per cent.) of the 1931 population.
55. The net reproduction rate which is an index to show the combined result of specific birth-rate, mortality-rate and changing age-consatitution will help to arrive at a general surmise as to how the population is replacing itiself. It is evident that, if the population is to replace itself, every girl now born must give birth at least to one girl who is to be a future mother. A knowledge of the specific birth-rates and morta-lity-rates will help us to calculate the ratio of future girls that will be born to every girl now born. This will represent the net reproduction rate. The caloulations based on the Vital Statistics Enquiry show that one girl will produce 1.4 girls or, in other words, for every 1,000 girls now born there will be 1,400 girls after' a generation (30 years). A slight fall in the proportion of married women is, however, noticeable. There is also a tendency to postpone marriages as is evident from the census figures. These two factors
should ordinarily affect the total birth-rate and generally influence the rate of replacement of population. But the net roproduotion rate of 14 indicates that the oumulative offect of the specific birth-rate, specific mortality-rate and age-constitution is such that it counteracts the effects due to the fall in the proportion of maxried women and the postponement of marriage. This favourable balance may be attributed mainly to a better survivorship on account of improved public health conditions and to the increasing literacy leading to an intelligent appreciation of the fundamental principles of health and hygiene. The population, therefore, is progressive in its capacity to maintain its normal trend. It is only after working out this rate for a series of years that a true average index can be obtained; and for this purpose, the maintenance of correct vital statistical records is indispensable.
56. This population is distributed over an $\overrightarrow{a r e a}$ of 7,662 sq. miles.* According to the 1931 census, Travancore occupied the 19th place among the Indian States in size and the 3rd rank in population, Hyderabad and Mysore being the lst and the 2nd. Though the population'has increased by nearly' a million during the last decade; she occupies the same rank in point of numerical strength. The percentage of increase has, however, been higher in Travancore than in Hyderabad and Mysore, being $19^{\circ} 1$ per cent. against 121 in Hyderabad and $11^{\circ} 8$ in Mysore. Baroda, which in point of area ranks just above Travancore, has only a population of $2,855,010$ and has recorded an increase of 16.6 per cent. The adjoining Province of Madras had in 1931 nine times the population of Travancore while in 1941 the proportion has come down to eight with an increase of $11^{\prime} 6$ per cent. in the last decade. Malabar, which has an area of 5,790 sq. miles and which in point of climate and vegetation resem. bles Travancore, has a population of $3,929,000$.

[^0]57. The distribution of the population in the three Natural and Administrative Divisions is shown in the subjoined table. The Highland

| State or Division. | Area in 8q. miles. | Popalation. | Increase. | Percentage of Increase. |
| :---: | :---: | :---: | :---: | :---: |
| State | 7,662 | 6,070,018 | 974,045 | $19 \cdot 1$ |
| Administrative Divisions. |  |  |  |  |
| Southern | 1,487 | 1,687,089 | 253,113 | $17 \cdot 7$ |
| Central | 2,745 | 2,442,326 | 376,380 | $18 \cdot 2$ |
| Northern | 3,430 | 1,940,623 | 344,552 | $21 \cdot 6$ |
| Natural Divisions. |  |  |  |  |
| Lowland | 1,374 | 2,805,626 | 416,077 | $17 \cdot 4$ |
| Midland | 2,722 | 2,900,808 | 485,314 | $20 \cdot 1$ |
| Highland | 3,566 | 363,584. | 72,654 | 25.0 |

region, which in point of area ranks first, has the lowest population but has recorded the highest percentage of increase. The Midland division: comes nest both in point of area and in the percentage of increase of population. The Low land division comes last both in extent and percentage of increase. In the Administrative Divisions, nearly $2 / 5$ of the population resides in the Central Division and the proportions are fairly equal in the Northern and Southern Divisions though in point of increase in the last decade the Northern Division has recorded the highest percentage. (vide diagram in next column).
58. For purposes of administration, the State is divided into 30 taluks. The area and population of these taluks axe given in Provincial Table I. The diagram on page 19 shows the population of the taluks arranged in desconding order. As in 1931 Thiruvella stands first and Thovala comes last. In 1931 only Thiruvella had a popu. lation of over three hundred thousand ; but in 1941 there are two more taluks-Neyyattinkara and Quilon-which have reached that limit. There were 10 taluks with a population between two and three hundred thousand in 1931; now there are 13 under this category. There are only ten taluks with a population between one hundred and two hundred thousand as against fourteen in 1931. This time three taluks record a population between fifty thousand and one hundred thousand as against two of 1931. Thovala retains her position with a population of less than fifty thousand.
59. There is a remarkable increase in population noticeable in Trivandrum and Changana chery taluks. The latter has shot up from the 13th rank which she occupied in 1921 to the 5 th in the order of population in 1941. In two Diagram referred to in paragraph 58.

decades its population has nearly doubled. The increase in the Trivandrum taluk may very probably be due to the rush to the capital city, while the rise noticeable in the Changanachery


Litho,The Art Printing Worke, Trivandram.
taluk may largely be due to the prosperity which came with better price for rubber and to the increased facilities provided for collogiate oducation` by the St. Berchman's. College. Changanachery has also been growing in importance as a distributing contre.

Ind fast line hardly exists botween the town and the village in Travancore. The town is at best an outgrown village with additional amonitios and facilities for communication and commerce. If places with a population of 5,000 and over are included under the urbanised area, there are as

Diagram referred to in paragraph 59.

60. The urban-rural distribution in Travancore cannot be clearly demarcated as in the case of the British territory beyond the Ghats. (See map) Mention has been made of the rapid urbanisation in Travancore and the reasons for the same. Since 1891 the proportion of the urban to rural popular tion has increased from 3.6 to 114 . But a hard
many as 163 places in Travancore (names of whioh are given in the fly-leaf to Imperial Table III) withan aggregate population of $1,570,802$ constituting. 25.9 per cent. of the total population. 1 In 1901 there were only 17 places under this category. Of the 163 places, only 36 have, however, been classed by the State as towns. There are, besides, ten more.
places classed thus though their population is below 5,000. An urban-rural ratio is consoquently less easy to strike and has less meaning here than elsewhere in India.: If the places definitely classed by the State ass towns are alone taken into account, only $11 \cdot 4$ per cent. of "the total population in the State comes under the category of urban population as
61. The distribution and proportion of the urban population is illustrated in the following diagram- The City of Trivandrum contains 18:6 per oent. of the total. urban population. Taking the Trivandrum City and the towns together, it is seen that the average population stands at 15,022 as against 11,995 of 1931. This shows an increase of $25^{\prime} 2$ per cent.

Diagram referred to in paragraph 62.

against 10.8 of 1931. The aggregate population of the Trivandrum City and the 45 towns according to the present census is 691,025 as against 551,788 of the last census. There has been no addition to the list of towns since 1931 though the urban area has increased by 10.95 sq. miles.
63. There are 16 Municipal towns excluding the City as against 19 of 1931. Trivandrum bas now become a City with a population of 128,365 . Haripad and Mavelikara ceased to function as Municipalities during the intercensal period. Among the Municipal towns, Alleppey. takes the

First rank with a population of 56,333 alosely followed by Nagercoil with 51,657. Eight Municipal towns have recorded an increaee of population above the average in the last decade. Of these Kulithura takes the lead with 112.5 per cent. increase followed by Attingal with 53 per - cent. In the other six Municipalities (Neyyattinkara; Quilon, Mrivandrum, Kottayam, Alleppe.y and Alwaye) the population increase varied between 23 and 49 per cent. during the last decade. There has been a slight increase in area in eight towns (including the City). In Kulithura, the -area has more than doubled (vide fly-leaf to Imperial Table IV):
62. The subjoined statement shows the - distribution of the urban population in the

Division.

- Administrative Divisions.

| administrative Divisions. |  |  |  |
| :--- | ---: | ---: | ---: |
| Southern | 19 | 300,049 | $43^{\circ} 42$ |
| Central | 16 | 249,850 | $36^{\prime 16}$ |
| Northern | 11 | 141,126 | $20^{\circ} \cdot 42$ |
| Matural Divisions. |  |  |  |
| Lowland | 24 | 507,014 | $73^{\circ} 37$ |
| Midland | 19 | 151,617 | $21 \cdot 94$ |
| Highland | 3 | 32,394 | 4.69 |

various divisions (Natural and Administrative). More than one half of the number of towns are : situated in the Lowland are and nearly threefourths of the urban population area found in these towns.
64. It is not possible to group under a com. mon heading all the towns in the State. Some have grown in importance on account of their historic associations; some others as places of pilgrimage; a few as highways of commerce and - as industrial and commercial centres. A good many have come into prothinence as distributing - centres for the agricultural produce of the neigh. bourhood and a few others as seats of learning and culture. In several cases, more than one factor contributed towards their growth and - development.
65. Trivandrum, for example, has grown in importance by a combination of circumstances. It is the seat of Government and the progressive
improvements made in the last decade to provide it practically with all the modern amenities have attracted to this city a large number of the nouveau riche from the mofussil. A city residence gives the hall mark of modernity to the platocrat. It is a University centre and practically all the professional colleges are situa. ted within the city limits, not to mention the premier government Arts and Science Colleges. It is a place of pilgrimage, as Ananthasayanam is one of most important temples in India and Sri Padmanabha is the tutelary deity of the Royal House. It has a port and an aerodrome and is a terminus of the South Indian Railway.
66. Alwaye grew into importanoe as a health resort. Latterly it has developed into a commercial centre. The tile factories, the Sri Chithra Mills and the proposed Aluminium Factory are bound to bring Alwaye in a few years to greater prominence. Cheap eleatric power from Pallim vasal and the facilities for transport by water and by rail will accelerate the pace of industrialisation in this town. The first grade oollege run practically on residential lines and the Carmelite Seminary have contributed to the importance of Alwaye.
67. Colachel had seen prosperous days in the 16th and 17th centuries on account of its safe natural harbour though it has diminished in im. portance since the 19th century on account of the development of the ports of Quilon and Alleppey and particularly of the Cochin Harbour. - Ships still anchor in its safe waters. It was at Colachel that the Dutch army was routed by the Travancore forces and its commander D'Lannoy captured as prisoner of war. Its importance is enhanced by the faoilities that exist for transporting large quantities of monazite found all' along the coast in that area. The salt produced in the various salt pans in the adjoining taluks is transported through this safe natural harbour. It is the chief outlet today for the fibre of South Travancore.
68. Padmanabhapuram wás the old capital of Sri Valumkode when Travancore had not attain* ed its present political boundaries. The old palace has now been converted into an Art Gallery and a historical museum attracting several visitors from abroad. The sugar factory at Thuckalai has given it a commercial importance.
69. Alleppey has grown into prominence as the premier seaport, though in recent years it' has come down in importance on account of the development of the harbour at Cochin. It is acon:venient and cheap port for the shipment of thechief products of the hinterland-coir, copra, spices and rubber. It may also be called the most prosperous commercial town in the State:
70. Nagercoil is the most important distributing centre for the various goods that come from Tinnevelly. Kottar and Vatassery whichare within the municipal limits have been from very ancient times centres of trade and induatry. The Scott Christian College in the town is a very: old institution: Nagercoil is also the head' quarters of the: Scott Christian Mission and the chief Salvation Army eentrer It owes much of its improvement and its position to the efforts of Christian Missionaries.
"71. Thiruvella is a prosperous town on the Main Central Road: It possesses several educa: tional institutions and very ancient templer It, is a strong Syrian Christian centre and the headquarters of the Mar Thoma Metropolitan.
72. Neyyattinkara has become important in recent years on account of the Health Unit organised by the Public Health Department under the auspices of the Rockfeller Foundation.
73. Shencotta resembles a typical British Indian town in Tamilnad: It is porhaps the most crowded town in the whole State with a density of over 17, 000 per sq. mile. It has. gained importance on account of its proximity to the famous Courtallam Waterfalls.
74. Some of the capitals of the old principalities which were annexed to the State have developed into urbanised areas and have beën classed as towns. Under this category come Parur, Changanacherry, Kottayam, Kayamkulam, Quilon, Attingal and Vaikom.
75. The important Saivaite temple at Vaikom: invites large numbers of pilgrims from various parts of India.
76. Kottayam has grown into prominence partly as a distributing centre, though the open-
ing of the Pallivasal road has diverted its goodsa traffic to Alwaye. All the tea is transported. through Alwaýe now: Kottayam is an educational. eentre. It häs got a second grade college with several feeder schools, The famous Saivaite: temple at Thirunakkara is a place of pilgrimage. It is the headquanters of the Church Missionary Society. There are also several important and ' anc̈ient churches and seminaries.
77. Changanachery possesses the grandest. Syro-Roman Church: on the Malabar coast and has a first grade college.
78., Quilon is a commercial and industrial centre of increasing importance with its tile factories, cashew-nut factories, spinning and weaving mills and engineering workshops. It is colebrated in history for its trade in spices. It is the State's second seaport town.
79. Most of the census towns agricultural contres where there are marketing facilitios for thée agricultural products of the taluk. A few of them like Cape Comorin, Suchindram, Varkala, Thiruvattar and' Ettumaniur, have become famousas places of pilgrimage. Cape Comorin and Varkala are also important as health resorts, : Suchindram has historic associations. Punalur is rising into prominence on account of the Paper Mills and facilities for the development of industriës connected with light wood.
-80. Imperial Table IV has divided the towns. into six classes according: to the limite of population.: The subjoined statement which. has beon prepared from subsidiary Table (i) on

| ?. Class of town by : population. | Number of towns in each class. | Propartion per cent. of the population of each class to total urban. population. | Percentage of increase. in the population in each olass. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 18311941 | 18311941 | 1931 | 1841 |
| I. 100,000 2 over | $\cdots$ | $18^{*} 8$ | ... |  |
| II. 50,000 to 100,000 | $1.2!$ | $17 \cdot 4 \quad 15 \cdot 6$ | 31.9 |  |
| III. 20,000 to 50,000 | 5 | $308 \cdot 16 \cdot 1$ | 31.6 | 33.7 |
| IV. 10,000 to 20,000 | 11.14 | $24 \cdot 1 \quad 27 \cdot 8$ | $15 \cdot 5$ | 15.4 |
| V. 5,000 to 10,000 | $15 \quad 16$ | 18.516 .7 | $22 \cdot 2$ | $18 \cdot 7$ |
| VI. Under 5,000 | 14.10 | $8.2 \quad 5 \cdot 4$ | $15^{\circ} 2$ | 16.8 |

Imperial Table IV shows the proportion of the population of each class of town to the total urban' population 1931 and 1941 and the increase in the population of each class during: the last two decades.
81. In working out the percentage variations, adjustments for the class totals for the previous censuses have been made. Trivandrum.
with a population of 128,365 comes up to the first class. The population of the city and the population of the towns under class III have both increased by $33^{\circ} 7$ per cent. while the towns under classes IV, $V$ and VI have recorded an increase of only $15^{\circ} 4,19^{\circ} 7$ and $16^{\circ} 6$ per cent. respectively. Fifty per cent, of the urban population live in towns with a population of 20,000 and over. The decennial increase of the urban population indicates a tendency towards aggregation in the major towns falling in class I, II or III. (Vide diagram). Generally industries and commerce

develop af more rapid strides in these classes of towns and this explains the faster growth of the towns in these categories than the smaller and
less important ones. This is also borne out by the fact that the percentage of increase in the industrial, commercial and market towns has beon greater than that in others.
82. The majority of the urban population were born in the taluks in which the towns are situated. The proportion of persons born in other taluks is highest in Trivandrum owing to the fact that it is the capital city and that the headquarters of all departments are situated there. The distribution of the urban population per 10,000 of the total population of each main community is given in Subsidiary Table (ii) on Imperial Table V. Out of 10,000 persons in towns, 6,341 are Hindus, 2,416 Christians and 1,183 Muslims. The proportion of Hindus is highost in the Highland and lowest in the Midland. Of the three main communities, the Muslims favour town life more than the others. The Tribes prefer a country life and hence their proportion is only 53 per 10,000 in urban areas. The Hindu cannot be said to have any partioular partiality for any region. He is evenly distributed in urban and rural areas (See Subsidiary Table (ii) on Imperial Table V).
83. The conditions affecting the movement and distribution of the population of the towns do not differ materially from those obtaining in the adjacent rural parte. There is, therefore, no necessity to examine in detail and compare the results of the census of thege towns. This statistics relating to some of the major towns are given on the next page.
84. The ruxal population live in what are called residential villages the Karay which constituted the census unit in rural area. There are 3,906 inhabited villages in the State and 46 uninhabited villages. The rural population comes to $5,378,993$ as against $4,544,185$ of 1931. This shows an increase of 18.4 per cent. during the decade. The occupied houses in rural areas "have increased from 836,734 to 977,491 , i. e, by 16.8 . per cent. and the average number of persons per house from $5^{\prime} 43$ to $5^{\prime} 50$. The average population of a Kara has increased from 1,155 in 1931 to 1,377 in 1941 and that of a Palouthy from 10,494 to 12,366 . The statement on the next. page shows the villages in each. group and the percentage of the total of each group tor the aggregate rural population from 1901 onwards.

STATISTICS RELATING TO MAJOR TOWNS.-

Towne.
Trivandrum
Alleppey
Nagercoil
Quilon
Kottayam
Ohanganaoherry


VILLAGES CLASSIFIED BY POPULATION.

| Population Group ${ }^{\prime}$ | Number of villages. |  |  |  |  | Proportion per cent. of the population of the group to the total rural population. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | r- |  |  |  | ; |
|  | 1801 | 1911 | 1821 | 1831 | 104) | 1901 | 1011 | 1921 | 1931 | 1841 |
| - ! |  |  | , |  |  |  |  |  |  |  |
| Onder' 500 | 2,006 | 1,867 | 1,670 | 1,446 | 1,271 | $15 \cdot 8$ | $12 \cdot 3$ | 10;1. | $6 \cdot 9$; | $5 \cdot 2$ |
| 500-1, 1,000 | 852 | 961 | 937 | 867 | 788 | $25 \cdot 1$ | $21 \cdot 4$ | $10 \cdot 2$ | 14.0 | .10.8 |
| 1,000-2,000 | 694 | 789 | 846 | 977 | 090 | 34.9 | $84 \cdot 2$ | 32.8 | 30.7 | 26.5 |
| 2,000-5,000 | 225 | 327 | 415 | 572 | 730 | 22.3 | 28.2 | $32 \cdot 4$ | $37 \cdot 3$ | 140.4 |
| 6,000-10,000 | 8 | 20 | 28 | ${ }^{2} 69$ | 116 | $1 \cdot 9$ | $3 \cdot 6$ | $5 \cdot 1$ | 9.6 | $\because 141$ |
| 10,000-20,000 | " | 1 | 1 | 4 | 10 | 0 | 0.3 | $0 \cdot 4$ | 10 | $\therefore 2$ |
| 20,000-50,000 | * | ** | $\cdots$ | 1 | 1 |  |  |  | 8.5 | $\therefore 0.7$ |

## TRAVANCORE

Movement of Population from 1875 to 1941

## Scale 1 Inch $=20$ Miles



Litho,T'he Art Printing Works, Trivandrum.
85. The above table discloses valuable information regarding the movement of population in the villages. It will be seen that the number of villages where the population is below 500 has de. creased considerably; those between 500 and 1,000 show a decrease but not to the same extent as the preceding group, while a marked increase in the number of villages in the third category between 1,000 and 2,000 is noticed. The maximum recorded is in the group 5,000 to 10,000 and in the 10,000 and above group the number has more than doubled itself in the last decade. It has already been stated that the number of places in Travancore with a population above 5,000 has increased from 17 in 1901 to 163 in 1941. It is seen that this increase in the number of villages of higher population groups is steadily mounting up from decade to decade. This confirms the conclusion arrived at earlior that the facilities for transport and opportunities for commeroe and other social services are slowly attracting people to the more populous centres. It also lends support to the view that it is very diffioult to draw a hard and fast line between the town and the village in Travancore and that the town is' at best an out-grown village with additional amenities and facilities for commerce and communicar tion. The movement of population in the villages is illustrated in the map on next page.
86. In any scientific study of the movement of population, the relationship between a definite area and the people inhabiting it should be analysed from different points of view, economic, social and political. This point has been briefly touched upon in dealing with the development of towns in the State. Population did not spread like a drop of oil. In the beginning it grew in clumps like corals. Reefs of population collected at certain points by a sort of crystallization process. These by their intelligence developed the natural resources and raised the value of such places so that other men, whether voluntarily or under compulsion, came to share in the advantages of thisinheritance and successive layers
accumulated on the chosen spot. "The existenca of a dense population-a large group of human beings living together in the smallest space consistent with certainty of livelihood for the entire group, means, if one stops to think of it, a viotory which oan only be won under rare and unusual oircumstances." In order to understand the relationship between earth and man, the first question to be answered is how population is distributed over the surface of a particular area, or to be more exact, how dense population is in different regions.
-87. It has been stated previously that in Travancore population has a tendency to concontrate in villages or towns of higher popu-lation-groups : and this tendency has been noticeable for the last half a century and that in each decade the movement gathers momentum. If we take the State as a whole, the mean density is 792 per sq. mile. But this does not at all give a clear idea of the distribution of population. We are on firmer ground when we calculate density on the area available for cultivation or on the actually occupied area. In these cases the density increases to 1,463 in the first case and to 1,513 in the second. If we deduct from the ocoupied area the area under oultivation, the density rises to 9,712 por sq. mile. The mean density in some foreign countries is set forth below.

88. Subsidiary Table (i) on Imperial Table II gives the density at the last six censures and the
percentage variations from census to census for the Natural and the Administrative Divisions of the State. The densities of the Administrative Divisions for the past oensuses have been recalculated on the altered areas consequent on the amalgamation of the High Range Division with the Northern Division and the revallocation of areas in the Central and Northern Divisions. Of the Aministrative Divisions, the Southern, the Central and the Northern Divisions oome in order in point of density. In the Natural Divisions, the density is highest in the Lowland, lower in the Midland and lowest in the Highland.
89. It should not be underatood from the above classification that, either in the Natural or in the Administrative Divisions, the donsity is aniform throughout the area. : In the Lowland Division, the density varies between 1,300 and 3,000, in the Midland between 500 and 1,900 and in the Highland between 50 and 500. In the Administrative Divisions, it varies from 305 to 2,952 in the Southern, from 213 to 2,450 in the Central and frows 97 to 1,833 in the Northern. If we narrow the area further down to the taluk, these varying densities in the natural and administrative areas are reflected here also according to their situation in one or the other of these divisions.
90. The variations in the densities of taluks are even more marked than those in the divisions. Density in taluks depends, to a cortain extent, also on the presence or absence of a municipal town within the taluk. Those bordering on the sea and included in the Lowland group have generally a higher density than those in the other taluks and the density is lowest in the 'Highland group.
91. It has been already stated that population might most probably have clusterod together in favouxable contres in the Lowland area and might have migrated to the Midland or Highland on account of pressure of population or probably due to better opportunities offered for agriculture or commerce. From very early times,
humanity has prospered in certain localities. Generally it is noticed that small centres of dense population are irregularly scattered here and there. But when they increased in numbers it was found difficult to live together within a limited space. These earlier societies yielded to centrifugal forces and got detached from their nuclei. Humanity increases in number by swarming after the manner of the bees. When the hive is too full, a swarm leaves it. They in thoir course of migration may have to find a place with environments similar to the one which they were obliged to leave. It may be near or it. may be far away. This may form an explanation for the distribution of the population in Travancore.
92. To illustrate the movement of, population, density has been divided into eight groups and three classes as below from the figures available from 1875 onwards.

## Groups.

1. 2,000 and above
2. $500-700$
3. $1,500-2,000$
4. $200-500$
5. $1,000-1,500$
6. 100-200
7. $700-1,000$
8. Below 100 .

## class.

I. 1,000 and above
II. $500-1,000$
III. Below 500.
93. It will be clear from the map that the taluks with the highest. density (class I) are situated invariably in the Lowland region where: the population must have centred rouind favourable localities with rich soil, easy communications and reasonably safe outlets for commerce. The taluks in this region move on from lower to higher density groups during successive decades. Those which come under class II are situated mostly in the Midland Division and those in class III in the Highland Division. Wide variations
in density can be noticed in the portions of the same taluk lying in different natural regions （vide subjoined table．）

|  | Density |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\frac{\otimes}{0}$ | 羔 |  | $\begin{aligned} & \text { E. } \\ & \text { O } \\ & \text { O } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 号 } \\ & \text { 荡 } \\ & \text { 品 } \end{aligned}$ |  |  |  |
|  |  | 0 |  | － |  |  |  |  |
| Taluk | 1931 | 1941 | 1931 | 1941 | 1931 | 1941 | 1981 | 1941 |
| Thovala | 277 | 305 | $\cdots$ |  | 812 | 568 | 147 | 178 |
| Agasthiswaram | 1487 | 1718 | 1869 | 2183 | 619 | 659 |  | $\therefore$ |
| Kalkulam | 900 | 1062 | 2098 | 2323 | 1433 | 1600 | 93 | 119 |
| Vilavancode | 1067 | 1249 | 2031 | 2356 | 1403 | 1833 | 53 | 53 |
| Neyyattinkara | 1177 | 1316 | 2051 | 2407 | 908 | 899 | 124 | 118 |
| Trivandrum | 2336 | 2952 | 2336 | 2952 |  | － |  |  |
| Nedumangad | 430 | 512 |  |  | 822 | 873 | 98 | 102 |
| Chirayinkil | 1317 | 1557 | 1983 | 2259 | 757 | 917 | ＂． | ．． |
| －Qailon | 1680 | 2065 | 1680 | 2065 | ．． | ．． | ． | ＊＊ |
| Karunagapally | 2161 | 2450 | 2161 | 2450 | ＊． | ．． | ． | ． |
| Karthigapally | 1925 | 2035 | 1925 | 2035 | － |  | ＊ | ＊ |
| Mavelikara | 1562 | 1730 | ．${ }^{\text {－}}$ | ．． | 1562 | 1730 | ． | ＊ |
| Kunnathur | 778 | 962 | ， | － | 778 | 962 | ． | ＊＊ |
| Kottarakkara | 681 | 883 | ． | ． | 681 | 883 | － |  |
| Pathanapuram | 237 | 290 | － | ＊＊ | 628 | 840 | 134 | 145 |
| Shenkotta | 371 | 429 | $\cdots$ | ＊＊ | 926 | 1102 | 231 | 261 |
| Pathanamothitta | 159 | 213 | － | $\cdots$ | 751 | 1005 | 1 | I |
| Thiruvella | 1533 | 1740 | $\stackrel{-1}{ }$ | $\cdots$ | 1533 | 1740 | ．． | ．． |
| Ampalapula | 1497 | 1831 | 1497 | 1831 | $\cdots$ | ．． | － | $\cdots$ |
| ：Sherthala | 1746 | 1849 | 1746 | 1849 | ． | ． | ． | － |
| －Changanachery | 840 | 1054 | 1363 | 1619 | 736 | 945 | ＊ | ＊＊ |
| Kottayam | 1083 | 1315 | 1064 | 1334 | 1097 | 1301 | ． | － |
| Vaikom | 1067 | 1273 | 1090 | 1313 | 1022 | 1201 | ＊＊ |  |
| Parur | 1625 | 1833 | 1625 | 1833 |  |  |  | － |
| Kunnathunsd | 625 | 741 | ＊ | －＊ | 800 | 906 | 1 | ＊ |
| Muvattupula | 414 | 394 | ＊＊ | ＊＊ | 697 | 871 | 3 | $\ddot{\square}$ |
| Thodupula | 186 | 342 | ＊ | ． | 721 | 909 | 106 | 221 |
| Minachil | 711 | 877. | － | ．． | 892 | 1038 | 307 | 449 |
| Pirmede | 102 | 144 | －${ }^{\text {a }}$ | ． | ．． | ．． | 102 | 144 |
| Devikulam | 89 | 97 | － | － | ＊＊ | ＊ | 89 | 97 |

94．This grouping also lends support to the principle enunciated above，that population has a tendency to prosper in small centres irregularly scattered here and there and to migrate to places with similar environments through pres－ sure of population or better prospects．This is clearly illustrated by the movement of popula－ tion in the Lowland area．The higher density taluks are not contiguous but are seen in scattered groups（Soe map on movement of population．）The population in Travancore may originally have con－ gregated in the Lowland region and the surplus population may have moved from taluk to taluk within the same natural region．With the appearance of the Midland taluks in the higher
density groups，the process noticad above in the Lowland area is extended to tho Nidland regiou also．But this movoment seems to have been rather slow as the number of taluks in the Mind－ land area coming under the higher duusity groups is ouly two，i．e．Navolikara and Thiruvella．It is just possible that the more adventurous paoplo who had sufficient funds to invest in agriculture or commerce might have migratad to the Midland． Further，even in the selection of places，it may be possible that the people have beon trying to find out habitations with almost sinilar eaviron－ ments．The exodus of those who can command capital to the lower density groups presagos the occupation of a larger area by the individual which is necessary for the cultivation of money－ crops like pepper，ginger and cardamom．Those who showed a distinct agricultural and ruar ${ }^{-}$ bias have found sufficient scope for its develop－ ment and free play in the Midland area．In the next stage when population became denser in the Midland region and flowed into the High－ land，the estate economy must have come into prominence．Here a very large area and suffi－ cient capital are＇necessary to grow the money－ crops on a large scale．The European planters who possessed distinct advantages，both political and economic，developed the estate system and we find large areas in the Highland and an appreciable portion of the Midland developed into． estates by them．The increasing profits that caine in to those in the Midland area must bave attrac－ ted more and more people from the Lowland where the agricultural inoome dwindled from decade to decade by the decreasing productivity of the arable land．The pressure of population in the Lowland has also necessitated the bringing under cultivation of practically all available land．

95．The estate economy remained for a long time the close preserve of the European since the Indian planter did not possess the necessary funds nor technical skill to attompt large－scale cultivation．In the last quarter of a
century on account of the higher prices of rubber, pepper, cardamom, etc., the estate system became popular with the sons of the soil and a large number of estates doveloped in the Midland, though it was controlled by a very small number of people.: Tea or coffee cultivation is not. profitable on a small scale and so these were cultivated on the estate system in the Highland and remains even today mostly under European management. This estate system must naturally have kept down the density, whether it is the small estate of the Midland or the large estate of the Highland. The kind of crop and the nature of cultivation, therefore, largely influenced density in these areas.
96. These trends in the movement of population are indicated in the data available from 1875 onwards. The process must have begun from very early times. It is very likely that the movement of population in the early centuries must have taken the trend which is disclosed by the data available to us.
97. It has already been stated that'the aver** age density in the occupied area is 1,513 per sq. mile. The occupied area consists of cultivated land (wet as.well as dry) and land where the houses are situated. The cultivated area extends to 3,386 sq. miles, leaving a balance of 625 sq . miles as the area occupied by houses. The six million odd inhabitants of the State live in this area and the average density works out to 9,712 per: sq. mile. There are $1,097,357$ occupied houses and the average number of persons living in each house is $5^{\circ} 53$. If we calculate the density from this, we get the average density as 9711 per sq. mile and the average area occupied by each house as 00057 sq. miles or $36^{\circ} 5$ cents: A density of over 9,700 persons per sq. mile is a fairly high figure ; but fortunately the scattered homestead system persists in Travancore except in the fringes of territory adjoining the Madras Presidenoy. "Walled houses" are a unique feature of Kerala. These havie considerably reduced the horrors of overcrowding experienced
in the large cities and villages of British India. If this large population had congregated in villages of the British Indian type leaving vast. spaces between village and village, it would have presented a problem of the utmost difficulty from the point of view of sanitation, health and hygiane.
98. Though the people generally live in scattered homesteads, yet the conditions of livingfrom the point of view of the convenience and. comforts of the houses are by no means encouraging. The percentage of increase in the number of houses is less than the percentage of increase in the total population (vide table below.)

| $\because$ | $\ddots$ |  |  | Percentage of <br> incrase |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\therefore$ | $:$ | Decade |  | Houses |  | Population

and as decades roll on, the proximity of the houses. is getting closer and closer. (vide table below).

| Year | . | . | Proximity in yards |
| :---: | :---: | :---: | :---: |
| $\cdots$ |  |  |  |
| 1901 | $\cdots$ | . ${ }^{\text {a }}$ | 217 |
| 1911 | . | .. | 203 |
| 1921 | . | . | 189 |
| 1931 | $\cdots$ | . | 171 |
| 1941 |  |  | 153 |

The house density for the State in 1941 is. double that of 1901 (vide table below). There: were 7,582 houses in 100 sq. miles in 1901 and

today there are 14,322 houses per 100 sq. miles. The congestion is most in the Lowland and least in: the Highland. Sixty-five per cent. of the houses. have less than three rooms and the percentage of

Thouses with four rooms is only $8^{\circ} 2$ (vide table soblow).
$\left.\begin{array}{ccc}\begin{array}{c}\text { No. of } \\ \text { rooms }\end{array} & \begin{array}{c}\text { Number of } \\ \text { households }\end{array} & \begin{array}{c}\text { Percentage to } \\ \text { total }\end{array} \\ 1 & \cdots & 418,716\end{array}\right]$
99. The conditions are worse when we take the number of people living in each house. For this purpose a random sample of $1 / 20$ was taken for certain selected taluks and municipal towns. That the sample is representative of the conditions of the State may be inferred from the fact that the proportion of distribution of 39,950 houses classified according to the number of rooms corresponds closely to the distribution obtained by classifying the entire total of the houses of the State (vide table below). It is

observed that about 60 per cent. of the population live in small houses with one or two rooms. There is thus definite overcrowding in houses of small size (vide table below).

| Number of <br> rooms | Percentage of <br> houses to total | Percentage of <br> population to total |  |
| :---: | :---: | :---: | :---: |
| 1 |  | $\ddots 3.7$ | 28.63 |
| 2 | 31.4 | 30.81 |  |
| 3 | 18.8 | 20.30 |  |
| 4 | 7.8 | 10.01 |  |
| 5 | 3.8 | 4.48 |  |
| 6 | 2.0 | 2.50 |  |
| 7 | 1.0 | 1.27 |  |
| 8 | 0.7 | 0.85 |  |
| 9 | 0.3 | 0.39 |  |
| 10 and above | 0.5 | 0.76 |  |

The average size of the family accommodated in
houses of various sizes and the room-sproe available per individual are given' in the table below.

| No. of rooms | Average number of persons per house | A vernga room per person |
| :---: | :---: | :---: |
| 1 | 4.78 | 0.21 ; |
| 2 | . $5 \cdot 83$ | $0 \cdot 37$ |
| 9 | $5 \cdot 86$ | $0 \cdot 61$ |
| 4 | 6.29 | $0 \cdot 69$ |
| 5 | 6.49 | $0 \cdot 78$ |
| 6 | 6.94 | $0 \cdot 188$ |
| 7 | $6 \cdot 79$ | $1 \cdot 08$ |
| + 8 | $7 \cdot 00$ | 1.14 |
| 9 | 7.04 | $1 \cdot 28$ |

It will be clear from this table that the avarage space" available per individual is least in the one-room houses. In the seven-room houses which form 1 per cent. of the total in the State, a person gets one room on the average. Seventy par cent. of the houses have inmates varying from 3. to. 7. Nearly 80 per cent. of the population. are members of households whioh have five or more persons as residents (vide table below).

$\underset{\text { No, of }}{\substack{\text { Norgons }}}$| Proportion of |
| :---: |
| houses to total |$\quad$| Proportion of popula |
| :---: |
| tion to total |


| 1 | $3 \cdot 4$ |  | 0.6 |
| :---: | :---: | :---: | :---: |
| 2 | $8 \cdot 2$ |  | 3.0 |
| 3 | $12 \cdot 3$ |  | 6.8 |
| 4 | $15 \cdot 5$ |  | $11 \cdot 4$ |
| 5 | 18.5 |  | $15 \cdot 2$ |
| 6 | $14 \cdot 3$ |  | $15 \cdot 7$ |
| 7 - | 11.4 | , | $14 \cdot 7$ |
| 8 | 75 |  | $11 \cdot 1$ |
| 9 | $4 \cdot 6$ |  | $: 7 \cdot 7$ |
| 10 and above | $6 \cdot 3$ |  | 13.9 |

The average number of persons per house has been steadily increasing from decade to decade (vide table below) but a slight fall is

Perbons per hones

| Year | State | Lowland | Midaud | Ilighland |
| :---: | :---: | :---: | :---: | :---: |
| 1941 | $5 \cdot 53$ | $5 \cdot 65$ | $5 \cdot 47$ | $5 \cdot 90$ |
| 1931 | $5 \cdot 48$ | $5 \cdot 58$ | $5 \cdot 45$ | $4 \cdot 94$ |
| 1921 | $5 \cdot 28$ | $5 \cdot 34$ | $5 \cdot 25$ | $4 \cdot 61$ |
| 1911 | $5 \cdot 17$ | $5 \cdot 18$ | $5 \cdot 20$ | 4.75 |
| 1901 | $5 \cdot 08$ | 5.08 | 6.11 | 4.79 |

noticeable in the Lowland and the Midland in the last decade. This may be on account of the splitting up of the joint family which has beon going on at an accelerated pace after the enactment of the partition laws. It does not follow that the density of population has deoreased as a result of this. The fall in the number of persons
per house may be compensated for by the increase in the number of houses.
100. The congestion is not the only calamity that has to be fraced. The structure of the houses does not warrant reasonable comfort and convenience especially during the monsoons. The cadjan walls do not give sufficient protection during the rainy season. In addition to the discomfort, the expenditure that will have to be incurred for repairing the havoc caused by the monsoons adds to the misery of the householder. More than 88 per cent, of the houses have either cadjan or straw or leaf roofs, while tiled, metal and terraced roofe come to only $11 \cdot 6$, pers cont. of the total (vide table below). Only 3 per cent. of

| Material of roof | Number of buildings | Percentage to total |
| :---: | :---: | :---: |
| Cadjan | 902,126. | $77 \times 4$ |
| Tile | 128,171 | 11.0 |
| Terrace | $\therefore 784$ | -0.1 |
| Metal | 5,868 | $0 \cdot 5$ |
| Other materials (Straw leaf etc.) | 128,050 | 11.0 |

the houses have brick walls. . Fighteen per cent. of the houses have walls with laterite stone, while 61 per cent. of the houses have either cadjan, leaf or mud walls, 9 per cent. of the houses being of the old type with wooden walls (vide table below). The mud wall seems to be the most

| ```Material of :``` | Number of buildings | Percentage to total |
| :---: | :---: | :---: |
| Cadjan | 221,972 | $19 \cdot 0$ |
| Mud | 490,110 | $42 \cdot 1$ |
| Laterite | 214,048 | 18.4 |
| Brick | 36,892 | $3 \cdot 2$ |
| Wood | 105,479 | $9 \cdot 0$ |
| Other materials including unspecified | - 96,448 | $8 \cdot 3$ |

common in the southern taluks, cadjan being the most popular along the coastal taluks where the coconut flourishes. In the Midland and Highland again, mud walls are more common.
101. The practice of more than one family staying under the same roof though with separate kitchens is not very common in Travancore. In the taluks adjoining the British territory, such
as Shenkotta and Thovala, the multiple-household is rather common. Even in the congested areas of the Trivandrum city, only a comparar tively small proportion of the people live in such multiple households (vide table below). The "vast majority of the buildings in the

| Number of house- <br> holds accommodated | Number of <br> buildings | Percentage <br> to total |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 | 16,155 | $88 \cdot 8$ |
| 3 | 1,451 | 807 |
| 4 or more | 407 | $2 \cdot 2$ |
| Total | 182 | $1 \cdot 0$ |
|  |  | 18,195 |
|  |  | $100 \cdot 0$ |

State accommodate only single households or families.
102. Of the total number of occupied houses, 119,866 are situated in the uxban area. Out of these 85,057 houses are situated in the municipal towns. Though 11'4 per cent, of the total popu-lation live in the urban area, they occupy only $10^{\circ} 9$ per cent. of the total number of houses in the State. Hrom this point alone, it can be gathered that urban density must be higher than rural density.
103. As in the case of the Natural and Administrative: Divisions, wide variations in donsity are noticed in the urban area also. In Shenkotta. it is as high as 17,428 per sq. mile, while in. Attingal it comes down to 1,015 per sq. mile.. Both are municipalities. The number of towns in 1941 is 46 while in 1881 it was only six. The year 1921 marked a sudden increase in the number of towns from 11 of the previous decade. to 38. This can be accounted for by the growth of police conservancy towns and by the development of taluk headquarters into towns by a progressive trend towards centralisation. In thecase of the natural regions, the towns in thehigher density groups are situated in the Lowland. Since 1881 the majority of places which werer declared as towns have been in the Lowland.

104 The density in the municipal towns in 1941 and 1931 is illustrated in the following diagram. Among these towns, Neyyattinkara has
(700-1,000) with a density of 877 . Quilon, Karınagapal!y and Karthigapally maintain the balance between the cultivable araa and density

recorded the highest percentage of increase in density during the decade (37.36). Alleppey comes next followed by Alwaye. Trivandrum comes only fourth. Shenkotta which has the highest recorded density has not only not shown any increase but has even registered a decrease of 0.2 thus indicating that it has ostensibly reached the saturation point.
105. The taluks follow a different order when density is calculated on the extent of cultivable area in each taluk. The diagram on the next page gives the order of the taluks according to the extent of cultivable area. Minachil which has got the highest percentage in this respect comes only in group IV
of population. In the matter of the extent of cultivable land, Trivandrum, which has got the highest density comes only 12th. Sherthala, which has a high density, ranks 15th and Devikulam, which occupies the last place from the point of view of density ( 97 por sq. mile) comes 18th. This perplexing divergence between density and cultivable area can be explained from the kind of crops that are cultivated in the respective taluks. There is a close correlation between density and cultivable area if rice or coconut is the main crop, but with regard to tea and coffee where the estate system has to be adopted, the density may be very low but the cultivable or cultivated area may be very vast. Rubber and cardamom are also cultivated under

## Percentaģe of cultivable and cultivated areas by Taluks



CHERMEIKI:


NEYYATMILTARA


THODUFULA


NELUMANGAD


PATHENAPYRAM


PSTLANABDTHKTTA


Cultivated area


Difference between cultivable and cultivated areas.
the estate system though it is possible to grow these crops economically in a smaller area than tea or coffee.
106. The difference between the cultivable and cultivated area is very small in the Lowland taluks. Here the chief crops areerice and coconut. The Fragmentation Enquiry has disclosed the tendency of progressive reduction of the individual holding. This system, though economically unsound will support a large population. The pressure of population in the Lowland taluks has resulted in bringing under cultivation practically all land that could bo cultivated leaving only a very small margin of uncultivated but cultivable land.
107. The same principle generally applies to taluks in the Midland group also where the pressure of population has been increasing from decade to decade (vide map on movement of population.) The largest percentage of cultivable land is in the Highland taluks where, as stated previously, the density is lowest on account of the estate system of cultivation and their mountainous nature.
108. It will be seen from Subsidiary Table (i) 'on Imperial Table I that only 44.2 per cent. of the total area of the State is actually cultivated. Calculated on this basis, each person has an average of 43.7 cents of cultivable land and $35^{\circ} 7$ cents of cultivated land. This calculation, like the mean density, gives no accurate idea of the pressure of population on agricultural land. Further, density figures will be significant only if it is possible to ascertain the relation in any given region between the number of porsons subsisting directly or indirectly on agriculture and the agricultural potentialities of the land utilised, or, in other words, the man-land ratio. It is necessary, in the first instance, to find a realistic statistical expression of each of the elements before it is possible to determine this relation in a satisfactory manner.
1C9. In determining the productivity of land, not only natural factors such as soil and climate
but many human factors such as technical knowledge, capital, labour and price relations ontar into the calculation. These factors are essentially dynamic in character and form vital elements in determining the indices of produotivity. It would also be necessary to abcertain definitely the proportion of land used for different purposes and to determine the actual productivity of each variety, by mothods capable of general application. For example, J. Poniatowki has made a calculation for Poland, of the total agro-forestal area using nominal coofficients to convert non-arable land in terms of arable. The coofficients he adopts are as follows:-

| Arable land | $\ldots$ | 10 |
| :--- | :--- | :--- |
| Orohards and gardens | $\ldots$ | 3.0 |
| Meadows | $\ldots$ | 0.4 |
| Pasture | $\ldots$ | 0.2 |
| Forests | $\ldots$ | 0.15 |

110. To obtain the total productive area for any given country, such coefficients aro then multiplied by the area under each of these cate" gories. But conditions vary from country to country and it would not be possible to use the same standards for the measurement of arability, particularly in the case of countries so widely different in soil, climate and vegetation, as Poland and India. In British India, a system of 'Normals' is adopted to determine the index of actual productivity by eliminating the seasonal variations due to meteorological or other factors. Unfortunately no data are available for Travancore from which it will be possible to calculate scientifically the productivity of the cultivable area or the actually cultivated area.
111. For the purpose of this calculation, a distinct.demarcation should also be effected bo. tween the agricultural population and what is: known as the rural population. The latter has. bearing more on an administrative unit and refers to people who live in a partioular area. which is not urban-the differentiation of rural from urban or industrial being more or less arbitrary. The definition of agricultural population.
is, in theory, fairly simple. In the mostixestricted sense, it includes all persons actually occupied in agriculture ; but in the larger sense it includes, ins. addition, the dependent members of their families.
112. As in the case of land where different degrees of productivity exist, necessitating a process by which they can be brought under a homogeneous category, so in the case of the agricultural population it is necessary to determine what may be termed 'adult equivalents' of the total population working or depending on land. Supposing there is a farmer who is assisted by his six sons, it will not be correct to say that the extent of land he cultivates has to support and gets the labour of $6+1=7$ persons. His sons will be of different ages and different physical and mental capacities: So it will be necessary to work out the adult equivalent before we can ayy how many people are working, or are depending on this definite extent of land. Fur. ther, it would be necessary to know the relation between the quantity produced from a definite extent of land and the expenditure incurred by those who are entirely dependent upon that. A further difficulty is encountered when we have to deal with the population that does not depend solely on agriculture. The number of people for whom agriculture is a subsidiary means of livelihood in varying degrees has to be calculated on the basis of the extent to which they are benefited or dependent on this means of living. Before any real progress can be made in purposive research on the man-land ratio, therefore, not only must agricultural population be clearly defined and agricultural area and productivity calculated in a more or less satisfactory way, but some clear idea of optimum population also has to be obtained.
113. What is meant by the optimum? Carr Saunders defines it thus: "For any area under any given conditions this is the point at which the average real income per head is the greatest." Fairchild, on the other hand, approaches the question from the expenditure point of viow. He thinks that the standard of living, which is
after all the ${ }_{3}^{\prime \prime}$ essential expression of the degree to which the population in a given area is approaching or receding from the optimum, should be measured by expenditure rather than by income since the latter may, in large part, absorb saving and working expenditure. Finally, another factor of great importance-a dynamic element-in the man-land ratio is the movement of population. The net reproduction rates have, therefore, to be calculated on the population subsisting on agriculture. Birth-rates among rural population are, in general, higher than those among industrial and urban population. All the factors in the man-land ratio are therefore dynamic and consequently the optimum itself must be dynamic, i.e., it is always unstable. A study in this direction will, however, give valuable clues with regard to the trends and tendencies indicating roughly whether the population is moving towards or away from the optimum.

[^1] have a fainly accurate kuowledge of the population that the land can support in a thickly populated country like Travancore and to ascertain whether the conditions are such as to sound a note of warning regarding the dangers of over-population. The man-land ratio, if it is possible to work it out, will give a scientific exposition of the agricultural position. Usually the cultivated or cultivable land is divided among the total population to work out the percentage of land for each individual. As the extent of land remains constant, the per capita area will be dwindling from year to year. But such per capita figures, except perhaps in the case of wet land, will not give a proper perspective of the land economy of the State. The dwindling ratio may create unnecessary alarm leading to agitation for further disafforestation. The land-grabber gets an opportunity to fish in troubled waters. Disafforestation may bring in its train soil exosion and consequent havoc to cultivated. fields through floods. Even when disafforestation is effected without fear of such consequences, most of the auctioned land goes under the octopus hold of
the capitalist by methods beyond the clutches of the law of the land. If, however, such accumulation of land on the part of individuals is accompanied by honest attempts to cultivate every cent of it, the odium that attaches itself to .such land-grabbing may, in part, be mitigated by the economic advantages of large-soale cultivation. "If, on the other haud, the capitalist allows such land to remain uncultivated, thereby frustrating the prospects of the honest peasant in search of land, he would be committing a positive crime against society. The problem, if there was a problem, remains still unsolved waiting perhaps to raise its ugly head for the next census and seek solution on lines familidr to the expert in the field.
115. The need is, therefore, urgent to collect relevant data through which the question could be tackled on scientific lines. With limited land, a teeming population and further prospects of progressive increase in numbers from decade to decade, the question, as to how many the land could support, calculated on a scientific basis, has assumed serious proportions and. it has become imperative to educate public opinion on right lines. The spur to industrialisation cannot be driven home unless this point is cleared .beyond all doubt.
116. Where satisfactory statistics aro not available, the existence of over-population can be indicated only through certain phenomena .generally rocognised as symptomatic. Agricultural over-population is often seen when-
(i) there is progressive diminution in the size of the holdings;
(ii) a high proportion of food crops or cereal crops is grown in the total arable
1 area;
(iii) there is low unit-yield necessitating the bringing under cultivation of the largest possible area under food crops;
(iv) there are low densities of cattle;
(v) the general low standard of living brings about under-nutrition; and
(vi) the low standard of living, on acoount of the struggle for the mare subsistence from the soil, results in oultural atagnation: •
117. Out of the total area in the State, only 54.2 per cent. is cultivable and $44^{\circ} 2$ per cent. has already been brought under cultivation. The Economic Survey has diselosed the progressive reduction in the size of the arricultural holdings from year to year. Another feature is the fragmentation of holdings, $i$. e., the dispersion of individual holdings into small parcels. If the conditions in the natural regions are analysed, it will be seen that 83 per cent. of the cultivable land of the Lowland and nearly 86 per cent. of the cultivable land of the Midland have been brought under the plough. Even in the Highland where the estate system prevails, 56 per cent. of the land has already bean brought.under cultivation. In the Lowland aroa where we find density at its maximum, rioe is the most important food orop grown. As much as 29.7 per cent. of the cultivated area in the State is taken up by this crop and it is found that the progressive diminution in the size of the holding is most pronounced in the area under ricecultivation. In the cultivated area, the largest extent is taken up by rice as will be seen from the following table:-"

| Rice | $\ldots$ | $29^{\circ} 7$ |
| :---: | :---: | :---: |
| Coconut | $\ldots$ | $25^{\circ} 4$ |
| Tapiooa | ... | 20.5 |
| Pepper | $\ldots$ | $4 * 4$ |
| Rubber | $\ldots$ | $3 \cdot 9$ |
| Tea | $\ldots$ | $3 \cdot 7$ |
| Ginger | ... | 144 |
| Sugarcane | $\cdots$ | $0 \cdot 7$ |
| Coffee | $\cdots$ | 0.3 |

118. It will be soen from the above that 75 per cent. of the cultivated area is covered by rice, coconut and tapioce of which the first and the last are essentially food crops and the second partly a food crop* and partly a money crop. The low unit-yield is also a general feature noticeable with regard to these three crops.
[^2]As for rice, the marginal and sub-marginal lands have already been brought under cultiva. tion and this, perhaps, is generally true also of the other two crops. The low unit-yields. may bo used as additional argument for bringing under cultivation the largest possible area under food crops. Unit-yields of cereals are generally lower in the more purely agricultural countries than in the more industrialised ones. The greater dependence on the soil and the consequent pressure of agricultural population in certain places result in lowering the unit-yields.
119. Double-cropping is one of those factors of agricultural economy which counteract the serious maladjustment between the increase of population and the extension of cultivation. The following statement shows the extent of double. cropped area in 1931 and 1941.

120. Except for a nominal increase of 1 sq . mile in the Highland, the area under double-crop has decreased in all the regions. Double cropping is obviously limited by the capacity of the soil. It is highly probable that intensive subsistence farming has reached its limit and the decrease in the double cropped area is a symptom of over-population. The rotation of crops is another method which will counteract the diminishing fertility of the soil and improve the unityield, but there is not much evidence of this keing practised on any large scale in the State.
121. Rubber, tea, coffee and sugarcane, come under the category of crops which, unlike the major food-crops, are incapable of being economically cultivated in small holdings. These
are essentially, so far as the State is concorned, money-crops. In the nature of things, this will be controlled by a few persons and except for the fact of ongaging paid labourers for working these. estates, it will not be possible for peasant proprietors in any appreciable number to subsist on this form of cultivation. So the areas where these are cultivated will not be affected by the pressure of population. The number of people engaged in cultivation in these areas will bear a definite ratio to the extent of land cultivated. Hence the growing agricultural population falls. more and more on such form of cultivation where subdivision could be carried on almost to an in. definite extent.
122. This progressive subdivision of agricultural holdings has its effect on the low density of cattle. In South Travancore, for example, on account of the facilities for irrigation provided! by the Kothayar Irrigation works, most of the tanks had been reclaimed and brought under rice cultivation resulting in the progressive diminution of grazing grounds for cattle. Cattle used. to feed on the grass grown along the banks. of these tanks and when these were converted into rice fields, fodder had to be found elsewhere. Incidentally green manure also became less and less available and had to be purchased at prohibitive rates. What with the low density of cattle, cattle-manure had. also to be imported.
123. In other parts of Travancore also, more. ard more land bas been brought under cultivation on account of the facilities for irrigation and also on account of the plentiful rainfall. Nore and more people congregate here. The following table helps to strike correlations ketween rainfall, gross cultivated area and density on the total area.

| Natural <br> Divieion. | A verage rain. Percentage of fall in gross cultivated inches area irrigated |  |  |  | Density on total area |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1931 | - 1841 | 1931 | 1841 | 1981 | 1841 |
| Lowland | 78.0 | 87.64 | 23.84 | $35 \cdot 35$ | 1,739 | 2,042 |
| Midland | $109 \cdot 0$ | .97.68 | 14.65 | $35 \cdot 60$ | 887 | 1,086 |
| Highland | 128.0 | $103 \cdot 12$ | 6.95 | 16.01 | 82 | 102 |
| STATE | 99.19 | 101.05 | 16.65 | $32 \cdot 65$ | 685 | 792 |

## TRAVANCORE

Extent of cultivable and cultivated land by Taluks with Variations in altitude and Rainfall

124. The progressive reduction in unit-yields, along with the smaller size of the agricultural holdings, the high proportion of food-crops to total cultivated area, the low unit yields and the low densities of livestosk has resulted in undernutrition which, when chronio, may itself be taken as one of the most important indices of overpopulation. In the regions of adverse natural couditions, under-nutrition reflects the severity of the struggle for subsistence, while in those of dense agricultural population, it is the outward sign of the 'hidden unemployment.' Here most of the agricultural holdings are insufficient for family subsistence as is evident from the Economic Survey. In suoh regions, periodic oscillations are common. In Travancore a cereal mono-cultuxe prevails, any other cereal besides rice being almost non-existent. Here the effects of a bad harvest would be disastrous, partisularly when nearly $2 / 3$ of the rice required has to be imported.
125. Generally rural population shows greater fertility than urban population as will be clear from the subjoined table, and the prossure of

Number of qhildren

| Community |  |
| :--- | :--- |
|  |  |
|  |  |
| Brahman <br> Ilava <br> Kammala <br> Nayar <br> Pulaya <br> Vellala <br> Musim <br> Syrian Cbristian |  | born per family


| Urban. | Rural. |
| :---: | ---: |
| 5.7 | 6.3 |
| 6.5 | 6.7 |
| 6.5 | 7.3 |
| 5.7 | 6.4 |
| 6.0 | 6.4 |
| 6.4 | 6.2 |
| 6.0 | 7.2 |
| 7.1 | 7.1 |

population in many cases may be due partly to human fertility rather than to the other factors mentioned before in connection with the man-land ratio.
126. The misery caused by years of poor unityields in these marginal and sub-marginal axeas is accentuated by the general difficulty in obtaining cheap food from outside, mainly through other money-crops not being available to the poor people to enable them to obtain the necessary cash for purchases.
127. The low standard of living among the agricultural classes, especially in the more densely populated areas, is generally associated with lower
skill, the general cultural standard being severely affected by the struggle for more subsisteuce from the soil. The absence of substantial help from industiial and urban centres towards improvement in the products of agriculture perpetuates the low unit-yields. The whole thing therefore works in a vioious circle. The low yiolds of agrionlture prevent the acoumulation of oapital necessary for the introduction of improvements and the general raising of the standard of living. When social degradation and misery go below a cortain level, it is not possible to expeot a resw. ponse in the form of a sustained struggle against unfavourable conditions. On the contrary, it often results in en apparent loss of this oapacity of reaction and the sinking into a state of sheer. despondency. Chronic nuder-nutrition, whioh is a common feature in these agrioulturally overpopulated regions, results in disease aud general loss of vitality. Together these conditions undormine what remains of the spirit of enterprise. The University Department of Research has made a beginning in agricultural rosearch and it is hoped that sustained efforts on right lines will produce substantial results in time.
128. The failure generally of cooperative. organisations in Travanoore, can mostly be traced to the above circumstances. Even the minimum capital that is necessary for the development of co-operation is not available due to the low productivity and the absorption of all available surplus by excessive population which shows only progressive increase on account of a high birthrate usually found among agricultural communities. It is often accentuated by the difficulty of finding markets and the lack of adequate cultural contacte with the outside world.
129. From the foregoing facts there is reason to believe that there is agricultural over-population, though for want of statistics it cannot be accurately measured. What are the remedies? In the first place a proper distribution of agricultural land will relieve pressure on the agrioultural population. But this is imposeible under the existing law. The only methods that could be
adopted are:-(i) to penalise "people "who leave land unoultivated, and (ii) to prevent further subdivision of agricultural holdings by legislation. The latter by itself will not be able to rectify the havoc already wrought. Progressive reduction in the size of holdings is not a satisfactory condition precedent to agricultural improvement. Any measure to ensure better unit-yields or higher intensity of production demands a larger extent of individual holdings. The Census Commissioner for 1931, who was an expert in agriculture, has remarked that the introduction of soientific methods of cultivation, hawever much the Department of Agriculture-may strive, oannot make much headway under existing conditions in Travancore. He considers ten acres as the minimum for a family of five members and has stated further that on this basis more than 95 per cent. of the holdings, in Travancore are uneconomic. The E'oonomic Survey conducted along with the present census has disolosed conditions perhaps worse than what existed in 1931. (A detailed discussion on thïs with relevent data is given in the Report on Economic Survey). Even with regaid to unit-yields, Travancore produces less than other countries which grow paddy. The average out-turn of paddy per acre is about 5,000 Jbs. in Spain, 3,000 lbs. in Italy, 2,500 lbs, in Japan, but only 1,250 lbs. in Travancore. The countries in Europe and Japan bave increased their yield by the adoption of soientific methods: of cultivation. But this is impossible unless a complete change is introduced by legislation in the system of land-holding in the State.' That a reform of some such : kind may be necessary is clear from the increasing proportion of the population that is being supported by agriculture from consus to census. (Vide table below.)

| Year, | Popalation sapported by agriculture. |
| :---: | :---: |
| 1901 |  |
| 1811 | $\begin{array}{r} 474 \\ \cdots 53.6 \end{array}$ |
| 1921 | 51.7 . |
| 1981 | $54 \cdot 3$ |
|  | ${ }^{5} 57.4$ |

130. Though this may 'seem bright as compared to the population supported by agriculture
in India which had come to the alarming figure of 71 per cent. a decade ago, yet when compared to the population increase in Travancore the prospect in by no means encouraging. There is not much likelibood of increasing the acreage under rice cultivation; and even if the life irrigation scheme is successful the percentage of land that could be brought under rice cultivation will only be very small. So the only solution lies in intensive farming. In this case the limitations of doublocropping under the present system of oultivation have already been discussed.
131. Development of 'mixed farming' is another remedy for agricultural over-population. In this connection the suggestion made in the final report of the Mixed Committee on the relation of nutrition to health, agxiculture and economic policy, that the Danish system of arable-animal husbandry in which cereals, partly grown on the farm and used to feed animals, should be more widely adopted, has an especially important application in those over-populated regions in which cereals occupy a very high proportion of the cultivated area. In addition, more leguminous foodcrops should be grown. In general they aay that a great development of 'mixed farming' is necessary. 'The introduction of large proportions of livestock products, vegetables and fruits in the agricultural output might not only mean an improvement in bringing about better nutrition but would at the same time raise the general standards of agriculture, facilitating better crop rotations, assisting in soil conservation and improvement and absorbing more of the superabundant labour that is at present the only resource in which these regions are rich. No region will benefit more than these from a 'marriage of health and agricultare' and this is in fact what was involved in these instances by that rationalisation of agriculture'that is a necessary complement of agrarian reform."
132. In the 1931 report, it is stated that out of $3,043,000$ acres of cultivable area nearly
*842,000 acres including fallows and",cultivable Waste remained uncultivated. It has been stated there that the land might be poor in ,quality and - on account of the operation of the law of dimini. shing returns it might not respond to the application of labour and capital as liberally as the land already under the plough. It must be clear from the above statement that the only means by which this land could be brought under cultivation is by the introduction of scientific methods provided the land is not distributed in suoh a way as to make it impossible to introduce such methods due to the diminution in extent. Accor-

- ding to the 1941 census, there are only 488,479 -acres of cultivable land not cultivated. Within a
- decade 50 per cent. of the cultivable land not cultivated has been brought under cultivation
- or taken up as house-sites for the increasing popalation. The prospect, by no means, is oncouraging. It is for the Department of Agrioulture to try these experiments, "if experiments are possible, on this land and enlighten the agricultural population with regard to the supreme advantages of introducing scientific methods of cultivation.

133. From the information available from the Agricultural Department, it is found that there is a prospect of substantially increasing the yield by
(i) the introduction of lift-irrigation whioh will make it possible to adopt double-crop system, in the arable area in the taluks of Muvattupula, Kunnathunad and Parur ; and
(ii) making yearly cultivation possible in the large axeas of punja lands which now lie fallow every alternate year.
134. The fact that nearly 60 per centi of the rice that we require has to be imported. argues the imporative need of bringing these schemes into fruition in the shortest possible time. It would be a boon to Travancore if theseschemes would bring in the expected inorease in the yearly output of paddy.
135. If urban and industrial centres could help in bringing about marketing fanilitios for agricultural producta by increasing the markets and improving the quality, it will be possible to raise the capacity of agrioulture to absorb more people. At the same time, efforts should bo made to cheapen the prices of commodities consumed by the agricultural population whether for the purpose of further production or not. One thing that is noticeable in these days of induse trialisation is a transition from subsistenoe to cash-agriculture. The area under industrial crops is also increased. In Travancore the rapid extension of cultivation in recent years of tea, cashewnut, lemon-grass, rubber and cardamom are instances in point. This phenomenon has been observed eleewhere also since the war of 1914-1918.
136. Rural electrification which is made pos. sible by the cheap electrio power available from Pallivasal is another method of allaying the distress of over-population. In the short span of five years, several industries have been started on acoount of the possibilities of getting cheap powier. There are already soveral sugar-making concerns, oil mills and rice mills, and there is also scope for the development of the textile industry if power looms are used even on a small scale in the rural areas. Significant developments are possible in the revival of cottage industries like lace-making, embroidery, wood-work and coirmaking by means of rural electrification. Rural electrification will also help. in the extension of large-scale industry in the villagee./ In Travancore, the latter is largely possible on account of the improved facilities for tranaport., The Sri Chitra Mills and the various tile factories at. Alwaye, numerous tea factories in the High, Ranges, cotton mills and tile factories at Quilon, the ilmenite factory at Chavara etc., are ipstances in point. Improved facilities for transport have also made possible the intimate interpenetration of rural and industrial areas ${ }^{4} 80^{\circ}$ as to "lllow a large proportion of the population to continue their cheap living in the country and
even to be partly occupied in agriculture and yet to take up employment in the towns and indus" trial areas.
137. Mention has already been made of the immense possibilities of the extension of the fishing industry in the coastal areas. There is great scope for the export of large quantities of fish if the whole industry is modernised. It is hoped that the measures taken by Government for the improvement of this industry will partly alleviate the pressure of over-population, particularly in the Low lands.
138. Development of communications should go hand in hand with the progressive industrialisation of the State. A rapid extension of communications in a country where the mountain, the river and the lie of the land compel a very large outlay before progress could be recorded will not be justified unless compensated for by the increase in output of agricultural or industrial products. Here is a cass in which the active co-operation of the public is called for.
139. Travancore has had the reputation of having the best system of communications in India; and in the last decade considerable pro: gress has been recorded in this direction. The outstanding achievement is the construction of the 42 miles of cement road connecting Nagercoil with the capital city; The motor traffic along this road perhaps beats the record of any single highway of equal length in any other part of India. Even if a bus should run every five minutes, there will still be enough passengers from the city or to the city. The three main roads radiating from the capital have been considerably improved. Several new roads have been constructed linking up the outlying districts with the main roads. Improve: ments have been offected in the chief waterways also. The canals have been widened and new canals have been cut and linked with the old ones. New bridges have been constructed, the most important of them being the Alwaye bridge, the Thottappally bridge and the Neriamangalam bridge. Substantial improvements have been
made to most of the important bridges along thi main roads. These improvements in road com munication effected in the last decade have re sulted in an almost phenomenal increase of moto traffic throughout the State. The motor enthu siast could wake up with the sunrise at th. land's end of India (Cape Comorin), have hi breakfast in 'Udayagiri' surrounded by pictux esque mountains with the remnants of the old for reminding him of the grim battles fought in th historic past, reach the capital in less than a hour and after the forenoon spent in sight-seein enjoy a sumptuous lunch at the 'Mascot,' hav his tes at Kottayam, feasting his eyes on th placid lakes that gird the slopes of the hillock o which stands the spacious and luxurious Res House and reach the delightful heights c Munnar for dinner. He will have travelled'b then over 250 miles without the irritating incos venience of a ferry or the, rude jolting usuall sxperienced on the country roads elsewhere.
140. Government have in the last decad spont Rs. 176.32 lakhs on communications an this liberal outlay has resulted in the Stat having one mile of road and canal for every 1' sq. miles of land including even hills and forest The total length of communioations maintaine by the Travancore Public Works Department $j$ 1939-40 was 5,401 miles. Mention has alread been made of the centralisation of the Transpo: aystem and the progress made in the last tries nium.
141. The railway which runs from the capit oity to the border taluk of Shenkotta over a di tance of 99 miles links it with the Britis territory beyond the Ghats. This railway pract cally runs parallel to the macadamized road pr viding a double line of communication for tl xich and not fully developed taluks of Kottara kara, Pathanapuram and Shenkotta of the Centr Division.
142. The facilities for transport have $i$ creased the number and popularity of markel There are nearly 600 markets and over a coup
of lakhs of people regularly congregate in these markets. .The poor villager could sell his surplus vegetables, eggs and chicken in the nearost market and get a much botter price for them than be would have got in his native village. An anna will take him from his farm to the nearest market. A thriving internal trade is -carried on not only in fruits, vegetables, and poultry, but also in cattle in the several cattlemarkets which transact business for a few thousands every week. The volume of trade transacted in these centres comes to very encouraging figures. The hard lot of the agriculturist in the over-populated areas is, to a certain extent, mitigated by the marketing facilities thus afforded,
143. The isolation of the village has been almost obliterated by this rapidly increasing system of communications. It has had its effects upon social life as well. Visiting friends and attending marriage functions or religious festivities have now become an almost daily affair. Formerly these meant so much time and expense since the chief mode of conveyance was the bullock. cart or the country boat. A quarter of a century ago, the majority among the village folk never so much as once visited the capital city but today every State festival draws the villagers even from the remotest parts of the State. What before was a long and tedious journey has now become as pleasant as an afternoon picnic.
144. The Trunk Telephone has given a fillip 10" big business" in the State. Important intelligence is impatient of delay and loses its exhilaration if not delivered hot from the oven: The writer was not a little amused when he found that the questions set for the selection of candidates for the Economic Survey in a particular taluk were phonocummed to the neighbouring taluk well ahead of the scheduled time for the written test in the latter place; but alas! the questions set for the next centre were different. The phone bids fair to become as indispensable to the ordinary citizen as the bus.
145. Surplus labour in a particular taluk could now migrate to centres where there is
greater demand. In South Travanoore, for instance, in the course of house-numbering it was found that many houses of poor poople were empty as they had gone to the next village or the neighbouring taluk where there was dearth of labour for tapping or for harvesting. This migration is particularly noticeable in the Kuttanad areas where there is almost mass movement of labour from the neighbouring taluks during the harvest season. Migration to the rubber estates is also increasing though to a lesser extent. The remarkable increase in the facilities for transport has considerably accolerated this internal migration during the last decado. It will be seen from Imperial Table VI that the total number of persons boru in one Administrative Division and enumerated in another is 114,841 (vide subjoined table) of whom nearly $87^{\prime} 4$ per cent. were born in contiguous divisions. A good proportion of the persons enumerated in the Devikulam and Pirmede taluks were born in other taluks and this shows the volume of migration to these taluks from the other parts of the State. The movement of population between the Natural Divisions is more important than between the Administrative Divisions. Naturally, the Highland division attracts the largest number for work in the rubber, tea and cardamom plantations.
146. The proportion of immigrants to emigrants in the different Administrative Divisions and their percentage to the aggregata population are given in the subjoined table.


So far as internal migration is concorned, more people emigrate from the plains to the hills than vice versa. This fact is confirmed by the percentage of increase of population in the three Natural Divisions (vide subsidiary Table (i) on Imperial Table II). Since 1901 the parcentage.
of increase in the Highland is 2328 as against 1124 and 89.9 of the Midland and the Lowland respectively. The effect of internal migration will also be reflected in the rate of growth of population in the different taluks. It will be clear from the subjoined table that the increase is

| Taluk | $\overbrace{1931-1941}^{\text {Net variation }}$ | $\overbrace{1921-1931}^{\text {Net variation }}$ |
| :---: | :---: | :---: |
| Pirmede | $41 \cdot 0$ | 91.6 |
| Kottarakkara | $36 \cdot 5$ | 26.5 |
| Thodapula | 36.4 | 58.4 |
| Changanachery | 27.8 | $41 \cdot 4$ |
| Mu vattupuIa | $24 \cdot 7$ | 31.7 |
| Quilon | $22 \cdot 9$ | $28^{1} 1$ |
| Kunnathur | $23 \cdot 6$ | $25 \cdot 3$ |
| Ampalapula | $22 \cdot 2$ | $28 \cdot 7$ |
| Kottayam | 21.4 | $33 \cdot 3$ |
| Minachil | $21 \cdot 3$ | $25 \cdot 8$ |
| Devikulam | 8.8 | $79 \cdot 9$ |
| Nedumangad. | $19 \cdot 2$ | $40 \cdot 3$ |
| Pathanamthitta | $39 \cdot 0$ | $37 \cdot 1$ |

most pronounced in those taluks which have been recently developed. In the taluks which have been developed before this decade, a pronounced fall is noticeable in the rate of increase. This may probably be due to the fact that there has been no increase in the extent of cultivation. As has been stated above, the estates will only support a certain quota of the coolie population which is necessary for work in them. The increase by births cannot come up to any appreciable figure on account of the short and temporary tenure of the imported labourers. The demand. for labour will also depend upon fluctuations of the market.
147. Chronic over-population often forces the younger and the more adventurous section to emigrate. Though emigration has been regarded as the principal symptom of over-population, it is a phenomenon of wider import than the relief of over-population. The more adventurous people may migrate not because they canuot get on in their mother country but they hope for better prospects elsewhere. So emigration may be independent of over-population. It may be eithers temporary or permanent. Unfortunately the figures for emigration for 1941 are not available as Table VI (Birthplace) has not been sorted in the Hrovinces and in many of the States. The 1931 Census records an emigration figure of

58,466 . The number of emigrants has been on the increase from 1891 but it has always been less than the immigrants (vide subjoined table).

| Year of <br> Census | Total <br> immigrants | Total <br> emigrants | Excess of <br> immigrants over <br> emigrants |
| :---: | :---: | :---: | :---: |
| 1891 | 16,978 |  | $-13,768$ |

The excess of immigrants rose from 3,210 in 1891 to 76,637 in 1931 . From the returns of 1931 it is found that nearly $85^{\circ} 5$ per cent. of the emigrants have migrated to different parts of India and only $14^{\circ} 5$ went outside India. Among the emigrants to the foreign countries the largest number went to the Straits Settlements and Malaya $(4,333)$. Ceylon attracted the next largest number (3,393). The former show distinct increase over the figures of 1921. Though the figures in Table VI may show that the Travancorean is essentially of a stay-at-home type, the economic depression must have accelerated emigration to a considerable extent. Figures are not available for 1941 with regard to emigration. It may, however, be confidently asserted that the number must bo considerably higher than that of 1931. Since the war started, there has been a continuous flow of men from the State for serving in different capacities as soldiers, as War Technicians, in the Labour Corps, and the numerous subordinate posts in the ministerial and administrative sections of the War Department. Travancore is found to be the best recruiting centre in India. It is probable that those who have offered their services may also have been induced to do so on account of the better prospects outside the State. Migration has distinct economic advantages for the State. The emigrants send remittances to relatives at home which allay, to a certain extent, the hardships caused by the economic depression. Besides the accumulated savings of the emigrant which he brings back home when he returns, the technical knowledge he has gained during his stay abroad is a more important dynamic factor. It would be possible to assess this economic advantage more accurately if
the Post Office would supply the data with regard to remittances to relatives in Travancore from their kith and kin abroad.
148. But emigration has its evil effeots also. It is a selective agent and tends to remove the best, especially the younger elements. These emigrants will invariably be under 40 and above 20. It has its effects on the age structure of the population from the point of view of reproduction. In the case of females, it has the effect of reducing the number of potential mothers. This may have more far-reaching effects than is immediately noticeable.
149. Emigration is, however, less than immigration by fifty per cent. In 1931 for 1,000 immigrants there were only 433 emigrants. From Imperial Table VI, it will be clear that there are as many as 137,945 persons here born outside 'Travancore against 135,103 of 1931. From the fact that out of this number as many as 72,274 are females, it must be clear that they have come not for any temporary stay but to settle down. A very small percentage of people enumerated may be children of Travancoreans born outside this State but it will be compensated for by the number of children born to non-Travancoreans in Travancore :and who have been enumerated as Travancoreans. - Of the 137,945 people who are recorded as having ibeen born outside the State, 134,864 were born in Provinces and States adjacent to Travancore, the largest number being in Tinnevelly ( 52,803 ); the next in order comes Cochin with :31,407, Madras coming third with 21,466, Madura fourth with 9,370 , Malabar a close fifth with 8,081 and Ramnad sixth with 6,359 . The increase of those from Madras is phenomenal. It has risen from 2,105 in 1931 to more than ten times its number, 21,466 in 1941. This marked increase noted in Madras may very likely be sue to the inaccurate returns by the coolies who might have given their birth place as 'Madras ', a generic term for all places in the Presidency, It can also be inferred from the
smaller numbers recorded as born in the Districts of Madura, Ramnad eto.
150. In the Trivandrum oity there are 5,172 people born in Provinces and States in India and 381 people born in other Asiatic countries. (vide Imperial Table VI, Trivandrum City). Out of the former as many as 4,111 people were born in the Madras Presidenoy. Here again Tinnevelly leads with 2,431 but Cochin drops to 672 . There are more Malabar people (714) than Cochinites.
151. Nearly fifty per cent. of the immigrants are labourers working mostly on the tea estates. The large number of coolie labourers imported from outside for work in the estates was partially justifiable so long as inadequacy of communications prevented the migration of labour from the plains to the hills. By the opening of the Neriya-mangalam-Pallivasal road this difficulty has beon removed and it would be in the interests of the State if a progressive reduction is made in the number of coolies imported into the estates. With the natural intelligence which the people of Travancore possess it would be possible to get more efficient labour with perhaps leas expenditure. The argument that in working in tea gardens, particularly in plucking tea-leaves, the Tamil coolio is considered to be more efficient oannot be justified, as efficiency of unskilled labour dopends on experience and the Travancorean could gain this experience in a much shorter time than the Tamil coolie, on account of the adaptability of the former which has been demoustrated elsewhere in sufficient measure. It would be interesting in this connection to remember that in the recruitment of War Technicians the Travancorean was considered the ablest and the most adaptable to conditions quite different from what he has been used to all his life. I have been informed by persons in high authority that the Travancore recruit picks up his work in much shorter time than any enlisted from the rest of India. It is only fair, therefore, that the Travancorean who is weighed down by a long period of economic depression should not be denied redress in his own
country when there is opportunity and scope for it. In the large number of rubber estates that have cropped up in the last two decades, the vast majority of the coolies are Travancoreans. It cannot be said that the work of tapping the rubber trees requires less skilled labour than țe plucking of tearleaves in the tea estate.
152. The existence of over-population has been indicated above by analysing certain phenomena which have been generally recognised as symptomatic. But it is necessary to gauge the intensity of the pressure caused by this over-population. An approach to the problem is possible tbrough an analysis of the age, sex and civil condition of the population. Ordinarily the people between the ages of 15 and 50 may be taken as the 'gainful workers' in a community. Among these the male population are the more important as they constitute the majority of the gainful workers. From the data collected, it is found that out of the total population only a small percentage of women are actually employed and earning a livelihood by their labour. Invariably children below 15 and persons above 50 have to be supported by the 'gainful workers'; as the number of people in the latter category with independent means of livelihood is very small. The persons in the $0-15$ and in the 50 and above groups together with those unemployed in the 15-50 group represent the 'hidden unemployment' in the State. What proportion the 'hidden unemployment' bears to the total population has to be ascertained. If a progressive increase is noted in this group from year to year then the pressure is seen to be intensified.
153. Modern civilisation demands that the State must progressively make available to all 'groups' reasonable standards of living. Foremost among all the gains of civilisation are health and education. These a citizen has the right to expect from any civilised State. The idea is gaining ground that education should make possible an intellectual development continuing throughout life, wihle public health should aim at
reducing the number of deaths and in general guaranteeing longevity of life. But if the proportion of the aged persons in the population should go on progressively increasing, it would raise new problems, social, oultural and economic. In the case of children also a progressive increase. in numbers will create similar problems. Viewed from any of these aspects, therefore, the agecomposition of the population and the tendencies revealed by it are vitally important in any population study.
154. The age returns show that accuracy is: more the exception than the rule. The large majority of the people are indifferent to the correct return of their age for they do not seem to bother themselves about accuracy which they think, may conveniently be relegated to the official circle. The Census Commissioner for Madras, in 1931, has pertinently remarked that "from" one point of view this illustrates the peculiarly practical and realistic outlook on life of the average Indian, who yet is often thought. to be impractical and visionary. After all, years are a mere convenience for rectoning; to exalt them into an absolute standard as is done in western countries, is to give them an undue. importance. Capacity is what matters. Thus to the Indian our application of age-limits to govern retirement and general insistence on birth certificates seem probably to show a defective and-to use a popular word in India-bureaucratic attitude towards life". This observation is more. or less true with regard to this State also. The Statistician tries to eliminate error in age returns by grouping them; the rustic adopts a cruder but, at the same time, more effective method of calculation to serve his purpose. He divides life into various stages. Till the boy goes to school $\mathrm{h}_{\theta}$ is a child; till he marries he is an adolescent; . after he marries he is a man. When he gets a a . grandchild, he takes the status of an old man; and when his hair is all grey and his body bent, he assumes the 'State in which age does not count or, to put it in the rustic way, he begins his second childhood. Others attend to his wants; he does not attend to the wants of others. One is.
reminded in this connection of Bharthruhari's famous classification of human life into seven stages, as well as Shakespeare's suxprisingly equivalent description of 'the seven ages of man'. The Hindu Sastras divide life into six different 'Asramas ', consisting of Saisavam (childhood), Kaumaram (adolescence), Youvanam (youth), Garhasthyam (householder), Vanaprastham (asceticism) and Sanyasam (renunciation). For the females, however, only three stages have been prescxibed, viz., Kaumaram (girlhood), in which she is under the protection of the father, Yowanam (youth) when she is under the protection of the husband and lastly Vardhakyam (old age) when she is under the protection of her son. This is largely true of Indian society, whether Hindu, Muslim or Christian. This classification is functional rather than annual. The division of life into different ' $A$ sramas' does not, however, eliminate the calculation of the annual age. Astrology has developed age-calculation to a high degree of scientific accuracy, almost to the minute fraction of a second. For the various ceremonies during the life-time of a male or a female, the age has to be taken into account to a large extent. Not only the months and days but even the minutes and seconds are important. The calculation is based on the position of the stars and here meticulous accuracy is a condition prece: dent to the correct determination of the auspicious time. So, it cannot at all be strid that the ancients were indifferent to the calculation of age. But this system was Aryan in origin and did not affect the masses who were not allowed to come within the charmed circle. Dravidian influence continued to dominate South India in spite of the infiltration of Aryan culture and so the highly scientific calculation of the passage of time in the Hindu sastras had no meaning to the ordinary rustic who looked at the question from the functional rather than from the annual aspect of it. The ' Nithi Sastra', however, considers age as one' of the nine things which should be kept secret. The practice of not disclosing one's age on the birthday is a vestige of this custom, With the introduction of the
calendar month, a further confusion was added to the calculation of age. The anniversary of a Hindu's birthday varies from yoar to year aocording to the position of the star in the particular month in which be was born. It is no wonder, therefore, that the masses beoame indifferent to the annual calculation of age and conveuiently adopted the functional calculation by which life is divided into distinct periods aocording to the funotions to be performed in each perivd, though it may not correspond to the six aspamas which were prescribed ouly for the twioeborn. Those Christians and Muslims, who were converts from Hinduism, may very probably, particularly among the lower orders, have continued this 'custom even after they adopted the new faiths.
155. It is unfair, therefore, to scoff at the rustio and indulge in cheap jokes at his expense. One will never get a proper perspective if he approaches this question with a superiority oomplex. The knowing rustio has his laugh at the authorities when he nods approval of the age imposed on him by the Supervisor. Further, "tolerance for the vagaxies of superiors is so attractive a feature of Indian life".
156. It is no wonder, therefore, that when the agereturns are analysed undue weightage is found at certain ages. The explanation for this weightage is the custom or the tradition which divides life into periods and not into annual age-groups'. The conflict between the functional calculation and the yearly one may be the cause of many of the errors in the agereturns.
157. An attempt has been made to smooth the errors in the individual age-returns. If during the enumeration stage it had bern possible to instruct the enumerator to record the age according to the traditional functional classification also, there would have been the possibility of striking an interesting and instructive comparison. The experiment would have been worth trying. Perhaps the 1951 consus may resort to a more practical method, adapted to
the traditions and practices of the country and thus save a lot of time spent in calculation for the chapter on age.
158. The errors detected in age returns may broadly be classed under two heads:- ii accidental, where the individual is unable due to ignorance, to give his correct age, and (ii) deliberate or biased where the wrong age is given mostly for selfish advantage. If the individual ages of all persons are correctly recorded in a population increasing under normal conditions, the figures returned under each age should decrease with advancing ages. But the actual returns do not show such a smooth progression. (See diagram on next page). Actually however such a smooth progression is never obtained. (vide subsidiary table ( $v$ ) on Imperial table VII prepared for a sample of the population). It may be noted that the figures shoot up at ages which are multiples of five or ten especially at the adult ages. The figure for 40 , for example, is very much higher than the figure for 39 or 41. This may be due to the fact that persons who are actually 39 or 41 may have been returned as 40 years old as a result of mere guessing of age. To a lesser extent people who are 38 or 42 may also have been returned as 40 years old. It is found that in guessing ages, multiples of. five and ten are selected more often than any other number. Preference is shown first for agos ending with $0, e \mathrm{~g} ., 20,30,40$, etc., and then for those ending with 5 , e.g., 25, 35, 45, etc. After 0 and 5 a tendency is noticeable to prefor even numbers, odd numbers being the last preference. The following is found to be the order of preference both in Travancore and in India; 0,5, 2, 8, 4, 6, $3,7,1$ and lastly 9 . The degree of preference of numbers which are multiples of five and ten can be ascortained by calculating what is called the 'index of concentration". "It is the per cent. which the numbers reported as multiples of five forms to $1 / 5$ of the total number between 23 and 62 years inclusive". The higher the index the greater will be the inaccuracy. The index of concentration calculated for Travancore shows that
there is a progressive increase in the accuracy of the returns (vide subjoined table).

Index of concentration

| Year | Msle | Female |
| :---: | :---: | :---: |
| 1901 | 258 | 273 |
| 1921 | 223 | 250 |
| 1941 | 184 | 191 |

159. In Travancore till 1921 the age recorded was the completed age and the figures were sorted for individual ages up to 4 and thereafter in quinary groups ( $5-9,10-14$, etc.). The grouped figures may be more reliable on the whole as the overstated or the under-stated ages may fall within one group or the other. Here generally a person gives not the completed age but his current age or the age which he will complete at the next birthday. Even this possible merging of the error in the course of grouping does not elimi nate marginal errors, e. g., in calculating the number between 5 and 10 many who have not reached five may be included in the 5-10 group and many who have reached ten may go to the next group. Some, therefore, advocate decemial grouping instead of quinary grouping. It is stated in the Actuarial Report of 1921 that the figures obtained by the usual quinary grouping have to be substantially altered by transferring from each group beginning from 5-9, a certain percentage of the population to the preceding group to obtain reasonably accurate results. Mr. Neikle, the Actuary to the Government of India for 1921, suggested the recording of the age at the nearast birthday insteda of the number of years comploted : e.g., if a parson will be 40 only in 4 months his age should be returned as 40 , but if he will reach 40 only after 7 months i.e., more than six months, he should be returned as 39 . It will be an intriguing problem for the conscientious enumerator how he should enter the age of a person who will complete his 40 in six months' time. Perhaps his birth in the forenoon or in the afternoon may solve the problem. Mr. Meikle further suggested that the sorting should be done in individual ages up to 3 and then alternatively in ternary and septenary groups i. e., 4-6, 7-13, 14-16, etc. The ternary groups

1941
Higtogram of Age-Returns of 100000 Males and 100000 Females showing how crude age returns are inaccurately weighted by the preference shown for certain digits

were adopted since figures which are multiples of five fall exactly midway in the groups and the septenary groupa were adopted because the figures which axe inultiples of 10 fall midway in this group. For 1941, the Census Commissioner recommended a different method. The Actuary for 1931 reported that Mr. Meikle's snggestion had not produced satisfactory results. He recommended the recording of the completed agte. In 1941. the completed number of years and months were recorded for each individual: In cases where persons were uncertain of their age, their approximate agh was recorded. Detailed instructions were also issued to give helpful suggastions to the individual to reckon his age correctly. In 1941 the sortiug was done in individual ages up to 6 and then in the small age groups 7-8, 9-11. 12-13, 14-16, i.e., till the period of allolescence was completted and then in the quinary groups from 17 onwards up to 72 . The grouping done between the ages of 7 and 16 was intended to elininate mistakes in the determindtion of civil condition. The figures obtained by the above process of sorting were later on adjusted into the quinary groups after 0.5 . The final adjustment into quinary groups was, made by combining the relevant proportions of each sorted group with a proportion of the figures for the next sorted group; for example, if the groups $17-21$ and 22-26 mentioned above have to be converted into quinary groups, $2 / 5$ of the former is added to $3 / 5$ of the latter and the total obtained put down as the quinary group ' 20.25 ' and this process is continued for successive quinary groups.
160. With regard to deliberate mis-statements of age where the individual puts up or lowers his age for official purposes, disciplinary action is the only corrective. Where such deliberate falsification is made to escape from the rigidity of custom or to ward off the evil of superstition, this practice may be condoned. In

- Travancore, where child marriage is more the exception than the rule, as will be evident from the figures for civil condition, and where literacy - . has recorded a very high percentage, there is
less justification, however, for such deliberate misstatoments of age. As it is very difficult to isolate such cases, it is not possible to say whether We could record improvement with inereasing. literacy.

161. Population data will become meaningful only if its age composition is analysed and its trend in the several age-groups ascertained. Imperial Table VII gives age distribution by sex in combination with the details of civil condition. Tho first thing which strikes any intelligent person is the proportion of the juvenile and the aged to the middle-aged and of the married women of productive years. The subjoinod statement and the diagram attached show clearly a progressive. population.


|  |  | 0-15 | 15-50 | Above 50 |
| :---: | :---: | :---: | :---: | :---: |
| 1891 | Males | $358 \cdot 20$ | $530 \cdot 22$ | 111.58 |
|  | Females | $366 \cdot 65$ | 522.03 | 111.32 |
|  | Total | 362.39 | 526.16 | 111.45 |
| 1901 | Males | 378.48 | $522 \cdot 42$ | 99.10 |
|  | Females | 384.61 | $515 \cdot 21$ | $100 \cdot 18$ |
|  | Total | 381.51 | 518.85 | $99 \cdot 64$ |
| 1911 | Males | 389.80 | 510.26 | 98.94 |
|  | Females | $383 \cdot 30$ | $505 \cdot 32$ | $101 \cdot 38$ |
|  | Total | $391 \cdot 54$ | $507 \cdot 81$ | $100 \cdot 65$ |
| 1921 | Males | $394 \cdot 42$ | $505 \cdot 64$ | 99.94 |
|  | Females | $398 \cdot 95$ | $503 \cdot 28$ | 89.77 |
|  | Total | 395•68 | $504 \cdot 48$ | 99.83 |
| 1931 | Males | 427-25 | 475-13 | 97.62 |
|  | Females | $423 \cdot 71$ | ${ }^{-479 \cdot 10}$ | $97 \cdot 19$ |
|  | Total | 425.48 | $477 \cdot 13$ | 97.39 |
|  | Males | $412 \cdot 18$ | $480 \cdot 93$ | 106.89 |
| 1941 | Females | $708 \cdot 72$ | $485 \cdot 16$ | $106 \cdot 12$ |
|  | Total | $410 \cdot 46$ | 483.08 | $108 \cdot 51$ |

According to Sundbarg, a normal population has about half of its number between the ages of 15-50 and the proportion of those above that age-group to those below will indicate whether the popula tion is increasing, stationary or progressive. The youngest in the three population groups must be double the eldest if the population is to continue to grow. Just short of that point, it may be stationary. But if the older continues to exceed the younger; the population must be regressive. According to this; the population in this State is certainly progressive.. The Sundbarg calculation may not be applicable to the rest of India where the "marriage age is still low and the mortality rate very high ; but in Travancore, with a crude mortality-rate of only 15 per mille and the birth. rate of 28 per mille; where it may be stated that more or less European conditions prevail, the Sundbarg ratio may not be inapplicable. Those in the 0-15 group show a progressive increase (see table above)- the abnormality noticeable in 1931. has already been explained. This is in consonance with the conditions prevailing in the lest of India though the percentage of increase may vary. In the 50 and over group a marked decline is noticeable from 1891-1901 with a slight
increase in 1811, coming back almost to the 1801 level in 1921, indicating a very marked downward trend in 1931 and recording a definite inorease in 1941. Broadly, the increase in the $0-15$ group may be attributed to the increase in com. parative fertility. The dearease in the group above 50 may be on account of the greater percentage of mortality among the older people. But if we take the proportion of the 0-15 to the 50 and above group we find that it works out to $4: 1$ in almost all cases.
162. Subsidiary Table (iii) on Imperial Table VII gives the proportion of children under 10 to married females aged 15-40. The increasing fertility stressed above is confirmed by this table. From 162 children for 100 married females be. tween 15 and 40 in 1901 it has come up to 201 in 1941. The increase in fertility is not, however, accompanied by increase in the number of married people. On the other hand, the number of married females aged 15-40 per 100 females of all ages shows' a progressive diminution from decade to decade (the abnormality of 1931 excepted). From 33 in 1901 it has come down to 28 in 1941, the natural conclusion being that there is better survivorship now than in the previous decades. It is well known that one of the main reasons for infant mortality is early marriage. That early marriagas have become the exception rather than the rule will be clear from the following diagram. The greater fertility and better survivorship have, therefore, been the result mostly of dafinite advanoement of the age at marriage. This is alsoconfirmed by the Fertility Enquiry conducted along with the Census. A detailed discussion of this question is given in Appendix I. The improved public health conditions and their consequent effect on fertility and mortality have. already been discussed.

## Diagram referred to in paragraph 163.


163. The mean age shows a progressive decline from 1891 for males except for a slight increase in 1941 (vide subjoined table). With

regard to females also it shows a slight increase in 1941 but otherwise it shows a progressive decline: The reduction in the mean age may be due either to the increase in the $0-15$ group or to a decrease in the group above 50 or both. In 1941 the slight increase in the mean age may be attributed to the definite increase in the 50 and.
above group and the decrease in the 0-15 group. The improvement in public health conditions: in the last decade has contributed to this. 164. Though from the proportion of $0-15$ group to 50 and above group it can be inferred that the trend of population is distinctly progressive, yet the progressive diminution in numbers in the 15 to 50 group from 526 per mille in: 1891 to 483 in 1941 is a distinct disadvantage from the economic point of view. This tendency: is reflected in the decrease in the mean age (videtable in para 164).
165. The same problem may be viewed from a different standpoint by taking the quartiles of the population distribution. The inaccuracies in the age returns will considerably affect the mean age. These inaccuracies, however, will not affect the quartiles to the same extent. From the following statement it will be clear that the

| Year: | $\cdots$ Sex. | Lower quartile. | Median. | Opper quartile. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | Malea | $10 \cdot 25$ | $\stackrel{22 \cdot 60}{21 \cdot 75}$ | $38 \cdot 00$ 36.30 |
| 1891 | Femalea | 9:75 | 21.75 | $36 \cdot 30$ |
| , | Total | 10.10 | 22.00 | $37 \cdot 25$ |
|  | Males | $9 \cdot 75$ | 21.20 | 36.76. |
| 1901 | Females | 9•25 | $20 \cdot 40$ | $35 \cdot 20$ |
|  | Total | $9 \cdot 40$ " | 21.00 | $36 \cdot 10$ |
|  | Males | $9 \cdot 50$ | $20 \cdot 80$ | $37 \cdot 10$ |
| 1911 | Femalea | $9 \cdot 10$ | 20.00 | $35 \cdot 25$ |
| : | Total | $9 \cdot 20$ | $20 \cdot 30$ | 36.00 |
|  | Males | $9 \cdot 20$ | 20.50 | $36 \cdot 25$ |
| . 1921 | Females | $9 \cdot 20$ | $20 \cdot 20$. | 35.00 |
|  | Total | $9 \cdot 20$ | $20 \cdot 30$ | $35 \cdot 70$ |
|  | Males | 7.75 | 18.80 | $34 \cdot 80$ |
| 1931 | Femalea | $7 \cdot 75$ | $18 \cdot 70$ | $33 \cdot 75$ |
|  | Total | $7 \cdot 76$ | 18.75 | 34.40 |
|  | Males | 8.70 | $19 \cdot 30$ | $35 \cdot 70$ |
| 1941 | Females | $8 \cdot 90$ | $19 \cdot 30$ | $35 \cdot 20$ |
|  | Total | $8 \cdot 75$ | 19.30 | $35 \cdot 50$ |

median which replaces the mean has progressively declined, though an increase is recorded in 1941, for reasons already explained. The lower quartile also shows a distinct downward trend from $10^{\circ} 10$ in 1891 to 8.75 in 1941. The upper quartile is still more alarming having come down from 37.25 to $35^{\circ} 50$ in 1941. The number of gainful workers is therefore progressively decreasing While that of children in the lower age-groups is progressively increasing thus proving the intensity of the pressure of population.
166. This confirms the conclusion arrived at earlier via., increase in comparative fertility and general decrease in longevity. The figures for 1941, however, show a change for the better in so far as they record an appreciable in. crease in the quartiles and the median. Further evidence of the change for the better, is furnished by the higher values of the expectation of life for 1941 over those for 1931 (vide table on para 172)
167. The above inferences are based on figures for the total population. When it is found that
nearly 50 per cent. of the total population ase females, who form only a small percentage of the gainful workers, the progressive diminution of the effective male population must necessarily cause some concern.

- 168 It is necessary to ascertain whether the above trends noticed in the total population are the same in the main communities. The subjoined table gives the quartile distribution of the population by main communities. The trends notioed in the total population are reflected in the main
Lower quartile. Median. $\underbrace{\text { M }}_{\text {Upper quartile. }}$
$\begin{array}{lllllllllllll}\text { Males } & .10 & 1 & 8.7 & 9.1 & 21.7 & 20 \cdot 25 & 19.5 & 97.0 & 36.6 & 35 \cdot 25\end{array}$ $\begin{array}{lllllllllll}\text { Femalea } . & 9 \cdot 6 & 8 \cdot 6 & 8 \cdot 4 & 21.8 & 19 \cdot 4 & 18 \cdot 6 & 96 \cdot 6 & 34 \cdot 25 & 34 \cdot 2\end{array}$ $\begin{array}{llllllllllllll}\text { Total } & \cdot 9.8 & 8.7 & 8.6 & 21.7 & 20.0 & 19.0 & 36.9 & 35.0 & 34.7\end{array}$ 1911

| Males | . | 9.6 | 9.0 | 8.6 | 21.3 | 19.5 | 10.2 | 37.3 | 35.4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 24.75 |  |  |  |  |  |  |  |  |  |

 $\begin{array}{llllllllllllllll}\text { Total } & .9 .4 & 8.7 & 8.5 & 21.3 & 19 \cdot 25 & 18.9 & 36.5 & 34 \cdot 7 & 34.5\end{array}$ 1921

Males . $9 \cdot 75 \quad 9 \cdot 0 \quad 9 \cdot 0 \quad 21 \cdot 0 \quad 10 \cdot 4 \quad 10 \cdot 3 \quad 36 \cdot 2 \quad 35 \cdot 25 \quad 34.75$ Females, $\begin{array}{llllllllll}9.5 & 8.5 & 8.7 & 20.5 & 19.0 & 18.5 & 35.4 & 33.8 & 33.7\end{array}$
 1931

Males $\quad .8 .0 \quad 7.7 \quad 7.5 \quad 19.0$ Females . $8 \cdot 1 \begin{array}{llllllllll}7.5 & 7.7 & 19.3 & 17.75 & 17.9 & 35 \cdot 25 & 32.3 & 33 \cdot 4\end{array}$ $\begin{array}{lllllllllll}\text { Total } & . & 8.0 & 7.6 & 7.6 & 19.2 & 17.8 & 17.9 & 35.0 & 32.7 & 33.6\end{array}$ 1941
$\begin{array}{lllllllllll}\text { Males } & .8 .9 & 8.4 & 8.6 & 19.7 & 18.8 & 18.9 & 86.3 & 34.5 & 35.1\end{array}$ $\begin{array}{llllllllll}\text { Females, } 9.0 & 8.1 & 8.5 & 20.0 & 18.3 & 18.6 & 36.0 & 33.0 & 34.5\end{array}$
$\begin{array}{lllllllllllllll}\text { Total } & .8 .8 .9 & 8.2 & 8.55 & 18.75 & 18.3 & 18.7 & 36.2 & 83.4 & 34.9\end{array}$ communities also. There is generally a progressive decline in the lower quartiles from 1901 to 1931 with a definite increase in the last decade ending with 1941. The upper quartile aleo shows a decreaso till 1931 and records an increase in 1941. The same tendency is seen in the median also.
169. A comparative study of the three main communities from the above table reveals that in the lower quartile the figures for the Hindus are slightly higher than those for the Christians and the Muslims. As between the Christians and the Muslims, the figures for the former are more favourable than those for the latter. In the upper quartile, the ranking is the same, though the differences are more pronounced. The median behares ahnost similar to the upper quartile.
170. Thus the trends in the growth of popu lation revealed by a study of the age-group clearly show that there is a definite improvemen in comparative fertility, general longevity ax expectation of life during the last decade.
171. The population tigures of the Stat studied by sex show a progressive increase i the proportion of females to males unlik the case in India where there is a stead fall in this respect (vide subjoined diagram Though the population of the State sti

shows an excess of males over females, the difference between the two sexes is progressively decreasing (vide subsidiary table (vii) on Imperial Table VII). This steady increase of females may be an indication of a progressive population as an increase in masculinity is generally regarded as an indication of a declining population. According to Westermarck, a mixture of race leads to an increase in the proportion of females. Endogamy generally increases masculinity. In the last few years on account of various circumstances, caste barriers have been progressively ignored and intermarriages are becoming more and more common. This may be adduced as one of the reasons for an increase in the female xatio. Further, the female infant by nature is better equipped for survival than the male. The expected duration of life for females at all ages is definitely higher than the corresponding figures for males (vide subjoined table). So the better

survivorship for females will automatically increase their proportion to the males. Here a daughter is as welcome an addition to the family as a son-no withering curse greets the appearance of a girl baby. Female infanticide which still lingers in isolated and remote areas in India never existed in Travancore. The proportion of females to males is generally higher in the damp climate and along the coast than in the drier and inland areas. The theory that the ratio of females to males increases inversely with social standing is not applicable to this State.
172. It now remains to analyse the population of 1941 in greater detail to have a glimpse
into the future trende. From the subjoined statoment it will be clear that the males predominato

| Age-group. | Male. | Female. | Total. | Sox ratio. |
| :---: | :---: | :---: | :---: | :---: |
| 0-5 | 145 | 144 | 145 | 083 |
| 5-15 | 267 | 285 | 266 | 986 |
| 15-25 : | 188 | 1198 | 188 | 1,031 |
| 25-40 | 205 | 204 | 203 | (193) |
| 40.55 - | 138 | 120 | 123 | 149 |
| 55 and above | 73 | 74 | 74 | 1,000 |

in the $0-5$ and $5-15$ groups while in the group $15-25$ females predominate. The female ratio drops in the 40-55 group and shows an upward trend after 55. This classification has been adopted as the female fecundity is at the maxi. mum between 15-25 while the fecundity of man is at its best between 25-40. The 5-15 female group will give indications of the population changes in the decade after 1951.
173. The population growth in the decado between 1941 and 1951 will largely be governed by the proportion of the females of the 5-15 group in 1941 to the $15-25$ group of males. The 5-15 female group of 1941 will beoome the $15-25$ of 1951 and the $15-25$ male group will come in the $25-40$ group of 1951. The ohildren born by the union of these two groups will largely contribute towards the increase which will be recorded in the population of 1951 over that of 1941. The proportion of $5-15$ females to 15-25 males works out to $1: 1 \cdot 42$, i.e., for every adult male there will be 142 females. The Vital Statistics Enquiry has disclosed that for every female there will be 1 '4 female children in the future. These confirm the conclusions that the population of the State is progressive and that. there will be a steady replacement.
174. A comparison of the age distribution of the major communities indicates that the proportion of children is higher among the Muslims and the Christians than among the Hindus (vide subjoined table). The Vital Statistics.

Proportion of children of $0-15$ to the total popalation.

| Community. | Males. | Females.. |
| :--- | :---: | :---: |
| STATE | $41 \cdot 2 \%$ | $40 \cdot 8 \%$ |
| Hindu | 40.6 | 39.9 |
| Christian | $41 \cdot 9$ | $42^{\circ} 2$. |
| Muslim | 42.8 | $43 \cdot 1$ |

Enquiry also has recorded a higher birth-rate for the Muslim community than for the Christians and the Hindus, the rate of increase of Muslims being the highest in the last decade. Conversion from other religions is less among them than among the Christians. (For a detailed discussion of the topic see Appendix II.)
175. When the general conclusions regarding sex-ratio of the total population are applied to the sex-ratio of the main communities and the Tribes, it is found that the masculinity persists in the first age-groups of $0-5$ and $5-15$ (vide subjoined diagram and table). The female predominance in the $15-25$ group is also a common characteristic of the


| Hindu |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| . Age-G roup. | Total. | Male. | Female. | Sex-ratio |
| 0-5 | 143 | 144 | 141 | - 984 |
| 5-15 | 260 | 262 | 258 | 991 |
| 15-25 | 189 | 185 | - 189 | 1,045 |
| 25-40 | 205 | 205 | 207 | 1,019 |
| 40-55 | 127 | 130 | 125 | 985 |
| 55 and above | 76 | 74 | 77 | 1,044 |
| Muslim |  |  |  |  |
| 0-5 | 156 | 154 | 157 | 983 |
| $5 \cdot 15$ | 274 | 275 | 274 | 953 |
| 15-25 | 191 | 188 | 194 | 1,003 |
| 25-40 | 203 | 201 | 205 | 989 |
| 40-55 | 114 | 118 | 110 | 809 |
| 55 and above | 62 | 64 | 60 | 907 |
| Indian Christian |  |  |  |  |
| 0-5 | 146 | 145 | 148 | 980 |
| 5-15 | 275 | 274 | 276 | 982 |
| 15-25 | 191 | 188 | 194 | 1,002 |
| 25-40 | 197 | 199 | 198 | . 962 |
| 40-55 | 118 | 121 | 115 | 930 |
| . 55 and above | 73 | 73 | 73 | 961 |
| Tribes |  |  |  |  |
| 0-5 | 145 | 147 | 143 | 998 |
| 5-15 | 252 | 255 | 248 | $\begin{array}{r}998 \\ \hline 175\end{array}$ |
| 15-25 | 185 | 172 | 198 | 1,175 |
| 25-40 | 222 | 222 | 223 | 1,030 |
| 40-55 | 129 | 138 | 120 | 891 |
| 55 and above | 67 | 66 | 68 | 1,057 |

three main communities and the Tribes. But the female predominance in the 25-40 group is seen only among the Hindus and the Tribes, while in the case of Muslims? and Christians the males predominate in the $25-40$ group. In the $40-55$ group the characteristic of the total population -decrease in sex-ratio-is reflected in all the communities and the Tribes, while in the group above 55, only the Hindus and the Tribes share the same characteristics. Among the Hindus and the Tribes, the upward trend is very conspicuous, while the same among the Christians is only nominal. In the case of Muslims, there is a slight downward trend.
176. If the figures in the various age-groups are analysed by Natural Divisions, it will be seen that the Lowland and the Midland have almost identical characteristics, though in the Lowland, females exceed the males in the total population and in the Midland, the males exceed the females. This can be accounted for by the emigration of
males from the Lowland. This is also confirmed by the excess of males in the $30-65$ group in the Midland as compared to the excess of males in the 40-60 group in the Lowland (vile subsidiary table (i) on Imperial Table VII). In the Highland division males'exceed females in the total population. In the age-groups between 10 and 70 the excess of males is most pronounced. In the $0-10$ group females exceed males in contrast to the conditions in the Lowland and the Midland. When the age returus for the Natural Divisions are compared, the main featureobserved is the higher proportion of persons between 20 and 40 in the Highland division (vide subjoined table). The pro-

portion is higher for the males than for the females. The female proportion of the agengroup $15-20$ is also higher in the Highland than in the Lowland or the Midland. The explanation is simple. It is the result of immigration where the estate owners require able bodied men, and youthful girls without the encumbrance of a number of children to turn out the maximum amount of work. The sex-ratio by taluks is given in the diagram attached.

177. The sex-ratio for the urban area is distinctly 10 wer than that for the State. Subsidiary Table (vi) on Imperial Table VII shows that for the whole State the sex-ratio is 993 while the same for the urban area is only 969 . This is in contrast to the conditions in western countries Where the ratio of females to males is higher among urban than among rural communities. In the West the cities are generally great industrial centres also, where thexe are greater opportunities for the gainful employment of women. But the occupations in the chief towns of the State are more suited to men than women so that immigrants to towns consist more of males than females. The sex-ratio of the population of certain important towns of the State is given in the following table and it will be clear therefrom that except in Nagercoil the sex-ratio is distinctly lower than that for the rural area. Even in the municipal towns which are more urban in character than the other towns

Age Trivandrum Alleppey Quilon Nagercoil Kottayai

| $0-5$ | 945 | 999 | 944 | 977 | 919 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| $5-10$ | 1,000 | 1,015 | 983 | 983 | 1,084 |
| $10-15$ | 974 | 902 | 963 | 951 | 941 |
| $15-20$ | 947 | 8444 | 1,018 | 1,039 | 889 |
| $20-25$ | 933 | 775 | 978 | 1,100 | 856 |
| $25-30$ | 917 | 763 | 956 | 1,119 | 858 |
| $30-40$ | 897 | 745 | 897 | 1,052 | 860 |
| $40-50$ | 922 | 882 | 877 | 1,007 | 885 |
| $50-60$ | 1,005 | 918 | 943 | 1,022 | 916 |
| $60 \&$ ver | 1,195 | 1,058 | 1,102 | 1,138 | 1,045 |

the sex-ratio is distinctly lower than that of tl rural area (969 against 997). The tow: generally reflect the characteristics of the talu: in which they are situated and Nagercoil is : exception to this rule. Mention has alrear been made of the peculiar conditions in Travanoc and the difficulty of striking an urban-rural rat Towns here are mostly outgrown villages. Tht is hardly any largenscale industry in the town The large number of cottage industries 1 i weaving, coir-making, etc., are carried on mos in the coastal taluks which, as has been alrea
stated, record the highest density. The usual characteristics of the urban area-female pre-dominance-is seen in Travancore in the Lowland only which may be considered as the least rural of the Natural Divisions. Here we find the highest female ratio.

| Lowland | $\ldots$ | 1,009 |
| :--- | :--- | ---: |
| Midland | $\ldots$ | 991 |
| Highland | $\ldots$ | 903 |

178. If the theory that urbanisation lowers masculinity is at all applicable in Travancore, it is applicable to the Lowland only. It must, however, be stated that the female ratio is progressively on the increase even in the urban areas. From 955 in 1931 it has gone up to 969 in 1941.
179. The progressive increase in the female ratio may give rise to new problems in the years to come. The change in the structure of society will generally be reflected in the social and economic conditions of the people. The structure of society will in turn largely be determined by the constitution of the family, while it is the civil condition that determines the constitution of the family unit. In the instructions issued to the enumerators it was the intention to widen, as far as possible, the definition of marriage. It was not for the enumerator to enquire into the legality of marriage. If a couple lived together' "in a manner to beget children", it should be sufficient indication to the enumerator to determine their civil condition; not much scope was therefore given to the inquisitive enumerator. A good few females, however, owned their childron but returned themselves as unmarried. In a fer cases, the aggrieved party refused to suffer the further indignity of 12 change in civil condition. In a few other cases, the females with children resented being put automatically under the category of 'married' because they objected to the discrimination between man and woman. It was ;therefore found rather difficult to determine their civil condition. In Travancore there. are unfortunately several cases of desertion particularly among the poorer working classes. The females are very often the victims; but
victimisation of the male is not a rare occurrence. In most of the above cases, tho parties had not gone through any form of legal divorce. They could not therefore be entered as 'divorced'. In such cases, instructions were given to enter them as 'married' unless it was perfectly clear to the enumerator that they were prostitutes. It was hoped that time rather than law might effect a restitution of conjugal rights. In the case of prostitutes, though they may have children, no family unit is constituted. But fortunately such cases were rare and did not create a social problem or materially affect the statistical measurement of the civil condition in the State.
180. When Civil condition is analysed by age groups, it is found that in the $0-10$ group there are no married males and in the $10-15$ group, 998 out of 1,000 are unmarried. (vide diagram on next page). In the 15-20 group there is a pronounced increase in the number of unmarried males, from 854 in 1901 to 948 in 1941. Marriage seems to have become popular from the 20th age and there is a definite increase in the number from that age upwards.
181. The civil condition of the females compares favourably with that of any modern civilised country in Europe or America. In the $0-5$ group there are no married females, in the 10-15 group there are only 24 married females in a thousand and in the 15-20 group the unmarried females have increased from 421 per mille in 1901 to 624 in 1941. As in the case of males there is increase in the number of married females from 1901 in 20-40 group upwards. The postponement of the marriage age is a healthy sign, no Sarda Act being found necessary in the State to stop infant marriages. The Fertility Enquiry confirms this. (For detailed discussion of this question see Appendix I). The high percentage of literacy recorded for the State and the phenomenal increase in literacy among females have contributed to this.
182. The above inferences hold good with regard to the main communities also. (see subjoined tables). In the case of Christians

Diagram referred to in paragraph 181.



Nomber married per 1,000 of each sex in the main communities atidifferent age periods.

however, an increase is noted in the number of married males in the lower age groups of $10-15$ and 15-20. The proportion of unmarried among males is highest for Muslims and lowest for Chris. tians. Among ferales it stands highost for Christians and lowest for Hindus.
183. The tendency to postpone marriages mentioned above, is not, however, accompanier by any positive inclination on the part of an: appreciable number of persons to disyense wit] marriage altogether, though there is a decreas in the percentage of married males and females

| Year | Married Males | Married femalı |
| :---: | :---: | ---: |
| 1901. | $42 \cdot 9$ Per cent. | $42 \cdot 3$ per cen |
| 1941 | 36.9. |  |

184. Among the fow who come under tit category of the unmarried, the males predominat there being more old bachelors than old spinster
185. There is an excess of married females over married males in the State, 1,054 por I,000 (vide subjoined table). - This is reflected; ;n all

| Community | 1941 | 1831 |
| :---: | :---: | :---: |
| All Communities | 1,054 | 1,084 |
| Hindu | 1,069 | 1,047 |
| Muslim | 1,085 | 1,049 |
| Christian | 1,022 | 1,007 |

the major communities also, the ratio being highest for Muslims and lowest for Cbristians. Polygamy is ' prohibited among Cbristians both by law and by religion. So the excess in this case may very likely be due to emigration of marríed males. This may be true to a certain extent in the case of Hindus and Muslims also. During the last decade, 6,603 more women than men immigrated to Travancore. Among Muslims polygamy ia not prohibited by law or custom, but public opinion has always dis. couraged the perpetuation of this practice. Among Hindus polygamy is not prohibited by law except for certain cormmunities. The Nayar Act of 1925 has made polygamy illegal. Similar legal prohibition exists in the case of Ilavas and Vellalas. In the case of Brahmans polygamy is tabooed by public opinion, though a few marry a second wife when they get no issue by the first marriage. The writer is aware of a few instances in which the second marriage was insisted upon by the first wife for the salvation of the husband, as according to orthodox opinion "there is no heaven for a sonless man." "Puthra" means one tho saves the father from the hell known as "puth," it being the general belief that the lack of a son to perform the obsequies of the father will give no salvation to the departed soul. The non-Brahmans, however, do not believe in this custom to the same extent. when 'Marumakkathayam' flourished, the nephew took the place of the son, the son being allowed to share in the ceremonies connected with
theidemise of the 'Karanavan' more as a matter of concession than of legal right. Though "Makkathayam' has now asserted itself after the Nayar, Ilava and Vellala Aots, yet it is not possible to state if the lack of a son will induce the wife to force a seoond marriage on the husband to save his soul after death.
186. Among the Nambuthixis and the Kabatriyas polygacy is prohibited by law. Their attitude to exogamous marriages has been considerably changed by the sproad of progressive ideas among them, by the removal of oaste esclusiveness by social and religious legialation and by cultural contacts. Conditions have ohanged so fundamentally in the last few years that noncompliance with the oivilized canons of marital responsibility is rather the exooption than the rule. Difficulties in the matter bave also been oreated by the law of the land. The 'Sambandham' with a Nayar girl is now illogal if it is preceded by the existence of a 'oaste wife.' The logal responsibility of maintaining the wife and children now imposed by law has made these exogamous naarriages less attraotive to the Brahman or the Kshatriya. As a result of the agitation among the Nambuthiris and the Kshatriyas the Salayala Brahman Act and the Kahatriya Act were passed permitting marriages within their community. This relaxing of the rigidity of custom by law is an indication of the obanges happening in these communities due to the pres. sure of economic circumstances. When all or many marry within cesse, the present economic aystem cannot continue; and the break-up or the partial break-up of some of the large tarawads is an almost inevitable consequence. The preference for ondogamous marriages has aliso a political aspect. The political influenoe which they oan exercise will depend upon their numerical strength; and so long as ouatom prohibits the younger members among the Nambuthiris from marrying within their communty, they will be denied this political sdvantage. This applies equally well to the Kshatriyas also.
187. The main features of the civil condition of the population by Natural Division and main. community will be clear from the following tables.

Distribation per 1,000 of each sex and community.


LOWLAED



188. It will be clear from the above that the proportion of married males and females is highest in the Highland and lowest in the Lowland. The maximum number of married males and females is in the group 40 and over. The largest number of: unmarried males is found in the Lowlandiand the largest number of unmarried females in the Midland.
189. The general features of the civil condition of the rural and urban population are evident from the following table. Most. Number per mille of unmarried, married snd widowed
in the rural and urban population by commanity.
Female Community.

| All Cominu- | Bural | 803 | 37027. | 498 392 | 110 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| nities | (Urban | 621. | 35623 | . 484387 | 129. |
| Hindu | (Rural | 608 | 36527 | 480387 | 124 |
|  | (Urbsa | 614 | 36224 | 467882 | 141 |
| Muslim | (Raral | 627 | $352 \cdot 21$ | 498893 | 108. |
|  | (Urban | 618 | 36120 | 458402 | 140 |
| Christian | (Rarsl | 583 | 38027. | 516399 | 85 |
|  | (Urban | 641 | 33623 | 548363 | 94 | Tamil) and all the colleges are situated in the towns. Practically all the pupils: who. attend schools' and a very large proportion of the students who attend colleges are unmarried. Proportionately moro Christians than. Hindus and more Hindus thah Muslims' attend. schools. This proportion is maintained in thecolleges also, In the urban areas; therefore, the

proportion of unmarried males and fomales is highest for the Christians and lower for the Hindus and the 'Muslims (vide table 'above). Among the Hindus, sex-ratio of the married is rather high. This is due to the fact of earlier marriages among the Brahman girls and among the girls of the Backward Communities. ' Proference of the Muslims for the towns whare they congregate in large numbers for purposes of trade has already been dwelt upon. It is very likely that most of the Muslims who migrate to the towns have passed the middle age and are presumably married. As they show a definite preference of commerce to education there is less inducement for their young men and girls to remain unmarried.
190. The proportion of the widowed hes de creased among both males and females. The deoline is seen in all the age-gronps. This den crease may be due either to the postponement of marriage or to the widowers or widows getting married again. Among the males the proportion of widowed is lowest for Muslims. Among fomales it is highest for Hindus and lowest for Christians. In the age-group 60 and over the propor tion of widowed females is highest for Muslims.
191. An indication that widowers get romarried at a more rapid rate than widows is 'seen from the eexcessively high proportion of widows in certain age.groups to the propartion of widowers in the corresponding or higher ago-groups and better still by a comparison of the rates at which these proportions have fallen, from 46 per 1,000 in 1901 to 27 por 1,000 in 1941 (i.e., by 41 por cont.) in the oase of widowers and from 141 in 1901 to 111 in 1941 (i. e., by 21 per cent.) in the case of widows. The smaller proportion of widowers can be accounted for by the greater possibility for the widowar to get remarried. In the case of widows, however, in spite of enabling logisiation, social stigma atill makes their remarriage the exception rather than the '
rule. Among the Brahmans social ostracism has in many cases nullified the liberty given by law. Even in the case of the nou-Rrahmans a widow with ohildxen is not a welcome wife.
192. Of the 42,715 porsons returned as di vorced, 11,778 are males and 30,937 are females. The proportion of divorced males par 1,000 married males is 10 , while the proportion of the divorced females; per 1,000 married females is 26. The proportion of divorced in both sexes to married is lowest for Christians (vide subjoined table).

193. Considering the distribution of divorced. among the various agegroups, though the number of divoroed among males and females is at its maximum in the $25-30$ group, the mode for the males has a tendenoy to move to the next higher group. This number even exceeds that of the widowed in the age-groups up to 25. Evidently the desire for divorce deareases with the advancing duration of marriage.
194. On the other hand, the very large excess of divoroed females over divoroed males in the same or in the, immediately, higher age-group indicates that the divoicced males remarry at a more rapid rate than the females.' In the later agegroups, the sex-ratio tends to become equal (vide. subjoined table).

| Ager group. | Natio of females to males divorced |
| :---: | :---: |
| 15-20 | $10^{\circ} 0$ |
| 20-25 | $3 \cdot 7$ |
| 25-30 | $2 \cdot 6$ |
| $30-35$ | $2 \cdot 3$ |
| 4, $i$ i |  |
| $35-40$ | 205 |
| 40-45 | $2 * 6$ |
| 45-50 | $2 \cdot 3$ |
| 50-55 | $2 \cdot 0$ |
| 55-60 | 1.6 |
| 60-65 | $1 \cdot 2$ |
| 65-70 | 0.8 |
| $70 \text { and }$ over | $1 \cdot 0$ |
| 2 |  |
| All Ages. | -2.6" |

195. The quartile distribution gives $\varepsilon$ more accurate estimate of the civil condition of the population. From the quartiles it will be clear that 50 per cent. of the married males are found in the 31 to 50 group. while for the females the limits are set by 24 and 41 (vide subjoined table). This therefore is a clear index regarding the advancement in the age of marriage.

Distribution: of quartiles by sex and civil condition for the State for the year 1941.

| Civil Sex. Condition.: : | Commanity. | Lower Median. 1 Upper |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\cdots$ | Quarn tile. |  | Quartile. |
|  | Hindu | 31.5 | $30^{\circ} 5$ | $49 \cdot 8$. |
|  | Muslim | 81.0 | 38.9 | $48^{\circ} 0^{\circ}$ |
| Male | Indian Christian | $80^{\circ} 1$ | 37-8 | $48 \cdot 9$ |
| - | Tribe | 80.5 | 38.8 | $47 \cdot 8$ |
|  | Total ${ }^{\text {- }}$ | 31.0 | $38 \cdot 0$ | 49.5 |
| Married ${ }^{\text {- }}$ |  |  |  |  |
| $\because$ Hindu $\quad-24 \cdot 3 \times 81.4 \times 40 \cdot 8$ |  |  |  |  |
|  | 'Muslim | $28 \cdot 2$ | $80^{\circ} 0$ | 88.9 |
| , | Indian Christian | 24.5 | 31.8 | 420 |
|  | Tribe | 24.0 | $30 \cdot 5$ | $39 \cdot 8$ |
|  | Total | 28.5 | $81 \cdot 4$ | $41^{\circ} 0^{\prime}$ |


| Civil Condition | - Sex. | Community. | Lower Quartile. | Median. | Upper Quar tile. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Hindu | $46^{\circ} 6^{-}$ | $57 \cdot 5$ | $\therefore 8743$ |
|  |  | Musim | $48 \cdot 3$ | 58.2 | $68 \cdot 0$ |
|  | Male | Indian Christian | 46.8 | 57.8 | $68^{\circ} 4$ |
|  |  | Tribe | $41 \cdot 7$ | $54 * 0$ | $65^{\circ} 0$ |
| - . |  | Total | 46.4 | $57 \cdot 6$ | 87.7 |
| Widoved |  |  |  |  |  |
|  |  | Hindu | $44 \cdot 4$ | 54.5 | $64^{\circ} 0$ |
|  |  | Muslim | $37 \cdot 3$ | $52 \cdot 4$ : | $62^{\circ} 2$ |
|  | Female | Indian Christian | $44 \cdot 6$ | 50.4 | $65 \cdot 5$ |
|  |  | Tribe | 42.5 | $52 \cdot 8$ | $62 \cdot 7$ |
|  |  | Total | $44 \cdot 3$ | $54 \cdot 5$ | $64^{\circ} 2$ |
|  |  |  | $t$ |  | \%".. |
|  | : | Hindu | 28.0 | 35.0 | $46^{\circ} 0$ |
|  |  | Muslim | 27.1 | 33.4 | $41 * 7$ |
|  | Male | Indian Christian | $80 \cdot 5$ | $38 \cdot 3$ | 50.8 |
|  |  | Tribe | 26.5 | $32^{\circ} 1$ | 41.5 |
|  |  | Total | $28 \cdot 0$ | $35^{\circ} 0$ | $46^{\circ} 0$ |

Divorced

|  | Hindu | $25^{\circ} 1$ | $32^{\circ} 4$ | 41.5 |
| :---: | :---: | :---: | :---: | :---: |
|  | Muslim | 21.8 | $28^{\circ} 0$ | $37{ }^{\circ} 0$ |
| Female | Indian Christian | $26^{\circ} 5$ | $34 \cdot 1$ | $44^{\circ 1}$ |
|  | Tribe | 23.5 | $30^{\circ} 0^{\circ}$ | $39 * 8$ |
|  | Total' | $25 \cdot 0$ | $31 \cdot 9$ | 41.5 |

196. Considering the same problem from the point of view of different communities, it will be observed that Muslims have on the average a difference of 8.9 jears between the husband and the wife, the corresponding Ifigures for the Hindus being 811 , Tribes 7.8 and Christians 59. From the quartiles for males, Mualims seems to get married earliest, Indian Christians next, Tribes third and Hindus last. The same ranking, "however, is not kept up among females. Here again Muslims stand first; but Tribes come next, then Hindus and lastly Christians. In the upper quartile among males, the Tribes, the Muslims, the Christians and the Hindus come in the ascending order of age. Among females the order becomes Muslims first, then Hindus, next the Tribes and lastly the Christians.
197. If the inter-quartile range be taken as an index of the duration of married life it appears that the males enjoy 19 years of married life and the females 16. Among males of the major communities, Christians record the longost perivd of married life ( 1888 years), then Hindus ( $18^{\circ} 4$ ) next Muslims ( 18.0 ) and lastly Tribes (173): Among females the same ranking is kept up, the figures, however, being lower, $17 \cdot 5,16.4,157$ and 156 respectively.
198. The median age for the widowed shows considerable fluctuations. Among males, the Tribes are the earliest to get widowed, next Hindus, then Christians and lastly Muslims. As
for fomales the ranking is Muslims first, then Tribes, next Hindus and lastly Christians.
199. From the quartile distribution of the'. divorced, it is evident that Muslim males and females get divoroed earlier than the other coommunities. This is also reflected in the uppar quartile. The later divorce among Christians is. . uniformly notioeable in all the quartiles. The divorce among Hindua happens lator than among Tribes both for males and females. These variations may very probably he due to the difference in the law regarding marriages in the different communities.

## OCCUPATIONAL

200. The measure of the progress of a'State is largely determined by the number and variety of the means of livelihood for its increasing population. If it is possible through figures to interpret with dependable accuracy the day-to-day life of the citizen, not merely his physioal existence but his mental and spiritual satisfaction: the gigantic operation known as the Census will have . more than justified its decennial appearance. The growth and distribution of population by age, sex and civil condition have already been analysed. A study of the occupational trends will give a valuable insight into. the question as to how people live. The completeness of the Census scheme has often been marred by the difficulty experienced in the compilation of the Means of Livelihood Table. In a vast country like India with its multiplicity of communities, castes, customs and traditions to evolve a comprehensive scheme of classification of occupations is no easy task. Not merely the citizen but the enumerator also has to be educated to get at the correct answer. Vagueness and ambiguity have been the besetting sins of many a return recorded in the occupational catalogue. Exactly as in the case of the Census net, which was so devised as
to hanl in evory head, the change in nomenolature from "Uccupation" to "Means of Livelihood" olosed all the loop-holes which were inevitable in the previous classification schemes.
201. With regard to the classified study of population this time according to ocoupations, certain alterations had to be made in the Census phraseology. The ferm. "Occupation" implies some gainful activity by which a person makes an individual contribution to the upkeep of a household. There are many, however, whose means of livelihood consists in income derived from sources which do not involve any overt orobvious activity on their part. To the ordinary enumerator they do not seem to be 'ocoupied' or pursuing any avocation for a living but appear what in colloquial parlanoe is usually termed "simply sitting at home." Such persons, strictly speaking, have no definite occupation or gainful work on hand but undeniably possess a means of living. It is to bring all those who fall under this category within the ambit of the investigation that the caption 'means of livelihood' was adopted in lieu of the term 'ocoupation.'.
202. Again in the classification of population in imperial Table VIII according to means of:
livelihood the three-foid grouping into "earners;', "working dependants' and 'non-working depen' dants' of 1931 was replaced this time by another scheme of classification under five heads, in which the means of living were separately atiadied as principal as well a subsidiary, espocially in view 'of the ostengible fact that most of the gainful workers have, in the words of the Census Commissionar for India "several atrings to their bow." The first group is of those to whom one means of livelihood is the sole source of suste. nance. Those in the second are supported principally by that means but supplement their income by the pursuit of some subsidiary occupation or other. The third regard it only as a secondary means of living while they have other sources as the chief means. The fourth subdivision com. prises those whose income from occupations or means of living is too insufficient for them to make both ends meet, so that they have to depend adso upon the support of either the head. of the family or some other individual. These are termed "partly dependants' in contradistinetion to the correspouding term of working dependants, given to such persons in 1931. Working dependants' was a term applied to thöse subordinate workers who added to the family income by their work. Their earnings reinforced only the family means of living while in the case of partly dependants' the earnings contribute to their personal income which is supplemented by what they derive from their sorvicos as depondants of some other person. The fifth group, designated as 'total dependants' consist of all those who depend on this particular means of living either Cas "partly depondants' or as 'fully deprondants.' The number of fully dependant workers for any geographical or communal group can be found out by deducting the number of partly dopendants from that of total dependants. Often the number of total dépendants will be less thain that of partly dependants under certain occupations, because these occupations may not always be the means of livelihood of large numbers.
203. It oould be seen that this five-fold classification is more comprehensive and more
definite in determining the nature of the relation between the individual and his means of livelihood ais well as the degree of his reliance on one or the other of $i t$.
204. Despite this fact, the task of collection and classification of accurate data for the proparation of the Means of Livelihbod Table bristled with numerous difficulties. While the classes and sub-clasises in the Means of Livelihood Table in this census remained the same as in the laist, the numbiar of 'orders' has increased by one. The number of 'groups', however, rose from 195 to 235. The enumerators, in spite of the special coaching given to them, were often paziled by the baffling vagueness of the returns received so that, try as they well might, they could not possibly specify the occupation so as to onable its accurate grouping later on. Those engaged in agriculture, industry or trade of some kind, merely returmed themselves as suoh without specifying the order or group under each. For instance, non-oultivating owners, cultivating proprietors, tenantcultivators or agricultural labourers often returned themselves simply as 'cultivators'. Similarly lace-makers or metal-workers often returned themselves as 'retail traders.' Even when groups were not ignored, the grouping might have been wrongly made, the returns under the head of industry being entered in the column of 'unspecified' or ;unproductive' or 'trade', etc. Occupational grouping will often overlap because persons, following really the same means of livelihodd may be returied under different occupations ox wrongly grouped. In consequence of snch possible discrepancies of detail, the figures in many cases are correctly available only for the main orderis and not for the groups into which they are sub-divided. - Again the scope and significance of such terms as 'partly dependant' and 'total dependant' are likely to be misconstrued. Whereas in the case of the partly deperidant his supportex may have either the same occupation as he or a different one altogether, the fully lejendant has no odeupation whatsosver for himself but depends entirly on the means of livelihood of his supporter. Besides there was also the obvious difficulty of
comparing the returns of the 1931 and 1941 censuses, since the classification schemes regarding dependants were differentin both cases. A comparison is, however, possible of the total number of workers under the twelve classes for 1921, 1931 and 1941. (vide subjoined table). Number of workers per 10,000 of the aggregate population.


The entries for 1941 register a fall from those of 1931 in the proportion of workers in such major occupations as agriculture, transport, trade and domestic service. The proportions of workers in the major occupations in 1941 have dwindled into those of 1921, indicating thereby' that the conditions in the transitional period after the war were abnormal.- The following. table will further elucidate the salient features of the decennial comparison by giving the actual. proportion of workers in the major means of livelihood.

Proportion of workers in the major means of livelihood.

| Description |  |  | 1931 | 1941 |
| :---: | :---: | :---: | :---: | :---: |
| Agricultare |  | * | 18.48 | $18 \cdot 16$, |
| 2. Industry |  | . | 8.89 | $7 \cdot 74$ |
| 3. Transport | 1 | , | 3.08 | 2.97 |
| 4. Trade | 1 |  | $1 \cdot 11$ | $1 \cdot 12$ |
| 5. Professions and Liberal Arts |  |  | 14.05 | 1.60 |
| 6. Domestic Service |  |  | 1405 | 10 |

205: The figures proolaim the intensity of the pressure of population analysed in a previous dedtion. In a decade whioh has recorded an increase of 19 per cent. in the total population, the number of workers in the major means of livelihood las actually recorded instead of a rise commensurate with this increase, a fall. The conditions disolosed demand a joint oo-operative effort on the part of Government and the people. The bret brains in the country have to pool together their resourceful aptitudes and find $a^{\text {a }}$ solution for the problem in the nuar future. Remedies for agricultural over-population have already been suggested in an earlier section. The furthor exploitation of the industrial and commercial poten. tialities of the State alongside the development of transport facilities seems to afford some solution. The census can only interpret the figures and disclose the problems brought to light by such interpretation. Barring the suggestion of remedins as revealed by a study of the means of livelihood through the several decades, any attempt to assess the comparative merits of the different solutions to the problems will be beyond the scope of the Consus.' It may be noted that, so far as agriculture is concerned, the fall registered is, rather in the number of female than in that of male workers. Male workers haveactually increased in number. Perhaps one reason for the diminution in the numbers engaged in agriculture. may bo found in the fresh opportunities afforded by other means of livelihood which must have attracted a goodmany to try new field of entarprise or explore other avenues of approach. The general increase in higher education among all communitios, especially in collegiate education, must have given an impetus to this tendency. Whether the diversion of workers from agriculture to other avocations is economically beneficial is, however, a controversial point. Even this diversion of occupation without a necessary increase in the total number of workers would mean only a reshuffling rather than any augmentation of the proportion of the working element. When we fince the fact that the last two decades
have together recorded a 50 per cent. increase in the population, the actual reduction in the number of workers (though the percentage of reduction is only very small) even from the 1921 figures, should legitimately cause some alarm. That new avenues are being explored as a result of the spread of higher education could not afford sufficient consolation against the distressing stagnation revealed by a comparative study of the number of workers in 1921 and 1941.
206. The fall in the proportion of those engaged in domestic service from 1,405 to 160 in 10,000 is really precipitous. The reason for this is more statistical than economic. In 1931, several married or unmarried women who depended for their living upon the men-folk of their respective households were classified under domestic service. The adoption of a more rational basis would have made the returns more reliable. An economically bright feature of the intercensal period has been the increase under the heads of Industry, Public Administration and Liberal Arts (vide table in para 207). The rise in the first is obviously due to the progressive industrialisation of the State and in the other two to the rapid spread of literacy and growth of higher education. But the percentage of increase not being appreciably high enough, that alone does not spell prosperity as against the fall recorded in agriculture and trade.
207. The fact that the remaining occupations such as 'those living on their income' and 'unproductive' also reveal a steady rise in numbers does not make the picture brighter. The increase recorded about unspecified occupations is partly due to the lack of definiteness of the census returns and an indication of the usual tendency of the enumerator to resort to this category as a last device when $h_{\theta}$ is at his wit's end definitely to specify the occupation to enable its accurate grouping later on.
208. . When it is taken into account that the ${ }^{*}$ decade under review commenced as the epilogue
of a trying period of world-wide economic depression and concluded as the prologue to the mosit terrible of all world wars, the occupational trends explained above need not be interpreted so much as registering an economic retrogression, as indicating the future trends of economic development. It is a decade in which the economic forces are setting the pace for a shift from the purely agricultural economy to one of industrialisation. In this transitional stage it is taking shape perhaps only in a reshuffling of the "workers"; but signs are not wanting that new blood with better equipment is flowing into fields which were hitherto monopolised by manual. labour and considered unfit for the more refined university product. The advent of more and more young men with collegiate education in the fields of commerce and industry is a healthy sign. The stigma attached to such gainful occupations is no longer in evidence. The popularity of the Travancore University Labour Corps is a symptom of this new life among the educated youth of the land. The recruitment of large numbers as War Technicians' undeniably brings out the potentialities whioh lay dormant and which would, when normal conditions are restored, be in the vanguard of the forces which will accelerate the pace of industrialisation. The spur to industrialisation which is thus administered in this war atmosphere is seen to have its healthy reactions on the younger generation, and may we hope that the return of peace will inaugurate a period of prosperity with the shifting of enaphasis from a purely agricultural economy to one of rapid industrialisation in a country where nature has shown very little resistance in yielding her rich treasures!
209. The figures representing the number of dependants, whether partial or total, are very suggestive, especially when studied in relation to the corresponding aumbers of the independent workers in the various means of livelihood. The variations in the degree of economic dependence upon the gainful workers of the various occupational groups are best studied if the ratio
between workers and dependants is worked out. The following table sets out the ratio of workers and total dependants por 10,000 of the total population.

210. The State ratio of 2.83 in the above reveals that every independent worker supports nearly three dependants by the income derived from his means of livelihood. The above list of ratios pertaining to the various means of livelihood, given in the descending order, records the largest number of dependants under Public Administration, the next being under persons living on their income, agriculture and pasture and the professions and liberal arts respectively.
211. The notion which seems to be generally current that a safe income, such as, for example; a modest government salary is preferable to brightor prospects elsewhere open to piucky aspirants but attended with risks, is unfortunately filtering down to the younger generation in society in an increasing measure. It discloses a reluctance to effort towards an honest living by the sweat of one's brow. Economic prosperity is almost impossible of attainment against such a psychological background, even if the government should put forth its maximum effort so long as
those under this category continue to be influenced by such notions. The complaonnt attitude of those with a safe income during their tenure of office and even after is reflected in the increasing ratio of dependants on them. Where the spur to exertion is non-existent in the parent, the progeny could not be expected to fare better. It sounds almost paradoxical that the average Travancorean, though generally addicted to a life of ease with a safe income, should invariably $b_{e}$ found to assume a different garb altogether and rise equal to any occasion when put on his mettle in a foreign land, especially in competitive recruitment, wherein he has perforce to make patent the potentialities that are latent in him. Whether this transformation of the aluggard vegetating in the rut at home into an ace rising up to easy heights abroad, is due to ohanges in climate, soil or atmosphere, none oan tell. In this connection, the writer is reminded of a remark made to him in the course of conversation by a former British Resident suggesting the cutting down of all the coconut trees in Travancore to make its people work. It is the same oomplacent attitude that makes many workors prefer a parmanent job with limited work to one in which they can earn more money by working at a harder pace for longer hours. Among the sorting section of the census staff, only a small percentage earned bonuses for sorting additional slips. The large majority fretted and fumed for being detained to complete their small daily quota. The reluctance of estate managers to employ our people may perhaps be attributed to this unfortunate tendency of workers to do just the minimum. The P. W. D. maintenance coolies are proverbial instances of sluggish indifference though a change of attitude would have enabled them to work better and earn more.
212. A word about "persons living on their income" without directly or indirectly helping towarda any gainful activity, who may rightly be characterised as "simply sitting". Such of these as have aequired a notoriety for their opulence are usuglly recognised by the
parasites and satellites that swarm round them to batten on the drippings of their purse and eat the bread of idleness. Is it a wonder therefore, that society should scoff at their effortless superiority and wish they had less income to swell the ranks of depraved humanity? Is it custom or the impulse to self-advertisement which money brings with it? Who can tell?
213. In such occupations as Transport, Trade and Industry, the ratio is less than that in the State though not very much so. Domestic service records the smallest ratio, viz., " 93 show. ing thereby that that class has very few depending on it. The same is the case with unproductive occupations, such as begging. In this connection it is interesting to note that under sub-class I we get instances of both the highest, viz. $3^{3} 3 \mathrm{as}$ well as the lowest ratio, i.e.. 2.5 if we
take into account the non-cultivating proprietors who support the largest number of dependants and agricultural labourers who live just a hand to mouth life. On the whole, the ratio list shows only slight variations as regards dependence under the various occupations.
214. A comparison of partly dependants and total dependants in general in the State shows that the former number only 14.7 per cent. of the latter. The $85^{\circ} 3$ per cent. of fully dependants thus registered should cause some concern though these apparently unemployed include not only women but children and old men too, who fall outside the workers' age-group. 215. A more reliable index than this of the degree of unemployment in the State will be furnished by the percentage of workers in the $15-50$ age-group of the population. The total popu-

lation in this ago-group is $2,932,078$ and tbe total number of workers in the State is $2,245,246$ or 76.6 per cent. From this it is evident that 23.4 per cent. of those capable of work are unemployed. Even here, allowance has to be made for the infirm, the sick, etc. But when it is found that $2,245,246$ persons have to bear the burden of supporting a number nearly twice as large (the number living on independent means without doing work being very small) the pressure of unemployment is seen to assume serious proportions and create a problem demanding joint co-operative effort by Government and people towards its solution.
216. Considering the proportion of the distribution of working population in the principal means of livelihood by sub-classes and their relative
importance, it will be seen that $43^{\circ} 1$ per cent. of the total workers are engaged in agriculture and pasture, (sub class I) $21^{\circ} 0$ in Industry $y^{\circ} 8^{\circ} 0^{\circ} \mathrm{in}$ Irade, 4.3 in Domestio aervice, 3.0 in the Professions and Liberal Arts and $\mathrm{I}^{\prime} 2$ in Publio Administration. The diagram on the previous page illustrates the comparison of this feature in the means of liveli. hood of the last two censuses. The two outstand. ing charaoteristics that emerge from a comparative study are the great fall in the number of those engaged in domestic service and the excess of the numbers employed in agriculture and pasture over those in all other occupations.
217. A study of the subsidiary means of livelihood by which workers supplement their income from their principal occupations, yields more or less the same results suggesting thereby that the Diagram referred tö in paragraph 220.

occupational trends are almost identical in both cases. The relative importance of the subsidiary. means of livelihood pursued by the different, olasses of workers can be made out from the diagram on the previous page wherein the various occupations figure in the same order of importance noted in the case of the principal ones in the diagram in para 219. The preponderance of agriculture is more pronounced in this case than in the former since agriculture and pasture together absorb more than double the number of workers engaged in all others put together. In a country where agriculture is the mainstay of the majority of the population and where investment in land is considered the safest method of utilising one's surplus income, it is no wonder that this occupation has been resorted to by so high a percentage of the population. The similarity of the trends in the relative importance of the principal and subsidiary means of livelihood also bespeaks the inherent conservatism of the people in following beaten tracks in the wake of their fathers without taking to newer enterprises as in the more advanced countries of the West. Perhaps this phenomenon is also an index of the tardiness of encouragement from society to any change of venue in economic pursuits in general. But the change in outlook coming in the wake of the war has trodden under foot this innate conservatism for society being trodden into shape later on by giving them the necessary realistic experience.
218. A comparison of the three Administrative Divisions shows that the percentage of independent workers, partly dependants and total dependants is highest in the Central and lowest in the Southern division. This is quite in keeping with the general trend of economic activity in the State from decade to decade wherein Central Travancore has invariably figured as occupar tionally the busiest region.
219. The returns registered regarding Trivandrum, the capital city in the State, reveal two salient features, viz., that the proportion of workers to the total working population is fairly high here and that it has also to its credit a higher
percentage of workers in Trade, Public Admini* stration and the Liberal Arts than any other locality. It is only in the fitness of things that such should be the case in regard to the metropolis of a progressive State wherein all the phases of her cultural life are variously centralised and kaleidoscopically represented, the stream of human life flows thickest and the pulse of human life beats fastest.
220. The diagram on page 71 illustrates the distribution of workers in the three Natural Divisions. The Highland where the estate economy prevails and where the largest extent of cultivable land is left uncultivated, has recorded the highest proportion of independent workers. The proportion of dependants, partial as well as total, is however less than in the other two. The inference is significant. Most of the dependants on the Highland workers live in the Midland and the Lowland wherefrom these workers had migrated to tap the resources of the montane regions. The subjoined table shows the proportion of partial to total dependants in the Highland to be less than that

| Proportion of partly dependants to total dependants for the State and the Natural Divisions. |  |  |  |
| :---: | :---: | :---: | :---: |
| Description | Partly dependants | Total dependants | Percentage |
| STATE | 658,542 | 4,483,314 | 14.69 |
| Lowland | 340,596 | 2,053,127 | 16.59 |
| Midland | 283,253 | 2,201,099 | 12.87 |
| Highland | 34,693. | 229,088 | $15 \cdot 14$ |

in the Lowland. Agriculture and pasture form the chief means of livelihood of the Highland recording, as in 1931, the highest percentage in the three Natural Divisions. This argues both the need for the extension of cultivation in the Highland and the comparatively limited scope and facilities for the pursuit of other avocations. Vast possibilities exist in the Highland which those in the sub-montane and coastal regions, which are more congested, may very well try to exploit and develop. Of the other occupations, in Public Administration alone the figure for the Highland is better than that for the Midland.
221. As for the Lowland, the returns reveal, as in 1931, the highest percentage in the number
of workers in all the occupations, except in agriculture and pasture where the percentage is lowest, being only 33.8 . It may seem paradoxical that in a region which has reached the saturation point in the matter of bringing under cultiva. tion all available land, those in agriculture and pasture should record the least percentage. This may be accounted for by the better opportunities which the Lowlander has over his compeors elsowhere for the pursuit of other means of livelihood besides taking to the plough and the rearing of livestock.
222. The following diagram illustrates these factors with regard to the three natusal regions. The Midland has recorder as in 1931, the lowest percentage in Public Administration. While it can be bracketed with the Lowland in point of
domestic service it ranks oreditably bigh in agriculture and trade. These tend to show, as in the case of the Highland; that the as yet untapped resources of the Midland await the awakening. touch of more enterprising workers bent upon surmounting every obstacle, human as well as natural, that is likely to confront them in the trying years to come.
223. It will be interesting, at this juncture, to compute the probable incidence of unemploy. ment in the three Natuxal Divisions with the aid of the diagram on nest page, illustrating the per centage of workers in these regions, falling under the age-group 15-50 that comprehonds the working population of the land. It will be clear therefrom that whereas in the Lowland and the Highland the percentage of workera

exceeds that of the whole state, the highest parcentage of them is in the Highland ( 87.36 ). This is proof positive (subject to the reservation mentioned above, that many of the workers who have migrated to this region have their dependants residing elsewhere) that unemployment is least in the montane areas and corroborates the same findings already pointed out above in the study of the total percentage of dependants in the three Natural Divisions.

Diagram referred to in paragraph 226.

224. If the numerical strength of the gainful workers in any State may be reckoned as a measure of its material prosperity, the part played by the females as earning helpmeets of the males in the national economy would provide a theme of immense interest. The subject is well worth a brief but separate study in so far as the present census discloses certain specific features. In

Travancore the female workers number 268,648 which is 12 per cent. of the total number of workers and 8.9 per cent. of the female population in the State. The difference between these and the corresponding percentages of male workers will appear most glaring, especially when vieqwed from the standpoint of conditions obtaining in some of the foreign countries. The male workers form 64.9 per cent. of the total male population and 88 per cent. of the total working population. In the normal economy of a household it is the convention, especially in prosporous timos, for the male to be a positive earner who supports the family on the income side and the female to be a negative earner who runs the home economically on the expenditure side. In times of stress when the family feels the pinch or dreads the wolf at the door, the females play a necessarily more active part as earuers by their gainful activities. The case may be different in countries where the universal spread of female education, the impact of new ideas popularised by feminist movements and the trend of social standards invariably point towards woman's economic independence as reflected in the comparatively high percentage of female workers in every walk of life. In a country like Travancore, custom and convention still govern the occupartional readiness or freedom of the female population and therefore the variations of the sex-ratio in the matter of means of livelihood should not be intexpreted in the light of western standards.
225. The table below sets forth the variations in the ratio of fomale to male workers

| Number of female per 1,000 male workers in the different means of livelihood in 1831 and 1941. |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Description | 1931 | 1941 |
|  | STATE (all clasees of means of livelihood). | 323 | 204 |
| 1 | Exploitation of animals and vegetation | 319 | 138 |
| 2 | Do. of minerals | 151 | 2 |
| 3 | Industry | 534 | 374 |
| 4 | Transport | 16 | 18 |
| 5 | Trade | 288 | 195 |
| 6 | Public Force | . | 2 |
| 7 | Public Administration | 25 | 34 |
| 8 | Professions and Liberal Arts | 128 | 101 |
| 9 | Persons living on their income | 173 | 100 |
| 0 | Domestic Service | 1,232 | 3,568 |
|  | Insufficiently described occupations | 174 | 196 |
|  | Unproductive | 530 | 601 |

in 1931 and 1941. It will be olear from this that the present census registers a fall in the "ratio of female workers in many of the sabclasses. The classification of females as 'work-: ing dependants' in the last consus' with the consequent inflation in numbers must be held responsible for this fall in number rather than any aotual increase in the ratio. As stressed more than once in the foregoing pages there was nothing materially unusual or abnormal in the economic life of the State to warrant an appreciar
ble reduction in the number of female workers. It is to be deplored that eoonomio phenomena have to suffer misinterpretation by the elge of atatistical tools getting blunted by terminom logical inexactitudes. The diagram below illustrates the proportion of female workers in each subrolass to total female workers por 1,000 and the corrosponding ratios for males. As for the relative importanio of female occupations revealed in the bargraph, agrioulture and industry rank highest in their incidence, domestio service,

Proportion of Male and Female workers in each subclams of the means of livelihood.

trade*: and insufficiently described occupations coming next, while professions and liberal arts, public administration, transport, exploitation of minerals and persons living on their income figure. last. On the comparative side, the female workers in a thousand of total female workers are found twenty times as many as male workers in a thousand of their number in domestic service, thrice in unproductive occupations and twice in industry. While in trade and insufficiently described occupations the ratio is nearly as high as that of the male workers, in exploitation of animals and vegetation, it is nearly two-thirds. The increase of numbers in industry is partly due to the starting of a large number of cashe wnut factories where the managers have discovered the special aptitude of the female labourer for shelling the cashewnat. It may be remarked that the crudeness of the process involved and the insanitary conditions in which they work are highly detrimental to the health of a large number of young girls who are to be the future mothers. In the coir yarm industry, the dexterity of the females in plying their nimble fingers will make for the production of yarn of better quality in large quantities and in both these industries the comparative cheapness of female labour is the chief inducement to the employer.
226. A study of Imperial Table VIII shows that the largest number of female workers are employed as agricultural labourers while an almost equally large number are engaged in the raising of special crops like tea, rubber, etc. Nearly half that number are cultivating owners. The fact that these three categories together cover more than a fourth of the female working population is another index of the preponderance of agriculture in the State. Domestio servants come up to four-fifths of the number engaged as agricultural labourers. On the industrial side the making of coir yarn and next to it rice-pounding and husking, employ the largest number of female workers. In these two and in domestic sorvice more females than males are employed though the starting of rice mills has diminished the number of female rice-pounders and huskers
in the last decede. The increase in the number of females in public administration and instructionis a direct result of the rapid spread of female education in the State. The proportion of those giving instruction has fallen from 191 per milla in 1931 to 166 in 1941 . It is a disappointing feature that women have not come forward in sufficient numbers into numerous occupations for which they have a special aptitude such as lace-making and needle-work, in which the returns recorded are ridiculously small. There is ample scope for social organisations to wean' the female workers away from their indifference that makes them fight shy of their avocational opportunities which are unlimited and in fact illimitable. For example, in such minor occupations as the following, one should have expected larger numbers of women than the low figuras recorded in each case for the whole State, for instance bakers, lawyers' clerk, jute spinners, employees in places of entertainment, cotton spinners, scribes and stenographers. Twelve women were recruited into the Police force for the first time within the decade. This aspect is a desideratum for the special attention of female workers, educated as well as uneducated. A comparison of the male and female workers in the natural regions also throws some interesting side lights on the problem. While in the State the number of female workers por 1,000 male workers is 204 , in the High. land it is as high as 307 but in the Midland it shrinks to a mere half of it. The Highland also leads in the proportion of female workers to the total female population. Where the State percentage in this respect is $8^{\circ} 9$, ir the Midland it is only 6.5 but in the High. land it shoots up to $19^{3} 3$. The low/ figur pertaining to the Midland is due to the com paratively smaller number of industries car ried on there. The position is, however, alterer in the ratio of female dependants to male depen dants. Here it is least in the Midland bein only 159 per 100 males whereas it is 160 in thi Highland and 161 in the Lowland. These figure also tally with the findings concerning th
percentage of total dependants pointed out in a previous connection. This aspect of the study points to the need for more and more funale workers in the Midland where increasing opportunitios are sure to arise with increased oxploitation.
227. The distribution of workers both male and female among the various communitiss in the
ranking in respect of all the three categories. The Hindus other than the Sohechuled Castes record the highest peroentage, the Christians come next, the Soheduled Castos third, the Muslims fourth and the Tribes last. Though this is in accord with the distribution of population in these communities, a faw special features are discernible on a further sarutiny.


State can, be made out easily from the above diagram. Whether we consider tho percentage of male and female workers separately or both sexes together in relation to their respective totals of workers, the results reveal the same

Muslim female workere register so low a percentage as 4.8 . This is to be attributed to tho age-old social convention of the seclusion of the Mualim women. The very high percentage of the - 'Other Hindu' workers can, in part, be accounted
for by the presence in their fold of a very large number of working castes which are not included among the six Scheduled Castes. Again whereas among all classes, there is a losser percentage of female than male workers, the Schoduled Castes and Tribes have proportionately contributed a higher percentage of female workers than males: A yet more striking feature is revealed in the figures pertaining to the Tribes. While they number only just over 2 per cent. of the total population in the State, their percentage to the total workers is 23 for males and 3.3 for females, showing thereby a higher percentage in the quota of workers they contribute than is warranted by their population strength. The following table gives the proportion of workers por 1,000 of the population of each sex.

| -. Proportion of workers per 1,000 of the population of each sex. |  |  |
| :---: | :---: | :---: |
| Description | Males | Females |
| Scheduled castes | 510 | 188 |
| Other Hindus | 442 | 88 |
| Tribes | 478 | 135 |
| Indian Christians | 405 | 72 |
| Muslims | 425 | 61 |

228. The Scheduled Castes and the Tribas record the highest proportions in the above, proving thereby that they are predominantly the working classes of the State. It is to the credit of the Indian Christians who number 62 per cent. of the numerical strength of the 'Other Hindus' that they have recorded a higher proportion of workers than the difference in numbers between the two communities warrants. It tends to point to a comparatively greater number of slackers among the 'Other Hindus' than among the other communities. A comparison of female workers in these two categories also corroborates the same condusion. The two outatanding' facts that 'the female
population among the 'Other Hindus' exceeds their male population by 13,347 and also that they number more than the Indian Christian female population by 613,747 go to show that their proportion of 88 per mille of the female population is too low a figure compared to 72 per mille for the Indian Christian females. Even this 88 per mille must dwindle into a far smaller number if we take into account only the high caste fomales among them because 'Other Hindus', as pointed out above, include several 'working castes not covered by the official term 'Soheduled Castes'. This conclusion easily locates the particular section of the female population of the State that is most occupation-shy while the increase of literacy and the spread of modern social tendencies should have postulated a better state of affairs. It may incidentally be remembered that the percentage of workers among Indian Christians and Muslims in relation to the total population is partly kept down by the greater fertility noticeable among them, which necessitates on the average a larger number of cbildren and child-bearing females. among them than among the other communities.
229. The smallness of the numbers of Jains, Jows, Buddhists, Parsees, otc., does not lend itself to a comparative study. The Christians in the State have been classified in the Imperiad Table as Indian Christians, excluding Europeans and Anglo-Indians. Of the 640 males and 616 females in the Anglo-Indian community, 259 of the former and only 35 of the latter are workors, while the partly dependent among them number 34 males and 27 females. The very low percent. age of female workers among them ( $5: 6$ per cent.) indicates that quite a large number of female workers have gone abroad in quest of suitable jobs to which their educatioual qualifications (in which they excel their males) entitle them.
230. The incidence of dependence in each community is revealed by the statistics available. The subjoined table gives the proportion of partial

dependants to 1,000 workers. The Scheduled Castes and Tribes register the highest percentage of partly dependants. It is conspicuous that among the 'Other Hindus' partial dependants are comparatively few. The sex-ratio of partial dependants can be studied from the following table.

Ratio of female partly dependants to 1,000 male partly dependants.

Description
Scheduled castes
Other Hindus
Tribes

- Indian Christians

Muslime

## Ratio

3,045
1,442
3,129
1,186
$1,161^{\circ}$
231. The fact that in this table the number of female partial dependants exceeds that of male partial dependants is only natural, because grownup women and even girls of working age cannot be full-time workers in the ordering of an average household. They can in most cases at best be only partly dependants. The largest number of female partly dependants is found among the Scleduled Castes and Tribes, which as already pointed out, are predominantly a working class. The sex-ratio for the State as a whole for partly dependants is 1,481 . The total number of partial dependants to $1,000^{\prime}$ workers in the State is 415 which indicates that every alternate worker gets the additional support of a partial worker to lighten his economic burden.
232. The number of dependants a worker has to support on an average is however, better studied from a classification of total dependants.

The following table gives the ratio of total dependants to the workers in each community.

| Ratio of total dependants to the workers in the various communities. |  |
| :---: | :---: |
| .Desoription | Ratio |
| Soheduled castes | $1 \cdot 88$ |
| Other Hindue | 2.78 |
| Tribes | 2.28 |
| Indian Christians | $3 \cdot 16$ |
| Muslims | . $8 \cdot 07$ |

233. In this respect the Indian Christians lead off, closely followed by the Muslims as every worker in these communitios has to support more than three dependants. The strain on the Muslim earner in particular must be reckoned very great In view of the fact already noted above, that partial dependants are fewest in this community, which precludes any substantial relief to the encumbrance he has to shoulder. This atate of things has to go on as loug as fertility among Muslims continues at the present rate and social custom shelves off the Muslim female from the opon arena of gainful activity in the numerous fields accessible to the job-seeker. The incidence of total dependence ranks next among the 'Other Hindus'. The second smallest ratio of partial dependants as pointed out above concerning this community must be put down as a *. principal reason for the burden that workers in this category have to shoulder. Among the highor castes in this group partial dependants are particularly fow and that leaves the vast majoxity of the total dependants fully dependant on the workers. This is a desideratum for the social leaders in these communities. The same factor holds good in the case of the Indian Christians in more or less the same measure. The smallest ratio of total dependence recorded about the Tribes and Schoduled Castes is another proof positive that they are the most hardworking of the gainful workers in the State.
234. No scientific study of the means of livelihood in general in the State can be considered adequate without a detailed reference, in
certain special respects, to agriculture, the basic occupation of the people from time immemorial. The preponderance of agriculture in the national economy, boti as principal and subsidiary means of livelihood, as pursued by male and female workers alike, has already been emphasised and diagrammatically illustrated. The average Travancorean is essentially a son of the soil traditionally bound to his land so to say with hoops of steel. Agriculture, in so far as it employs nearly half the workers in the State and yields both its food crops and cash-crops, is the mainstay of the popalation supporting, as it does, no less than 53.7 per cent. of it, which would become 57.4 if those who take to agriculture as subsidiary occupation are also taken into account. It is the produce of the soil whether raised from fragmentary or large-scale holdings or under the estate system that constitutos the law material for the numerous indigenous industries both of the organised and cottage type and eventually sets the pace for the export trade of the State. Thus as tio fundamental factor that determines: in general the prosperity of the State and in particular its industrial progress, volume of export trade and extent and variety of communications, and one that would spell depression and famine if adversely affected by froaks of nature or other adverititiousoccurrences in years of drought or flood, the prospects of the cultivator deserve a further study based on the statistical data available from the occupational standpoint than has already been made in the general section to interpret the factors geographical and econcmic governing the pressure and movement of population.
235. The first striking feature noticeable is the excess 'in the percentage in 1941 of those dependent on agrieulture by 3 over that in 1931. If those who follow it as subsidiary occupation
are, however, excluded, the percentage would continue to be the same as in the last census. 236. A diversion of the agricultural worker into other means of livelihood is, however, evident from a study of the variations in the percentage of agricultural workers in the last two decades. The table below supplies the necensary figures for this.

Variations in the Proportion of agricultural workers in the
State to total workers in
1921, 1931 and 1941.
Year.
Yotal.
1921 $\quad$ Male. $\quad$ Female.
237. Though the percentage of agricultural workers to total workers registers an excess of over 10 per cent. in 1931, a fall of more than 2 per cent. is perceptible in 1941. This can be accounted for if the variations in the two sexes in this respect are separately reckoned. The male workers have increased in both decades, though one should have expected a slightly higher percentage in 1941. The general fall is therefore due to the enormous reduction in the percentage of female workers. While in 1931 their proportion was seen to bave nearly doubled, a fall by about 17 in the percentage has been recorded in the present census. This is due rather to the difference in the schemes of classifying femaleworkers in the two censuses than to any palpable economic phenomenon that occurred in the intercensal period. In 1931 every female was asked by the enumerator to state her caste and religion and after that whether she was an earner or dependant. But the questions regaxding dependence were not specific enough to elicit the degree of her dependence and the occupation of the person on whom she depended. In the Census Conference held on 20th February

1940 the Census Commissioner for India explained that his approach to this quostion (about dependence, partial or full) has been deliberately from the dependent point of viev, the word 'earner' being extremely difficult of explanation and definition to an enumerator.' He attached some importance to retaining the concept of a person who was partially dependant. In pursuance of this instruction the question about dependence (No. 6) preceded that about occupation (No. 9) ' in this year's enumeration card for females. Consequently if a female first returned herself as a dependant, partial or total, when the turn of occupation came there was the possibility for the enumerator to check the first entry against question 6 by the fact recorded against question 9. That is a possible explanation for the fall registered in the number of female workers which in turn adversely affected the figures for the total workers. The same problem can bu statistically presented in another way by saying that in the last two decades the male agricultural workers increased by $15^{\circ} 42$ por cent. and $19^{\prime} 86$ per cent. successively while the female workers increased by $56^{9.95}$ per cent. in the former decade but decreased by $48^{\circ} 4$ per cent. in the latter.
238. Comparing the figures in this respect of the Natural divisions we find a fall in the percentage in the last deeade by nearly 3 in the Lowland, more than 2 in the Midland and it little over 1 in the Highland. And in all the three the decrease in number of female agricultural workers is great (vide table below).

$\begin{array}{llllllllll}1931 & 36.07 & 35.81 & 36.85 & 66.86 & 66.87 & 66.84 & 78.36 & 75.0 & 85.9\end{array}$ $\begin{array}{llllllllll}1941 & 33 \cdot 42 & 36 \cdot 27 & 21 \cdot 31 & 64 \cdot 61 & 67 \cdot 22 & 47 \cdot 69 & 77 \cdot 16 & 75 \cdot 88 & 81 \cdot 3\end{array}$
239. More striking than the fall in the total number of agricultural workers in 1941 is the variation recorded in the number of each of the four groups under the order of 'Cultivation' in Imperial Table VIII. The following diagram illustrates this point with reference to the
the second group, viz., cultivating owners there has been a progressive decrease in the proportion of females, the fallibeing slightly greater in the last decade than in the one before. Among males a fall was recorded in 1931 but the present census has registered a rise'by about 2 per cent. The general decrease in this group can be put down as a measure of the extent to which land changed hands during the period. Cultivating owners are essentially a middle class and the total extent of their individual holdings not beingmuch, it is natural for them to sell their land to meet their personal, domestic or social requirements. Though their ownership is thus lost, they may often continue to hold it as tenants and cultivate it. This tendency of cultivating owners to chrink to the levol of mere tenants is well illustrated in the rise recorded in the last decade in the number of cultivating tenants among both males and females, the increase being more steady among the former. With regard to every agricultural country, it is usual to look upon the yeomen or middle class farmers as the backbone of the community and the measure of their economic welfare is always an unerring index of general prosperity. Viewed from this aspect, the economic degradation of the peasant proprietor into the cultivating tenant is to be deplored as indicating a tendency towards the gradual dis. appearance of the small landownen.
240. In England after the break-up of the Manorial System of husbandry by about the close of the 15 th century the most outstanding economic change in the 16th century was the disw appearance of the small landowner. . . But there this gave place to a different scheme of agriculture in which a large proportion of the arable land was converted into pasture. There was a loud outcry against this which the contemporary chronicler has expressed in those famous lines "horn and thorn have made the world forlorn". But this idea of consolidated holding was beneficial in that, soon the agricultural economy changed from small-scale peasant proprietorship into large-scale farm ownership. This large-scale
farming and agriculture made it possible for the introduction of scientific methods of cultivation in the centuries that followed. It is doubtful whether in our State the subdivision of agricultural holdings with its by-product, fragmentation, will only be a transitional stage in the evolution of a system of consolidated boldings. The attachment of the individual to land which is so persistent, will fight hard against attempts at consolidation.
241. Incidentally the disappearance of the peasant proprietor may be considered as a measure of the agricultural indebtedness that forces many a middle class farmer to sell up or hypothecate his little inheritance to meet his sudden and growing economic needs. The der gradation in the rank and file of the cultivating class is most in evidence in the rapid growth in the number of agricultural day-labourers, particularly pronounced among females. As already pointed out in a previous connection, these have the least number of dependants on them since they live almost a hand to mouth life. Among the cultivators of special crops the number of female workers has decreased by 50 per cent. while that of the males has decreased by nearly 4 per cont.
242. The following table specifies the special crops under which the number of cultivators has decreased and the items in which there is

Number of workers cultivating special crsps.

| Description. | 1931 | 1941 |
| :---: | :---: | :---: |
| 1 Coconut | 102,053 | 63,235 |
| 2 Panvine | 3,120 | 2,947 |
| 3 Rubber | 6,925 | 20,435 |
| 4 Coffee | 110 | 188 |
| 5 Tea | 63,911 | 55,338 |
| 6 Market gardeuers and flower and fruit sellers | 5,971 | 2,967 |

a rise. The fall in the number of coconut cultivators should be attributed to the fall in the price of coconut and its products in successive years and the consequent diversion of many workers to more remunerative occupations. Thi
decrease in the number of those in tea cultivation may be due to the activities of the Tea Licensing Committoo and perhaps also to many estates going out of cultivation as a result of the diminishing economic returns from the lands recently brought. under cultivation or to the limitation in the quantity produced to ward off a slump in the market. A small increase in percentage is noticeable in coffee cultivation though the total number engaged in it is negligible. The trebling of the numbers of those engaged in the cultivation of rubber must be due to the gradual rise in the price of that commodity and the larger numbers of Travancoreans taking to its cultivation on that account. The picture of the cultivation of special arops is not very bright since there is a fall of nearly 20 per cent. of the total numbers. On the whole, therefore, the phenomenon of the changes
occurring in the status of the different groups of agricultural workers must provide ample food for thought to those interosted in suoh problems as agrarian reform, landholding, tenanoy and agricultural labour. A more detailed discussion of these topics will be found in the Report on the Economic Survey and the Fragmentation of Holdings.
243. A shifting of one's view-point from a retrospect of the past decade into an examination of the present condition will give a valuable insight into the possibilities of the future, in respect of agriculture in the State. Muoh of ite cultivable land remains uncultivated and within the area already under the plough much of irrigable land has yet to be irrigated. The following diagram gives a concrete idpa of the percentage

of arable land that is cultivated as well as irrigated. It will be seen therefrom that of the $18^{\circ} 3$. per cent. of cultivable land yet to be cultivated, 17 is in the Lowland, 7 percent. in the Midland and 9.6 in the Highland. While the limit of arability bas thus nearly been reached in the Lowland, the scope for extension of cultivation in the other two. Natural Divisions is not consider* able. Though there is the possibility of disafforestation in the montane and sub-montane rogions to increase the acreage of arable land, the economic disadvantages attondant on such a step do not justify its adoption. So the utmost that could be done in these two regions is to exploit fully the margin of caltivable land yet available to the plough.
244. Though there is more need of irrigation in the Midland and the Highland, geographical difficulties preclude the idea from materialising except by recourse to the utilisation of electricity for purposes of lift irrigation. Thanks to the ina uguration of the Pallivasal Scheme, cheap electric power is available to get such a project translated into practice. The success of it depends on the expert way in which the problem is tackled by cultivators in the years that lie ahead.
245. The need for improvement in cultivation can be better understood if the per capita acreage under the plough is taken into aocount. The necessary calculation goes to show that the land available per head of the population in the State at present is only 44 cents of which 36 cents ( 11 cents wet and 25 cents dry) are already cultivated land, a bare margin of 8 cents being thus left for further exploitation. If the per capita acreage is computed on the total number of agricuitural workere in the State each worker has $3 \cdot 29$ aeres of cultivable land of which 268 is already under the plough. This does not leave him snd his dependants more than just 61 cents to
cultivate, to better his prospects and those of his progeny. It is interesting at this junc ture to compare the per capita holding in some foreign countries. The computation of an American economist goes to show that the ten thousand million acres of axable land now available in the world can support the two thousand million: of world population (as it stood in 1931) thereby leaving five acres per head, which is much less than is being actually used. In China where there is as much congestion as in India there are 1:5 persons per acre, in Java 2 and Japan 4. But in a comparatively sparsely poopled country like U. S. A. each inhabitant has 34 acres in crops and 8 acres in farm land.
246.. It has to be remembered that the sufficiency of arable land to sustain its population does not depend so much upon its extent or fertility as upon the method of its cultivation and the standard of living of the people to be supported by it, especially from the point of view of consumption, of the cost of production, the ability and thrift of the cultivator, the methods and tools used in production, etc. The economic conditions obtaining in Travancore are comparable more to those of densely peopled lands like China and Java which also have to import staple food commodities from outside, than United States which has yet to go a long way towards attainment of its economic 'optimum population.' The very low man-land ratio in the State based on its per capita acreage of tillable land is an inexorable economic factor that presages a gloomy future to the agriculturist who has well nigh come to the ends of his tether in the enjoyment of nature's bounty which had pampered his less encumbered forbears in the past.
247. A study of the acreage under net cultivation of the principal crops will give an idea of

their relative proportion in the scale of preference by the cultivatoxs in the State. The following

diagram illustrates this. The variety of crops and the area under each have been, even in cases of gradual increase, more or less in the eame proportion in the past several dooades except in the case of rubber which, being cultivated under the more organised estate system, has re* corded an increase in extent by nearly 50 per oent. The perpotuation of traditional lines of cultivation is a clear proof of the innate conservatism of the agriculturisti. It is high time for him to shake himself free from his lethargic complacency and look about for new lines of approach especially in view of the two flagrant facts already recorded about the Lowland, viz., that in point of the acreage yot avail:"'
able to the plough he bas almost reabed the land's end' and that in respect of unit.yield the region has tended to reach saturation point, thanks to the relentless operation of the law of diminishing returns.
248. The attempts made in certain countries to counteract the evils of this law by the produotion of synthetic substitutes have not made much headway as it is not easy for man to transcend the limits set by nature. As a wax-tine economy it might neutralise the effects of a blockade but in normal times it may very often turn out to be too costly a venture. In some densely peopled parts of the United States of America, for example, the introduotion of better farming nothods has led to better yields to meet the growing demands of their increasing population; thanks to the meohanisation of agricultural operations and the introduction of scientific methods of oultivation. But such improvements are not possible in countries like Travancore where the progressive diminution in the size of holdinge militates against the introduction of large-scale farming. These countries will find it impossible to extricate themselves from the vicious circle of poverty, children, more poverty and still more childron. Remedies have, therefore, to be sought against such an eventuality both by society and the State.
252. Besides the law of diminishing returns, the agriculturist has also to combat against the numerous pests that cause animal and plant dis. ease. The ravages of these oropkillers will continue to be ruinous to aquicultural interests and the raising of livestock until they are brought within sufficiently stiff control. Researches along this line are being made and numerous experiments conducted by specialists under the auspices of the University Research Department. The 'coconut roller pest' and the 'rice swarming pest' are now being subjeoted to scientific study and experimentation by research students in the University under expert guidance. Among the sohemes sponsored and financod by the Imperial Council of Agricultural Research is the special
study of plant and animal disease which is boing conducted with meticulous care by the Entomologists, Botanists and Biochemists under the auspices of the Department of Agriculture. Special attention is being devoted to root and leaf diseases which blister the plant even before it grows old enough to yield; and insect and other pests that decimate if not destroy the crop after its inception.
250. It is also encouraging that other topics of specially agricultural interest such as soil analysis, soluble fertilisers, improvement of crop in reclaimed Kayal areas, nutrition research, improvement in the cultivation of tapiocai paddy etc., have also been brought within the purview of the curriculum in the University Department of Research. Side by side with this, the Department of Agriculture has taken a lead in the matter by playing the role of ${ }^{\text {Pa }}$ - 'Laputan Flapper' to rouse up the dreaminy lords of the plough in the land. It has introduced, as an experimental measure, new crops like tobacco, tomatoes, soyabeans, ragi, cloves, cinchona, various fruit trees with catchcrops', planted in between and cover orops to preyent soil erosion, to demonstrate to the lay, custom-ridden monoculturist the possibilities of introducing variety of crops suited to the soil. - The Department has also taken such progressive measures as organising proper marketing facilities, opening up of rural centres and agricultural colonies, encouragement of co-operative enterprises, improvement of cattle, sproad of agricul. tural education, scientific selection of seeds, sampling of plant varieties, agricultural demonstra. tion and propaganda, etc. Among private agencies that promote such new ideas, to break, new ground, the Y. M.C.A. Rural Reconstruction centres. deserve special mention. The unique feature of the Y. M. C. A. centres is the combination under the same agency of the two-fold task of improving the quality of the produce and providing favourable markets for the products. This is organised on a cottage industry scale to make it possible for the poor agriculturist to
supplement his income by subsidiary occupations or for the non-agriculturist to eke out an honest, living by such pursuits as bee-keeping, poultryfarming or cattle breeding. The brightest featureof the scheme consists in the Y. M. C. A. itself ${ }^{-}$ arranging for the sale of materials without the expensive intervention of a middleman. The organising capacity and the sustained interest evinced by the originators of the scheme have secured for the Y. M. C. A. Rural Reconstruction centre at Marthandom within the short span of 15 years an almost international reputation. The annual training camp run by this institution attracts candidates from all parts of the world.
251. While the cultivator may very well profit by such a lead in the right direction as is given by the State, his earning capacity to stand up to the exacting level of his growing economic needs will pre-eminently depend, in an increasing measure, on far more direct and important steps. The remedies against agricultural over-population suggested in the general : section desprve reiteration at this juncture. The development of more intensive farming, the extension, wherever possible, of the double-crop system, the adoption of mixed farming by a scientific rotation of crops, the use of lift irrigation through rural electrification, etc., are really constructive proposals which, if put into operation, can mitigate the intensity of the pressure of population on land and increase what economists call it "carrying capacity" and thus indefinitely put off the evil day when popula. tion will begin to :out-strip the natural resources of the land. The cultivator who is out to improve the quality and increase the quantity of his crops, will also do well to resort to the lucrative method of plant improvement by selection and cross-breeding, as is being successfully done on a nation-wide scale with regard to wheat in Germany, rubber in the U. S. S. R., cotton in Itals and sugarcane in Java., Recourse may also be had to improvement in fertilisers but as pointoc out above, progress in mechanisation may not $b_{1}$ easily possible in this country. Subsidiary occupa tions like care of livestock, poultry.farmin,
sericulture, apiculture, etc., could be profitably undertaken while the encouragement of rural industries whereby agricultural products are transformed by the workers promptly and suitably, into raw material for the industrial workers in urban areas thereby establishing a healthy link between farm and factory, are other ways and means, possible as well as feasible, in this country.
252. The innate conservatism of the mgriculturist often acts as a dead weight against any change. Nor can any blame be apportioned to him for this. He has not the wherewithal by way of earnings or savings to venture on new and costly experiments. If with borrowed capital he embarks upon scientific methods and eventually fails he is ruined for life. The general consensus of conservative opinion is sure to set its face against such innovations in agricultural economy for some time to come. A solution may, however, be found in a joint co-operative effort on the part of the few agriculturists who can command capital and the Agricultural Department that is bound to lend its helping hand in matters of such great moment. The introduction of mixed farming, new crops, mechanisation,' use of compost manure, etc., should be resorted to not merely for demonstration purposes as models in experimental farms, but as a really working proposition on a large-enough scale for a long-enough period. The active and consistent support of the Agricultural Department would encourage a sufficient investment of the shy capital of the opulent farmer and the abundance of labour available could also be brought to bear upon the scheme to produce tangible results of a considerable scale. There is a reasonable chance for such a system to spread. The capitalist farmers, will, in that case, have rendered a real serviee to the people and the Department will have acted as a real wet-nurse to age-old agriculture which is still in its infant stage. At any rate, without initiative and enterprise and a dynamic spirit that sets its face resolutely towards the future, the resources of our land will scarcely be able either to stave off
the economic depression that threatems to burst in upon the world in the poat-war yoars or to resist and survive the evils with which it is sure to engulf those veoples that exuroise loss foresight, and vision.
253. If dopression does sot in, as woll it must, the State has to come to the rescue of the agriculturist in remunerating him speoially in the matter of labour, purchasing power and guneral welfare. The decade that followed the last world war was characterised by a world-wide economio depression which had suoh serious reporoussions on Travancore that Government had to institute special inquiries through Committers of uxperts into such problems as unemploymont, banking, credit facilities, agrioultural indebt. ednoss, co-operative movement, debt-conciliation, etc., and adopt, wherever possiblo, the ameliorative measures suggested by them. The economic reasons why State aid is necessary for the rehabilitation of the agriculturist call for some elucidation. When depression sets in owing to the fall in the prices of agricultural com. modities, the purohasing power of the agrioulturist lessens more than that of purchasers in any other economio categories. Industrial outlets for agricultural goods are contracted, resulting in a general decline of economic activity. There will then be a great disparity between industrial and agricultural prices. In Industry the supply can adjust itself fairly quickly to the domand because cortain industries work only to ordor and a factory may be temporarily closed or made to produce less and the manufacturers can by mutual understanding regulate tho volume of production. So the small demand in induatry in the period of depression results in a decreased output and consequently prices are not generally lowered. But in agriculture the case is different in two ways. The demand for agricultural products is always rigid, especially for the staple commodities. Secondly the supply' is dutermingd largely by such uncontrollable and erratic factors as atmospheric conditions, the regularity of monmoons. etc. Consequently there may be great.
fluctuations in harvest. Therefore, in agriculture, unlike in industry, while the demand is constant, the supply varies independently of it. Due to the comparative rise in production there is steady increase in supply and as a result prices necessarily fall. And what with this fall in prices the agriculturist cannot cheapen his production. Thus while his expenses are constant, if not increasing, his retư̈ns are diminishing. The disparity thus inevitable between industrial and agricultural prices affects the distribution of national income afid introduces a wide difference between the purchasing power of the industrial and agricultural clasees respectively. It is this disequilibrium that necessitates the intervention of the State to restore the balance which is a vital condition of national prosperity.
254. The nature, form and extenit of State aid to the agriculturist must always be conditioned by the special circumstances in which it has to be rendered. Legislative protection to farming interests in economic exigencies has been a consistent feature of the State administra. tion and the Sovereigns of Travancore have always evinced a deep interest in the progress of agriculture and reserved a soft corner in their Royal hearts for the tillers of the soil. As early as 1819 Rani Gouri Parvati Bayi issued a Royal Proclamation which laid down that the import duty then levied on rice should be removed when sufficient rice was not produced within the country and should bexe-imposed when the local production was sufficient to meet the country's demand. - The regulation of foreign trade by such 'corn laws' and other pieces of legislation to prevent dumping of foreign goods and to counteract foreign competition is rendered necessary from time to time. Financial aid, direct and indirect to the cultivator, irrigation, regulation of prices and control of marketing etc., besides the activities already enumerated of the Agricultural Department, have done much for the cultivators. The non-cultivating owner who commands easy wealth, the estate manager or agent who thrives on the business be supervises, the cultivating
owner who leads a solf-sufficient life often with a small surplus to lay by and the cultivating tenant whose occupational facilities may well keep him above want are comparatively well off if economic conditions axe normal and do not always stand so much in need of external aid as the agricultural labourers including partly dependants whose number, as already pointed out, has been steadily increasing throughout the last decade, especially among females.
255. Industrial labourers have the advantage of organised combination and collective action through labour organisations and Trade Unions to extort more favourable conditions from capitalists by their agitations and strikes. 0 wing to this fact they have always sought and sometimes got state protection to ensure higher wages, fewer hours of work, better housing facilities, medical relief, education of children, old age pensións, insurance schemes, unemployment doles etc., that have enabled them to become an organised power in the land and in several countries to secure and exercise even political control. But the lot of the agricultural labourer is far from enviable. In lands where cultivation is well organised, agricultural labourers also have come up after the fashion of their industrial brethren. But in countries where workmen live under conditions entirely different, their lot is haxd indeed. In Travancore, the agricultural labourer is a son of toil, incessant and hard, as mueh as he is a son of the soil, and his hand to mouth life on the mere pittance he earns, often only in kind, by his strenuous exertions in the hot sun from dawn to dusk with none of the amenities of life nor even its elementary comforts, with just, a mud-hovel for shelter, a loin cloth for dress and a handful of rice for his food, presents indeed a picture far from edifying. And in times of depression he is the hardest hit of all and if State aid is ever rendered to the agriculturist, it should be first and foremost to him. Whatever implement he wields, whether the spade or the plough, the crowbar or the pickaxe, the sickle or the flail and in whatever part of the State he is found, the story is the same. When one
realises that this silent crowd, working in soattered groups, braving the inclemencies of the weather, do get but a small fraction of the wealth which they work hard to produce, it should call for the best in us to make the life of these people happier and better. A prosperous agricultural population, being kept above want and in reasonable comfort will not only be an index of its healthy economic independence but compensate to a considerable extent forithe gradual diminution in the number of peasant proprietors.
256. In the scale of national economy, the cultivator, who by his skilful toil and tenacity, makes the soil yield to capacity in farm and field and lets his land be rich in cash and crop, is olosely followed by the manufacturer who by hand and tool or plant and powar in cottage and factory adds to its riches by export application of techni. cal skill. While the agriculturist is primarily concerned with the development of natural resources, it is the manufacturer that turns the raw products into good account towards the further development of the economic resources of the land. The term "economio resources" compre. hends such factors pertaining to a country as its natural resources, its present economic development, the known possibilities for new develop. ments and the economic relation of that country to other areas. The farm hand functions funda. mentally in relation to the first factor while the factory worker's operation conduces more directly towards the realisation of the other three ends. For this reason it can categorically be stated that the degree of success that crowns the efforts of the State for the allround development of its economic resources. can most practically be measured by a study of its industrial conditions which will reveal the extent to which the people have actually taken to and profited by the facilities and opportunities afforded by the economic policy of the State. A separate study of industry as one of the principal means of livelihood fraught with dynamic possibilitios for the future, much more than any other occupation is, therefore rendered necessary. Industrial activity exists in the State both in its handicraft form and capita-
listio aspeot and an attempt is made to make a brief statistical survey of the salient foatures and future trends of industry in the State in genoriul, and organised and cottage industries in partioular.
257. In the interpretation of goneral oooupa. tional trends already made, the indopendent workers in each sub-olnss were grouped along with partly dependants and subjeotud to atatistical scruitiny. In the separate study of induutry in the following paragraphs, workers are groupol, as in the case of agriculture in the foregoing pages, in the restrioted sense of indopendent workers ouly.
258. The first poiut to be emphasisod in this connection, is that the percentage in the numhor of industrial workers to total workers has not recorded any variation since 1931, the figuros returned in both censuses being about 19 per cont. The inclusion of partly dependants will however, raise the percentage by 2. The absonoe of any variation in the percentage of indopendent workers in 1931 and 1941 may be due to thoir tardiness or reluctance to change their oustomary avocatione and adjust themselves to the nuw conditious even in allied ocoupations. The programme of industrialisation, broadly envisaked and partially initiated under the auspicas of the State is thus seen to take effect only slowly, but other things being equal, the trend is sure to make for the absorption of more and more workers into the ranks of industry owing to the increasing facilities open to them. The diversion of more and more workers from agricultural into industrial occupations will, as in all progressive countries, prove the best economic remedy for the pressure on land.
259. A comparison of the proportion of workers, male and female, engagod in each particular industry to the total of industrial workers as registerod in the last two censusos is illustrated in the diagram on page 88 . The relative importance of the various industries and the variations in the distribution of workers among them can be made out therefrom at a glance. The order of preference is found to be

## Variation in the proportion in each Industry to total

 (perMale

1.Textiles
2.Hides and Skins
3. Wood
4. Metals
5.Ceramies
6.Chemical Products
the same for both males and females in both censuses. In the descending order of numerical strength, the male workers are distributed in the textile, wood, food and dress and toilet industries. Building and metal work come next. In the present Census the percentage of rise recorded among male workers is apparent only in three categories, viz. textiles, hides and skins and the food industry. The increase in the proportion

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of workers (Maleficmale) Industrial workers mille)
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Female

7. Food

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8.Dress and Toilet
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9.Buildıng
10.Construction of means of Transport
11. Production and transmission of physical force
12Miscellaneoup
in the first case, is due to the expansion of the premier industry in the State. The fall in the male workers in other orders such as wood, metal, ceramic and chemical industries is by no means negligible except in a few cases and bespeaks rather of stagnation than of retrogression as well as of the greater scope possible to workers to develop them.
260. The proportion of female workers has decreased in all the orders except the food and chemical industries which register an increase of nearly 14 per cent. each. The statistical reason for the general fall has already been explained in a previous context. Whereas the independent workers among them have been returued in diminishing numbers, the corresponding partial dependants in each category are found to increase showing thereby that there might also have been a steady decline in industrial activity among females within each fold resulting in a deterioration into more and more of economic dependence. It has to be remembered that the occupational choice of females, especially in the industrial orders, is always determined by the physical aptitudes and mental attitudee of workers be" sides considerations of economy actuating the employer and the employee alike. Women would naturally show a predilection for such industrial pursuits as would involve less physical strain as well as fit in with their spacially inherent capacities. That is the reason why in such orders as textile, food industries and pieces of 'woodwork' like basket-making, the proportion of females outnumbers that of males and even come up on an almost numerical par with them in the making of dress and toilet goods, chemical products etc., in every one of which the nimbleness of their fingers, their quickness in plying them and their meticu. lous care for perfection of detail can be shown off to superior advantage. The employer in the meanwhile is attracted by the additional inducement of the comparative cheapness of female laboux which would easily come in handy on the required scale. The female preponderance in the food industry wherein their proportion is double that of males is partly a reflection of the great demand for food outside their houses even at a higher cost among the generally overworked and underfed working classes and therefore an index of the increasingly severe economic drain on day-labourers among whom a large number of women cater or vend food on a business scale. The variations in the female ratio within the last
decade among industrial workers can be studied from the subjoined table :-

Variations in the lemale ratio among independent workors in the variots industries.
Females per 1,000 males in 1031 and 1941 .


- 251. It will be clear therefrnon that except in one or two minor instances the ratio tends to fall in the present census from what it was in the last. The preference of female workers for textile and food industries is borne out by the figure which in each case rises to nearly doubln the total female ratio in industry. Dress aud toilet making, chemical products and wood iudustry are further seen to attract large numbers be. cause of the specially feminine aptitude for them, particularly in basket-making which is grouped under the wood industry. The fall in the ratio of female workers in coramics is due to the growth of tile factorins and the diminution in the number of workers engagod in pottery.

262. The general remark made above in passing that in the rank and file of female industrial workers there is noticeable a submergence from economic sufficiency into more and more depandence can be statistically conroborated by the . subjoined table.

| Female ratio of partly dependants among industrial workers, i. e. females to 1,000 male partly dependants. |  |
| :---: | :---: |
| Description. | Ratio. |
| 1. Textiles | 4,283 |
| 2. Hides and skins | 228 |
| 3. Wood | 2,355 |
| 4. Metal | 197 |
| 5. Ceramics | 1,588 |
| 6. Chemical products | 1,139 |
| 7. Food | 946 |
| 8. Dress and toilet | 1,568 |
| 9. Furniture making |  |
| 10. Building | 289 |
| 11. Construction of means of transport |  |
| 12. Production and transmission of physical force |  |
| Miscellaneons | 17 |

The State ratio viz., 1481 of partly dependants has been exceeded in four industries by female partial dependants and these in the descending order are textiles, wood industry, ceramios and dress and toilet. This shows how the income derived by workers from these industries is high enough for tham to support a larger number of dependants. The food industry, despite the high percentage of workers pursuing it, does not bring in much income to the workers as is evidenced by the low figure against that order. In the metal, building and miscellaneous industries besides in the matter of hides and skins the ratio is particularly low.
263. The question of partly dependants of botir sexes may be separately studied just to get .an idea of the variation in the economic sufficiency of industrial workers in the last decennium. The subjoined table gives the ratio of partly dependants to 1,000 independent workers in the various orders.

264. It will be seen that except in respect of hides and skins there has been a general increase in the proportions registered for the present Census. A margin of error is possible in this calculation owing to the difference in the connotation of the terms 'working dependant' used in 1931 and 'partly dependant' of the present Census. If the figures are taken as absolute, the workers of the present decade are found to be supporting a larger proportion of dependants. Partial dependants number most in textiles where they exceed the number of workers. In wood industry, dress and toilet and ceramios also the number of such is pretty high. But a comparison with the ratio of partial dependants in the State viz., 415 reveals the fact that in general, wholly dependants are not so numerous as in the case of agriculture, as to prove themselves an insupportable encumbrance on the industrial workers:
265. The self-sufficiency of an industrial worker is generally determined by the results of his pursuit of some industry or other as his sole means of livelihood. The fact of his being forced to have recourse to some subsidiary occupation to supplement his income argues the inadequacy of his earnings from industrial pursuits. Of the total number of industrial workers in the State $(296,688)$ nearly one-seventh $(39,628)$ are found to be engaged in some subsidiary occupation or other of whom 28,439 are males and 11,189 are females, Subsidiary occupations may vary according to circumstances but in a predominantly agricultural country like Travancore, cultivation is sure to figure as an important supplementary avocation to many a worker who is not principally a tiller of the soil. Industrial workers are no ex* ception to this. In the light of this fact it will be interesting to study statistically the degree of dependence which each industry has upon agriculture. This can easily be made out from the subjoined table.


Altogether 21,401 industrial workers take to agriculture to supplement their income. of these 2,618 are females. The furniture industry is carried on only by a few and will not therefore, lend itself to a comparative study. It is in the wood and food industries that the next highest percentage occurs. Metal and building industries follow suit. It is interesting to note that workers in ceramics and chemicals do not have to depend much upon cultivation. The above table is an index of the dependence of industry upon agriculture even as a means of livelihood.
266. Though the statistics so far recorded about industries are seen to rise or fall with regard to ratios or proportions, the rate of actual increase alone will give a correct idea of the pace each industry has kept with the increase registered in population. The subjoined table

sets forth the rate of actual increase over 1931 in the numbers engaged in each major industry ( 5,000 and above).
267. The most discouraging figure theruin is the 26 per cent. decrease registered against the ceramio industry. It has to be borne in mind that more than half the number engaged in it are potters and makors of erarthenware and that a number equivalent to throe-fourths of those consists of tile and brick makers. The opening of many tile factories and the new orramio factory must have forced many of the cottage workers in this field to give up their erstwhille occupations as unprofitable against competition. Metal-work and building-construction, whioh have reasonable prospeots as long as human domand lasts for buildings, implements, furniture, tools, etc., record a high enough rate of inerense. Oil refining, manufacture of soap and the making of drugs, pharmaceutical coods, matohes and fireworks, form the prinoipal chemical industrins which bid fair to develop rapidly in future yonrs. The manufacture of textiles as well as dress and toilet-making would have registored a highor rate of increase if only more males (who certainly can earn more) in the former, and more females (who can work better) in the latter, had earnoatly taken to these pursuits.
263. It is gratifying to note that a grod lead in the matter of industrial progress is given by the food industry which has recorded itself as having far out-stripped the rate of population growth. The preponderance of the female olement in this order which has already been om. phasised and accounted for, is one obvious reason for this. Another explanation is afforded by the increase in the numbers of those engaged in the sugar and gur industries and in the making of confectionery, sweet-meats and condiments. It can scarcely be gainsaid that human tendency is persistent to go in, off and on, for a bit of quality food in extra-quantitios just by way of spicing up and thereby make up for the dietary or culinary shortcomings in the monotonous table routine. Side by side with this propensity, looms the craze for expensive social entortainments with their gourmetic display pandering to the keenness and variety of gustatory
demands as a "sine qua non" of sufficiency. As long as these cravings of the human palate continue to exist, individually or collectively, the food industry is sure to keep up its high record. The craving to frequent the tea-shop or the restaurant is developing into an almost irresistible impulse in the younger generation. The restaurant or cafe, like the picture palace bas become a marked feature of the urban life of today. Entertaining friends in a restaurant is considered more fashionable than inviting them to tea at home. Even the day-labourer feels himself perfectly happy if he could spend his noon-day food allowance in the nearest tea-shop. The pangs of hunger of those at home, which could partially be alleviated by the extra amount paid to the tea-shop, month after month, does not seem to weigh with him. The predilection of a good many for ice-creams, aerated waters or other colourful liquids to quench their thust in preference to more homely and natural drinks easily available to those who want them at little or no cost whatsoever, has become a marked tendency, increasingly manifest among the youth of the land. A multiplicity and variety of wants felt and satisfied, may be an index of a rise in one's standard of living. But it can only spell economic ruin unless counterpoised by a corresponding rise in one's income. It is to be deplored that a need for a balancs in economy is, more often than not, overlooked by those who hitch their waggon to false standards of better living. The habit of smoking is more widespread than that of drinking. The substitution of the native beedi for the foreign cizarette has made this almost a national trait. With a good many, tobacco in some form or other should be a fitting 'finale' to a sumptuous meal. The youthful 'undergrat' now measures the interval between lectures by the time required for a cool drink and a puff or a pinch after that. Incidentally it may also be remembered that the addiction of a good many people to stimulants or beverages, may be, to be braced up a whit or spurred into a modicum of extra vim in work, sometimes a
little strong to be able to forget the cares of this woild, is evidenced by the fact that more than three-fourths of those in the food industry comprise such workers as toddy-drawers, brewers and distillers and manufacturers of tobacco. Until such 'wet' folk turn 'dxy', the cup that cheors in moderation but inebriates in excess must continue "to make life worth living" for all those who despise the teetotaller and take the hedonistic view of life so well embodied in "eat, drink and be merry, for tomorrow we die". The easy profits expected by dealers and purveyors from the food industry have made it popular with particular classes and consequently led to the employment of a disproportionately large number within its fold.
269. The industrial conditions in the State are best studied if the two groups into which industry is classified, viz., the cottage and oxganised industries are separately dealt with. In the cottage industries the majority are doing business on a small scale, each individual working at it at home with the aid of the members of the family, but with little or no hired labour. In the organised industries comparatively smaller numbers in the State work on a large-scale in wellregulated, full-time establishments, wherein, besides the operatives, young as well as old, there are welfare workers rendering medical aid or engaged in teaching work, otc., and the well graded staffs of clerks, and supervisors under the general direc: tion of the manager. Imperial table IX sets forth all the relevant statistics regarding organised industries, collected at the present census.
270. A comparison of the figures therein with those in previous censuses is rendered difficult by the fundamental difference in the basis of the collection of statistics in all cases. In 1911 the-industrial census covered all establishments employing 20 persons or more and in 1921. employing 10 or more. The recording in 1931 related to plantations of special crops cultivated. on an estate scale and industries worked on a factory scale, the basic rule still being the number of persons engaged. But in the present census
only industries employing paid assistants were recognised as organised. Despite this difference in the basis of definition, a rough and ready comparison is possible which shows that in all the different industries, except in those of printing and motor transport, there is a steady progress recorded, the number in coir-industry having quadrupled in the present decade though in this case some allowance will have to be made for statistical vagaries.
271. Seven per cent. of the total male workers in the State in all occupations together, and 20 per cent. of the total female workers are engaged in organised industries. If the percentage is calculated on the total industrial workers only, including those in the semi-organised rubber and tea estates, the males record $34^{\circ} 2$ per cent. and the females 51.5 per cent. respectively. The proportion of workers in organised industry to the total industrial workers in each particular group is given in the subjoined table. The figures concerning industry in general are of independent workers only.

| Description. | Number engaged in general industries. | Number in organised industries. | Per. entage. |
| :---: | :---: | :---: | :---: |
| 1 Rubber | 20,435 | 14,266 | 69.8 |
| 2 Tea | 55,338 | 62,560 | 118.1 |
| 3 Minerals | 1,286 | 3,007 | 237.5 |
| 4 Cotton spinning and weaving | 15,885 | 4,776 | $30 \cdot 1$ |
| 5 Coir | 68,392 | 32,460 | 47.5 |
| 6 Ceramics | 6,184 | 2,844 | 48.0 |
| 7 Confectionery (including cashewnat) | 8,568 | 9,850 | $115 \cdot 0$ |
| 8 Printing | 1,024 | 1,156 | 112.8 |
| 9 Motor tranaport | 3,301 | 1,479 | $44 \cdot 8$ |

272. A comparison of the figures in the first column with the corresponding ones in the second registers two outstanding facts regarding the nature of employment in each industry. In the first place, cotton spinning and weaving is found to assume the first rank as a cottage industry, since only 30 per cent of the workers in it are seen to be employed under the organised system.

Similarly coir, ceramios and motor transport ara also found to employ less than 50 per oent. of their workers on an organised basis. The soope of an isolated or smallscale enterprise on the domestic basis is thereby apparent in these categories. Even the percentages recorded against these three must be taken at a disoount in view of the fact that organised industry always admits into its fold not merely those to whom a particular industry is the sole or principal means of livelihood, but a large number of others who pursue other avocations but are tomporarily employed in industry. This is the second prominent feature of the statistical data given above. Whereas the figures in the firat column represent the total workers who are permanently engaged in each industry, cottage as well as organised, those in the second may comprise, besides permanent workers, lots of others who do odd jobs off and on, in that industry without being permanently employed in the conearn and turning up only when permitted or requisitioned. The larger the scale on which an industry is organisel, the wider will be the scope for the association of different means of livelihood with it. It is for this reason that in such orders as printing, confeotionery and tea the number ongaged in organised industry exceeds that in the general and the number against minerals rises up so high as $237^{\circ} 5$ per cent. A study of those features easily postulates the desirability of organisation in every possible industry if only for the better scope afforded thereby for a greater incidance and variety of employment, not to speak of other economic advantages ancillary to this.
273. The disuribution of workers in the different organised industries is illustrated in the diagram on page 94 . Tea, which ranks highest in the order of precedence, is found to engage nearly double the number of workers in coir industry and more than four times the number in rubber. Con; feotionery ranks fourth, cotton spinning and wea. ving next. The proportion of distribution of male and female workers in the various orders is given in the subjoined table.

Diagram referred to in paragraph 276.


Proportion of distribution per 1,040 .

| Description. | Maleg. | Females. |
| :---: | :---: | :---: |
| 1 Rubber | 130 | 43 |
| 2 Tea | 358 | 504 |
| 3 Cardamom | $2 i$ | 18 |
| 4 Minerals | 32 | 1 |
| 5 Cotton spinning and weaving | 41 | 13 |
| 6 Coir | 198 | 267 |
| 7 Ceramics | 28 | 6 |
| 8 Confectionery (including eashewaut) | 41 | 114 |
| 9 Printing | 12 | 1 |
| 10 Motor transport | 16 | $\cdots$ |

274. 

Both male and female workers rank highest in tea and coir industries as in the general scale of precedence, but as for the third place the higher proportion of females in confectionery (which includes cashewnut industry also) is evidenced by their larger numbers in that order than
that of males who rank third in the rubber industry in which female proportion is relatively very sinall. In the cases of tea anil coir also the females record a higher proportion than males. The incidence of female labour is best studied in the subjoined table which sets forth the sex-ratio in the organised industries. The ratio list given in the descending order easily reveals the ranking. It will be seen that the number of females is more than that of males by 60 per cent. in confectionery which comprises the food and

|  | Industries. | Female ratio $:$ |
| :--- | :--- | :---: |
| 1 | Coniectionery (including cashewnut) | 1,637 |
| 2 | Coir | 784 |
| 3 | Tea | 756 |
| 4 | Cardamom | 480 |
| 5 | Rubber | 191 |
| 6 | Cotton spinning and weaving | 170 |
| 7 | Ceramics | 119 |
| 8 | Printing | 52 |
| 9 | Minerals | 23 |

cashewnut industries. Coir and Tea are seen. to employ fairly large numbers. The figures are naturally lowest in minerals and printing industries.
275. Out of the total of 145,291 recorded as the working population in organised industries, 3,512 are made up of 722 managers, 1,084 super* vising and technical workers, 1,527 clerks and 179 welfare workers. The number of welfare workers such as doctors, teachers, etc., in all the industries together may seem too inadequate for a population of 141,779 operatives. As most of the operatives live in scattered homesteads away from the factory the crowding in tenements built in the vicinity of it, as in western industriai centres, is avoided and welfare work is consequently limited to securing sanitary and
hygienic conditions within the factory during the hours of work. It is only in rubber and tea plantations that special arrangements are needed on a large scale. The slight increase in the number of welfare workers this time must be put cdown to State legislation pertaining to the health and safety of labourers. Most of the welfare workers are divided between rubber and tea plantations.
276. Of the 141,779 operatives in the State more than 50 per cent. are employed in special -arop business, tea alone accounting for 62,094, rubber for 13,853 and other crops for 2,855 . The proportion of distribution of the remaining 62,977 which is more than double the corresponding figure in 1931 is given in the table in the next column.

| Industry | Number | Percentage |
| :---: | :---: | :---: |
| Ooir | 31,918 | $80 \cdot 7$ |
| Cotton weaving | 4,654 | $7 \cdot 1$ |
| Tile sid briok | 2,088 | $3 \cdot 3$ |
| Oil mills | 947 | 1.6 |
| Cashewnut faotories | 0,386 | 14.9 |
| Printing prees | 845 | 1.3 |
| Motor buses and lorries | 1,934 | $2 \cdot 1$ |
| Others | 11,843 | 18.8 |

The percentage of operatives in coir faotories has increased from $23^{\prime} 1$ in 1931 to $50^{\prime} 7$ in the present consus. Cotton weaving has engrged more than double the corresponding proportion recorded in 1931.
277. Among the operatives in all industrins, there are large numbers of women, youthful workers in the $15-16$ agegroup and thousands of boys and girls, working both in estates and factories. The subjoined table gives the number of such workers grouped by age and sex and their percentage to the total operatives in the State.

Proportion of Operatives (by age and sex) in estates and factories to total operatives.

278. It will be seen that of the total number of operatives in the State, only 50 per cent. are adult males. The remaining workers comprise 27 per cent. adult females, 6 per cont. adolescent males, 4 per cent. adolescent females, 7 per cent. boys and 6 per cent. girls. Children and adolescents together constitute 23 per cent. of the total operatives. Factories are found to employ more adolescents than estates while the case of the other age-groups is vice versa. Both in estates and factories there are more males than females. While the lot of industrial operatives is a general problem of first-rate significance, the fact that children, adolescents and female adults together number as many as the adult male operatives gives rise to numerous special problems. In view of this fact a general survey of the question of industrial operatives in the State within the last decade is rendered necessary.
279. Travancore is a land of industrial potentialities, no less than agricultural predominance. Organised industry began only fromicomparatively recent times, gradually to supplement and imperceptibly to supplant her immemorial industrial economy under the domestic system. Since the establishment of the first coir factory on the Alleppery beach as early as $1859-60$, by the late James Darragh, the founder of Messrs. Darragh Smail \& Co., Ltd., and worked successfully with the help of weavers from Bengal, the coir busi. ness has been progressing by leaps and bounds until it became the premier industry in the State in which thousands of families are employed in one or other process of making coir yarn. Numerous estates and factories concerned with various industries soon sprang up in suitable localities. The subjoined table givesa classified list of these as they exist at present. Industrial organisation followed fast in the wake of the rise in industrial population, the factories forging ahead of the estates in the perfection of the industrial technique and the spread and control of business ramifications. . Problems soon cropped up, leading to and afterwards resulting from the co-ordination of employers to safeguard their interests, the
subsequent union of workers to protect themselves against undue exploitation and the consequent intervention of the State for arbitration and conciliation in the disputes that were inevitable, of labour versus capital.

- Factories registered under the Travancore Factories Act (VIII of 1114).*
Factories. Number

|  | Factories. | Number |
| :---: | :---: | :---: |
| 1 | Tea | 89. |
| 2 | Rubber | 15 |
| 3 | Cashewnut | 1 |
| 4 | Rice hulling | 1 |
| 5 | Engineering | 6. |
| 6 | Tile works | 16. |
| 7 | Wood works | 12. |
| 8 | Oil mills | 13 |
| 8 | Coir | 23. |
| 10 | Match | 2. |
| 11 | Paper | 1 |
| 12 | Printing | 11 |
| 13 | Sugar | 1 |
| 14 | Distilleries | 1 |
| 10 | Can making | 2 |
| 16 | Electrical . $\because$ | - 1 |
| . 17 | Ceramics | 1 |
| 18 | Arta and Craita ${ }^{\text {. }}$ | 1 |
| 18 | Water works : -- | 1 |
| 20 | Cotton | 4 |
|  | Total | 202. |

Estates in the State.

| Description | Total Number. | Estater of less than 100 sores each. |
| :---: | :---: | :---: |
| 1 Rubber | 1,294 | 1,163 |
| 2 Tea. | 158 | 14 |
| 3 Cardamom | 53 | ' |
| 4 Coffee | 6 | 1 |
| Total | 1,511 | 1,178 |

280. From the days "when Adam delved. and Eve span" the poverty of the labourer has.

[^3]not detracted from the dignity of labour, which the capitalist "gentleman" has oftentimes recognised in words but not adequately recompensed in cash. The relation between employer and employee has been more cordial in agricultural than in industrial economy. A sentrment akin to that of loyalty to a chief or fealty to a lord or fidelity to a master has often governed the relation of a tenant to his landlord who has reciprocated it by his patronising solioitude for the welfare of his tenant. The industrial operative, on the other hand, is treated by bis employer more like an automaton functioning as an economic unit in his money-making concern without the sentimental attachunent to the master, noticeable among the agricultural tenants. In the various ceremonies and annual festivals occurring in the landlord's household the tenant has a definite part to play which gives him a place in the family economy, a feature inconceivable in the relation between a factory hand and his employer. In the organised industries the reciprocity of those who offer and accept service is determined by what Carlyle calls "the cash-nexus". The absence of cultural contacts between the employer and employee has unfortunately led to a clash of interests resulting in the demand for protective organisations to safeguard each other's rights. This tendency has led to the rise of Trade Unionism in all industrialised countries and its internationalisation in recent years. Capitalist obduracy against the claims of labour organisations has forced the latter in some western countries to adopt the programme of direct action through atrikes, etc., and thereby set on foot the Syndicalist Movement tending towards socialism that advocates the destruction of capitalism by the nationalisar tion of all wealth. Wherever such movements have been wrecked on the rock of capitalism, they have risen anew, like the phoenix, with redoubled vigour in the more aggressive forms of communism and anarchism and given rise to socioeconomic revolutions and political upheavals.
281. The incipient character of organised industry in Travancore has taken it no farther
than the frontiers and outskirts of suob problems, whose multitude and magnitude have taxed the resources of statesmanship so heavily elsewhere. For one thing, the employers started business on terms reasonable enough to preclude any palpable disability. Factories and estates in the initial stages boing few and far between, the operatives had little occasion to be detrimentally affect. ed by the rigours and restriotions to which the pressure of competition might have forced their employers to subject them. When the prospects of large-scale business and joint-stock concerns became manifest to local producers, more and more factories were set up and keen business competition set in, which prejudioially affected the business and ultimately the wagerrates. As long as the various factories and estates were based on stable capital and sound organisation, the pernicious effects of competition were not so intense or widespread as to result in agitation. But when numerous mushroom concerns cropped up with little capital and less organisation, competition became unbridled, often of the outthroat type, and constrained the employers to tighten their purse strings and stiffen their attitude to their operatives, who thereupon sought to safeguard their interests, by starting labour unions which gave them greater strength. The example of operatives was followed by workers in other categories also, if not for any immediate advantage, at least for their ultimate good. The subjoined table shows the number and variety of labour unions in the State. Attempts are also in the making to federate all these unions into an All-Travancore Union.

Labour Unions in the State

282. Within the last decade many of these unions were active especially in Quilon and Alleppey, where factory workers number most, in organising agitations and atrikes for the redress of their manifold grievances pertaining to such matters as wage-rates, hours of work, sanitary conditions, fines and exactions, safety against hazardous operations, se parate representation on the legislature, etc. . Strikes were answered with lock-outs or wage-cuts, by employers in retaliation and when the dispute developed into a deadlock, Government stepped in by appointing a Board of Conciliation of Trade Disputes to investigate and report. The workers demanded state control or "rationalisatiou" to relabilitate the industry of the State. The President of the Chamber of Commerce, Alleppey, put forward a scheme for the establishment of a Control Board to rationalise industry, by exercising control over production and'export, to check unwholesome competition, eliminate wasteful expenditure and put down malpractices, to ensure co-operation of employers' associations with labour unions, to standardise wages and secure better conditions for workers. Though the scheme was open to criticism " as revealing the suspicion of European towards Indian business concerns "the Conciliation Board saw their way towards accepting it as a basis for the formulation of a revised scheme. The Board made elaborate recommendations to Government, at once comprehensive and constructive, to promulgate factory legislation pertaining to such matters as recruitment and employment, regulation of wages, reduction of fines, suppression of exactions, health and welfare problems including maternity welfare and education of children, unemployment insurances, the compilation of statistics, labour organisation and the control of industry by a board. A Labour Commissioner was also appointed to co-ordinate the operation of labour laws and to act as a liaison officer between Government and labour and between labourers and capitalists.
283. There are at present five factory laws in operation in the State conducive to the welfare and progress of industrial interests, viz., the

Factories Act, the Trade Disputes Act (which -established an Industrial Relations Committee for arbitration and conciliation), the Mines and -Minerals Act, the Workmen's Compensation Act and the Trade Unions Act. Hundreds of workmen who sustained injuries or were incapacitated and the widows or children of the few who died while in employment were compensated by the administration of these laws. Of the numerous Trade Unions in the State, functioning vigorously, the most important are the Coir Factory Workers' Union, Alleppey, the Factory Workers' Union, Quilon and the Labour Union, Thuckalay. The growth of protective organisation among. operatives presages a bright future for organised industry in the State. Planting and industrial interests have separate representation in the State legislature.
284. A word at this juncture about the Labour Welfare Movement launched in industrial countries abroad and its favourable repercussion in India may not be out of place as suggesting lines along which the lot of operatives in the State can be further improved. Private agencies and voluntary associations engaged in welfare work are concerned chiefly with such ameliorative measures in plantations as licensing of recruits, registration of emigrants and ensuring safe conditions in labour contracts, etc., besides such steps in regard to factories as sanitary and safety measures, regulations concerning age and hours of work of operatives, wage-rates and condition of women and children. In Travancore the problem of labour welfare work, as already pointed out, is to pertain more to the inside arrangements of factories, than to any measures relating to the vicinity since the vast majority of operatives in them hail from the suburbs, rising at cock-crow and, with nothing. better than some cold victuals prepared overnight by way of a hasty breakfast, trudging many a weary mile (six or eight in some cases) to arrive betimes, before the gate of morning: admission is banged, barred and bolted upon the late-comer. Conditions, within the factory should. be "at the worst tolerable and at the best.
actively pleasant. No amount of amenities provided outside the working hours can really compensate for work which is felt to be at burden". In the regulation of the hours of work the primary principle viz. that a shortar period of more intensive work with ample leisure for recuperation and -recreation is more conducive to efficiency than long hours of spreadout work. Sanitation is another item of welfare work. Adequate latrine arrangements, drainage, drinking water, bathing and washing conveniences, besides safety against possible acoidents must be provided for. The fact that excessive noise such as the monotonous clap of the loom or the whir of the whe日l has highly detrimental effects on the nervous system must) not be overlooked. The provision of first aid facilities, creches for babies of female operatives, teashops or canteens for lunch and recreation during recess, medical precautions against conta-, gious or infectious, or epizootic diseases and particularly in plantations, proper housing, etc.., have to be seen to. Another important factor is the education of workers' children. The planters in: Munnarhave set a very good example in this respect by providing the staff of their well-equipped: school with free quarters, good salaries, special hill allowance; etc., and feet concessions to pupils. Recreational conveniences and provision for games, outdoor and indoor, reading rooms and libraries also form items in the welfare programme. Periodical remission of work by leave, the provision of leave allowances and such facilities as co-operative credit societies, maternity and sickness benefits, bonuses, gratuities, profitsharing, insurance, pension; etc., also contribute: towards: the same result. The spread of such welfare work in England, Germany, United States and Japan has easily led to high industrial efficiency in these lands while U.S.S. R. with its forty-hour-week, absence of unemployment, plamed economy and even the rule of the proletariat is considered to be the workman's paradise. The clash of interests due to lack of cultural contacts referred to above could, to a certain extent, be mitigated by the development of the
spirit of co-partnership in the concorn, onvisaged in the modern device of profit-sharing introduced in the Ford Factories in U. S. A. The operatives in the Ford factories are reputed to be the best. cared-for industrial workers in the world. The Y. M. C. A. and the Social Service League in India are doing for the country what the $D_{0 j u n k a i}$ Association of Tokyo is doing for Japan. Among Indian firms, the Tata Iron \& Steel Works oocupy the front rank in capitalistio munificenco to industrial operatives. Our country has much to copy and more to learn from such movemonts.
*285. The Department of Industries has been functioning on progressive lines within the last decade in respect of the development of the industrial resources of the State. Besides tendering expert advice on industrial problems from time to time to such establishments and indivi. duals as stand in need of it, the Department gives the necessary direction and comrection to the working of industrial pursuits in general in the State. The Director of Industries has throughout been functioning as the Labour Commissioner: since the inception of the latter office for arbitration and conciliation in trade disputes. Mining operations and mineral exports have always engaged the attention of the Industries Dopartment. Besides valuable prospecting work done in regard to such minerals as graphite and mica, the possibilities for the manufacture of cement were fully explored. Along with the conduct of industrial engineering, the Department has been seeing to the proper working, under its aegis, of the Ceramic, Rubber and Sugar Factories, the Travancore Wood Works, the Sri Chithra Textile Mills and the Punalur Paper Mills with its nowly set up water turbine and Yańker Cylinder installation which have onabled the mill to meet the heavy demands for paper from the Travancore and Madras Governmente. Special interest has been evinced by the Dopartment in such industries as the manufacture of caustic soda, and salt of sodium, lacquer work, making of bobbins, plywood and handmado paper. Several technical institutes, a school of commerce, a sales depot and an industrial
library are being run by the Department under whose auspices are working seventy aided and sixty-one unaided industrial sohools in which industrial education is imparted. Facilities are also offered for preparing candidates for the techniczl examination of the Madras and Travancore Governments. An Itinerant. Weaving Party, organised by the Department tours the State and makes demonstrations for the benefit of those interested in weaving.
286. The war has given a fillip to industry. By the State aid to Industries Act, a 'Board of Industries has been set up which, in consultation with the War Supply Department, is to supervise the production of commodities needed for war purposes. A combination of prominent indus-: trialists and commercial magnates known as the War Supplies Syndicate is also collaborating in the matter of providing war supplies. Making of charcoal from coconut shells, manufacture of aluminium products, preparation of tapioca flour, the making of camouflage nets of aloe yarn, coir tent components, salitahs, bags pin and bagsowall are the most important of the new industries that have been thriving under war conditions.
287: The University of Travancore has al. ways evinced special interest in industrial rosearch. Among the subjects brought within the purview of its Research Department are such matters of industrial significance as the manufacture of salt, distillation and refining of fuel oil, extraction of mesothorium and thorium compounds from monazite, retting of icoconut husks, oharcoal, lemongrass oil and ionone, iodine from seaweed, etc. The possibilities of manufacturing a coagulant for rubber latex, have also been experimentally established. It is again the outcome of University Research that. "Sharliverol" or shark liver oil, which is a suitable substitute for, and an equivalent in vitamin-contents, to Cod liver oil, is prepared on a commercial scale and finds a ready market.
288. If we deduct from the number of industrial workers recorded in Imperial Table VIII, that of the workers in organised industry, as
registered in Imperial Table IX; the larger numbers that yet remain are statistically under stood to mean workers in cottage industry. It has already been pointed out that out of the total industrial workers in the State including those in the rubber and tea estates, $34^{\circ} 2$ per cent. males and $51 \cdot 5$ per cent. females are engaged in organised industry. That gives the figures of the cottage industry workers in the State as $65^{\circ} 8$ per cent. males and 48.5 per cent. females. Side by side : with this, if we also take into account the already mentioned fact that in the ranks of workers registered under organised industry there are many operatives who are cottage workers requisitioned in factories and estates for temporary jobs of a miscellaneous character, the total percentage of cottage workers must be estimated at a far higher figure. This is an undeniable proof of the greater popularity and vogue of cottage 'industries in the State.
289. From time out of mind, Travancore has always been a busy hive of industrial activity. in cottages, homes and farms much more than in factories and estates, even after these were established. While a good many of the cottage workers, engage themselves full time in some industry or other as their principal means of livelihood, a far larger number, especially women, take to it , as an auxiliary occupation or a leisure-time hobby, by which they can earn an extra anna or two towards a favourable balance in their family budget. Far from the madding crowd of factory hands and estate coolies, loudly claiming their legitimate rights or blaming the niggardly capitalists for the disabilities they are subjected to, the cottage workers pursue the noiseless tenor of their way, busily but meekily, in sequestered villages and rural solitudes, contributing their daily quota towards their household economy with none of the demonstrations or agitations about wage-rates or hours of work, health problems or safety measures of a specific. character to worry or hurry about. Among the attempts made to promote cottage industry in the State, particular mention has to be made of


Litho, The Art Printing Worka, Trivandrum.
the 131 industrial schools imparting instruction in such subjects as weaving, carpentry, smithery, coir • work, rattan and bamboo work. The annual Industrial Exhibition (often on an allIndia scale) held in connection with His Highness the Maharaja's birthday, the Sri Mulam Shash-tiabdapurthi:- Memorial Institute and the Government Sales Depot, are also meant for the demonstration and sale of industrial products particularly of cottage workers. To get an idea of the number and variety of cottage industries and the high skill, ingenuity and exquisite workmanship of those ergaged in them, one has only to attend a village fair or a rural celebration, a temple or church fegtival, a public market or a welfare centre, in any part of the State. The potentialities are there. To an intelligent people with marvellous adaptability, it wants only a carefully conceived organisation to convince them that the economic independence of the village is no will-o'the-wisp, but a practical possibility. Travancore can then, like Japan and Russia, make every one of her villages a nucleus of economic self-sufficiency by fostoring her cottage industries.
290. It has to be remembered that among the occupations that could, according to Imperial Tables VIII and IX, be taken as cottage industries, there are several arts and crafts of a hereditary character pursued almost exclusively by particular castes. Under this category could be brought such workers as scavengers, barbers, washermen, tree-climbers, smiths, jewellers, cobblers, otc. The weavers also claim to be a distinct class by themsolves alleging descent from an eponymous ancestor mamed Chaliya Rishi. Both in villages and in towns these workers ply their trade which was once looked upon as the occupational monopoly of their caste but which now-a-days has transcended customary barriers and begun to admit outsiders into its fold. As long as the caste-war basis persists in the pursuit of these arts and crafts, the communities concerned can develop such industries by collective effort along lines chalked out under expert guidance by their communal organisations.

Where eaoh of these trides, however, tonds to develop a cosmopolitan charboter, common progress could be achieved by the institution of craft gilds, like those of medieval England in the days when factoxies were unknown, to safeguard and promote their profegsional intareats. The strikes we often hear of among soavengers, beedimakers and rickshaw-wallahs are symptoms of the increasing realisation of such possibilitios of organisation by the workers.
291. There is another class who cannot, in the strict sense, be grouped as workers in cottage iudustries. Those engaged in motor transport, for running their business as individual or private concerns (and not as members of Motor Unions or Syudicates) cannot do their work in their homes. Similarly a far larger number engaged in water transport as boatmen, eto., also cannot be regarded as cottage workers. They navigate the backwaters, canals and rivers in their canoes or barges or power-boats, from one end of the land to the other, making themselves available for low wages for passenger or goods traffic. Though they are not engaged in organised industry, they have labour organisations of tbeir own. Decoratora also come undor this category as workers who render service away from their homes.

- 292. Apart from the exceptional cases pointed out above, there are numerous other arts and crafts pursued in general throughout the State as regular cottage industries. Such jobs as mechanical repairing, binding and stitching engaye large numbers, especially in towns. Tailoring is also an individual concera in most cases but in large towns where sartorial demands are heavy and pressing; bigger establishments may be set up. Embroidery, the making of pillow and net laces, drawn-threed and crochet, knitting and tatting, are thriving items of needlework artistically done mostly by women in homes, and convents. This is a promising industry'into which still larger numbers of women could come forward. The toys made in the State compare favourably in design and workmanship
with those imported from abroad. Sweetmeatmaking and selling and small-scale tea and coffeo shops and hotels have surpassed any other cottage industry as a business proposition for reasons already explained. The manufacture of tobacco and narcotics supports large numbers in villages and towns. Beedi-making in particular affords 'decent means of livelihood to hundreds of fleetfingered juvedile experts. A study of the family budget in Economic Survey reveals the high percentage of expenditure for tabacco in all grades of families in the several income-groups. The slicing and desiccation of large quantitios of tender arecanuts for exportation is a paying business practised in North Travancore. The currying of local hides along with tanning of the leather thus obtained, is a popular craft providing material for leather goods of the cheaper and cruder type. Different kinds of yarn and twine are extracted out of barks or thick leaves by a good many workers. Women are employed in thousands in the making of baskets out of willow or wicker or long bamboo shreds. Equally popular but more paying and fashionable are the cane and rattan works producing chairs, settoes, suitcases and even tea-poys, tables and cabinets. The palmyra leaf is turned into very good account in a multiplicity of ways in North and South Travancore where it' grows in abundance. Cheap and artistic umbrellas are made out of it. The same leaf is also dexterously wrought into baskets, mats and handy fancy goods of various patterns and colours. Mats, hand bags, purses etc., are also made in South Travancore out of the cyperus grass and in Central Travancore and coastal region out of the screwpine leaf properly prepared and edged. The village of Thalava owes its name to screwpine mat-making. The highly artistic finish of the superior varieties of both has made them favourites in the aristocratic homes of South India. High-class screwpine matting with its glossy polish is used for making boautiful handbags, pouches, tea-poy covers, etc. of fashionable patterns which find a ready market in North India and even in foreign countries like England and America. The ivory works of Travancore
enjoy a world-wide reputation for exquisite workmanship and beauty of design. The making of gold and silver thread and of silk yarn is also an ancient cottage industry. Coconut shells are made into ladles for common use and works of art of high finish and style. The charcoal, burnt out of this shell, being an absorbent of noxious* gases, is now exported abroad for use in the production of gas-masks. Charcoal is also produced in large quantities from ordinary wood for use in carburetion by motorists in lieu of petrol, a saving of 70 per cent. being thereby effected. Soap-making and the distillation of lemongrass oil are again two of the flourishing cottage industries. Similarly tinctures and pharmaceutical preparations are made from various medicinal herbs, in conformity with the specifications of the British pharmacopoeia and used widely in the various Ayurvedic pharmacies and for export. Lime-shell burning in kilns and furnaces, and preparation of tapioca-flour engage large numbers of cottage workers and the latter industry has been considerably expanded to meet the demands of the Supply Department. One of the oldest and most reputed cottage industries in Travancore is the making of various articles out of brass, bronze and the non-malleable bell-metal. Vessels, large and small, and of various shapes and designs, spouted. pots, spittoons, lamps, images, etc., made of these alloys and found in ancient homes and temples, are considered symbola of their antiquity and the more conservative people still prefer them to the cheaper varieties of crockery and china. Muvattupula, Valapalli and Nagercoil are most famous for this industry and in the conception of the common man no home or temple or mart or exhibition is considered complete without the gleaming sheen of rows of well. burnished brass and bronzeware. One of the vanishing industries in this category is the making of the rather costly mirrors in bell-metal, noted for their finish, polish and lustre. Aranmula, in Central Travancore owes its fame to this industry. Cheap looking glasses have chased bell-metal mirrors out of all local markets. The numerous industries enumerated above have
been prospering in various parts of the State without any let or hindrance due to local competition from any organised industry.

293. Besides these, there are several other cottage industries whose progreas is seriously handicapped by the growth of factories conducting the same business on an organised scale. The cashewnut factories, for inatance, which have been increasing in number within the last decade and are employing at present nearly 10,000 workers have absorbed all the labour in their vicinity so that roasting and decorticating the nuts and packing the kernel, cannot be profitably done in cottages in the face of factory competition. The potters of the State working : in their homes in the making of earthenware and stoneware as well as brick and tile-makers have been adversely affected in their business by the establishment of ceramic and tile factories. South Travancore and Shenkotta have always been famous for handloom flying-shuttle methods of weaving, whose products are prized throughout India for their excellence. The installation of powerlooms in various factories and the competition of cheaper foreign cloth have proved detrimental to handloom wearing, though the industry persists in its struggle to exist and survive. There is scarcely a village or town in the State whers in afternoons, both in rain and in shine, the spectacle is missed, of hundreds of women streaming towards, flocking round or returning from, the shops of wholesale rice dealers about the rice-husking business. Each woman bears home the load of her quota of paddy from the shop to be parched, hulled or ground and to be taken back the next day as rice or pounded rice or flour in return for a margin of profit usually doled out in kind, at the rate of a tenth of the total quantity dealt with, which is a welcome addition to her daily income as remuneration from a popular and widespread cottage industry. The advent of rice-mills has paralyeed this business a lot, within the last decade, especialII because mill-rice is cheaper though somewhat nauseating. But as long as the middle classes at
least, especially in towns, oontinue to have a preference for the rice hulled in cottages by women, this industry cannot suffer extinotion.
294. In the teeth of such oompetition the cottage industry has to be rehabilitated without detriment to the spread of organised industry. A spixit of co.operation rather than a stato of competition would furnish a oongenial background for both types of industry to flourish sids by side. A soheme of 00 -ordination in which both concerns agree to complement each other in the pursuit of the industry in question, would, if put into operation, be conducive to its better growth. Suoh a scheme, broadly envisaged, would involve a division of labour between the cottage and the factory in the industrial transformation of the agricultural product, which onold conveniently be effected in two stages, viz., the preliminary being done in the cottage and the subsequent in the factory. The process begun manually in the cottage could thus be completed mechanically in the factory, the two thereby becoming mutually dependent in part and jointly responsible for the whole manufacture. Switzerland has set a laud. able example in this respect in her watch industry. Swiss made watches, so famous for their efficiency of service and cheapuess of value are the product of such joint efforts in cottage and factory, each part being made in the former and the combination and completion into the whole being effected in the latter.
295. In this State there is ample scope for such industrial co-ordination. The preparation and desiccation of oil-seeds like laurel, maravetty, gingely, castor, etc., and of coconut into copra is done in oottages and if the material so propared is sent as grist to the factory mills, oil-ex. traction could be done there. The cottage may similarly be made a feeder of the factory in the cotton industry where yarn spinning in the one may lead to weaving in the other. Toddy-drawing, jaggery-making, preparation of reed pulp and rayon, woodcutting and sawing, etc., done in cottages could likewise lead on to factory work in distilling, sugar-making, papur-manufacture,
making of artificial silk and wood industry respectively. It may, however, be added that already such a co-ordination exists with regard to the premier industry of the State because of the vicinity of factories to centres producing coir yarn in abundance. The coir industry is ubiquitous throughout the coastal regions of the State. The women of the Ilava community in particular take to the extraction of coir fibre from retted husks and to the spinning of coir yarn either by hand or by the help of a simple wooden mechanism. There is scarcely a village on the coast which does not present its spectacle of hundreds. of coir workers, mostly women and children, beating out the fibre from the soaked husks, with hills of husk-pith and husk-skin around them, and amidst that hell of noise and rotting smell of the soaked stuff scattered about, ginning the fibre or spinning it into yarn for an anna or so which the job would fetch them before sundown. It can safely be asserted that the prosperity of each such village is inextricably bound up with the fortunes of coir industiry from time to time, becanse with most of the poorer folk it is the sole source of income. The factories that absorb all this raw material are really a boon to the cottage workers who get higher prices resulting from greater demand. The example of the cottage feeding the factory in this case is wall worth following in other industries too.
296. Reference has, in this connection, to be made to a glaring tendency on the part of coir dealers or irresponsible middlemen in village parts to take inhuman advantage of the straitened circumstances of the workers by. deliberately beating down the price of the commodity to the level of its raw-material-price so that the poor yarn-spinner is forced to under-sell it to the profiteer thereby having to saorifice, on pain of starvation, the little margin of profit due for his hard day's work. Such pitiless exploitation of the poor man's extremities by heartless businessmen calls for strong preventive moasures by the awakening of social consciousness towards a standardisation of prices consistent with the
prevailing market trends. The Co-operative $D_{\theta}$ partment will be rendering a real service by coming to the rescue of such helpless victims, Unless a speedy remedy is found for this widespread evil, it will be disastrous to the interests of the penniless workers in what is universally recognised as the most popular and promising cottage industry in the State.
297. 

The progress of cottage enterprise is determined by several economic factors such as availability of sufficient raw material to work upon, capital to invest, skilled labour to apply, assurance of fair prices by adequate demand, cooperative attitude of factories and the nearness of markets. More important than the proximity of markets is their safety against profiteering by swindling middlemen, sharks and sharpers who by deft negotiation of business, manage to pocket a large part of the money meant by the consumer for the producer.
298. A new cottage industry, fraught with ummense possibilities for the future, may be mentioned in passing. In the State there are a variety of fruits which now find practically no market outside. Business in', easily perishable commodities would involve not merely the problems of production and distribution but also of their safe preservation and quick transportation. Hence, better than canning fruits or making jams of them, a cheaper and more effective method would be their dehydration or desiccation. If fruits are dried properly they remain safe against decomposition and putrefaction for very long. pexiods, while retaining their delicious taste and nutritive value. No other part of India abounds in plantains of such manifold variety or bananas of such excellent quality as Travancore. Thesa and other home-grown fruits like the mango, the jack, the pomegranate, the lime, the gooseberry, etc., could be subjected to scientific experimentation to establish possibilitios of improving their quality in cultivation and introducing greater variety in their proper utilisation. The aroma of the edible part of the ripe cashew-stalk
should invite special experimentation. Incidentally it may be added that along with the old, new fruits like oranges and grapes and vegetables like cabbages, tomatoes, etc:, could be similarly raised in suitable areas in this State where leaf manure is plentiful and every possible variety of soil and climate is also in evidence in the tier upon tier of rising ground-level stretching from the lowlying coast to the greater altitudes of the Highland. It would be a successful cottage industry for the women at home to get the various fruits dehydrated, in the proper sea. son, their pulp prepared into jam, besides making pickles and preserves of some of them, since profitable markets could be found for these in North India and foreign countries just like the desiccated fruits imported into this country from Syria, Iraq, and Arabia. If the research section of the Agricultural Dopartment oould help by soil, manurial and cross-breeding experiments in raising better yield on a small scale in kitchen and fruit gardens in the walled premises of dwellings and homesteads, the success of these would enable a large-scale popularisation of such methods throughout the State. While in rural areas fruit cultivation and fruit industry could thus thrive hand in hand, in urban areas many, espeeially women, could profitably take to horticulture and croton growing, which, besides em. bellishing their homes and instilling an aesthetic sense in their growing children, as in the picturesque and colourful homes of Japan and China, would, if done on a commercial scale, prove a highly lucrative hobby.
299. The fisheries of the State form a far more potential and unlimited source of wealth than organised or cottage industry. To a mari. time State like Travancore with its 168 miles of coastline, margined by a shallow-water area (100 fathom line) of 3,900 sq. miles, its extensive backwaters stretching from Trivandrum to Cochin, in close proximity to the sea and linked to it by its tidal ebb and flow and the existence of numerous fresh-water streams and vast expanses of punja fields, the economic benefits' accruing from a proper exploitation of the inexhaustible
wealth of the deep are not generally limited by the operation of any law of diminishing returns as in the ease of agrioulture or auy of the factors natural or human, that ciroumsuribe the scope of industry in cottage, estato or fratory.
300. Fishing and fish-curing have boon nu important means of livelihood pursued as a regular industry by several communities that inhabit the coastal area ad well as the littoral of the baokwaters. At present about 40,000 familias are engaged in it. In the present census 129,705 returned themselves as being supportad by fishing, of whom 31,562 (inoluding 1,064 womon) are workers and 98,143 are dependants. Primitive methods are still followed by the fisherfolk, the craft in use in sea fishing sonth of Trivandrum boing still the unsinkablo catamaran whilo in other places canous of different sizes are more popular. Seine nets are mostly in vogue, though of different material and mesh-size, while on the margins of lakes fixed suspension ("Chineso") nets worked by pulleys or woights are also in use especially on the shoves of the Vembenad lako. Besides the crudeness of the methods employed, the fisherfolk havo also to reokon with the fury of the breakers in monsoon time and deficiency in coves or harbours along the coast where fishing craft can find safe anohorago.
301. Despite these hindrances inevitable to the fishing industry in the State, the annual catch amounts to no less than 90,000 tons valued at much more than Rs. 120 lakhs. The yield per unit-length of coastline in this case exceeds that of Denmark and Sweden put together or more than double that of England or any other fishing country in the world. The annual value from fisheries per unit longth of one mile of coast line is about Rs. 26,000 for Britain, Rs. 16,000 for Japan and Rs. 14,000 for Amerioa while it is Rs. 60,000 for Travancore. The yield from the lake fisheries alone amounts annually to Rs. 22 lakhs. Besides several table varieties, such fish of economic importance as butter fish, anchovy sardine, ribbonfish and catfish from the sea, large quantities of prawn both from sea and lake
of an annual value of about Rs. 22 lakhs, mullet from the lakes and also miscellaneous varieties of the cheaper sort form the bulk of the catch. Twenty per cent. of the shank fisheries of theworld is contributed by Travancore Among the chief marine products can be included shark liver oil, turtle oil and body oil of leather-jacket which, besides being put to their separate uses, are often. mixed together for wood-treatment by boatmen. The seaworm called trepang and several maxine plants and weeds of nutritive value and sargasso weed for commercial extraction of iodine are also other valuable sea products. The shell fish industry is carried on along the shores of the lakes while oyster culture has begun to claim the attention of several workers as a commercial proposition.
302. The saleable surplus of all the catch from sea and lake, after local consumption is cured and sent particularly to the High Rangesand the Tamil country. There are twelve cuxing yards. in the State maintained under the supervision of the Fisheries Department. In all these together there are 19 supervisors and technical advisers including the clexical staff and of the 820 operatives 34 are children, 98 adolescents, 501 male adults and 187 female adults. Since the fish that is salted and dried is devoid of some of the essential properties of fresh fish, a refrigeration plant for preservation and cold storage of fish was installed in Trivandrum in 1938. Though the conservatively-minded fisherfolk were slow to realise the ipractical utility and economic advantage of the plant, thanks to its installation, fresh fish is now made available in the High Ranges and the Tamil country. 95,000 lbs. of frozen fish were transported to different parts of South India last year though it has to be remembered that the market is shy owing to the comparatively high price of cold-stored fish.
303. The Department of Fisheries, which till 1940 was under the Director of Agriculture but subsequently transferred to the Marine Biology Department of the Travancore University, has been continuing its encouragement of fisheries throughout the decade. Besides supervising the
maintenance and working of the 12 curing yards, it superintended the conduct of the 5 fishery schools (whose management was handed over last year to the Education Department) and of the 42 Co-operative Societies functioning among fishermen, particularly in the matter of fishery loans tenable for short terms. The University has interested itself in piscicultural research, especially about the possibilities of stooking the fish called "pearl-spots". The Aquarium established in Trivandrum is also under the control of the University.
304. As a potential souxce of wealth for the State and a vast field of illimitable economic possibilities, fisheries call for further develop. ment along lines so successiully worked out in such māritime countries as England, Scandinavia, Denmark, U. S.A. and Japan, where scientific devices have been put into operation through their highly specialised fishing fleets each unit of which is provided with mechanical contrivances for spreading and hauling nets, salting, drying or curing the fish and preserving them in cold storage so that as soon as the fishing craft comes home, the entire catch is ready, spick-and-span, for immediate foreign exportation as well as local consumption. The fact that in spite of such enviable advantages as the aid of science and the very high and longstanding maritime traditions, the fisherfolk of these advanced countries have been able to raise only a far less unit-yield per mile of coastline than the comparatively little lozenge of land that is Travancore, with its primitive methods of fishing applied only to a third of the total fishable area, speaks volumes as to the aptness of terming fishing as the Cinderella. among the industries of the State.
305. Fishing industry has unfortunately been. relegated to a partioular class as a profession not fit to be undertaken by the more intellectual and refinsd society. The ban of convention and custom, not to mention religious "prejudices, has prevented a good many in the country from taking to this avocation which is one of the most lucrative in the State. The economic
advantages have been overlooked by orthodox prejudices with the result that this industry has not yet transcended its primitive stage of development. Its potentialities have been described briefly in the previous paragraph. It may be hoped that the new era of industrialisation will. make amends for what has been lost in the past by the best talents of the country coming forwaid to improve and organise this much-neglected field.
309. Lack of such essentials of business success as capital, oxganisation, education etc. has always handicapped the fishermen from exploiting fully the limitiess potentialities of thig industry. At present the catch from the sea is confined only to within six or seven miles of the coast so that out of 3,900 sq. miles of fishable area, more than two-thirds is left untapped. A mechanised fishing fleet with highly skilled orews, though it may require a large outlay, can easily raise Travancore to the first rank from the poten. tial to the actual level of reckoning warranted by its prospects ahead. This is indeed a promising field for business enterprise which publio spirited individuals and societies may profitably enter. Any new scheme attempted in this line will have first and foremost to take into account the improvement in the lot of the poor fisherman whose amphibious lifo, day and night, exposes him to greater, more constant. and immediate perils and privations than any worker on land is ever subjected to. Besides, in the India of the future, such a progressive maritime State as Travancore bas a great part to play towards the equipment and personnel of an efficient Royal Indian Navy for which this State is sure to prove an excellent recruiting ground.
307. Mining is another of the important andustries in the State, carried on mostly on an organised scale in eight mining centres. Reference has already been made to the useful prospecting work in graphite, mica, limestone, etc. under the auspices of the Department of Indus. tries. The demand for graphite is raised by its high electrical conductivity and its consequent outility in the manufacture of electrodes for eleo-
trolytic work. Physico-chemioul experiments to raise its oarbon-ooutent are making rapid hendway. Large quantities of crude mica have boen prospected and the possibilities explored, of the economic use of waste mica derivod as residue or by-product. The limestone deposits were subjeoted to similar investigations by the Industries Department under the expert guidanoe of a Mining Engineer and Geologist of the Associated Cement Company detailed specially by Government for the purpose.

308: Besides such prospucting work, mauy of the rare minerals in which the State is rioh aro being mined by 3,685 workers in the State, including women, the number of dependants on them being 8,806 . The regular amployees in mining factories number 3,007 inoluding among the operatives, 145 children, 459 adolesoents and 50 women many of whom work underground.

- Mining operations in the State are conducted by private agencios paying a royalty to froverninent at the rate of 10 per cont. of the profit. The most important products of the mineral industry are rutile, sillimanite and mica whioh have increasod nearly fourfold in quantity and monazite, ilmenite and zircon that record a slight decrease owing to war conditions. Lignite and maruasite concretions in South Travancore have also been subjected to special geological investigations. With better technical guidauce to invertigate the mineral potentialities of the State and specialised staffs of competent workmen, the mineral industry of the State can record a level of rise far higher if only the necessary capital is forthooming.

309. Salt is a Government monopoly as in British India and one of the primary industrial concerns in the State. It is mostly manufactured in local factories. This is done by licenseos in pans called "alloms" in South Travancore by the process of solar evaporation in the interval between the two monsoons. Of the total income from the quantity manufactured, 60 per cent. called "Melvaram"' belonge to Government and 40 per cen't called "Kudivaram" is the share of the licensee, which is also taken by Government by
payment of its price called "Kudivila". The total area under salt manufacture at present in the State is 592 '54 acres. The sale of salt is' done in bankshalls and depots by Government. and the annual yield in the last decade was subject to constant fluctuations. The insufficiont. supply of good brine, the percolation of fresh, water into the pans from iarigation channels in the vicinity and adverse weather conditions generally hinder the salt-making operations. Of the 19 alloms in the State, ten are in Thamarak. kulam, favourably situated on the estuary of the Manakkudi Lake. In the present Census 486 workers and 1,696 dependants were returned under the salt industry. On an organised scale the industry employs 353 workers including 6 children and 43 adolescents. Though the present out-put of salt manufacture is sufficient for local consumption, further progress has to be made in this industry. The Travancore University Dopartment of Research is exploring the possibilities of improving the quality of salt manufactured in the State. Besides for domestic consumption, salt is also used for' curing fish, tanning leather and as manure for which it is issued duty free.:
310. The forests of the State, comprising nearly a third of its total area, are a source of potential wealth like the fisheries and the mines. Within the last decade, 6 square miles and 557 acres from forest reserves and 460 acres from fuel and fodder reserves were thrown open for registry. It is feared that further disafforestation may bring about soil erosion resulting in floods in monsoon time which will cause great havoo to crops. The fauna and the flora of the forests constitute a great source of wealth. While the institution of a Game Sanctuary in the catchment area of the Periyar Lake and a Wild Life Nursery at Edapalayam, along with the administration of forest laws, has safeguarded the animal wealth of forest areas, sylviculture and the industries connected with forest products have led to the development of forest resources in other directions.
311. Sylviculture made great headway within the last decade with the result that only 225
sq. miles of the merchantable timber area of $1,035 \mathrm{sq} \%$ miles is now left uncovered by working plans. There are nearly 600 species of timber. in the forests. Teak, blackwood, ebony and sandalwood are State monopoly trees cultivated on a commercial scale. The other superior timber varietios such as Vengai, thembavu, irul, ven. teak. anjili, maruthu, etc. are also cultivated on á large scale. Rubber, cashewnut, casuarina, elavu and mahogany are some of the minor species raised: Cultivation of many of these is undertaken by contractors on the taungya lease system, costing there by only 6 as per acre, which otherwise would have risen up to about Rs. 47. Transportation by means of cart or elephant or lorry on land or by raft down the waterways is cheaply done by the mel-labhom system of contract. Last year the total amount of timber available for disposal was $2,341,522$ e.ft. and the total receipts by sale of royalties and of junglewood came up to Rs. 16.72 lakhs. No ex.. port duty is levied on timber. A large sum is. also annually realised by the sale of teak saplings: Two of the new plant cultivations successfully triod were lac in South Travancore and the beedi-leaf from soeds got down from. Hyderabad.
312. The minor items of forest produce consist of reeds, sandalwood, rattan, honey, wax. rubber and ivory, besides firewood, charcoal, cardamom, bamboo and medicinal herbs. ${ }^{\text {. The }}$ tusks and scrivelloes of elephants that die in the forest, yield about 790 lbs. annually and are sold at high prices. Elaborate research was conducted on suitable adhesives of wood to wood and the peeling and bonding characteristics of timber with a view to develop the wood indu-: stry. The most important products of wood. industry are toys, articles of plywood, furniture, traye and wood-wool. The manufacture of ply-: wood on a commercial scale was successfully tried and possibilities established by an experimental contract with a tea company.in the High Ranges. A new method of improving the quality of timber is the 'ascu' treatment of wood. Buildings and bridges bave been constructed and.
electric wire poles set up of wood so treated and though this process is claimed to enable wood to be a substitute for concrete as building material, its efficacy has to be left for time to judge. The forest resources of the State afford a vast field for further exploitation and the introduction of a Forestry Section in the Travancore University may be taken to be a happy augury for the future.
313, The realisation that allround economic progress is best achieved by joint efforts, towards a planned economy, by the various development departments concorned led to the re-constitution, on a comprehensive scale, in 1936, of the Economic Development Board so as to comprise 10 official and non-official members representing such interests as agriculture, industry, forestry, excise, plantations, fisheries, rural reconstruction, banking, co-operation, public health, land revenue, etc. Since its reorganisation, the Board has been functioning as an expert advisory body discussing all questions of policy relating to economic development, making suggestions to government on matters of economic importance and considexing and reporting, through subcommittees, particularly on agricultural, industrial and other allied problems. The Travancore Economic Journal is a monthly publication undertaken by the Board whose guidance has enabled the development departments to work in unison to ensure maximum success.
313. Since capital is the mainstay of all economic activity especially of the large-scale type, a brief survey of the financial and credit facilities open to the industrial and agricultural worker within the last decade will serve to reveal as well as explain the rate of progress in the different lines of enterprise. The hold of the financier, the banker and the money-lender over the farmer, the trader and the manufacturer is seen in this connection developing, often through the mechanism of accumulated interest, into a strangle-hold that ultimately paralyses the very business it was meant to prop up. The limited scope and the technical delays involved
in the availability of the agrioultural and industrial loans offered by the State, neorssitated the financial dependence of many a firmer and manufaoturer on some bank, ohitty concern or other in whose favour his immovable property had to be mortgaged. And when suoh indebted. ness became inextricable, the mortgage culminated in a sale, severely to the detriment of the mortgagor. By reason of the slump still persisting as the aftermath of the economio dopression that had characterised the previous decade, inability of debtors to liquidate their debts led in turn to the collapse of many of the ohitties and banks.
314. In fact the most outstanding economio problem throughout the last decade bas been the question of agricultural and industrial indebtednees, by the increasing deadweight of which, the proparties of the farmer or manufacturer were getting involved in irredermable encumbrance. The Banking Enquiry Committee of 1930 had analysed the question in all its bearings. At the beginning of the decade, the investiture of His Highness the Maharaja with ruling powers was signalised by the announosm ment of a handsome contribution from His Highness's privy purse towards the eetablishment of a Land Mortgage Bank.
315. The relentless persistence of adverнo economic conditions rosulted in a fall in the value of immovable property as evidenced by the diminution in the average value of registration documents from Rs. 317 in 1931 to Rs. 180 in 1940. Another index of the same phenomenon was the decrease in 1940 in the total income of the same department, of more than a fourth of what it was in 1931, this obviously being die to the fall in document value which is a criterion for realising the registration fee. There was also a dwindling in the number of chitties from 524 in 1931 to 168 in 1840. The number of jointstock banks which bad risen from 5 in 1917 to 258 in 1930, fell to 158 in 1941. The strict insistence by Government on the payment of high enough cash'securities by such institutions
must have promptly served its well-meant purs pose of nipping all mushroom banks and chitties. in the bud. The same problem of growing indebtedness manifested itself also in the increase in the average number of documents disposed of in each registration office from 3,217 in 1831. to 4,153 in 1940 the increase being mostly due to Credit Bank transactions.
316. In 1931 the problem of agricultural indebtedness became so acute as to lead to the appointment of the Agricultural Debt Redemption Committee upon whose recommendations 8 Conciliation Officers were appointed in different parts of the State to belp debtors to square up with their creditors on equitable terms. The creditors who grudged being thus placed at a disadvantage memorialised Government anḍ in consequence, the operation of the Debt Relief Act that followed was put off to commence on 16th, September 1940. According to this Act debts to be repaid within two years were reduced to 70 per cent., those to be repaid within six years to 75 per cent, and those to be repaid within nine years to 80 per cent. interest being fixed at 4 per cent. in cases of money debts and 6 per cont. in paddy debts. The Conciliation Officers ceased to function after this legislation came into force. Meanwhile in August 1938 the Credit Bank was started under Government supervision. and the Land Mortgage Bank was merged into it. The now institution is meant to be of greater use in giving loans on the security of landed property to any amount between Rs. 300 and Rs. 3 lakhs, and repayable in any period between 6 months and 25 years.,
317. Of the numerous credit facilities available in the economic field the least exacting and therefore the most popular, especially for the small-scale farmer and the cottage worker, is the co-operative society. The method of long-term repayment in easy instalments at low rates of interest under a joint responsibility makes the loan taken from the co-operative societies a far safer transaction than amounts borrowed on severe terms from money-grabbing banks or usurious
individuals. The rapid spread of the Co-operative; Movement in the State has, therefore, been agreat boon to the middle class businessmen and farmers. At present there are 1,409 co-operative societies (including 8 women's societies) in the State with a total capital of Rs. $28^{\circ} 94$ lakhs. and a total membership of 3 per cent. of the population, consisting of 76,301 agriculturists: 62,321 non-agriculturists and 8,790 artisans, the women members numbering 22,689 , i.e., in the proportion of 1 woman to 7 men , The average working capital of a society is Rs. 5,189, average reserve Rs. 803 and the average membership 130 . The primary purpose served by the societies will be evident from their functional grouping given in the subjoined table. Though the practice

| Description. | Number. |  |
| :--- | :--- | ---: |
| 1 | Banking Unions | 20 |
| 2 | Urban Banks | 18 |
| 3 | Agricaltural Credit Societies. | 1,004 |
| 4 | Non-agricultural credit Societies | 199 |
| 5 | Sale or marketing Societies | 6 |
| 6 | Distributive Societies | 51 |
| 7 | Multi-purpose Societies | 18 |
| 8 | Others | 83 |
|  | Total | $1,409$. | of weeding out moribund societies or the sale by improvident members of "their share capital for clearing their loans has latterly reduced the number of societies, their general tendency to spread throughout the country is unmistaka. ble. The : Cooperative Department has been hastening slowly in the cautious expansion of the movement and its policy has consistently been one of rectification and consolidation. The preponderance of agricultural. societies in the State shows the preference by the small farmer of the co-operative. society to other sources of credit as the best safeguard against his economic extinction. A practical method of relieving the pressure of repayment on the hard-hit debtor with moderate. means without jeopardising the financial stability or good will of the society is the "Kettuthengu" system by which the arrears are realised from a part of the coconut yield in the debtor's landed property. The holding of

periodical co-operative conferences and an annual session has contributed very much to the rapid improvement of co-operative enterprise in the State. The Co-operative Enquiry Committee has offered valuable suggestions as to the lines along which the movement can best be of service in its manifold ways in the economio field. In fact a glance at the functional grouping of cooperative societies will not only show their present activity but point towards their future possibilities. The co-operative organisation, though based on the sound principle of affording financial relief to hard-hit workers in industry, agriculture or trade, is very often prostituted into a more monerlending institution, not infrequently for the benefit of its own employees, thereby frustrating the nobility of the purpose meant to be served and detracting from the beneficial effects designed to be "promoted by it. The increasing work of the liquidators is proof positive of this unfortunate tendency. Only a just appreciation of the fundamental principles of co-operation and a better sense of responsibility on the part of those involved in the system, strengthened by a healthy public opinion, can administer the necessary correctives to such unwholesome influences that crop up and undermine its progressive usefulness to society.
319. The success of all productive enterpriso, agricultural or industrial, ultimately depends upon the capacity of producers to find and reach consumers for their commodity and square up with them with an equitable margin of profit into the bargain. It is the market that serves as a forum for their commercial transaction. If suitable markets are not easily available and the consumer, directly accessible, the producer's interests will be seriously jeopardized and his business thereby paralysed. This argues the need for proper marketing facilities to make for fair dealing between the buyor and seller and thus help to maintain the equilibrium between demand and supply.
320. Whereas the markets at home may well be within both the knowledge and reach of the
producer, it is with regard to those abrond that he is more handionppod, on thet one hand by his ignorance of their demaud for his goods and on the other by the difficulty of distribution diructly or through some reliable agency. But the producer in this State has had to expurienoe difficulty in regard to both inland and foreign marknte, so that Government bave always had to be at his elbow to render him such aid as is callod for by marketing exigendies from time to time.
321. Within tho State there are altogother 605 markets, 242 public and 363 private. The small-scale producess both in agriculture and industry have to depend mostly on these besides a good many of largo-scale producors too. A fair and square commercial transaction is, however, rendered difficult by profiteoring middlomen whose mediation causes great disparity between the price paid by the consumer and received by the producer. The consequent price instability is detrimental to the interests of the producer, who cannot thereby foresee the probable economic outcome of his undertakings and rationally plan his production programme. Marketing anomalies affect the producer adversely in throe ways, viz., remunerative selling prices are not ensured for him, middlomen are enabled to reap exceassiva profit and great instability is caused in price levels. The State has therefore to intervene and repair the mechanism of pricas by fixing and stabilising them at remunerative levels but at the same time controlling both supply and de. mand. In standardising prices, the official ong stipulated must be elastic enough to have both its boundaries fixed, within which it could vary according to local conditiens. The prices so adopted must also be adapted to the time and place and also to the quality of the product. Since price rates directly affect the cost of production, cost of living and' rates of wages, such standardisation has to be made in consultation with producers of all grades. To save the buyer and the seller from the evils of profiteering and black-marketing and also from the baneful effects on the market of the habit of some producers to hoard or stock or
otherwise with-hold supply to raise price levels, Government have always adopted prompt and stringent measures from time to time. The enforcement of sufficiently elastic scheduled rates of prices and the rigid supervision of the maintenance of the correct standard of weights and measures by the dealexs are other ways in which Government have been trying to stabilise the market.
322. But as more of State aid was called for in the matter of foreign markets, a Marketing Section was opened by the Department of Agriculture in January 1935, in pursuance of a comprehensive All-India Marketing Scheme inaugurated by the ${ }^{4}$ Imperial Government. Till recently there have been three Marketing Officers functioning in the State, one for agriculture, another for livestock and a third for orops. The place of the last mentioned has subsequently been abolished and the offices of the other two merged into one. Each Marketing Officer was to make detailed investigations into the production and distribution of all the important commodities in the State and by visiting marketing centres, interviewing merchants and producers and collecting statistical data, prepara useful reports clearly setting forth existing conditions and making constructive suggestions for improvement and supplying the necessary information regarding profitable foreign markets and the methods of reaching them and putting merchants in touch with agents or foreign purchasers. The Marketing Officers of the State have made themselves very useful within the last quinquennium in tendering valuable advice on improvements in production, distribution and exportation, of such commodities as milk, pine-apple, tobacco, coconuts, cashewnut, potatoes, arecanut, cardamom, pepper, ginger, cattle and animal tallow. Advice was also tendered in the preparation of tapioca flour according to the specifications of the War Supplies Department.
i 323. One specific problem engaging their attention was the proper grading and improved packing of eggs for exportation which tended to
give a spur to poultry farming as a popular cottage industry in the State. A Hiscock type of egg-grading machine was installed by means of which eggs ware graded into several classes according to their degree of freshness and excellence. This scientifio method had an educative value and produced its healthy reaction in that thenceforward the egg-vendors gave as much attention to quality as to quantity. In course of time improvement in the quality of eggs led to a rise in demand with a consequent increase in profits. A new type of packing case, that is a 14 -anna box to hold 500 eggs was devised to facilitate better transportation at concession rates permitted by the railway authorities. The Marketing Officers also investigated the feasibility of opening an egg-freezing factory at Quilon or Alloppey to export frozen eggs to England. Since it required the provision of cold-store stowage in outgoing steamers, the matter had to lie over owing to war conditions. As an experimental measure, a consignment of lime-pickled eggs was despatched to Britain. Such State efforts to improve marketing facilities bid fair to make the market a forum of economic exchange more and more just and equitable.
324. The institution of Trade Agencies by the State in various commercial centres abroad to establish direct dealings with foreign oustomers in the matter of exports and imports will be an excellent extension of the marketing programme. The rapid progress of industrialisation in Mysore owes its success to the device of an elaborate system of commercial agencies spread out by the State over various business centres outside. The idea has often been mooted and in one instance temporarily tried in this State but has made little headway. Any industrialisation scheme or other economic programme that ignores or underrates the marketing requirements of producers is bound to lag behind, if not meet with utter failure.
325. About a country as a whole, as much as about a part of it, it may be said that its total


Litho, the Art Printing Works Trivandrum
volume of trade, external and internal, is a measure of its economic self-sufficiency. The trade of this State has always been very brisk though the returns in the present census record a slight decrease from those of 1931. Altogether 153,705 workers and 361,648 dependants returned themselves under trade, the largest number being in the food stuffs trado which employs 89,241 workers and 206,095 dependants. Next in rank comes textile trade in which 4,031 workers are engaged, with 12,532 dependants on them. The special facilities available in the state for cheap water transport are being utilised to the full for commeraial purposes, as is evident from the fact that more than 50 por cent: of both export and import trade is carried on by backwater.
326. The Excise Department is Tesponsible for customs administration for which it has set up customs houses, 77 inland 4 on the coast and one at the aerodrome. "Customs duties are governed by the Interportal Convention of 1865 between the Travancore, Cochin and British Governments. Import duties are levied "accord-" ing to an Imperial Schedule and in certain cases there is a common sharing of customs duties and the grant of mutual concessions by the three Governments. This item forms a large portion of the State revenue. Export duties collected in the State amount to more than three times the import duties. The total customs revenue rose from Rs. 28 lakhs in 1931 to Rs. 65.68 lakhs in 1941, the principal item of increase being the roceipts from the Cochin Harbour. In the present year, the net receipts from the Cochin Harbour. :amounted to: Rs: 17.5 lakhs.". Export duties are levied on almost all the staple commodities while 75 por cent. of the import duties is derived from; tobacco añ 'its derivatives like beedi, etc. Shipping activities were steady throughout the decade except tow auds the close when war con: ditions led to a great reduction which has detrimentally affected foreign trade to a disquieting extent.
327. It is the facilities for, transport and communication more than anything else, that 1.
link up the various economio units, loonl, national and internatioual, into interlopendent entities. The progress of the State in this direction during the last decado has been commendablo, though the total number of people ongaged in trausport as a means of livelibood has slightly dearensed from that of the previous deonde. "Of the 37,183 workors and 92,655 dopendants returned under trausport, nearly half in both oategories a.re engaged in road transport and more than a third in water transport. Postal and Anchal sorvious come next and railway workers last.
328. The Public Works Department, which -spends more of the State revenue than any other department except that of Education, towards national welfare, has spent a large portion of the allotiments in the last decade for improving transport facilities. 'Though no new canals were out, two miles of irrigation ohannels were added to the Kothayar: project and improvemants were made in the Mulakanchira and Kuttapula canals. $63^{\circ} 14$ miles of planter's roads, 10.95 miles of un-* matalled and 254.38 miles of metalled road wexe added in the last decade. The most important road constructod in this decade was the Neria-mangalam-Pallivasal Road connecting the once inaocessible High Ranges by a short-out with Alwaye. The Main Southern Road from Trivandrum to Nagercoil was concretised and thus better enabled to bear the heaviest traffic in India. The most important bridges constructed were the Alwaye reinforced concrete bridge, the Nexiamangalam bridge and the Thottappalli ascu-treated-wood bridge.
329. The most outstanding improvement howover, in vehicular traffio was the centralisation of motor transport and the organisation of a Transport Départment by the State early in 1930 on the recommendations of the Transport Reorganisation Committee. The scheme started with the State monopolising the motor traffic from Trivandrum to Colachel and to the Cape via Nayercoil. Before the year was out, the Trivandrum City service and the Trivandrum-Qailon"service were 'also opened, the fare per mile being half an
anna in city service and a quarter of an anna in the line service.
330. The Department made : special arrangements for conveyance of postal and anchal mails and the transit of goods or parcels. In the second year the Munnar-Willingdon Island lorry service establishing a direct commercial link between the High Ranges and the Cochin Harbour was inaugurated. The Trivandrum-Kottayam line was taken up in the third year and the Quilon-Shenkotta line in the fourth. It is proposed to centralise in like manner the entire transport system of the State by road and by water. To effect a reduction of fuel costs, alcohol was tried in lieu of petrol whereby the expenditure was reduced from 20.87 pies per mile to 3.36 pies. A still cheaper form of fuel for the internal combustion engine is coall gas the substitution of which for petrol or alcohol reduces fuel cost by 70 per cent. The present fleet of buses consumes 9 tons of charcoal per day. It has been computed that 20 tons of charcooal would suffice. daily for the entire transport system of the State. It is hoped that by the regular use of such cheaper fuel substitutes; it will be possible, in the fulness of time, to reduce considerably the running cost and there: by the schedule rates of fare. This innovation, aloug with the state control of all motor transport, will enable the Department to give efficient: and cheap service to the progressively increasing passenger and goods traffic.
331. Side by side with improvement in internal communication wherein, besides the P. W. D. and Transport Departments, the Anchal, Postal and Telegraph services also played their parts to capacity, the State was linked'up with the"out: side world by air and by telephone. An zerodrome was first opened at Quilon in 1932 but owing to its inadequacy for landing planes a better one was laid out in Trivandrum two years later. The Tata Weekly Air Mail Service to Bombay was started on 25th October 1935, the fare being Rs. 150 which is not more than the first class railway fare for Bombat. The advantage of the comparative cheapness is enhanced,
especially for commercial travellers for whom. expeditiousness is the very essence of all business dispatch, by the interesting fact that a passenger, who has his morning "chota" at Tri. vandrum before the "take off", can, after lunch at Cannanore or Goa, arrive comfortably in Bombay before tea time in the afternoon. Travancore was also linked up with the rest of Indiar by the connection established with the All-Indiar Trunk Telephone system. The increasing popularity of trunk calls is evidenced by the steady rise in their number from 50 in August 1939 to 3,200 in August 1941. The available figures go to show that in the present year there were 35,102 trunk calls within the State, 5,101 calls were transmitted beyond and 10,074 were received from outside the State.
332. Thanks to the electrification of most of the towns, radio news from all important broadcasting stations outside is easily available in most of the high-class homes in urban areas and tbe installation of a 5 K.W. Medium Wave Station in. Trivandrum towards which mechanical work is. now in full swing and'for which a wave length of $455^{\circ} 926$ meters has been allotted by the Govern: ment of India will place the metropolis of the State. on the broadcasting map of the world and be of incalculable value in a multiplicity of ways.
333. The agricultural, industrial and. commercial activities of the State were given a spur by the supply of Hydro-electric power and the consequent facilities for tolephone communications between important centres in Travancore and the rest of India. The Pallivasal Hydro-Electric Project, which is becoming the nerve-centre of the whole mechanism of electrification in the State and the mainspring of much of progressive eco* nomic activity in the future was completed at a capital cost of Rs. 152 '16 lakhs. It utilises the falls of river Muthixapula, a feeder of river Pexiyar. The diversion of water at Munnar through a two mile tunnel makes available a head of 1990 ft . The scheme was brought into commercial service in 1940 by tranamitting power to the .plains at 66,000 volts of double. circuit lines from five major sub-stations,
viz., Kothamangalam, Alwaye, Pallam, Mavelikara and Kundara. The revision of tariff and sale of electric motors on the hire purchase system contributed to further utilisation of electric power for agricultural and industrial purposes. Demonstrations were made in various centres of the advantages of using electric power in oil mills, sugar-cane and match industries and in lift-innigation, besides for printing, lighting, telephonic and radio purposes also. Current-supply to three points in the Cochin State, viz., Ernakulam, Chowwara and Trichur has begun and projects are in operation for extension of the line to Trivandrum and Nagercoil, on the one hand; and Pirmede on the other. It is also hoped to make electric power specially useful to the textile and aluminium factories besides for the starting of new factories in various centres. The farmer in the field, the planter in the estate, the manufacturer in the factory, the worker in the cottage as woll as the merchant in the shop is sure to be economically benefited by the electrification of urban and rural areas as envisaged by the scheme and thus the new programme of industrialisation will, in the fullest sense of the term, be a "fait accompli".
334. It may be jemembered at this juncture that any programme of industrialisation, if it should be beneficial to the whole State, must essentially be based on previous planning on a comprehensive scale, so as to press fully into service and link mutually into harmony, all the different agencies of economic endeavour. In all planned economy; whatever bo the duration of the period bargained for, whether it is a five-year or ten-year plan, a well thought out and carefully planned system of communications is the pre* requisite for a forward industrial programme. This must be so designed as to facilitate the transport of raw materials and manufacturod articles to different centres in the quickest possible time at the cheapest possible rate. The products of the hill and the forest, the mine and the quarry, the farm and the field, the cottage and the factory could then find prompt transmission to the most profitable market at home or abroad.
335. The mechanism of trade always funotions lize a seesaw, gravitating one way or tho other in response to the shifting of weightacs which is largely determined by the combined effects of quiokness, chenpnoss and safety of transport. Time was when this State had a practical monopoly of the oarrying trade of South India. Her inability to kuep pace with tho. increasing modernisation of transport in the 10th. century when the railway system wns doveloped in the territories beyond the Ghats, was largely responsible for the loss of this monopoly. Stro. nuous attempts have beon madis sinoe then to regein lost ground. If the industrialisation of the State is viewod from this background, it will be possible for every patriotio Travancorean to realise the 'debt immenso of eudlese gratitude' he owes to those who were responsible for the planning and execution of the Pallivasal Hydro. Eleotric Scheme, the Neriyamangalam-Pallivasal Road, the Sherthala-Aroor Road, the Neendakara, Alwaye, and Neriyamangalam Bridgns, the improvement of the Alleppey and Trivandrum piors and various other projects, some comploted, others in the course of completion and quite a few still undor considnration.
336. The industrial devolopmont of the State, fraught with such great possibilities, is onboilied in the gracious speech of our beloved Maharaja at the opening of the Rubber Factory in 1935, wherein is envisaged the industrial future of the State in words which will be an iuspiation to every patriotio Travancorran:-
"Travancore being mainly an agricultural State'the extension of cultivation is aubject to various natural limitations, but the needs of a growing population demand a supplementing of our income and our resources by the encouragyment of industrial pursuits, more particularly as we possess an abundant supply of raw materials and are able to command cheap labour and transport facilities, not to mention the electric power which is available in sufficiont quantities and which will provide the requisite energy..... ...... I want no slums in my big cities. I want
no wrangling between employers and labour and what has been described as exploitation of labour by capitalists. These are some of the mistakes I want to avoid in Tiravancore. . My idea is to set up a net work of cottage industries linked with one another. We shall use "white coal" and by tapping our rivers provide the cheap electrical energy we require so much for our cottage industries." The foundation being thus well laid the coming decades are bound to register a steady and rapid progress along the lines chalked out with such wonderful vision and keen foresight.
337. The rise of a country to its full economic stature is determined primarily by the scope of unlimited employment for its adult population in the pursuit of the different means of livelihood, whether arts or crafts, trades or professions. So its educational system has to adapt itself as much to its economic needs as to its cultural requirements. In occupations involving mere muscular effort, such as those of clod-hoppers or spadeworkers, hewers of wood or drawers of water, the development of a good physique is considered sufficient as an occupational training, sometimes with just an additional knowledge of the three R's. But education meant for better types of workmen, is always given a vocational bias after a certain stage, though in Japan, Germany and Russia this latter aspect is given predominant consideration in the training of the young. This State with its numerous technical schools, professional colleges or diploma and, apprenticeship courses, has : always "been anxious to open various avenues of employment to all its literates and qualified adults. With many in this country, the economic motive is paramount in the expenditure incurred in a child's education, which is looked upon as an investment of as much monetary value as an outlay in the cultivation of some crop or capital shelled out to finance some industrial concern or commercial undertaking. The middle classes which have recorded the highest percentage of Jiteracy in the State do not hesitate to hazard the sale or mortgage of the entire builk of
their family, wealth in seeing thoir children through schools and colleges, though many of the dullards or sluggards among those attending colleges literally impoverish their familios by their tardiness to secure the necessary qualification to procure a suitable job. The higher the amount spent on such education, the fatter the salary a son or nephew is expected to earn and the lesser the dowry the daughter or niece is supposed to claim. In such a state, therefore, it will be nothing short of a tragedy if unemployment or underemployment should be found to exist to any considerable extent especially among the highly educated.
333. In Soviet Russia where the scare of unemployment is said to be nonexistent, the slogan "a job for every hand and a hand for every job" is of as much significance as the device of choosing and using the right man for the right job at the right time, to eliminate the possibility of fixing up a misfit. Nothing can spell so much of wastage for any country as the unfulfilled potentialities of its qualified youth who rot away or loaf about in a state of "chronic unemployment", which leads to deterioration of talent and therefrom even to criminal propensities. What is vaguely called 'unrest', without anything definite' or specific aboutit, may very often be traced to the unwholesome influence of the 'chronic' educated unemployed, who, having knocked at every door and found each barred and bolted, develop a sort of cynicism whereby they cherish contempt for every institution, irrespective of its effects beneficial or' otherwise upon society. If this category of the unemployed should recoid a progressive increase, it must spell danger to any state or society however well-governed or organi-sed-it might ${ }^{2}$, be. Here is a field for the educationall reformer and the social worker. They could put their heads together and devise a system of education which would segregate, even from the earlier stages, those who are almost certain to develop into misfits in society. The psychologist may perhaps ween them off even in their earlier years and organise a course for them, adapted to their mediocre or perverted talent, without giving them an opportunity to race with
the rest and claim a place for having been in the category of "also ran". If it is at all possible to effect this elimination by crying balt to the policy of mass production in higher euncation the difficult problem of educated unemployment could be tackled in a more satisfactory and effective manner.
339. An aspirant or an applicant for a job may often miss it through sheer ignorance of a vacancy either at hand or in some far off place. The provision of an "Unemployment Bureau" may mitigate the evil to some extent. In some cases the cause of unemployment may be indifference or indolence due to the dullness of the prospects ahead. But more often than that, the lack of push or pluck manifest in cases of continued "unemployment", must be put down to the diffidence that arises from unfavourable environments or lack of opportunity. Though the avenues of employment open to the educated are far more numerous in western countrios, yet even in this State there are several professional doors open to qualified candidates in public service, besides in such private institutions as firms and banks, shops and factories, schools and .dispensaries, railway and motor transport, estates, commercial or insurance concerns etc. Still the number of those that prefer the "wanted" columns in current journals to the leading article or news headlines is legion. Foreign service has naturally absorbed the most pushful elements in local talent but it is the lot of the survivors, whom circumstances pin down to the native soil, merely to add to the encumbrance of others which they are unable to relieve. Just before the last decade the problem of unemployment, consequent on the provalence of oconomic; depression, occasioned such acute distress as to necessitate the institution of a special Unemployment Committee to investigate and report.
340. In the last decade the same problem assumed a new garb in the shape of an organised movement for the distribution of Government posts in proportion to the numerical strength of the different communities. To assure a just and
equitable distribution of posts in publio service, by which eaoh deserving section could enjoy proportional representation, a Publio Service Enquiry Committee was instituted. Upon its recommendation a Publio Service Commissioner was appointerd to see to the proper distribution of appointments in the lower, intermediate and hiyher cadres partly by competitive examinations and partly by the prinoiple of communal rotation so that the clains of sectioual representation might be satisfied without detriment to the requirmments of efficiency in public service.
341. Another problem of kindred interest that oropped up in the last deoade was the compatition of women with men in the fiold of qualified employment. The high percontage of female literacy and the rapid spread of collegiate and technical education among females renderod this possible. Whereas in the previous decennium the women employees in publio servioe were honoured with an enhanced soale of salarins ab a measure of enoouragement deserved by the pauoity of their numbers, the olaim of equality to the stronger sex made by the fairer one in the present decade was conceded by Government in the shape of an equalisation of salaries of males and fomales in all grades and cadros, and also in the enhancement from half to threefourths of the instructional fees of scbool and college girls. One may possibly venture to envisage a period in no distant future when women may even suffer if not demand a lowering of their salaries to facilitate their proference in public service as the number of qualified hands among them inoreases further still. Such an innovation would make for uniformity in the generally accepted principle of the cheapness of female labour in all walks of lifo. At any rate Eve in modern Travancore seems to have taken her cue rather from her English and American prototypes than from the Frauen of Germany or the Signoras of Italy among whom feminine role in life seems to take after the late ex-Kaiser's famous dictum that every woman should be strictly confined to hor three fold province of ohurch, children and kitchen
instead of being permitted to oust the men folk from the domain of employment by their unwarranted incursions.
\{.342. The Census study of the problem of unemployment has, therefore, to be made with special reference to educated unemployment among males as well as females, illiterate, literate and qualified, in the various age-groups.
-343. In 1931 unemployment statistics wex' $\theta$ rollected by a special schedule along with the preliminary enumeration. Though it was an admitted failure from the All-India point of view, the returns registered with regard to this State were productive of comparatively better results despite its numerous shortcomings. In the prosent census with a view to make the unemployment enquiry more comprehensive and accurate, the questions pertaining to the same were incorporated in the general enumeration card itself. The tabulated results of the enquiry are presented in Imperial Table X. The rolative inaccuracy of the figures in the last Census renders their comparison with those of the present one of doubtful statistical value.
344. Before proceeding to a discussion of the unemployment trends revealed by the returns, three limitations have to be pointed out regarding the basis of the statistics collected, for any discussion of figures without a cleax grasp of the dafinitions intended would lead to erroneous conclusions.
345. In the first place it has to be emphasised that only absolute unemployment was taiken. into account at this Census since a widening of the scope of the investigation would have involved complications of an inextricable nature. By "unemployment' was meant the entire absence of a means of livelihood for the individual. Students and married women were obviously left out of consideration since they cannot in the nature of things be said to be unemployed. So also pensioners who have a definite and regular
means of livelihood, could not be reckoned amongr the unemployed despite their cessation from gainful activity as of old. One exception has, however, to be made for a specific reason and cannot, therefore be ignored in passing. Whereas married women generally running their households or idling at home without having to seek a job for themselves were not considered unemployed, many educated wives who really aspired to some special employment consistent with their qualification were considered as unemployed.. For example, when an educated wife returned. herself under question No. 9 (c) as seeking employment, she was put down as "unemployed".
346. Secondly, no figures have been collected. for under-employment or seasonal unemployment. In order to avoid any ambiguity that the definition might involve, questions were specially asked as to whether one was seeking an employment and if so for how long. Under-émployment. also contributes to the potential loss to the State. caused by general unemployment. But since it is an anamalous procedure to group persons employed for a few weeks, in the same category as those working throughout the year, such cases of seasonal unemployment were left out of account. Incidentally it may be mentioned that. the only means of securing accurate information about all aspects of the problem is a correct. system of registration.
347. The thirà limitation pertains to the age- grouping of the unemployed adopted in the scheme of tabulation. In the preparation of Imperial Table X persons outside, the age-group. 16.40 were left out "of the calculation. Though it was also not made compulsory to tabulatefigures for the two sexes separately, the keen competition of the women of Travancore with their menfolk in the field of unemployment. already pointed out above, necessitated a separate tabulation. It may also be remembered at the outset that the unemployment figures published in the table may not give an accurate. idea of the phenomenon technically termed:
"hidden unemployment" alluded to and elucidated in a former section.
348. It was pointed out in"a previous connection that by deducting the total number of workers in the State from the number in the 15-50 age-group of the population, the figure for the unemployed could be roughly computed to be 686,832 or $23^{\prime} 42$ per cent. According to Imperial Table X the total number in the State returned as unemployed (literate as well as illiterate, in the agegroup $16-40$ ) is 140,707 of whom 77,890 are males and 62,817 are females. These numbers form 6 per cent of the $16-40$ agegroup of the population. The subjoined table sets forth the percentage of unemployment in certain important countries. Of the total unemployed, the literate (including those with some recognised qualification) number 93,754, i.e. 67 per cent. This proves that the incidence of unemployment is widest and the problem most

acute among the educated section of the popular tion. The reason is obvious. Whereas the illiterate readily take to the plough or the tool for some unskilled labour to eke out an honest living, the literate persons fight shy of such manual occupations as derogatory to their dignity. It may be mentioned, however, that a change is noticeable by which "the dignity of labour" is slowly ceasing to be merely platform politics and becoming more and more a matter of practical application with the edueated youth of the country owing to various influences, social, political and economic.
349. A study of the age.groups of the generally unemployed persons and the proportions in
eroh group of those who have been seeking employment for more than one year is facilitated by the subjoined table.

| Ago group. | Proportion in the age-group to the total unemployed per mille. |  |  |  | Proportion per mille of unamployad in the age-group who were soeking olmployment. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | State. | LOW: land. | Mid- <br> land. | High. land. | Leas than 1 yoar. | More than 1 yoar. |
| 16-90 | 012 | 590 | 041 | 500 | 180 | 481 |
| 21-25 | 218 | 218 | 910 | 937 | 138 | S0 |
| 26-30 | 05 | 101 | 83 | 135 | 104 | 816 |
| 31-35 | 45 | 50 | 88 | 63 | 150 | 811 |
| 30-40 | 32 | 84 | 25. | 56 | 143 | 857 |
| Total | 1,000 | 1,000 | 1,000 | 1,000 | 110 | 880 |

350. It can be reokoned therefrom that about 83 per cent. of the total unemployed are in the 16-25 age-group, and the inolusion within its fold of the $26-30$ age-group, would raise the percentage to 02. Among the Natural Divisions the Highland registors the highest percentage of unemployed in the $26-40$ age-group. Probably older persons are in less demand in those nueas. It is also seen that of the total number of unemployed 52.7 per cent. are in the Lowland, $43^{\circ} 3$ per cent. in the Midland and $4^{\circ} \cup$ per cent. in the Highland. The high proportion in the Lowland argues the higher pressure of popula. tion in that region. The last two columns of the table above apecify the proportion of those in each age-group who are unemployed for less or more than one year. The last column indicates the proportion of what can be called "chronic unemployment". It is found that 860 per mille are unemployed for more than oue year and 140 per mille for less than one year. A comparison of these proportions with regard to theage groups reveals that the unemployed of less than one year's standing inorease in proportion up to the 35th - age after which there is a fall. This shows how the number of those who were temporarily employed before the census period is relatively higher in the 26-35 agegroup.
351. In tine ranke of the naemployed, there is nat urally a preponderance of maleg. The sexratio for the State is 806 females per 1,000 males. In the various age-groups the ratios reveal inter esting variations (vide subjoined table).

It is seen to rise with advancing age after the 25 th. In the $36-40$ group females even exceed

| Age-group. |  | Females unemployed pe unemployed | $1,000 \text { males }$ |
| :---: | :---: | :---: | :---: |
| 16-20 | ... | $\therefore \quad 821$ |  |
| 21-25 | . + | 724 |  |
| 26-30 | $\ldots$ | 792 |  |
| 31-35 | ... | 880 |  |
| 86-40 | ... | 1,079 |  |

males. For the State as a whole, the sex-ratio is 806. It is highest in the Highland ( 1,158 ), less in the Lowland (804) and lowest in the Midland (782).
352. The problem of edutated unemployment demands a separate study. The number of the literate unemploged bas already been pointed out to be 93,754 and of these 79,453 have no recognised qualifioation for entry in public service. Those the have studied up to the middle school standard either in English or in Malayalam or Tamil constitute the majority of the educated unemployed. It will be interesting to compare proportions of the educated unemployed in each agogroup to the total unemployed in the group (vide subjoined table). It will be seen that the proportion

|  | Proportion to total unemployed (per milio) |
| :---: | :---: | :---: |

of the illiterate unemployed beoomes larger in the bigher age-groups and that there is a corresponding decrease in the literate unemployed with no certified qualification. This is explained by the increasing proportions of literacy recorded
from year to year Among the educationally qualified unomployed the highest proportion is maintained in the $21-25$ age-group.
353. An examination of the numbers recorded under the various qualificational categories leads to more accurate findings. The total number of educationally qualified without employment is 14,301 . The proportion of distribution under the main qualifications is given in the equjoined table. It will be seen thereform that

| Deacription $\cdot$ | Aotual <br> number | Proportion per mille |
| :---: | :---: | :---: |
| Total | 14,301 | 1,000 |
| 1 English Middle School | 5,062 | 354 |
| 2 Malayalam and Tamil Do. | 3,065 | 214 |
| 3 Malayalam and Tamil Higher | 1,146 | 80 |
| 4 E. S. L, C. | 8,680 | 257. |
| 5 Intermediate | 425 | 30 |
| -6 Graduates | 499 | 35 |
| 7 Other Degree and Diplomas | 424 | 30 |

67 per 'cent. of the qualified unemployed are drawn from the Niddle school group and 34 per cent. from the E. S. L. ©C. and Malayalam and Tamil Highor groups together. Intermediategs constitute only 3 per centr. The low percentage in this case must be attributed to the fact that most of them continue to be students whether 'Septembrians' or 'Marchers' without actively trying for employment until they eventually lose all hopes of securing some degree or other. Graduates and other degree or diploma holdars comprise only 6.5 , per cent. The inauguration of the State Transport Department which has absorbed into its higher cadres quite a large number of graduates and the exodus of a good many for war or quasi-war service abroad must be held responsible for this. The ennoblement of motor conductorship, police constabulary and soldiaring by the condescension of more and more. graduates to betake themselves to these domains has been a laudable feature of the present decade,
354. The subjoined table will show the various age-groups in which the major proportion of the unemlpoyed persons with each qualification can be found. It will be seen that the largest number among those with Middle School qualifications are in the 16-20 age-group. Among

|  | Age Groups |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10-20 | 21-25 | 26-30 | 31-35 | 36-40 |
| 1. Engligh Middle School | 453 | 349 | 127 | 46 | 25 |
| 2. Malayalam and Tamil Middle School | 483 | 332 | 108 | 41 | 28 |
| 3. Matriculate or E. S. L. C. | 384 | 401 | 152 | 43 | 20 |
| 4. Malayalam and Tamil Higher | 517 | 392 | 65 | 16 | 10 |
| 5. Intermediate | 245 | 402 | 248 | 66 | 38 |
| 6. Graduate | 104 | 461 | 307 | 98 | 32 |
| 7. Other Degrees and Diplomas (inoluding Oriental) | 297 | 396 | 203 | 59 | 45 |

E. S. L. C's the mode is shifted to the 21-25 agegroup though in the lower age-group also large numbers are recorded. Among the Graduate and Intermediate unemployed the proportions are higher in the higher age-groups when compared to the E. S. L. C's. The statistics go to show that the incidence of unemployment is greatest among the English educated perhaps - due to their innate aversion to work with those who are illiterate.
355. It is interesting to compare the sexravio or the qualified as well as those without any recognised qualification among the literate unemployed. The subjoined table sets forth the relevant figures.

| Age-group | Females per 1,C00 males |  |
| :--- | :---: | :---: |
|  | Literate without <br> recognised qualification | Qualified for service |
| $16-20$ | 741 | 406 |
| $21-25$ | 678 | 236 |
| $26-30$ | 794 | 183 |
| $31-35$ | 776 | 242 |
| $36-40$ | 787 | 201 |

356. It will be seen that among the qualified unemployed the sex-ratio is much less than among the unqualified literates. It may also be noticed that among the former there is a general tendency for the ratio to decrease with age, while among the latter it tends to increase with age. This is a commendable feature. The
educationally qualified fommos are thus found to have far better chances of employmeut than females who have no recognisal qualifiontion and in this respect thoir prospucts are practically threo times better than those of the qualified male unemployed. The exact degree of difference in prospects between the two sexes in the different qualifications can be gauged from the following table. It will be apparent that thare is a

$$
\text { Qualitications } \quad \begin{gathered}
\text { Sox-ratio of unauployed } \\
\text { femaler per } 1,00 x) \text { mules }
\end{gathered}
$$

1. English Middle School 307
2. Malayalam and Tamil Middle Echool 845
3. Malayalam and Tamil Highar 246
4. E. S. L. C. 210
5. Intermediate 211
6. Graduater zow
progressive decline in the sex-rutio with the rise in the qualification recorded. The decreasu in the female unomployed in proportion to the rising seale in their qualification is an encourag. ing feature for which two reasous oan be assignod, viz., the smaller number of qualified fumales than males and the eucouragenent givon to femalus in the matier of recruitment to service.
7. The pressunt war has led to the alsoorp. tion into service abroad, of thousunds of men, mostly young and educated, in the renks of tho army, navy, air force and the clerical line, bosides as war technicians, mechanists, drivors, road builders, tailors, teachers and doctors. Nor is the number inconsiderable, of the educated young women getting themselves eurolled as nuxses, redcross and ambulance workers. Though this exodus of so much of the working element will temporarily alleviate the distress of unemployment, the prospect of their return after the war threatens to revive, accentuato and porpetuats the acuteness of the problern which fortunately does not press for an immediate solution. The inauguration of the Travancore University, from whose portals hundreds of qualified young men and women may emerge every year in quest of professional opportunities, is likoly to intensify the difficulty. Critics are not evon now wanting
who cast their animadversions upon schools and colleges for indiscriminately reinforcing the already swollon ranks of the army of unemployed in the State. It has, however, to be remembered that educational institutions, while they no doubt are expected to give technical and vocational training also, are primarily meant to impart a liberal and cultural education to the young. A case could therefore be made out for mass production in Colleges. The solution to the unemployment problem has to be threshed out rather betwoen government and society than to
be solved by educational bodies. While the newly adumbrated programme of industrialisa. tion is likely to provide more employment for the educated element, an elaborate scheme of public works will in far greater measure, relieve the pressure of unemployment among the masses in general. At any rate, the institution of a Bureau of Information is called for by the situa tion to gather and disseminate statistical and other information to enlighten the thousands that grope 'in the dark for changes or chances that would open the doox of employment to them.

## CULTURAL

358. The satisfaction of economic wants implied in the pursuit of a mean of livelihood postulates the measurement of welfare in terms of wealth, and prosperity in terms of material sufficiency. But it is only the higher cravings of the mind and spirit that can spell real greatness or happiness however much one's lot may otherwise be bettered. To one who cultivates the art of living an enlightened life, such "goods in life's rich hand "as the yearning for the divine, the sense of oneness with one's kind, the thirst to know and understand, the gains of science and the gifts of art, do elevate the cultural above any occupational efforts or effects. As for this State, while her occupational trends may very well determine her claim to be considered a rich country, it is her cultural progress that should bid fair to make her a great State. The unity she is able to evolve out of her diversity of creeds and customs, thanks primarily to the pre-eminence she enjoys in India in the incidence of literacy, than which a better background for a liberal education and catholicity of outlook can scarcely be imagined, may rightly be put down as the criterion of her cultural advancement.
359. The geographical unity and historical continuity traced in the opening pages gave political stability to the State. Happily enough,
political vicissitudes failed to effect the least change in the political allegiance of the several communities. The Hindus who were converted to the Christian or Islamic faith, still continued to live in peace and amity with their brethren who did not adopt the new creeds. Nor was such proselytisation productive of any tangible alteration in the structure of society as a whole. On, the other hand the Hindus, the Christians, and, the Muslims, lived on as of old as a homogeneous community with common aims and aspirations. The munificent grants made by the Hindu rulers and the Hindu aristocracy to those who professed. other faiths for building new houses of worship, whether churches or mosques, were but the manifestation of a cultural inheritance whioh transcended the narrow limits of religious intolerance and bigotry. The contact with the new faitbs* served only to broaden further still such a liberal outlook and the cultural unity which has thus been evolved constitutes a heritage of incalculable value and significance.
360. The question may well be raised as to how such a cultural fusion could have been rendered possible so effectively in a State where caste and custom have reigned supreme for so long. The answer is found in the rapid spread of literacy in the land and the healthy reactions
it produced both in the religious and the social spheres. The diffusion of liberal ideds among the masses through the spread of a uniform system of education tended to broaden their outlook and while in the social sphere this liberalisation conduced towards the evolution of a rational cosmopolitanism, in the field of religion it sapped the very foundations of bigotry and fanaticism that too often find violent expression elsewhere in India in irreconcilable conflicts between different creeds or various denominations professing the same faith. It stands highly to the credit of this State that literacy and education have been able to exercise so salutary an influence on the social and religious life of the people as to make every community live and let live in perfect freedom of conscience and mutual respect as well as forbearance.
361. At the very outset it has to be remembered that the basic factor underlying the progress of the State along this line is the very keen interest evinced throughout her history by the Sovereigns in the education of their subjects. Cultural influences have indeed spread down from the rulers to the ruled. The Sovereigns themsolves being carefully educated and highly cultured, always munificently patronised art and letters and spent more on education than on any* thing else pertaining to public weal, and while spontaneously practising toleration themselves, were ever solicitous about the prevalence of tolerance among their subjects. Above all, being enlightened scholars and savants and lovers of science and art they were best fitted to be the leading lights of a land ever ready to welcome to its hospitable homes many a refugee or victim from abroad, seeking sanctuary from religious persecution which has blackened so much the history of other parts of India but whose shadows have never been cast over the bright annals of this State.
362. An attempt is made in the following pages to set forth, with special emphasis on the trends and tendencies of the last decade statistically revealed by the census returns, the rate of
growth of the major communities in the State, their cultural progress from convention and tradition towards rational cosmopolitanisu, the problem of language distribution, the progress of literaoy and education anong them as causes contributing to the change, the efflorescence of fine art in recent years as an expression of the instinct for cultural preservation and lastly the bright cultural future of the State that could bo envisaged from the rate of present development.
363. The major communities in the State are the Hindus, the Christians and the Muslins. The Jews, the Jains, the Sikhs, the Buddhists and the Parsees together number only 481 while the religion of 99 persons has not beon specified of whom 79, enumerated on board a ship, were returned as Chinese. Before 1901 tribal ro. ligionists had beon grouped along with the Eindus. In the last four censuses they were recorded separately, their number being however, found steadily to decrease each time. In 1021 they numbered 12,637 but in 1231 only 2,907 persons returned themsolvos under tribal religion though the numerical strength of the total tribal population was 128,838 . The rest had obviously been absorbed partly in the Hindu and partly in the Christian fold, as is evidenced by the faot that in the present census 97 par cent. of the Tribes have returned themselvos as Hindus, the rest as Christians and none under any tribal religion whatever. The complete disappearance of the tribal relgionists is due to their gradual absorption into the inajor religions. Develop. ment of easy means of communioation resulting in increasing migration and settlement of the Tribes in the plains has considerably facilita. ted this process. .The inclusion of the Tribes among the Hindus in the census operations of the last century as well as their actual absorption into the Hindu fold in vast numbers in recent years might have been due to the close affinity of tribal forms of worship to Hindu rituals. The polytheistic conception underlying the tribal religion was essentially Hindu in character. Naturally enough, the Pulaya, the Muthuvan, the Malayarayan, the Maunan and the Kanikkaran
originally worshipping some indefinable power or spirit supposed "to reside in the primeval forest, in the crumbling hills, in the rushing river or in the spreading tree" slowly took to the more refined aspects of popular Hinduism and accepted as titular deities, Sastha, Subramonya, Kali or Meenakshi, Gods and Goddesses of the Hindu pantheon who are ofter associated with hills and forests. In the later stages of evolution when the idea of religion took a more concrete shape proselytising them into other

faiths must have become easy. In the discussions that follow, therefore, tribal religion is not given separate consideration, since of the 132,682 persons eniumerated under Tribes, 129,081 haveroturned themselves as Hindus, and 3,601 as Christians.
364.- The statistics relating to comminity are contained in Imperial Table XIII and Subsidiary Tables (i) to (iii). In the present Consus the Hindus number 3,671,480, including Tribes ,the Cbristians,
of Population Community

num Hindu<br>mmoneristian -



[^4]1, 963,808 including Tribes, the Muslims, 434,150 and the others 580 . Out of every 10,000 of the population, 6,049 are Hindus, 3,235 Christians and 715 Muslims. The other raligionists constitute only 1 in every 10,000 . The diagram on the previous page shows the distribution of the population by main Community in the various taluks.

365: The percentages in the Administrative and Natural Divisions are given in the subjoined table. With the absorption of the High Range

| State | Number per | nt. of the | ation who are |
| :---: | :---: | :---: | :---: |
| Division. | Hindus | Cbristiana, | Muslime |
| STATE | 60.5 | $32 \cdot 3$ | $7 \cdot 2$ |
| Administrative Divisions |  |  |  |
| Southern | B7.7 | 25.0 | 7.3 |
| Central | $68 \cdot 3$ | 25.9 | $7 \cdot 8$ |
| Northern | 46.9 | $47 \cdot 0$ | 6.1 |
| Natural Division |  |  |  |
| Lowland | 67-5 | $24 \cdot 1$ | $8 \cdot 4$ |
| Midland | 53.7 | $40 \cdot 4$ | $5 \cdot 9$ |
| Highland | 60.9 | 32.0 | $7 \cdot 1$ |

Division iato the Northern, the percentage for the Hindus in the latter has averaged down to $-46^{\circ} 9$ as against $75^{\circ} 7$ and $49^{\circ} 6$ of the corresponding areas in 1931. In the Natural Divisions, the Hindus maintain their numerical superiority while in the Administrative 'Divisions their strength has been equalised in the Northern to that of the Christians, consequent on the amalgamation of the Revenue Divisions. The distribution of the Muslim population does not show any marked difference from that of 1931.
3. 366. The Muslims seem to evince a distinot -preference for urban life. Agriculture has been the main occupation of the Christian, his preference for urban life being a more recent development; perhaps on account of the greater attractions offered for the inrestment of his surplus or on account of the diminishing returns from his fields and pastures. The commercially inclined Muslims preferred the towns along the coast for carrying on theirtrade and moved into the interior in small numbers later on, when, through political consolidation general security was
guaranteed. The Hindus distributed themselves fairly equally in the urban and rural areas and might have shown a slight bias for the towns on account of opportunitios afforded for an official or professional carcer whioh their oducation and preference for letters had open+d out with the establishment of 'a ceatralised Government.
367. The percentages of the major communities to the total population at the different oensuses from 1816 onwards are set forth, in the sub. joined table.

| Year | Hindus and Tribal religion, <br> Percentage to total population | Christiane. <br> Percentage to total population. | Muslims. <br> Peroentage to total population. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 1816-20 | 83.0 | $12 \cdot 4$ | 4.6 |
| 1875 | 78.6 | 20.8 | $0 \cdot 1$ |
| 1881 | $78 \cdot 1$ | 20.8 | 0.1 |
| 1891 | 73.2 | $20 \cdot 6$ | 0.2 |
| 1801 | 69.9 | 28.6 | 0.5 |
| 1911 | 67.0 | 28.4 | $0 \cdot 6$ |
| 1821 | 64.0 | 28.8 | 0.7 |
| 1931 | 61.6 | 81.5 | $0 \cdot 8$ |
| 1911 | 60.5 | $32 \cdot 8$ | 7.2 |

368. From 1820, the date of the first census to 1941. the total population of the State bra increased 6.7 times, Hindus $4^{\circ} 9$, Christians 17.5 and Muslims 10.3 . The rate of increase of the Muslims has been steady during the intercensal periods. The larger increase of Christians must have been due to their proselytising activities. Their conversion work must have been done mainly among the Hindus as is evident from the variations in the percentages of both communities. In the last decade the Hindus have recorded an increase of 17 per cent. the Christians $22^{\circ} 4$ per oent. and Muslims 22.9 per cent. If the proportion is calculated on every 10,000 from 1901 to 1941 it could be seen that throughout the succeeding censuses the proportionate strength of the Hindus has been declining while the Chrigtians and the Muslims have been recording a rise. Whereas in 1901 these two communities combined did not con ${ }^{-}$ stitute even 50 per cent. of the Hindu population, in the present census their strength has worked up to 65 per cent. Throughout the four decades of
the present century taken together the proportion of Findus to total population has deoreased br $13^{\circ} 5$ per cent. while the proportion of Christians has increased by $36^{\circ} 9$ and that of the Muslims by $10^{\circ} 8$ :

369 Besides a study of the comparative strougth of the major communities and the relative proportion, of their decennial variation, a separate study of each of them is necessary to understand their individual trends. The Hindus are numerically the strongest. Their rate of growth however, has always been less than that of the State population, as can be seen from the subjoined figures.

Rate of decennial increase per cent.

|  | Aggregata | . Hindus. |
| :---: | :---: | :---: |
| Decade. | popalation. |  |
| 1901-1911 | 16.2 | $12 \cdot 1$ |
| 1911-1921 | 16.8 | 11.7 |
| 1921-1931 | . $227 \times 2$ | $23 \cdot 0$ |
| 1981-1941 | $19 \cdot 1$ | 17.0* |
|  | cluding Trikes |  |

370. In the explanation of this difference, several factors like fertility, conversions and immigration have to be taken into account. It has not been possible this time to estimate the net immigration to Travancore as figures were not available from the neighbouring British Indian Provinces and other parts of India. During the decade conversions to other religions have definitely declined. This can be inferred from a comparsion of the proportion of the Hindus with that of the Christians and Muslims in the last decade. During recent years conversion to Hinduism has been a special feature. The Kerala Hindu Mission alone claims that they have converted over 80,000 persons to the Hindu fold. In spite of this, Hindus have not been able to come up to the 'rate of increase of the other communities.

+ 371. Considering distribution by Taluks it can be seen that Shenkotta records the highest proportion of Hindus with a percentage of 87.9 . Next to it, comes Devikulam with 814 per cent. At the bottom of the scale stands Minachil with $36^{\circ} 1$ per cent.

372. . Hinduism has shown a fund of adaptability in Travanoore as compared to the rest of India. The generous toleration of the Travain: core rulers and the lack of fanaticism in the followers of the Hindu faith made it possible not only for the different schools of Hindu thought but also the exponents of othex religions. like Jainism and Buddhism, to have unrestricted influence on the masses. The people switched themselves on, as it were, from one form of religious worship to another without any official or religious pressure from above. This is a peculiar phenomenon in the religious life of the people of this Land of Charity. The Hinduism which has thus been evolved is therefore, a combination of the Dravidian, the Buddhist and the Jain cults influenced at intermittent intervals by the preachings of religious reformers. In it we find a happy blending of the polytheism of the $\mathrm{D}_{\text {ra- }}$ vidian, the lofty Vedantism of the Upanishad, the Ahimsa of the Buddhist and the Jain and the diversified views of the several religious reformers who visited the country from time to time from other parts of India.
373. The most ancient forms of religious worship prevalent among the original settlers must have been the Dravidian cult of Nature worship. The Aryans who immigrated in small numbers might not have felt strong enough to impose their Vedic religion on the Dravidians. By gentle persuasion they must have prevailed upon the Dravidian majority to accept their particular form of worship and thus a modified form of Vedic religion combining in itself both the traits. of the Dravidian and Aryan religions came to be professed by the people. The Aryan religion with its worship of Nature in its sublime andimposing. aspects is an easy transition from the polytheism of the Dravidian cult. The Vedic cult with its: visualisation of the existence of an all-pervading soul behind the diversities of Nature is only a. natural development from this stage, though perhaps confined to the cultured few. This slow absorption of the Dravidian into the Aryan cult is. apparent in Hinduism as it is practised in Travancore. The Naga worship which was essentially

Dravidian in character was absorbed in the new Hinduism while the worship of Sakti, the Goddess of Energy, probably Vedic in its origin, was accepted by the Dravidian whose religion never lacked virility or force.
374. Successive waves of roligious reform also had their repercussions on the faith prevan lent in the State. Thus when Vardhamana Mahavira and Sidhartha preached their newfounded faiths, Travancore became receptive of their influences. Buddhism secured à large following and became the prevailing religion from one end of the country to the other during the time of Asoka. Many of the temples dedicated to the various deities along the coast and the Sasta temple on the Western Ghats are vertiges of this Buddhistic influence. Though the new faith was not able to keep its pre-eminent position for long, it left behind permanent landmarks in the form of Hindu worship by bequeathing the God Sasta to the Hindu pantheon.' The doctrine of Ahimsa which was an essential feature of Buddhism was incorporated into Hinduism. Uthsavams and religious processions. Which form part and parcel of the Hindu form of worship are essentially Buddhistic in their origin:
375. With the impact of new religious forces Buddhism lost its hold over the people.. The advent of the great Sankaracharya, the exponent; of the Advaita philosophy was a challenge to the permeating influence of Buddbism. Buddhism stripped of its sublime simplicity was caught in a whirlpool of forms and ceremonies 'when' Sankara appeared on the soene, turned the tide of Buddhist domination and ushered in the era of revived Hinduism with its dogmas and rituals, without at the same time losing its innate liberalism, thereby giving the Hindu the zeal of a missionary and the fanatioism of a new convert. It was no wonder, therefore, that Travancore, the land of his birth, should bave come under his influence and be affected by his re-establishment of the supremacy of the Vedic religion. But after' Sankara, Hinduism in Travansore was
influenoed tola carta in extent by the Vaishnavite cult popularised by Ramanujaobarya. His tenohings beoa me popular and seoured a large numberof adherents to the Vaishnavite areed throughout the country.
376. The followers of Ramanuja who spread the Vaishnavite cult in Travancore dedioated several temples to Vishnu which are visited by the Vaishnavite pilgrims from all parts of India even to this day. The popularity of the Visishtadraita philosophists soon gave way to the influonce of the followers of Sri Madhwa who etressod the importance of a personal God in the aysbem of Hindu worship in his teachings. The Tulu Brahmans who are ordinarily the priests in most of the temples in Trevancore are his followers. Two oenturies later Sri Chaitanya the great religious teacher of Bengal visited Travancore. He took with him from Thiruvattar (South Travancore) a rare manuscript, the "Brahma S'amhita", which he acolaimed as the gospel of Vaishnavaism and populariesd in North India. The Mabratta religious movement (Pandarpur Movement) also affected Travancore but its influence was confined to the Konkanese, a small 'community of poople who came to Tra.-. vancore to escape perseoution from the Portuguese.
377. In, later days Travancore was subject tothe impact of the teachings of Raja Ram Mohan Roy and Dayananda Saraswathi. But their doctrines did noteatch the imacination of the people 'and the Arya Samaj and the Brahmo Samaj have not yet made any appreciable headway in seouring recruits. Of the more recent. religious movements, the Ramakrishna Mission and the Theosophical Society have secured a. small band of followers.
378. The rigours of the caste syatem and other social customs, which kept large sections of the so-oalled untouchables down in the social soale, gave an impetus to mass conversion to other faiths, especially Christianity. This was discornible partioularly during the 10th centary.

When the Hindu faith was thus losing its appeal among a section of the population, Chattampiswamikal appeared on the scene to shake the Hindu out of his lethargy and give him a purpose and a goal. By-his simple life and complete identification with the common folk he rekindled the dying embers of Hindu religion and gave it a position of influence in the direction of human affairs. His was essentially the work of a Reformer with vision and imagination. He propounded the theory that spixitual salvation is possible to theiGrahastha also and that Sanyasam need not identify itself with asceticism. He was mainly responsible for infusing life and vigour into Hinduism which, if it had beon permitted to continue in its passivity, would have succumbed to the more definite and concrete faithe which came in later on from abroad and whose followers had tried to enforee it with official sanction and missionary zeal. His personal influence, however, was most potent among the members of his own community. His essential humanity diew round him a band of devoted. disciples from other communitios also.
379. Sri Narayanaguru Swamikal, the: spiritual leader of the Ilavas gave this reform. movement a social bias and a practical turn: He gave momentum to the individuality and sense of self-respect which were generated by the widespread of education among the masses. The tolerant policy of the State in recognising the legitimate olaims of the Backward Communities made his task easy. His activities helped to stem. the tide of conversion from the Hindu fold: Be built several temples on the West Coast intended primarily for the Ilavas, but open to all classes of people without distinction of caste or croed. A number of Sanyasins were trained to carry on religious propaganda on the lines chalked out by him.
380. The temple is the concrete expression of the philosophies of the Hindu faith. For the Hindu, his devotion, his piety, his faith in an all-pervading force, his resignation to what has
been ordained from above, all these find their expression and their specific realisation in the templer the abode of the Deity.' The temples of ' Travancore have been consecrated with the objeotive of symbolising the universality of the Hindu faith. In other parts of Hindu India the attainment of this universality has been made difficult by the clash between the Saivaite and Vaishnavaite sects. This unfortunate schism was neither sanotioned by custom nor observed in practice in Hindu religious worship in Travancore. There are numerous temples in the State where within the same pralaaram shrines have been consecrated to the Gods of the Vaishna vite and the Saivaite cults. In this devotional practice; the Hindu devotee seldom shows a preference for the Vaishnavite or the Saivaite temple.
381. In ancient Travancore the temple had a. definite place in the socio-political life of the Hindus. There was hardly a leara without its important temple. The Hindu aristocrat was distinguished by his private temple and tank. Even among the ordinary gentry there was hardly a house which did not set apart a portion for religious worship. Where the temple was not maintained by the landlord it was under the management of the $K$ arakkar. Temples coming to be under the control of Government is essentially a modern development.
382. Village life then centered round the temple. The Uthsavam was the most important event in the year and was looked forward to by the village folk. The fairs which were often: associated with these temple fertivals were minia; ture exhibitions, where all the best wares which the village could manufaoture and all the greens and grains whigh the rich soil of the village. yielded to the agriculturist were bought and sold*
383. With the temple was also associated the Kulari, the academy of physical culture wherein centered the life of the youth of the village. Whatever went by the name of education was
imparted here. The Asan of the Kalari was acclaimed as the friend, philosopher and guide of the village folk and he was respected: and loved alike by the young and the old. The large number of temples (21.658) which Ward and Conner found during their survey in 1820 is evidence of the pervasive influence of the temples in the life of the Hindus of ancient Travancore. Political consolidation changed the venue of the socioreligious life of the people. The lethargy beooming noticeable in Hindu society has been responsible for the neglect of many a temple; and the phenomenal decrease in the number of temples . and places of Hindu worship-from 21,658 of 1820 to 9,250 at the close of the last decade is an index of this change.
384. With this decline, the ownership of the Hindu temples became the bone of contention: Political consolidation gave edge to this conflict -and ownership of temples became associated with prestige and power in the locality: Templesthereby became more and more secular. With this change arose the special privileges claimed by the Savarinas, perhaps due to kinship with the - owners of the temple... Unapproachability and untouohability alowly crept ins The 'low-caste, people were kept aloof and allottod : places of proscribed distance... When the masses became more and more educated they resented this treatment and the resentment found expression in the creation of their own temples; where they could worship freely without any such olass distinotion.
385. In the course of the conflict for the - ownership of the temples, the management of . several of them became disorderly and the State had in consequence to assume their control and management through the exercise of its paramountey or 'Melkoima' right. The majority of the temples in course of time came under the management of the State so much so, their administration became a regular function of Govgrnment as distinct from their original management by the Karakkar. With the spread of English education, a feeling of self-respect asserted -itself among the masses along with the desire to
share in the religious life inside the temples permitted to the Savarnas only. The assumption of the management of temples by the State tronsformed the demand for this privilege into the claim for a right and, togethar, thase foroes paved the way for the movement for templeeutry. This assumod shape and proportion and secured the sympathetio support of large numbers of people belonging to the Savarna classes. Solioitous that none of His Highness's subjects should by reason of birth, or oaste or community be denied the consolations and solace of the Hindu faith' His Highness the Maharaja Sri Clitra Thirumal issued the epoob-making Temple Entry Proolamation on 12th November 1936.
386. The Proolamation which in iteelf epitomises wonderfally the neosssity for and the oiroumstanoes whioh led to its issue is given below:-
"Profoundly convinoed of the truth und validity of Our religion, believing that it is based on divine guidanoe and on an all comprelending toleration, knowing that in its practice, it has, throughout the centuries, adapted itself to the needs of ohanging times, solicitous that none of Our Hindu subjeots should, by reason of birth or caste or community, be denied the consolations and solace of the Hindu faith, We have deoided and hereby declare, ordain and command that, subject to suok rules and conditions as may be laid down and imposed by $U_{s}$ for preserving their proper atmosphere and muintuining their rituals and observances, there should henceforth be no restriotion placed on any Hindu by birth or religion on entering or worshipping at the temples controlled by. Us and Our Government."
387. Unapproachability and untouchability which had driven many a Hindu to leave his fold to seek solace in other religions were rumoved by this prodanation. It arrested the ${ }^{-}$ forces of disintegration in Hindu society and must have had ite effect both in reducing the number of converts to other religions and in encouraging eeveral of those who had already left Hinduism to come back to the fold. In

Travancore, Hindu'.religion; with its rigidity and exclusiveness thus relaxed, gave freedom and equality to its followers.
388. One of the distinguishing features of Hindu religion is the caste system. The Hindu society has not yet reached a stage when caste could be ignored altogether; though the rigidity of the caste system has been tempered very much latterly by the influence of political, religious and social considerations. So much has been written on the origin of caste and its development that it is not proposed in this Synoptic Essay to examine the different thieories and their applications to caste system in Travancore:' The Census Commissioner for India has also expressed the view that "the Census has done all it could ever really produce in the direction of caste study" and that the form of the question in the enumeration card 'Race, Tribe and Caste' was adopted "merely as an administrative" measure to facilitate the extraction of details otherwise required." An attempt is, however, made to trace the influences which have helped to break the bariviers of caste in the last few years. The most iuportant feature noticeable in this direction is the almost complete elimination of the distance and touch pollution, unapproacha: bility and untouchability. The Hindu reform movements have contributed towards the attainment of this result. The Ramakrishna, Mission, the Arya Samajist, the Brahmo Samajist and the Theosophist do not recognise caste. The - forces which worked towards the demand for Temple Entry, discussed in a previous paragraph, had their influence on this aspect also, the proclamation itself aerving to remore the last vestiges of caste exclusiveness:
389. The conservative joint-family preserved and perpetuated the caste system. With its break up in the wake of the numerous pieces of social legislation and the impact of economic changes, the younger generation felt themselves free from the shackles imposed upon them by their dependence on the orthodox joint-family.
390. The Savarnas. who were the upholders of the conservative Hindu faith enthusiastically
welcomed, the Temple Entry Proclamation whiche. ushered in an era of epiritual revival. The Proclamation paved the way for renewed attemptsto consolidaterand unite the various communities of the Hindu fold on a basis of tolerance and mutual understanding. Even the Sanatanists. who had in the past resisted all changes in the orthodox observances were second to none in applauding the new charter of religious liberty and in co-operating in the fullest measure to implement the spirit of the Proclamation.
391. The secondary and collegiate education. which has spread so widely in the last few years has "aliso been, partly responsible for" undermining the caste system. Besides, the fact of large numbers of poople going to foreign countries has contributed to the introduction of cosmopolitanism which 'accelerated this processThe increasing migration of population from therural to the urban area, their contact with themembers of the castoless creeds and their participation in the various social and official functions have also conduced towards the elimination of caste from the Hindu fold. The facilities provided by the rapid extension of the means of communication in Travancore have made it possible for thetown dweller to reach the village in a few hours. This constant contact betrreen town and •illage has gone, a long way towards making caste. prejudices and caste restrictions less and less. effective in the village.
392. The 'Young Hindu' and other Youth movements gave the Hindu youth an organisation for the propagation of his reformed views. and the conorete expression of his individual independence. The Self Respect Movement had also a considerable effect in relaxing the rigidity of the caste systern which was more pronounced among the Backward classes than among the Savarnas. The stirrings of a desire for social reform thus permeated the whole society. In the new world, therefore, caste could no longer stand. against the aspirations of the young Hindu.
393. The dominating influence of caste has now diminished considerably. Sea-travel is no

Jonger tabooed even for the orthodox Brahman. The orthodox Brahman and the Adi Dravida sitting side by side at the tea-table or being received with equal honours during social cersmonies is a common sight today. The conventions of the caste system prescribed particular forms of dress for particular castes and the consequent identification of their caste by the dress. is no longer insisted upon or even tolerated. A return to simplicity under the influence, partly of economic canses and partly for social and political reasons, has introduced a uniformity of apparel which is most pronounced among the ${ }^{\circ}$ younger generation. Thia is particularly noticeable among the women folk amidst whom caste conventions had imposed cortain restrictions in the matter of the wearing of jewela. Crude and heavy jewellery has now given way to better-cut and more simplefashioned ornaments. In the matièr of personal appearance too, great changes have happened. The Malayali, and for that matter even the younger generation of the orthodox Namputhiris, have discarded the distinguishing mark of the tuft. The Tamil Brahman's tuft has been considerably attenuated, being left at convenient length to satisfy the requirements of orthodoxy.
394. Caste has thus lost much of its significance as an institution perpetuating social exclusiveness. Caste disabilities have been, to a large extent, removed by legislation as well as by administrative measures. Fusion and regrouping have been the immediate results of these changes. The process has been going on in some of the com. munities without any conscious effort on the part of its members, while in some others it has been brought about by concerted action on the part of the leaders of the most progressive sections. The Nayar and the Ilava come under the first category, the Kammala, the Varnava and the Araya under the second. The Nayars who had recorded 116 sub-castes in 1901 returned themselves only under three caste names in 1931. But even then, the Census Commissioner for 1931.
confessed that 'their courrectness oould not bo voúched for.' In spite of the deoisions of the Travancore High Court in XIX T. L. J. 30 and XXI T. L. J. 851 that the Volakkithala and Veluthada Nayars are Nayars governod by the Nayar Act, they ware shown separately in the last Census. But tendenciea in favour of a fusion with the mother sect and a disinclination to maintain a soparatist sub-soct were disceruible even then. This has developed to a griait oxtent during the last. decade. The Chakkala, the Maran, the Velakkithala and Veluthada Nayars who numbered respectively, $12,794,16,257$, 30,603 , and 14,878 in 1831 have recorded their numerical strength in 1941 only as $10,026,5,155$ 30,119 , and 15,311 respectively. The inferonoo is clear. If all the members belonging to those subsects had returned theme日lves as suoh in thu present Consus they would all have shown a proportionate increase and recorded a higher figure in each case. The figures clearly show that a large number of these sub-sects havo returned themselves as Nayars this time. For correot atatistical presentation, the ouly method is to total up this number and show the figuros returned for each sub-sect as an indication of the changes happening in this community.
395. A similar fusion appears to have bern taking place among the Ilavas also, the progress thereof being at an accelerated pace as oompared with that of the Nayars. They had recorded themedres as one caste even in 1.931 as against 22 sub-divisions of 1891 . This must, to a large extent, have been due to the remarkable influence of the socio-religious movement inaugurated by Sri Narayanaguru Swamikal.
396. Identity of occupation has drawn together many a caste which originally held not only distinct castenames but also proserved mutual exclusiveness. An analogy with the medieval guilds is not sustainable on account of the fact that this combination was not intended to exclude people from the secrets of
the respective professions and maintain a monopoly. It had more a political colouring, of votes carrying the day in representative democracy. The discarding in some cases of the old names and the adoption of new ones also lend support to this view.
397. There is an attempt made to bring under the common name of 'Arayan,' all those who follow the occupation of fishing. From the figures available it is seen that those who have returned themselves as Arayan have increased from 23,380 in 1931 to 33,247 in 1941, thus recording a decennial increase of nearly 50 per cent. Though this lends support to the theory of fusion, yet the Vaians, who form the next numerically strong community among those who follow the occupation, have not shown any distinct preference to the new name as will be seen from the fact that as many as 23,766 have returned themselves as Valan against 21,172 of 1931. A large majority of the Mukkuvan, the Marakkan and the Charalakkaran have been converted to Christianity and returned themselves as coming under the several denominations of the Christian religion.
398. In the case of the Varnava the fusion is advocated on the same grounds, viz, identity of occupation. He has shown better organisation and conducted intensive propaganda. But the force of custom seems still to have a hold upon the majority of the community who follow washing as their profession: 4,980 have returned themselves as Varnavas, while the numbers of those who have returned themselves as Vannan, Mannan, Pathiyan and Chayakkaran come to nearly 15,000 . It will be clear from these figures that the movement has made only slight headway. 399. Kammalas who number 256,673 have increased by nearly 25 per cent. A strenuous attempt is being made by them to bring under the common name of 'Kawmala' all those who come under the category of the artisan class. But the figures show that their attempt has not been fully successful as the numerous denominations under which they have been returned during

1931 still maintain their strength and show proportionate increase, though their addition of the suffix 'Kammala' to their particular caste names indicates strong tendencies towards fusion. Their attempt might have been more successful if they had not dissipated their energy by propaganda in trying to give the artisan class a new name 'Viswakarma.' The latter movement has been able to rope in only 5,630 out of a total populantion of the artisan class numbering up to nearly quarter of a million.
400. Caste has now assumed a new garb. New tendencies with little or no affinity to the old caste scruples or caste exclusiveness have begun to take shape. Owing to the social degradation which the names by usage had acquired, the Pulaya and the Paraya evinced a desire to change their names to Cheramar and Sambavar and with the active sympathy of Christian mis. sionaries started a movement akin in externals to the Self Respect Movement in Tamil Nad. This movement received a distinct set back with the Temple Entry Proclamation. The Hindu Pulaya and the Paraya would now rather have their old names than the new appellations of Cheramar and Sambavar. This is evident from the returns of this Census. Out of a total population of 237,865 Pulayas and 77,382 Parayas, only a negligibla number below $2,000{ }^{9}$ have favoured the new nomenclatures.
401. Another tendency which is discernible is for caste to assume the badge of antiquity. Suitable changes in caste names are made to give a plausible explanation for such assertions. I have received several letters and representations. which provide interesting literature on this subject. The Nadar claims Kshatriya origin and descent from the Dravidian Rulers of ancient times. A few among the artisan class trace their descent to Viswakarma. The Cheramais would , establish their affinity to the great Perumals.
402. Caste is now in a nebulous condition. Chañges are happening in such rapid succession on account of a variety of circumstances that it is impossible to predict now how it will settle.
down after this pariod of transition. One thing may be safely assumed. The tendency towards fusion may become more and more pronounoed and the demarcations between one group and another very much coloured by their political -aspirations and the degree of influence each can bring to bear by the weight of its numbers. In-- creasing literacy has developed social consciousnese and a leader with vision and imagination could bring about ohanges which religious reformers have found it diffioult to achieve in the eanlý centuries.
403. Alist of all the castes in the State with a numerical strength of 3,000 and above is given in State Table No. IX. No attempt is however made to show the decennial variations in the numbers recorded against the various castes. . Such a table would be statistically useless as . sufficient reliance could not be placed on the figures for different castes due to changes brought : about by fusion, re-grouping and re-naming.
404. At this period of transition when caste has lost much of its original significance, it may not be profitable to give detailed accounts of the origin and chaxacteristics of the different oaste. groups. The results of research made in the fields of Ethnography, Anthropology and other: allied subjects by persons of the standing of Thurston, Risley, etc., have been embodied in the Report of the Census of 1931. The last decade has added practically nothing to 'caste study' by scholars of repute which demands a revision - of the accounts given by my predecessor. Tendencies and developments are more in place in a . Synoptic Essay than 'wearisome screeds' on oaste - question.
4. $\mathbf{4 0 5}$. Numerically the Christians form the : second major community in the State. Christianity, like Islam, has been, throughout its history, an essentially missionary religion, enlarging its frontiers as much by conversions from outside as by natural growth from within. Bub the . social and religious homogeneity revealed by the . Muslims in the present census returns contrasted
strangely with the bewildering variety of denominations under which the Christians returand themselves; they being outdone in this, only by the caste returus of the Hindus. Though the Muslims had, till the 1931 Consus, usually ro. corded their subdivisions, they designated them. solves this time as a single community 'Muslim ' with their religion 'Islam '. The Christians, on the other hand, classified themselves under no less than seventy denominations and seots of varying numerical strength. Out of the eight prinoipal subdivisions, six number more than a hundred thousand and two between forty thousaud and a hundred thousand. Three out of the rest number between ten thousand and twenty thousand and nine between one thousand and ten thousand. All the others fall below 1,000 , forty numbering less than 100. Several of the denominations have all along been progressing steadily under well-established Church organisatious, hierarchical or demooratio, with their eoclesiastionl headquarters in some foraign city suoh as London, Rome or Antioch. But many more of comparatively recent growth and smaller numbers have also been stealing a maroh, in thair own way, under the spiritual or bemporal leadership of clorics or evangelista, gospellers or catechists within the State itself. Sinoo a systamatio history of Christianity is out of plaoe in a - Synoptio Essay, a sucoinct account of the historical antecedents of the major denominatious in the State is called for, if only to olucidate the meaning and import of the nomenolature they have adopted in their olassification.
406. At the very outeet, it has to be pointed out that the various denominations, as at present constituted, derive their origin as well as their names from the various Church organisations that bailed from the Near East or the Far West and established their respective jurisdietions from time to time within the State. For this reason, a oonspectus of Charoh history in Trayancore if isolated from its foreign ecolesiastical setting, would distort one's viewpoint as well as render unintelligible the cross-curcents involved in the
clash of jurisdictions, doctrines and liturgies among the Christian denominations. In the first few centuries of the Christian era, such ecclesiagtical centres as Jerusalem, Antioch, Alexandria and Rome rose into pre-eminence in Christendom with more or less common doctrines and rituals but with difference in the language used in their liturgy. In course of time, Rome brought under papal domination the whole of Central and Western Europe where Latin liturgy was uniformily followed. That was how the West came to be reckoned as the sphere of Latin Christianity. The attempts of Rome to make its supremacy over Christendom universel by extending it over the Patriarchs and their Metropolitans and Suffragans in the Niddle East met with only partial success. The Eastern prelates (such as the Patriarchs ruling over the Coptic, Greek and Antiochian Churches) continued their career independent of the Roman Pontiff and following their separato liturgies such as Syrian, Coptic, or Greek. Meanwhile from the 4th century onwards splits or 'schisms' arose in the Christian fold by the variety of interpretations given to some of the mysteries of Christian revelation, especially those pertaining to the incarnation. and divinity of Christ and the doctrine of trinity. The Arians, the Nestorians, the Monophysites, the Eutychians, etc., were instances of such schismatics who held 'heretical' theories on such doctrines, as a result of which the heads of the Eastern Churches found it difficult to preserve unity or uniformity in doctrine, ritual and jurisdiction. In one such struggle involving Nestorian antagonism against the Patriarch of Antioch, a monk named Yakoob Boordhana or Jacob Baradaeus ( $540-578$ ) successfully opposed the Nestorians and helped to restore the members to the allegiance of the Patriarch. The Jacobites derive their name from him. The Church of Antioch has after him often been called the. Jacobite Church. Soleucia or Babylon, which was the suffragan bishopric of Antioch, repudiated. her by accepting Nestorianism. At the same. time Rome which had unified Western Christendom under the Latin or Roman Catholic Church
succeaded in extending its supremacy over some of the Eastern bishoprics as well, where, however, the Eastern liturgy and ritual were left unaltered while uniformity of doctrine was insisted: upon. From the time of Martin Luther's pro. test against Papal supremacy, Western Christendom came to be split up into Roman Catholic and Protestant. Protestantism in Europe assumed different forms, some of which were extended into America in the centuries that followed. Viewed from this background, the brief account given below of the contact of Travan.. core with the Eastern and Western 'Churches, Syrian and Latin liturgies, Jacobite, Roman. Catholic and Protestant Missions, Lutheran, Anglican and American Missionaries, etc., may be more clear and their separate impact really inter-connected.
407. $t$ has also to be remembered that such a. plant of exotic origin as Christianity could never have had an indigenous growth in Travancore. without a highly congenial atmosphere and this was freely, almost solicitously provided from time to time, by the Sovereigns of the State who, though strictly orthodox, were remarkably tolerant and so genuinely religious that they fostered religious worship by others whether Buddhist, Jain, Christian or Muslim. Not only was toleration practised by them and preserved among. their subjects, but liberal grants were made to the Christians to build their churches. Chartersconferring special privileges were often granted to the Christians. Thomas of Cana who led a band of Syrian colonists into Malabar was therecipient of such a royal favour from Cheraman Perumal in 345 A. D. A similar copper-plate grant from the Raja of Venad (Aiyan Atikal Thiruvatikal) made in 825 A. D. to a Christian morchant from Persia named Sapir Iso Maruwan is still preserved in the old Jacobite Seminary at. Kottayam. In 1516 the Rani of Quilon agreed to rebuild a Christian ohurch which had been: burnt down by some enemies and even granted. permission to her subjects, whether Hindus or: Muslims, to embrace the Christian faith if they chose. The Sovereigns of the State have
always maintained cordial relations with ecelesiastical dignitaries especially the Patriarchs of Antioch and the Popes of Rome. His Highness the Maharaja visited the Vatican and had an audience with the late Pope during His Highness's. European tour. It is small wonder, therefore, that under benign rulers who abhorred any idea of persecution, Christianity made con- siderable headway in the State.
408. Christianity was introduced into Travancore stiaight from the land of Jesus Christ, not long after His crucifixion. Tradition associates its introduction with the name of St. Thomas (52-68 A. D.) one of the twelve Apostles of Jesus Christ and the pioneer of evangelisation in India. Through all the thick mist that shrouds the traditional accounts, one fact stands out clear, viz.; that the earliest conversions must have been effected by a person of great spiritual influence and magnetic personality, for among the converts to the nex faith there appear to have been several who did not suffer any disabilities imposed by the Hindu religion, but occupied positions of authority and influence in Hindu society. The tolerant attitude of the rulers facilitated the success of early Christian missionary enterprise.

409 The Church in Travancore was thus one of the oldest in the world, older than in any other part of India and in most parts of Europe. It was obviously Eastern in character and Syrian in liturgy. Its members were called Syrian Christians, "not because they were of Syrian blood or a Syrian nation but because they followed a Syrian liturgy and used prayers and scriptures written in Syriac language. Thus the nomenclature was purely ecclesiastical rather than geographical, ethnological or political". The name "Syrian Christian", primarily determined by liturgical uniformity rather than racial homogeneity, has latterly come to have a variety of connotations according as differences of ecclesiastical jurisdiction divided them, their descendants and their converts into different religious folds. In the present census several persons
returned themeslves simply as "Syrian Christians" or "Orthodos Syrians". As usod in common parlance today the term "Syrimn Chriatian ". comprelends the members of the Jacobite, Marthomite, Syro-Roman and SyroMalankara Churches, using the Syrian liturgy.
410. An important landmark in the history of Syrian Chriatians was the establishment in 345 A . D. of a Syrian colony in Malabar undor the leadership of a rich Armenian merohant named Thomas of Cana or Knaya Thoma. He arrived with several Christians from Baghdad, Jerusalem and Nineveh, several priosts and a bishop named Joseph of Edessa who owed allegiance to Seleucia or Babylon. They spraad their activities into the territories of Vadakkumkur and Thekkumkoor and strengthened Syrian Cbristianity in the State. The Knanaya Syrian Christians of today, both Jaoobite and Catholic, claim descent from Thumes of Cana and his band of colonists. The Catholic Knanites have now a separate bishop of their own. Throngh Seleucia or Babylon the Patriarch of Antioch claimed control over the Syrinn Christians and the effectiveness of the control depended upon the steadfastness of the allegiance of Seleucia to the Patriarchate of Antiooh. But the percolation of Nestorian influence partly into the ranks of Syrian Christians in the State and partly over Babylon subjected the Antio. chian control to constant oscillations.
411. It was about this time that Jacob Baradaeus reorganised the Churoh of Antioch which thereafter came to be known as the Jacobite Church. The Jacobites in the State have been a flourishing and progressive community with a separate ecclesiastical organisation of their own. They follow the liturgy of St. James, and are still under the Patriarch of Antioch. Among the Syrian Cbristians in the Stato there were, however, many who were outside the Jaoobite Church.
412. The next important landmark was the direct intervention of the Pope of Rome in the affairs of the Christians in the State. Papal
emissaries who were sent to fratermise with them and thereby bring them under his spiritual supremacy elicited little response. The Fransiscan friars who accompanied the Portuguese expeditions to the East, were more successful. It was the Portuguese priests that systematically set on foot Latin Christianity in the State with Latin liturgy and direct allegiance to the Pope. The Syrian Christians very cordially received their Latin brethren who made extensive conversions in different parts of the State chiefly through the missionary zeal of Francis Xavier who was the most outstanding figure of the period. In 1557 the Latin Christians were placed under the newly constituted Bishopric of Cochin. With the coming of the Jesuits soon after, the Papacy adopted a more militant attitude. A systematic campaign was launched, not only to evangelise the 'heathens' but to latinise the Syrians and thus ensure liturgical uniformity side by side with papal supremacy. A Seminary and a Colloge were started by the Jesuits to impart sacerdotal. training and general education to those Syrian Christians who had not subsoribed to the Jacobite Church and through them to win over the Jacobites themselves. The non-Jacobite Syrians in those days owed allegiance to the Chaldaean. Patriarch of Babylon who was then under the supremacy of Rome.
413. Realising the necessity of centralising their spiritual activities in the East, Rome established an Archbishopric at Goa with the Cochin Bishopric as a Suffaragan See. To place a strong man at the helm, the Pope appointed Menezes as Archbishop of. Goa. Fortified by the support of both the Portuguese and the Raja of Cochin he started a vigorous campaign to subdue all who opposed Latin Christianity. The success he achieved in his preliminary steps emboldened him to convene the Synod of Diamper (Udayamperur) in 1599. At this memorable gathering Archbishop Menezes compelled all the Syrians, Jacobites and others, to acknowledge the supremacy of the Pope, subscribe to the Latin doctrines
and rituals and abjure all heresy. They were then incorporated into the Bishopric of Cochin. As a matter of concession to the Chaldaeans the Syrians were allowed to use the Syriac Chaldaean liturgy which was prepared for them in conformity with that in Latin. This forcible union of the Jacobite Syrian Church with Rome being superficial, proved short-lived. With the decline of Portuguese power and the appearance on the scene of a Jacobite Bishop from Syria or Babylon the allegiance to Rome began to wane. This Bishop was imprisoned by the Portuguese. The exasperated Jacobite Syrians thereupon met in solemn conclave at Koonen Cross in Mattancherry in 1653 and renounced their allegiance to Rome. They accepted as their leader Archdeacon Thomas who was subsequently consecrated as Archbishop by twelve Syrian "Catha." nars ". The consecration was confirmed in 1665 by a Bishop from Jerusalem sent by the Patriarch of Antioch. Thus the Jacobite Church survived in the struggle with Latin Christianity. The non-Jacobite Syrians came to be called the Syro-Romans. They have ever since remained in communion with Rome and are also known as Syrian Catholics or Romo-Syrians.
414. The years that followed witnessed systewavic attempts on the part of Rome to recapture lost ground and the persistent efforts of the Koonen Cross covenantors to stand their own. The tactful Carmelites who replaced the militant Jesuits in 1657, managed to detach and conseorate as Catholic Bishop under the name Alexander, a close kinsman of Archdeacon Thomas by name Parampil Chandy Cathanar. In this diplomatic way they succeeded in winning back to the Roman fold, the majoxity of the seceders ( 84 out of 116 churches) whose retrocession thus reinforced the ranks of Romo-Syrians. It is from this time onwards that Romo-Syrians came to be called the "Palaya Koottukar" and the Jacobite adherents of the Antiochian Church (ruled hereafter by Archdeacon Thomas as Mar Thoma I and his successors) known as the "Puthen Koottukar".

The latter part of the 17 th and the whole of the 18th century passed without any more epochmaking events in Church history in the State. Politically and geographically Travancore had, by the end of the 18th century, attained har present dimensions under the great Sovereigns Marthanda Varma and the "Dharma Raja" and entered into subsidiaxy alliance with the British Suzerain Power.
415. . The 19th contury was fraught with further trials for the Jacobite Church, charaom terised by internal disorganisation, partly under Anglican influence, and external pressure from Rome. These culminated in a few. paralysing party-défections from within and several prom tective but oft-solicited State interventions from without. No less than five important instances are recorded of such State arbitration, resulting in the issue of Royal Proclamations, either aco cording State recognition to 'some Metropolitan whose consecration was open to technical objection or adjudicating in disputed successions or jurisdictions of episcopal rivals. The Royal Proclamations of 1817, 1827 and 1828, during the administration of Col. Munro were meant to settle some of the latgr disputes. The most epoch-making Church dispute of the century in this State occurred in 1848 when a Royal Proclar. mation was issued recognising as Metropolitan. Mar Mathew Athanasius, who had been duly consecrated in Antioch. But the appointment, soon after, of another Metropolitan from Antioch led to a revival of dissensions culminating in the visit of the Patriarch of Antioch to Travancore, followed by the Synod of Mulanthuruthi and the declaration of the Patriarch's nominee (Mar Dionysius V) as Metropolitan in 1876. The State accorded its sanction to this choice and declared it as its definite! , policy henceforward to interfere and adjudicate only in the temporal affairs of the Church involving "the maintenance of peace and good order" "tbrough the established courts of the country". The Athanasius party influenced by Protestant misAnnmina refused to recognise any foreign
authority and seceded from the Jaoobito Churoh in 1868. They'constituted themselves into a suprrate Churoh called the Reformed or Mar Thoma Syrian Churoh. This inoident thus marks the origin of the Mar Thomite Syrians who have proserved their independent orgamisation evor sincu. They still use the Jacobite Syrian liturgy from whioh, however, they have oxpunged soveral portions repuguant to their reformed religious conceptions.
416. The present century witnessed on the one hand the werkening of Antiochian control by the revival of the Catholicate and on tho other the secession of two bishops from its ranks. In 1930, Mar Ivanios, tbo Jaoobite Metropolitan of Bethany and his associato Mar Theophilus, joined the Catholio Church and two years later the former was made titular Arohbishop of Phasia with residence at Trivandrum and the latter to be under him as the titulax bishop of Arad with his residence at Thiruvella. A separate hierarohy was established for tho new Catholic denomination founded by 'them and they adopted the "Syro-Malankara rite" the dootrines and dogmas being those of the Catholic Church. This recent Catholio offshoot from the Jacobite Churoh has vaguely boen designated as "The Malankara Syrian Church" (under the "Archbishop of Trivandrum") embodying blended elements, the Roman in dootrine and juris. diction and the Syrian in its Syro-Malankara rite and liturgy. It is perhaps this unique character of their rite that has labelled them as "Reethukar" in common parlance, though their other name" Puthenkoor Catholica" does more correctly differentiate them from the other Syrian Catholics of the State than the very broad appellation of "Malankara Syrian Church".
417. The ancient Jacobite Church with its chequered history, often shaken by frequent dissensions, sometimes weakened by periodical defections and still threatened by further secossions, steadfastly survives all its vicissitudes in
its pristine orthodoxy under Antioch's spiritual supremacy.
418. Meanwhile the necessity of adjusting the Catholic Church organisations in the State to suit the ecclesiastical requirements of the various denominations owing allegiance to Rome, led to the formation, within the last generation, of separate bishoprics and hierarchies with welldefined jurisdictions for both the Latin Catholics and the Syrian Catholics (or Romo-Syrians or Palaya Koottukar) who had been under the Portuguese Bishops of Cochin and Cranganore and the Carmelite Bishops of Veiapoly. In consequence of such measures; the Latin Catholics and the Syro-Romans were provided with separate hierarchies, which in recent years have been Indianised.
419. The Syrian and Latin hierarchies func. tioning in the State at present are constituted as follows. The present heads of the Jacobite Church in Malabar are two rival claimants-the Catholicos of the East residing at the old Seminary, Kottayam and the other the Metropolitan at Alwaye under Antioch's spiritual supremacy. There are eight-Bishops under them. The Mar Thomite or Reformed Syrians who are independent of any external spiritual control are under their chief Metropolitan at Thiruvella with three Suffragans under him. The Syxo-Romans (Syrian Catholics,) are under the Archbishop of Ernakulam and the Bishop of Changanchery, the Knanite section alone among them being sepaxately under the Bishop of Kottayam. Both the Changana.:' chery and Kottayam Bishops are under the Archbishop of Ernakulam. The "Malankara Syrian Church" following the Romanised SyroMalankra liturgy is under the Archbishop of Tri: vandrum. The Latin Catholics of the State are placed under five Bishops, of whom those of Kottar, Trivandrum, Quilon and Vijayapuram are. under the Archbishop of Verapoly and the Bishop of Cochin is under the Archbishop of Goa. Despite the difference in liturgies and episcopal jurisdictions, all the Catholics in the State, as
everywhere else in the world, are under the spiritual supremacy of the Pope of Rome.
420. From the beginning of the 19 th century nne ${ }^{2}$ Protestant Missions from the West had begun their activities in Travancore. The most prominent of these was the Church Mission Society. In 1806 and 1807 Dr. Claudius Buchanan of Caloutta visited Travancore at the instance of the then Governor-General the Marquia of Wellosley and started work in co-operation with the Syrian Metropolitan of Malankara. The mission had its headquarters at. Kottayam and attempted between 1816 and 1836 to effect a fusion of the Syrian and the Anglican Churches. It had the very active and sympathetic support of Col. Munro and through him of the Government of Travancore. They tried to introduce the English liturgy in the Travancore churches by translating the same hoping that in course of time they would be able to win over the Syrians. The success of the Anglican Missionaries in Travancore was short-lived. The following years witnessed the gradual separation of the Syrians. from the influence of the Church Missionary Society. In 1836 the Syrian Christians formally severed their connections for good from the C. M. S. missionaries and thenceforward thelatter commenced direct mission work. Several C. M. S. mission centres were established in various parts of the State. 'In 1869 the Society working in Travancore and Cochin was transferred from the control of the Bishop of Calcuttan and placed under a Church Council. TwoCouncils were established, one at Kottayam and. the other at Mavelikara. The Dioceses of Tra-vancore and Cochin were set up in 1879. Till. a few years ago, this Church was known as the Church of England in India or the Anglican Church in India. The legal connection of theChurch of England in India and the established Church of England has now been severed by an Act of Parliament, though it retains its organia connection with the Anglican communion. Since then, they have formed a component part of "the Church of India, Burma and Ceylon". They have a separate Bishop with headquarters at

Kottayam. The governing body is the Diocesan Council with a standing committee of eleven clerical and twenty-six lay members.
421. Even before the Church Missionary Society, the London Mission Society had started their proselytising activities in Travancore. The mission started work in 1806, chiefly under the leadership of a German by name Ringletaube, with the active support of the British Residents Col. Macaulay, Col. Munro and General Frasor, in whose time the successive Sovereigns made periodical gifts to the mission in the shape of donations and lande to build churches or to cultivate; besides revenue concessions, grants-in-aid to schools, ate. In 1866 the Pastorate was partly'. Indianised and at present the Mission is divided into six districts, viz., Nagercoil, Neyyoor, Marthandam, Parassala, Trivandrum, and Quilon, each with its own minister and administrative council. The churches that have grown up in Travancore as a result of the work of the London Mission Society have for the last 30 years belonged to the South India United Church, comprising churches of Congregational and Preabyterian denominations scattered in the different parts of South India. It represents a union of churches which had themselves taken steps to remove certain differences.
422. The Salvation Army started work in 1889 in a village near Nagercoil and progressed on the same lines as other missions of the S. I. U. C. Its founder, General Booth paid a visit to Travancore soon after they started work. The sect owes its name to its emphasis: on the doctrine of the salvation of the soul through Jesus Christ. "Within a short time they were able to secure a large body of converts. The unique feature of this sect is the adoption by its members of red and yellow uni-' forms and well-graded military designations. In 1924 they established the headquarters of Terri-' torial Commander of the South Indian District. in Trivandrum. The Divisional Commanders were also appointed in ten separate centres in Travancore.
423. *Besides the major Christian denominations whose history has been brielly dealt with there are a large number of otherisects, of exotio as well as indigenous origin, some of the mumerically more important of them being the Lutheran Mission, Pentecost, Baptist, Brother Mission, Bible Faith and Church of America.
424. It has already been stated that tho proportion of the Christians to the total population of the State has ben inoreasing in succeeding Consuses. In 1875 when the first regular Census was taken the Christiaus had a numerical' strength of 469,023 ouly. In the present Census their population is $1,903,808$. Between 1875 and 1941 they have inoreased by 318.7 per cent. The decennial rate of increase of the Christians has been highor than that of the Hindus and also of the aggregato State population during the past several deoados as has already been stated. Since 1031 the Christians have increased by $22^{\circ} 4$ per cent.' while the Hindus have increased by only 17 por cent. and the total population of the State by 10 per ount.
425. The Christians have maintained the pro portions of the last Census in their distribution by taluks. Meenaohil with $81{ }^{\prime} 6$ per cont. leads, whilo Changanachery, Kottayam, Muvattupula and Thodupula have recorded more than 50 per cent. As in 1931, Kunnathunad is the only taluk in which both Hindus and Christians are each less than 50 per cent. Of the taluks in the State, Chirayinkil contains the lowest percentage of Christians viz. 2 . 1 . Of the total Christian population $46^{\circ} 4$ per cent: is in the Northern, $32^{\circ} 2$ in the Central and $21^{\circ} 4$ in the Southern Divisions.
426. The subjoined table shows the distribution of the Christian population by main sects. It gives also their proportion to the total Christian population. In the 1931 Report, only

| Sect. | Actual Number. | Percentage to the total Christian population. |
| :---: | :---: | :---: |
| Anglican oommunion | 88,217 | - $4 \cdot 49$ |
| Jacobite Syrians | 405,057 | $20 \cdot 382$ |
| Mar Thoma (Reformed) Syrians | 171,862 | $8 \cdot 76$ |
| Romo-Gyrians | 680,834 | 29.67 |
| Roman Catholica | 453,224 | $23 \cdot 08$ |
| Salvationists | 49,755 | $2 \cdot 53$ |
| South India United Ohurch | 113,857 | $5 \cdot 80$ |
| Others | 120,902 | 6.15 |

two denominations of Catholics, via, RomoSyrians and Roman Catholice, have been recorded. In this Census the Catholics have returned themselves as three main denominations, vir., the Roman Catholics, the Latin Catholics and the Syrian Catholics. From the total number of Roman Catholics it has to be presumed that the Latin Catholics also have been included under Roman Catholics in 1931. It is necessary, therefore, for purposes of comparison and analysis to group them together under the same heading. Roman Catholics and Latin Catholics as returned number $23^{\prime 0}, 158$ and 223,066 respectively.
427. The Catholics constitute the majority among the Christians. The Romo-Syrians and the Roman Catholics both of whom owe allegiance to the Pope, together number $1,014,058$ and form $51^{\circ} 6$ per cent. of the total Christian population. The Jacobite Syrians who form. 20.6. per cent. of the total come next. All the other sects together form only 278 por cent. The Roman Catholics have increased from 360,217 to 453,224 i. e., by $25^{\circ} 8$ per cent. They have rogistered the. largest percentage of increase among the Christians. The Romo-Syrians number . 560,834 against 449,173 of the last Census. They have increased by $24^{\circ} 9$ per cont. This increase is higher than the rate of increase of the Christian population as a whole. They have increased in their comparative strength also. In 1931 they formed only 28 per cent. of the Cbristian population. Now they constitute; 28.6 per cent. The strength of the Jacobite Syrian sect has increased from 337,872 to $405,057, i$. e., by $19 \cdot 9$ per cent. They constitute $20^{\circ} 6$ per cent. of the Christian population. The Mar Thoma Syrians have increased from 142,486 to 171,962 , i. e: by $20^{\circ} 7$ per cent. They constitute $8^{\circ} 8$ per cent. of the total Christian population.
428. The population of the Anglicans has increaswi from 85,261 to 88,217. They now form only 449 per cent. of the Christian population while, according to the 1931 Census they constituted 53 per cent. of the total Christians.
429. The Salvationists and the South India United Uhurch register a decrease as compared with
the figures for 1931. The former number only 49,755 as against 58,991 of 1931. In 1931 they formed 3.7 per cent. of the Christian population while this time they form only 25 per cent.
430. The population returned under the South India United Church formed $8^{\circ} 7$ per cent. of the total Christian population in 1931, but in 1941 they form only 58 per cent. Their numerical strength has fallen from 138,958 to. 113,857. This decrease can be explained only in two ways. Probably the Mission has not been able to keep up the rate of conversion of the previous decade. A large number of their parish people may have left their fold and gone over to other sects or other religions. In the enumeration stage there was a good deal of propaganda and several petitions came up from the adherents of this sect. Some of the members of the South India United Church were reluctant to renounce the caste to which they had belonged before conversion. Between the injunctions issued by the Missions to return themselves as S. I. U. C and the desire of the individual to hold fast to his caste, there soemed to exist a lot of confusion with the result that the returns contained several denominations as Nadar Christian, Cheramar Christian, Sambavar Christian, Aiyanavar Christian, etc. In fact between the period of the preliminary and final enumerations there was simultaneous propaganda by two parties, one insisting upon the mention of caste even to the elimination of the sect and the other emphasising the need for recording sect ignoring caste altogether. The tendency described earlier while discussing Hinduism, of caste assuming a new garb for political purposes, is discernible here also but with this difference, that while the character of the transition in Hindu society was centripetal, that in the Christian was. centrifugal. For example the Nadars of South Travancore started an agitation that all Nadars irrespective of the religion to which they belonged should be grouped as belonging to a homogeneous community so that the weight of their numbers might help them for official preferment and representation in public bodies and in stitutions. So also, though in a lesser degree,
: Where has been a similar movement among the -Cheramars, the Sambavars and the Aiyanavars. It is too early to predict at the present moment, when regrouping and renaming of communities, - sects and castes are frequent, whether these seots will, in eventually evolving themselves into groups, base their identity on caste or religion or a combination of both.
431. Besides the major sects mentioned above :numerous other missionary bodies are working in the State. These bodies are financed from Europe and elsewhere and have established churches of their own in different parts of the State. "The divergent interpretations of Christianity by the exponents of numerous missions contribute not a little to the puzzlement of the Hindus among whom they work." Many of the converts to their fold are from the Backward Communitios who are unable to understand the differences in dogma or ritual among the different schools and though they may realise the fact that they have changed their religion, they are seldom conscious of the comparative merits of the tenets of the new creed to which they have been converted. The Christian who has changed from one sect to another may have done so for special advantage or convenience. This may offer some -explanation for the existence and continuance of the large number of miscellaneous Christian sects in Travancore. A list of the several sects with their respective strengths is given below. In addition to these there are 54 other denominations whose numerical strength falls below 1,000 and 40 even below 100.

Seat.

1. Tribe
2. Lutheran Míssion
3. Protestant
4. Nadar Christian
5. S. D. A.
6. Brother Mission
7. Pentecost
8. Syrian Unspecified
9. P.R.D.S.
10. Bible Faith
11. Cheramar
12. Baptist

Number.
3,601.
13,200
17,531
1,980
2,083
0,413
10,044
5,141.
4,015
2,046
3,725
3,886
432. "The Muslims who constitute tho third major community in the State have increased from 353,274 to 434,150 in 1941. They oonstitute 7.2 per cent of the total population. It is recorded that the first batch of Muslims reauhed Malabar as early as 712 A. D., b.e. about the same year as the advent of Islain in Sind as well as in Spain. The people of Malabar and their Rulers, who were tolerant to the religions of the many nations who traded in their ports appoar to have given them all help and encouragement. The Muslim traders on their part respected the customs and usuges of the country and maintained the most friondly interoourse with the local population. Several mosques were built and they made many converts to Islam. They alwaye received very kind and generous treatment at the hands of tho Rulers of Travancore and under Royal patronage Islan seems to have prospered in the State. The clasle of interest which has characterised Hindu-Muslim relations in other parts of India never existed in Travanoore. There is in fact no real HinduMuslim problem here. This can be attributed more to the tolerance and catholioity of the Rulers and the people than to the fact of their being a small minority in the State. Conversions to Islam in Travancore were made in a quiet and unobtrusive way and were thus free from the taint of aggression or intolerance as in certain other parts of India. The Muslims hore nover adopted a policy of aloofness but lived in peace and amity with their fellow citizens and pursuod their religious life in confornity with the usadn of the times. "The Maharajas exercised a power of control in the management of their religious institutions. The permission of Government was necessary for the opening of mosquas while the right of appointing the priests was reserved in the Sovereign himeelf."
433. The Muslims in the State were divided in 1931 into two major sub-divisions-Shiahs and Sunnis. The Sunni Muslims were further sub. divided into five sub-sections each having 3 and 4 subdivisions. But with the commencement of the Census operations of 1241, the Muslims is
the State conducted intensive propaganda to secure uniformity in returns as a single community. As a result the Muslims have returned themselves as one homogeneous body with 'Islam' as their religion and 'Muslim' as their community.
434. Since the last decade the Muslims have inureased by $22^{\prime} 9$ per cent. Among the three major communities, the Muslims have recorded the highest percentage of increase. During the last 40 years, they have increased by 127.8 per cent. Although they are found throughout the State, their presence in force is essentially a feature of the Central Division. But in no taluk of the State do they constitute a majority. It is in Chirayinkil that they have the highest percentage but even there they form only $16^{\circ} 6$ per cent of the taluk population. They have their least strength in Devikulam (1'3 per cent). As in 1931, Chirayinkil and Karunagapally retain their first and second ranks in Muslim strength, while Kunnathunad, which held the third rank of 1931 i. e. $\left(12^{\circ} 9\right)$ has yielded it to Pathanapuram (13.2).
435. Besides these, Sikhism, Jainism, Zoro* astrianism, Buddhism and Judaism have also found their adherents in Travancore. Twenty persons have not returned themselves under any religion at all. The Jews, the Sikhs and the Jains have increased now to 371,31 and 62 from 298 , 12 and 41 respectively in 1931. There has been a fall in the strength of the Buddhist from 64 to 16 .
436. The west coast has often been considered an exceedingly interesting place combining the charms of a hoary antiquity with the delightful simplicity of domestic life. It is true that the Malayalee was different in many respects from the people who lived beyond the Ghats. Marumakkathayam laws existed in few other parts of India; In habits and attire, he adopted a mode distinct from any found elsewhere in India. In domestic life, the joint-family system maintained conventions and practices peculiar to this land. In food and clothing, there was a distinctiveness which could not escape the notice of even the asual visitor. In marriages and other functions
social or religious, there are noticeable cectain characteristics which are the results of the personal laws peculiar to this part of the country. And yet in this strange land on the western fide of the Ghats where the curious visitor might have expected to see things fundamentally dife ferent from what he had seen or heard beyond, there has occurred in the last few decades almost. revolutionary changes which have transformed ${ }^{2}$ this caste-ridden country into almost the most. progressive part of the whole of India.
437. The outlook of the people on life in general has changed and new ideas resulting. from the wide spread of liberal education have permeated society at large. This modermisation in outlook, manners and customs is discernible in: all aspects of life-social, religious and political People are becoming increasingly adaptable to: the changes that are constantly taking place. around thom and society is moving forward with the "times casting off its rigidity and exclu-siveness and becoming more and more receptive. of new ideas and ideals.

- 438. Though by religion the people of rravancore are divided into three main communities-the Hindu, the Christian and the Muslim-in appearance, dress and habite. they can be grouped into two broad classes. The descendants of those who came under the civilising influence of the Aryan immigrants who ocoupied from early times positions of distinction and authority are to be distinguished from the descendants of those who'stood outside. their fold. The distinctiveness in personal appearance marked by fairness of complexion and regularity of features, cilean habits and simple life can be attributed to the social rank which they enjoyed irrespective of their reli. gious persuasions. The indigenous population wherein there has been less admixture of foreign: blood is characterised by dark complexion and features which are not so well outlined.
-439. Even among this apparently homogeneous group certain distinguishing features exi-sted to indentify the particular sect or class to.
which each belonged. A couple of decades ago the Namputhiri could easily be distinguished from the Nayar and the Vellala from the Ampalavasi. Caste had long preserved this distinctive ness particularly of the upper classes in society. Social and economic changes which have gone far to eliminate caste have sét in motion a tendency for the gradual disappearance of these special characteristics. With the gradual elimination of caste prejudices and caste exclusiveness, custom and tradition became less and less effective. The tuft is no longer an identifying mark of the Hindu. The wearing of eastemarks is becoming a rarity. One Englandreturned Brahman gentleman recently described it as 'war paint'. The close shave of the Christian has disappeared, the comb and the hair-brush coming in as an indispensable item in his toilet. Even among the Muslims who are more conservative, there is a tendency on the part of the educated few to give up the close shave and the skull cap or the turban.

443. Through economic changes and nationalistic influences a uniformity of apparel is coming into common use and this has to a very large extent democratised society; so much so, that it has become almost impossible to identify caste or community by the dress that is worn. This healthy and wholesome change is unfortunately accompanied by a tendency to make costume more expensive, less artistic and illadapted to the climatic conditions of the country. The shirt is an addition becoming more and more popular. The white mundu is being fast replaced by the Veshti with broad borders and the towel with stripes has taken the place of the old simple thorthu. The large majority of the Muslims, however have not given up their traditional costume.
444. A tendency towards extravagance in dress and habits is noticeable in the younger generation of the educated classes, particularly among those with higher education. Though the attraction for the European costume is fast disappearing under nationalistic influences such
expensive habits as the use of silks, oostly linon, cosmotics, etc., are on the increase. This unfortunate tendency to bestow too much attontion on personal appearanes is baving its baneful effocts on society.
445. In female attire also there hae been considerable change. Malayali women were noted for their preference of simple white dress, though the manner of dressing varied with the women of different communities. The educated section of women and those who follow their lead axe adopting inn ovations in dress which bring them nearer to the general mode of dressing in vogue in other parts of India. The use of ailks and sarees is becoming common among the wealthier classes. Jumpors, blouses and jackete have come into commón use among all classes but fashions vary with each caste. No remarkable change has come about in the dress of the Malayala Brahman women. Among the Nayar ladios, the simplicity and elegance of the pudava, rowka and the upper cloth, all white in colour, have given place to the glamorous sheen of the sare日, the blouse and the jumper. The Syrian Christian women dress 'in their own particular fasbion though sarees form an 'attraction for the younger : generation. The Muslim ladies atill adbere to the dress of the customary pattorn which distinguishes their appearance from that of the members of other communities.
446. In the wearing of ornamenta, bowever, a healthy change is noticeable. The heavy and crude ornaments particularly the ear-pendants, have disappeared and given place generally to better-cut and more fashionable patterns. The restrictions imposed by custom prohibiting the wearing of particular ornaments by certain classos have completely disappeared. Jewelry is used only very sparingly by all communities. Formerly the women loaded the head, the ears, the nose, the neck, the arms, the waist and the ankles with heavy jewelry. The tendency among the younger women now is to limit the ornaments to a gold chain with a pendant of artistic workmanship,
a pair of kammals with drops, suraral baygles of different pattorns and a pair of kolusus. Colourscheme has invaded the fashionable woman's toilette to a disastrous extent. Enamelware and imitation stones have come in handy to satisfy the fastidious tastes of the fashionable belles of all communities.
447. Blackening of the eyes and eye-brows with antimony was a common practice among the Hindu women. The Muslim women used 'surma'. It certainly added to the comeliness of the fair sex. This practice still continues but is now done more artistioally. A less costly carbon paste bas, however, taken the place of antinony. To these have been added in recent years powder and cream. The formor is more in general use than the latter. The aping of the West has reached a ludicrous extent by the advent of the lipstick and the nail polish among the ultra: fashionable. Hairdye also is coming into froquent use and here perhaps man is a worse sinner than woman.
448. Formerly it was өasy to distinguish particular castes by their distinctive mode of ${ }^{\prime}$ dressing the hair. Hair used to be dressed in several artistic forms mostly on and near the forehead. This custom is fast disappoaring. A uniform mode of tying the hair on the back portion of the head is becoming more and more popular among all communities.
449. Statistics have revealed a distinct degeneracy in the physique of the younger generar tion. From an analysis of the age-tables, it has become evident that only a small percentage of juvenile population are of the proper height, weight and build corresponding to that age.

447 . Child marriage which was once in vogue un uravancore has now been prohibited. Prer puberty marriage, even among Brabmans, has become an exception. Intermarriages between subrsects have become more common even in orthodox circles. Marriage festivities usually occupying several days, have been reduced to an almost one-day function. This change has not, howevar, been accompanied by a corresponding
economy in marriage expansos. Marriaga without dowry has beoome an exception even among communities which looked down upon the dowry system.
448. Various religious and social ceremonies which custom porpetuated in the old joint-families are being given up partly for economic reasons and partly through social. reform. The Thalikettu, Thirantukalyanam and the Pulikudi which were prevalent among the non-Brahman classes, particularly among the Nayars, have been almost alandoned. The observance of pollution in connection with births and deaths is not being kept up now except in the matter of entering temples.
449. The same latitude is seen in respect of interdining also. No communal distinction is being observed in social functious like garden parties and tea parties. Interdining among the advanced sections of communities is becoming more common. Restricting invitations to marriages, etc., exclusively to those belonging to the community of the host has, however, not been fully given up.
450. With the almost complete elimination of touch and distance pollution, people have shaken themselves free from the rigidity of time-honoured usage in this direetion. The custom which demanded a bath in the temple tank and worship in the temple in wet clothes is rarely observed now. The habit of daily worship in the nearest temple which was a common feature of Hindu family life, is being now observed only by a few. The Christian and the Muslim, however, have kept up their Sunday and Friday worship as an essential item in their life.
451. With the relaxation of custom the way has been cleared for'external influences to develop new tastes and habits in society. The cinema and the fashionable club have begun to attract the people more and more, in preference to the old inexpensive and indigenous recreations and pastimes. The use of tobacco and liquor has become more general. Society is being called
upon to face more seriously the problem of leisure raised by the increasing mechanisation.
452. The break-up of the joint-family system rosulting in the individual members leaving the family home and setting rip establishments of their own, particularly after marriage, has to a large extent been responsible for the gradual disappearance of the old type of houses peculiar to this part of the country: The Nalukettu with different apartments for the male and the female members of the family and separate place of honour for the Karanavar has disappeared and in its place have come terraced or tiled unitary bungalows. designed to cater to the comparatively luxurious conveniences of single families: These changes have invaded even the Illoms of the Namputhiris whose steadfastness to custom and tradition is proverbial.
453. Rice is the staple food of the people. The Brahmans, the Kshatriyas and the Ampalavasis are vegetarians. The Nayars and the Ilavas are generally non-vegetarians. To the Christian and the Muslim non-vegetarian food is almost a necessity. As different from the Hindus they eat beef. The Backward Communities like the Pulayas and the Parayas are meat-eaters but the Pulayas generally eschew beef. Kanji (Rice gruel) in the morning, a more substantial meal at noon and supper after sunset form the daily routine of the middle class Malayalis of all castes. But Kanji is being slowly supplanted by tea, coffee, cocoa or other beverages. The working classes are addicted to drink. They use toddy which is a cheap intoxicant supposed to possess some nutritive value also. A good many among them use arrack which is far stronger and more injurious.
454. According to the law of inheritance and succession the subjects of the State can be
 Those who trace their inheritance through the mother are the marumakkathayis and those tracing their inheritance through the father are the makkaihayis. The Kshatriya, the Ampalavasi, the Samantha, the Nayar, the Ilava and the

Nanjanad Vellala and a fow of the Muslimes. come under the first eategory. All the othor Ilindus, the Christians and the Muslime come under the latter. During the last two decades there wns intense logislative activity consequent on the agitation of the younger generation ugainst the uncontrolled authority of the Karanavar. As a fesult, the Nayar, the Jhava, the Nanjanad Vellala and the Kabntriya Acts havo boen passed enabling the members of these communitios to adopt makkathayam in lieu of marumakkathayam. These logislative enactments, however, are permissive in. character. But due advantrge of them has been taken by the majority. Lagislation has not yot rootorl out the marumakkathayam customs and traditions. The diviled members still cling on to their old family names and titles. In the observance of the customary ceremonies and pollutions the affinity to the marumakitiathayam system is still evident. Rosides the matriarchal and patriarchal systoms, a mixod system of inheritance is followod by a few communities like the Ilava, the Vellaln, tho Krishnanvaka, etc.
455., Society has thus emerged into the wider world of today from the comparative isolation and delightful simplicity of the remote but solfcontained village meeting its simple wants from the services of its people. It is facing divergont problems of a nature quite difforent from thone it confronted before, such for example, as those connected with an increasing population, development of economic resources under the severest world competition, preservation and development of the literary, artistic and other cultural inheritance and tradition of the different communities. In short, society has to find ways and moans of adjusting itself to the severe and perplexing demands of a complex civilisation. Clash of interests, varied or vested and conflict of authorities, customary or specific, have added to the difficulties of these problems.
456. The newspapers and the numerous associations and clubs catering to the literary, social, political and other interests of society are
but the outward expressions of its complexity. The struggle for existence is discernible almost in every department of human activity. The conflict in ideals and ideologies is only the outward manifestation of this inward urge in the different communities. It is almost impossible to forecast how society will settle down after this period of conflict and unsettlement. A mutual adjustment of differences and the happy evolution of a common goal of ultimate unity towards which the cultural inheritance of this land has always pointed, should form the common areed of the intelligentsia in the country. The progress of society should be measured by the rate at which the identification of the individual with the State without losing his personality and initiative is achieved in the different spheres of human activity, for that indeed is a consummation devoutly to be wished for.
457. It is the centripetal tendencies that have undeniably set society on the straight path towards such a grand consummation that have really raised Travancore, not merely to the vanguard of progressive India, but as a possible model of social homogeneity based on a cultural fusion. Elsewhere in India not only the conflict between creed and creed but the clash between castes or sects within the same creed, has often hindered the' evolution of a real unity or unanimity in the social sphere. From the aketch given above it is obvious that in Travancore neithar intolerance of sect nor fanaticism of creed on the part of the rulers or the ruled has, in modern times, neutralised the cohesive forces of society. .Besides by the fissiparous tendencies inherent in caste and creed, cultural fusion has often been impeded by the prevalence of a multiplicity of dialects and languages. Though the advent of such a world-language as English as a medium of expression throughout India has tended to nationalise the Indians, the very spirit of nationalisn fostered by the English language has latterly led to the rise of Hindi or Urdu as indigenous alternatives, if not substitutes for English as the " lingua franca" of India. Imperial Table XII is designed to
assess the incidence of the various languages in vogue, and through a statistical study of the tendencies revealed, examihe such problems like bilingualism and multilingualism, as may have a bearing upon the prevailing conditions in the State
458. Before proceeding to discuss the findings in Table XII it has to be emphasised that so far as this State is concerned, the tendency of its prevalent as well as predominant languages has been to foster rather than hinder its cultural fusion. The reasons are not far to seek. For one thing, Travancore has the unique distinction of having been ruled by a single dynasty down to the present time, under the uninterrupted sway of a single, growing, living language. The personal language of the ruler and the national language of the large majority of the ruled has ever been the same. : The English language is cherished and treasured both by the Sovereign and the subjects alike. This identity and harmony of linguistic interest which has consistently bean in evidence since the introduction of English education in the State, earlier than anywhere else in South India, precludes any idea of antagonism in the preference or prevalence of any of the languages in the State. Secondly, though no less than 34 languages are spoken in the State, only' 9 per cent. of the population speak languages other than Malayalam and Tamil, the former being spoken by 84.7 per cent. and the latter, which is in vogue in the taluks fringing the adjacent Tamil Nad, being spoken by 14.4 iper cent. . Both these languages being derivatives from the same Dravidian stock, any one who speaks only Malayalam or Tamil will find the other easily intelligiblerthus making mutual comprehension readily possible. Again, with regard to this State, the compactness of its configuration along with its net-work of communications precludes the possibility of dialectical variations such as provincialisms and colloquialisms becoming mutually incomprehensible as in the case of English that is spoken in Scotland or Wales or in the Eastern Counties. On the other hand the main languages in vogue are so well placed
as to link the State culturally to the outside world in a widening circle of proximity, enabling it thereby to imbibe, without linguistic isolation or-national provinoialism, cultural. influences from Tamil Nad through Tamil, from Cochin and Malabar through Malayalam and from the rest of the world by means of Engliah. So any hindrance to a cultural fusion from the direction of language caun never assume such ,proportions in this State as in many of the Provinces of British India or sach foreign -countries as Switzerland, Poland, Yugoslavia or Czechoslovakia. Far more important than all these is the fact that the two principal languages. in the State form the medium for the spread of literany under a uniform systerm of elementary and middle school education, serving as an excellent baokground for a cultural fusion. For these various reasons, therefore, the problemof language in Travancore easily aligns itself with the wider problem of cultural unity more as a fostering element than as a deterreat. Before taking up the study of literacy and - education, which have a more immediate bearing on the evolution of cultural unity, the statistical findings with regard to language in Table XII may be set forth in some detail.
459. Malayalam is the mother tangue of $84^{\circ} 7$ per ceñt. and Tamil that of 144 per cent. of the population. The number apeaking the former has increased by 207 por cent: (i. e., $1{ }^{16}$ higher than the rate of population increase) :and the latter by 112 per cent. (i. e., 8 less than the rate of population increase). Only 9 per cent. of the population speak languages other than these two. In the taluks of Thovala, Agasthiswaram, Kalkulam and Vilavancoode, $86^{\circ} 6$ per cent. of the population and in Shenkotta $94^{6} 6$ per cent. use Tamil as the mothertongue. In all the other taluks, Malayalam is the mother-tongue of the large majority except in Pirmede and Devikulam where Tamil is spoken by 66 per cent. of the population. The wide prevalence of Tamil in the taluks mentioned is due partly to their proximity to Tamil Nad and partly to the large number of immigrants who
come to work as coolies in the plantations of these aras. It may also ibe uoted at the very outset that while a large percoutagh of thoso Whose mother-tongue is Tamil, apeak Malayalan as subsidiary languago, only a very small percentage of those with mother-tongue as Mulayalam spoak Tamil as subsidiary language.
460. The pareant tongue of both these languages is proto-Tamil. Both the Tamil and Manayulam dialects used now in the State are the developed forms of this. Those who lived in taluks near Tamil Nad contiuued to use Tamil which, with the influx of pure and more literary elomeuts, has grown into the form used today in those regions. The language in vogue in other parts of the State was subjected to various influenoes, mainly of Sanskrit and to a small extent, of Tulu, Kauarose and Telugu. Malayalan in its preseut form is the resultant of the impact of these exotic forcos upon the original dialoot. In course of time, numeroas terms counected with the Islamio religion, Government and commerce fouud thoir way into Malayalam from Arabio, Persiau, Marathi and Hinduathani while Hebrew, Syriao, Greek and Latin contributed their quota of Christian phraseology. The oontact with the Portuguese, Dutch, French and English traders also led to the coining of fresh words and idioms to express the uew and unfamiliar coucesta of foreign origin. In this way the present Mala. yalam vooabulary derived much linguirtio nourishment in the course of its evolution from a variety of foreign tonguse.
461. Nest in importance to Tamil in point of incidence is the English language which in the English Schools and Colleges assumes spacial importance as the 'first language' and a certified proficiency in which is considered both as a hall-mark of education and the " sine qua non" for higher professional recruitment and preferment. Since ihe opening of the earliest English Schools in the State at Kottayam in 1816 and at Nagercoil in 1818 by the C. M. S. and L. M. S. Missionaries respectively, English has been spreading rapidly in the State. Today tho
number of persons who are able to read and write'English is many times more than those whospeak it as their mother-tongue. Though: only 854 persons have returned English as their mother-tongue, there are 403,678 literates in the language which is 6.6 per cent. of the total population. This is explained by the fact that English is the official language in Travancore, used in courts of law and Government publica-: tions. English is at present making more rapid headway in the State than in any other part of India: With 342 English schools, ten colleges, numberless English libraries and 16 English and 31 quasi-English journals and periodicals circulating in the State, with its academic, commercial, social, political and cultural contacts with the outside world, the number of people able to speak. English is bound to increase by leaps and bounds in the jears to come. In this connection it may specially be pointed out that of all the cultural influences of modern times tending towards the evolution of a social unity, the Engligh language is undoubtedly entitled to a high place. The acces: sibility to universal knowledge, the widening of outlook and bettor cultural association with foreign lands, rendered possible through the medium of such a world-wide language as English, have tended to lift the Travancorean above the parochialism to which he may be subjected by age-old conventions as well as geographical barriers. It is to the English; language again, along with his liberal education, that the Travancorean owes his prospects and his reputation abroad, his cosmopolitan outlook at home and his ever-widening circle of civic sympathies that makes his mind accommodative and hospitable to other views and standpoints than his own and hence really cultured in the best sense of the term.
462. Travancore has been making great headway in recent years in the popularisation of Hindi. It has been introduced as an optional second language in 8 Government and 12 private schools and even in some of the Colleges. The Kerala and the Travancore Hindi Prachara Sabhas are conducting propaganda for the spread of Hindi. There are
quite a few private institutions where it is taught. But perhaps the prevalence of Hindi in the important towns and-its permeation into even remote villages must be attributed to the peris grinations of itinerant Hindi masters or "Pracharaks ", (seventy of them now working in 40 centres) who take it mostly as a labour of love to bring a working knowledge of the language within the easy reach of the ordinary folk just. for a rupee or less per mensem with practically. little outlay on books or notebooks. As a result. about 15,000 persons have acquired knowledge. of Hindi within the last decade and 850 males. and 625 females are now under instruction. A large number of persons have passed one or the other of the graded examinations and hold degrees, several being Graduates in Hindi: In the number of candidates annually presented for Hindi examinations, Trivandrum stands first in South India. On the whole, thanks to nationalistic . influences people are taking more and more to this. language of All-India importance and in this. matter women seem to evince a more distinct preference than men. But it may take some time for. Hindi to assume the pervasive character which English has achieved in the State.
463. The figures showing the distribution. of languages according to the classification. accepted by the Linguistic Survey of India aregiven in the subjoined table.


The Dravidian family is represented in this State by Malayalam, Tamil, Canarese, Tulu and Telugu. It has been stated that $99^{\circ} 1$ per cent. of the total population speak Malayalam or Tamil. If the other languages of the Dravidian family are also included, the percentage will be $99^{\circ} 4$. The Dravidian family covered the same percentage of the total population in 1931 also. The strength and distribution of these languages have been stated above. It will be clear from Imporial Table XII that the foreign languages of the Dravidian family are practically confined to the Northern Division. Only very few persons speak them in the Central and the Southern Divisions.-
464. The Indo-Aryan branch of the Indo. European family is ropresented by seven languages. Of the languages of other Asiatic countries, Singhalese which also belongs to the IndoAryan branch of the Indo.European family is spoken by 14 persons. Chinese, which belongs to the Chinese Branch of the Tibeto-Chinese family, is:spoken by 81 persons; but 79 of these were passengers travelling in a steamer off the Tra. vancore coast on the Census day. Arabic, Hebrew, Syriac and 'Maltese are languages re' corded under the Semitic family. Syriac and Maltese are spoken only by 1 person each and Hebrew by 16.
465. Of the European languages, the units of the Romano group, the Celtic group, the Teutonic group, the Baltic-Slavonic group and the UxalAltaic group have been returned. The languages of the Romano group are spoken by 134 persons. Of these 1 speaks Italian, 45 French, 37 Spanish, 39 Portuguese and 12 Basque. One person speaks Gaelic (Scotch) of the Celtic group, 7 Polish and 1 Russian of the Baltic-Slavonic group. In the Teutonic group, 854 persons speak English, 8 Flemish, 27 Norwegian, 24 German and 2 Dutch. There are 4 persons-1 Finnish and 3 Hungarians who speak languages belonging to the Ural-Altaic group.
466. From the fact that over 99 per cent. of the total population speak either Tamil or Malar yalam, it will be clear that it is not. possible from
the language spoken by a oommunity to idemtify its caste. For example there are oustus which consist of groups apoaking differnut langunges. The Kammala oaste includes the Malayalam as well as the Tamil speaking groups and an also the Paraya, the Parava, the Kurava nad several other castes, which are found both in the Malayalam and Tarnil distriots. Thore are other castes, for exaunple the Chatties, the Nayudus etc., who spaak thrae languagesMalayalam, Tamil and Telugu, There are sevornl such composite oastes espeoially of the Dravidian race and it is not therefore possible to correlato language with caste except in the case of a fow minor ones. Owing to the dropping of tabula. tion for several tables in the adjoining British Indian Provinces, it has not been possible to correlate tbe language figures with the figurns for birthplace and ascertain exaotly the number of immigrants.

- 467. Figures representing bilingualism in respect of Malayalam and Tamil are given in tho subjoined statement. The details given thorein

| Division or Taluk. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Thovala, Agasthiswaram, Kalkalam and Vila. vancode taluks in Southern Division. | $18^{\circ} 0$ | $18$ | $\cdots 6.4$ | 4*1 |
| Other taluks in the konthern Division. <br> Central Division, excluding Shenkotta taluk. | $61 \%$ 87.1 | $\left\{\begin{array}{c} 7 \cdot 8 \\ 2 \cdot 1 \end{array}\right.$ | 0.6 0.1 | $42 \cdot 6$ $68 \cdot 7$ |
| Shenkotta taluk, | $3 \cdot 0$ | 94'3 | $4 \cdot 4$ | 0.7 |
| Northern Diviaion excluding Yirmede and Devikulam taluks. | $98^{\circ} 0$ | 18 | $0 \times 1$ | $60 \cdot 8$ |
| Pirmede and Devikulam taluke. | 308 | $60^{\circ} 0$ | 4*8 | $1 \cdot 9$ |

reveal certain interesting facts. The Tamilians, where they are in a minority, ranging from I 3 per cent. to $7^{\prime} 6$ per cent. of the total population, acquire the habit of speaking Malayalam in much larger proportions. In the Northern Division, where there are only I'3 per cont. of Tamilians, nearly 70 per cent. of them are able to spealk Malayalam. Similarly, in the Centrial Division, excluding Shenkotta, and the Southern Division excluding the four taluks in the south, 66.7 and $42^{\circ} 5$ per cent. respectively of the Tamilian population speak Malayalam. Where the preponderating mother-tongue is Tamil, the reverse order holds good. That is to say, the proportion of Tamilians who speak Malayalam is much smaller than that of Malayalis speaking Tamil. The conclusion that may be drawni from the above figures is that when a community is in a minority in any locality, it tries to adapt itself to its environments by learning to speak the language of the majority community. In the State as a whole only 39 persons out of 10,000 who speak - Malayalam as mother-tongue speak Tamil as subsidiary language, while 1,192 persons out of 10,000 who speak Tamil as mother-tongue speak Malayalam as subsidiary language.
468. Most of the people who speak languages other than Tamil or Malayalam are immigrants who have come for trade or for cooly labour in the plantation areas. 'Among the former there are many who bave practically settled down in this country but yet maintain their exclusiveness by using, for all domestic purposes and in their dealings with members of their own communities, languages other than Malayalam or Tamil. Of the 49,157 persons, as many as 13,376 speak Konkani language, which is akin to Marathi, a language spoken by 7,292 persons. So nearly 42 per cent. of the people who speak languages other than Tamil or Malayalam are those who Lave come from the Konkan area. These people are found mostly in Sherthala, Alleppey, Prakkad, Kayankulam and Quilon, i.e., practically in the commercial centres in the Lowland area near enough to the ports. 8,203 persons speak Telugu. They are mostly found in the
plantation areas in the High Ranges. Most of them are coolies in estates. Tulu is spoken by 3,380 persons and Kanarese by 1,430 persons. They are fairly equally distributed throughout the State. A large percentage of them is engaged in temple services or earn their living as cooks or hotel-keepers. Gujarathi is spoken by 2,675 persons who also form an exclusive community, engaged in commerce and perhaps are the most affluent among the immigrants. 6,590 persons have returned themselves as 'speaking Arabic. The Census returns show only two persons of Arabic nationality. But tho large number of persons returned as speaking Arabic is accounted for by the fact that all those who read the Koran consider themselves as familiar with the Arabic language though the number of those that comprehend it is infinitesimal. Hindustani is spoken by 4,792 persons:
469. The proportion of persons speaking important languages other than Malayalam and Tamil in the State per 10,000 of the total population is given in the subjoined Table. The

proportions of persons speaking the above languages as mother-tongue together with Malayalam or Tamil as subsidiary language are shown in the subjoined table. Whether Malayalam or

| Number of persons per 10,000 who speak certain languages as mother-tongue with Malayalam or Tamil as subsidiary language. |  |  |
| :---: | :---: | :---: |
|  | Number per 10,000 speaking as subsidiary language. |  |
| Mother-tongue. | Malayalam, | Tamil. |
| Kanarese | 5,399 | 1,832 |
| Tulu | 4,494 | 1,077 |
| Telaga | 1,178 | 6,318 |
| Màrathi | 7,534 | 258 |
| Konkani | 6,632 | 154 |
| Hindustani | 4,808 | 1,528 |
| Gujarathi | 4,751 | 1,750 |
| Arabic | 5,700 | 886 |

Tamil is spoken as a subsidiary language in any locality depends upon which of them is the preponderating language there. Thus in the southern taluks of the Southern Division, in Sheinkotta taluk in the Central Division and in the taluks of Pirmede and Devikulam in the Northern division, Tamil rather than Malayalam is ordinarily spoken as subsidiary to other languages and vice versa. Taking the State as a whole, it is seen that Konkani, Marathi and Hindustani are combined more largely with Malayalam than with Tamil, Telugu with Tamil more than with Malayalam and Kanarese more or less equally with either of them.
470. Other instances of bilingualism which may be worth noting are combinations of Tulu and Kanarese and Marathi and Hindi. It will be . seen from subsidiary table (ii) on Imperial Table XII that out of every 10,000 persons speaking Tulu as mother-tongue 86 persons speak Kanarese . as subsidiary language, out of 10,000 persons .speaking Kanarese as mother-tongue 147 speak Tulu and out of 10,000 speaking Marathi as mother-tongue 16 speak Hindi.
471. We bave seen that 99 per cent. of the population speak either Malayalam or Tamil and that Malayalam is the mother-tongue of nearly 85 per cent. of the people while even among the rest Malayalam is spoken as a subsidiary language. This feature has very much facilitated the spread of literacy in the State; for, any measure taken by Government or by private agency towards this may not bring about satisfactory re. . sults if appreciable proportions of the population . speak different languages. Malayalam, as it bas evolved today, is quite different from what it was in the early stages. Spoken Malayalam was then -quite different from literary Malayalam. The excessive influence of Sanskrit which was appar-- ent in the later stages of its growth has abated to : a considerable extent. If Malayalam had retained its close affinity to Sanskrit it would never have been possible for it to develop into a popular literary language. The progress of literacy in the State has been considerably advanced by the fortunate development of Malayalam litarature
on lines which brought it nearer to the spokeu tongue without at the same time sacrifioing its racingss or literary excellence. It is, therefore necessary to trace briofly the evolution of tha language to its present position to undorstand and appreciate its oontribution to the spread of literacy in the State.
472. The growth of Malayalan was achievod not in conflict but in complote co-operation with Tamil and Sanskrit. This spirit of assimilation has enriched the literature of the country and given it that necessary freedom whioh makes it possible for literature and art to be freo from narrow provincialism. In this matter it is thorfore difficult to talk of Travancore in isolation. It is part and parcel of Kerala art, Kernla litora. ture and Kerala culturo.
473. The history of the duvelopment of the language is marked in all its stages by the dominating influence of another language which was in literary favour during the particular periods. Tamil was the influencing factor in the earlior stages. As a matter of faot the language was at that time known as Karimtamil and not as Malayalam at all. We find a strong admixture of Tamil in the songs of the period oomposed by Kulasekhara Alwar and Pakkanar and othors. The Payyannoor Pattola, the धarliest work known to the student of Malayalam will'road to the modern Malayali as Gothio to the Englishmau. Separated from the old stock, Karimtamil, whioh grew to become Malayalam, underwent gradual changes. Sanskrit thereafter bugan to affect the grammar and vocabulary of old Malayalam to a considerable extent. We fiad innumerably Sans. krit words in the language by the close of this period. "Ramaoharitham" aud Kaunassa Pauikker's "Ramayanam" are examples of the stage to which Malayalam language had developed during this period. In the "Sanlesa Kavyams" and "Champus" of the noxt stage the dominating in. fluence of Sanskrit is very apparent. In the circumstances one would not have expected Mala yalam ever to assums an individuality of ita own after this long poriod of abondage. The genius of Cherusseri Namputhiri howevar turaed
the scales in favour of Malayalam in his "Krishnagatha". He showed that a great work oan be produced in Malayalam without a large admixture of Sanskxit words. It was left to the genius of Thunchathu Ramanujan Eluthachan tof show that Malayalam could develop on its own lines and to demonstrate tbrough his "Kilip" pattus" that the highest emotions and the subli. mest thoughts of a community or people can find, apt expression only if they are couched in their motheretongue. The greatest work in Sanskrit written in Kerala may be a great work of art, something to be admired and looked upon with reverence and awe. but it seldom touches the heart of the people The "Adhyathma Ramayanam" and the "Mahabharatham" on the other hand, are known in every Hindu home and count-: less millions have been inspired by it, consoled by it and have gone to raptures over it. It is no wonder therefore that Eluthachan is regarded as the father of indigenous Malayalam literature. His genius gave the ordinary, work-a-day man's language a literary form, In the period which followed Eluthachan a fuxther stage in the developpent of Malayalam was achieved by the evolution of the "Attakkatha", a unique contribution of Kerala. In this, puranic stories are dramatised with vividness and colour, dexterously interwoven by the magnificence of the language, which adapts itself to the varying emotions and scenes in the story. Here generally the slokas which outline the theme are in Sanskrit and the songs which unravel it are in Malayalam. It is therefore a marvellous combination of Sanskrit and Malayalam, the one flowing into the other without any conscious separation. it showed clearly that Malayalam could rise to the level of Sanskrit. Even for the expert it is difficult to say which is superior, the Sanskrit slokas or the Malayalam songs.
474. The lead given to Malayalam by the 'Kilippattus' and the 'Kathakali' was fully utilised and Malayalam blossomed out in its native simplicity and grandeur in the compositions of Kunchan Nambiar who was able to portray society in all its weakness and strength in simple,
homely Malayalam unsurpassed by any previous: or subsequent writer. In the famous "Thullal Kathas' of Nambiar, only the initiated could detoct its affinity to Sanskrit or Tamil. He cast. to the winds the conventions imposed by Sans. krit and his versatile genius has made the puranic heroes live and move with us in the familiar sur. roundings of Kerala.
475. While the literary labours of poets like Eluthachan and Nambiar conduced towards the emergence of Malayalam as an independent vehicle of refined thought and elegant instrument of poetic expression, indigenous Malayalam prose was gradually evolving on parallel lines under exotic influences. The European missionaxies who settled down in Malabar gave a great fillip. to the growth of Malayalam. For proselytism and propaganda they mastered the "lingua mala. barica" with characteristic ease and thoroughness. By the publication of grammar books and scientific treatises in the language, the compilation of dictionaries and the institution of printing presses, in the wake of which cropped up. newspapers and libraries, they paved the way for the rapid liquidation of illiteracy in the land.
476. It is by the straightforward, direct prose they evolved that they best enriched the. language. In their Malayalam renderings of the Bible they scrupulously strove for simplicity of diction and directness of meaning. Of the two types of Malayalam then in vogue, the Missionaries for obvious reasons came to prefer the tamilised, colloquial, simple form called the "Neecha-bhasha" to the more learned, sanskritised literary language called "Utchabhasha", or "grandhabhasha", though they prepared grammar books on both.
477. The earliest lexicographers in Malayală were missionaries. It is to them egain that Malayalam owes its first printing press set up at. Vaipin fort (near Cochin) in 1577. Two years later another was established in Cochin and within a decade others followed at Chennamangalam and Cranganore. Both Malayalam and Tamil
books were printed in these presses. The number of printing prosses and type-foundries began rapidly to increase. The earliest Malayam lam newspaper was the "Nasrani Deepika" published from the Carmolite monastery at Mannanam.
478. Despite the many-sidedness of the work done by the missionaries, the type of prose sponsored and fostered by them in the early Christian publications could not transcend the archaisms, colloquialisms and the tamilisms forced upon the Christians by the missionaries who insisted upon keeping the Syriac and Latin construction. But the same was the case with the prose in which were couched the state-papers, despatches, documents, etc., of both Travancore and Cochin during the centuries in question, since the diction, syntax and idioms of a living language can never be the same at all times.
479. It is through centuries of such development that Malayalam prose came to its own, shedding off its sanskritism in respect of the peculiar ord er and interrelation of words, syntax and often of high-sounding vocabulary: It is no longer a grammarless jargon blindly conforming to exotic rules. It has survived its sanskritic mania by the dropping of the personal endings in verbs, getting rid thereby of the inflections of gender, number and person as of old. The flow of its sentences is facilitated by the new types of word-termination in half consonants. It has now evolved its own code of grammatical rules and its own characteristio idioms.
480. It has specially to be remembered that in the evolution of both Malayalam language and literature; the literary genius of several of the Sovereigns and of the members of the ruling family in the State has made substantial contributions in prose as well as verse from time to time. By the time of Maharaja Ayilyam Thirunal a distinct type of prose had evolved itself. "Meenakethanacharitham" and a prose version of "Sakunthalam" written by His Highness may be taken to be the earliest specimens of modern prose style. To complete the modernisation of prose,

Kerala Varma Valia Koil Thampuran has, by his translations of English and Sauskuit books on new lines, set a model in the develnpment of a style as graceful as that of Addison, "familiar but not vulgar, elegant but not ostantatious".
481. The progress of aducation in the 10th century and after has loft its impress on the dovelopment of Malayalam language. The majority of the writers began thereafter to durive their inspiration mamly from English. English litırature took the people out of the confines of Kurala and introduced them to the wider world beyond. The old conventions became irksome and the literary idealism of the andients unattractive to modern society. Proficiency in Sanskrit was no longer considered necessary for any effective work in Malayalam. With this change is noticeable the revival of old metren and idioms which are so genuinely and characteristically indigonous. The essay, the short story and the prose drama are the outfome of the changes describod above. Realism invaded the field of poutry also.
482. Malayalam made great headway in tho composition of scientific treatises during the precent century. Here the authore felt the poverty of the language to describe the various phases of natural phenomena. The need was therofore felt for creating a vocabulary of Malayalam equivalents for scientific terms. In the last docade great progress has been made in this direction and after the inauguration of the University, a committee of experts has been appointed to propare a vocabulary of scientific terms. Their work which is nearing completion, will crown the many-sided developments of the language in the last balf a century.
483. In the 1931 Census the Enumerators were required to record "not only whatber a person was literate according to the test prescribed but also whether he or she had passed the fourth standard in Vemacular education". (vide page 281). While the figures so obtained might have given an accurate estimate of the number of persons who had passod the Fourth Class
examination and standards above that, they can hardly give an accurate estimate of the really literate persons in the State, viz., all those per sons who could read and write.
484. In my experience in the field of education auring the last seventeen years, I have come across a large number of boys' and girls in elementary schools giving up their studies in the middle of the year or taking a number of years to pass the Fourth Class on account of their inability to attain the required standard in Arithmetic, Geography or History; but at the same time able to read and write, thair language standard being invariably ligher than that of the Fourth Class. The Census Commissioner for 1931 has also not taken into account the large number of girls who leave off studies before reaching the Fourth Class, since their parents refuse to send them to school after there girls attain puberty. Incidentally it may be stated that the average age of the girl in the several standards is higher than that of the boy. A large number of these girls are given private tuition not only in language but in sewing, cooking, stc., which will make them useful housewives and I know from experience that this practical application of their literacy in their everyday life at home, combined with a wide, taste for reading, which is prevalent among both males and females in the State, makes them more. conversant, with the three R's than perhaps the boy or the girl who undergoes a regular course in the pre-middle school classes.
485. These observations are of course confined: to those who are sent to school. - But a large: number of girls among the Malayala Brahmans;: Muslims and ieven among the Tamil Brahmans are not sent to school at all after the age of 11 . or 12. Certainly two decades ago, it must have been more rigidly observed than today. But these.' girls are given a regular coaching in lettersat home. With regard to boys, the custom is to start them in letters as soon as they complete the 3rd year. They are sent to school after the preliminary education at home for two years during which a large percentage of them, particularly from the
upper and middle classes, are able to rèad the Second Reader and do at least, addition and subtraction before they join school. The above aspects have been explained at some length to show that while a rigidity of test may be useful in proventing inflation of figures it may also stand in the way of correctly assessing the ineidence of literacy in the State.
$-486^{\text {r. }}$ In view of what is stated above it may boclear that the literacy figures for 1931 were under-estimated. My predecessor has stated that as the test of literacy was not sufficiently rigid the figures for 1921 were naturally inflated. In the circuimstances it was considered better to graduate the figures by the Logarithmic method for purposes of inference. (vide Appendix IV).,
487. The population figures and the literacy figures from 1901 to 1941 in broad age-groups were examined in detail and the margin of orror ascertained. The conclusions are the following:-
i. The percentage of error is at its maximum in 1931 and the 1921 figures are not: so unreliable as is stated in the 1931 Report.:
ii. With regard to 1941, it may be pointed out that the number of people who are literate as per Census returns is less than the graduated figures (e.g., 2,858,053 against $2,907,777$ ). The divergence of the Census figures from the general trend is due to economic causes. The economic depression' which set in by about $1929^{\circ}$ had assumed serious proportions by about the middle of the last decade. It adversely affected the: life of the large numbers of people leading ar: hand-to-mouth existence, who found it difficult; therefore to provide themselves with even the necessaries of life and much less find the wherewithal to send their children to school. It is seen from the Administration Report of the Education Department for the year 1939 that the recognition of 758 primary schools had been withdrawn during the period 1935-39. Naturally these schools must have been closed.

Though overlapping is one of the reasons attributed for this measure, it may be stated without fear of contradiction that it would have been almost impossible to close several of these schools if there had been a rush for admission to them in their respective areas.
488. The progress of literacy could not be viewed in its proper perspective if for reasons stated above, a comparison is made between the figures for 1931 and 1941 only. It would be more logical to take a survey of the number of literates for a longer period and therefore the period from 1901 to 1941 has been taken up for comparison. The number of people, male and female, considered literate as per the Census returns and as per the graduation method and of the indices for the changes during the successive decades were taken into account. The conelusion deducible therefrom is that in the total literacy there is distinct progress from decade to decade and the same trend is maintained in all the agegroups.
489. The present Census has recorded a higher percentage of literacy than that for 1931. This time 2,858,053 persons have been returned as literates. This gives a percentage of 471 literates to the total population. These figures do not include 6,577 children who are under 5 years and who have been returned as literates. If these children are also included the total number of literates would be $2,864,630$ and the percentage to the total population would be $47^{2} 2$. But children under 5 years of age had to be left out of account according to instructions from the Census Commissionor for India. The population under 5 has also therefore to be deducted from the total population to ascertain correctly the percentage of literates to the total population. The population of the State excluding children under 5 years of age is $5,192,505$ and of these the percentage of literates would be $55^{\circ} 04$. So high a percentage has secured for the State the first rank among the States and Provinces of India.
490. This place of honour which Travancore occupies to-day in point of literacy has been the
result of the parsonnl interest taken by tho successive rulere of the country in the educational uplift of the poople. So early as 1817 Rani Gouri Parvati Bayi issued a rescript directiug "that the State shall defray the entire cost of the education of its people in ordor that there may be no backwardness in the spread of enlightenment. among them, that by diffusion of education they might become better subjects and publio servantis and that the reputation of the State may head. vanced thoreby". This roals so modern in its enunciation of a principle which has gnined popular currency only in very recont times. It is interesting to note that in the early days invariably all the schools were situated in the neighbourhood of the palnces. This Royal interest is also reflected in the progressive increase in the allotment for education in the State Budgot yoar after year.

| Year | Pupils. | Expomuliture. kn . |
| :---: | :---: | :---: |
| 1010-11 | 211,773 | 7,05,715 |
| 1920.21 | 423,022 | 20,49,036 |
| 1030-31 | 588,098 | 40,00,670 |
| 1940-41 | 764,544 | 51,23, 800 |

491. As a result, the position and prestige of the Department of Education Lave been raised to those of a major department in the State. The substantial help rendered by Government to various non-official bodies who shared with Government the responsibility of imparting education to the people at large contributed notia little to the progress of education in the State. It was the policy of Government during successive decades to spend the major portion of the allotrment for education for the establishment, promotion and development of schools where the medium of instruction was the mother-tongue of the poople. To day, therefore, there are 3,451 Malayalam and Tamil schools averaging to 1 school for 1.5 sq . miles of inhabited area. The absence of any fees up to the fourth standard, the lower fees levied in classes above that and the proximity of the schools to the home attracted the majority of the school-going population to these schools. If
attention had been focussed more on the development of English schools which was the fashion then, literacy would not have progressed at-suich an accelerated pace as really happened during successive decades. : The following table gives the proportion of expenditure for the Malayalam and English schools.

|  | English school <br> education. | Malayalam and Tamil <br> (school education. |
| :---: | :---: | :---: |
| Yeär. | Rs. |  |
| 1932 | $8,36,461$ | $27,86,309$ |
| 1036 | $9,03,109$ | $: 28,82,431$ |
| 1941 | $7,76,261$ | $29,00,695$ |

492. Education had thus recorded a great advance by the beginning of the decade. The public had come to realise the importance of education. They actively co-operated with Government both in the spread of literacy and in the development of higher education. The budget :allotment of Government for education had reached the high figure of 49 lakhs, i.e., 20.6 per cent of the State revenue in 1931. But in spite of these efforts only 13.9 per cent of the age-group 5.10 and 25.8 per cent of the agegroup 10-15 were literate, and the consequent lapse into illiteracy still remained a vexed problem. This had to be solved and mettiods devised to secure the maximum returns for the large amounts spent by Goverament and the public on education.
493. The accession of His Highness the Maharaja Sri Chitra Thirunal, which happily synchronised with the first year of the last decade, inaugurated a period of intense educational planning. An Education Reforms Committee was constituted towards the close of 1932 "to enquire into the present educational system in the State and advise Government as to the reform to be effected in it". The Committer stressed the importance of the introduction of co-education, free primary education including and up to the fifth class, the encouragement of technical education and the education of the backward communities. The necessity of co-ordinating education with the means of earning a livelihood was recognised to be of the utmost importance and urgency. The Committee noticed also that
among other things the existence of several incomplete primary schools made lapse into illiteracy almost inevitable. No definite principles had been formulated with regard to the distribution of the primary schools. There were also. different types of schools catering to the needs of particular communities. The Mahtab system of education continued to flourish among the Muslims in spite of its patent defects. Even in the primary stage co-education was not introduced and a costly bifurcation was thus perpetuated. The inadequacy of supervisory staff made annual inspection of classes almost impossible, It is no wonder, therefore, that in spite of the expenditure of large sums of money; no com. mensurate progress was recorded in the spread of literacy in the State. The Committee had made specific recommendations for remedying these defects. The President of the Committee was appointed as Director of Public Instruction. He and his successors wore able to persuade Government to carry out the reforms which had been recommended in the report. Recognition was withdrawn for the incomplete primary schools, first of the one class schools, then of two class schools and lastly of the three elass schools. Care was taken that in all cases where the management agreed to raise incomplete schools to complete schools recognition was not withdrawn, This process of transformation of the incomplete to the complete primary school started in 1935. The primary schools which had shown definite increase during the decade ending with 1921, from 1,433 in 1911 to 3,457 in 1921 recorded a small decrease during the last two decades, the number in 1931 and 1941 being only 3,252 and 2,902 respectively. This fall was due also to the rigorous enforcement of grant-in-aid rules, prevention of unhealthy competition among denominational schools and the abolition of overlapping schools. Though the number of schools recorded a decrease during the last decade, the strength did not undergo any decrease but recorded only an increase. The reduction in numbers mentioned above may partly be due to the economic depression felt particularly by the labourers
and agriculturists and also the enforcement of the rule that children below 5 should not be admitted to schools.

- 494: Subsidiary Table (vi) on Imperial Table XI gives the number of institutions of each grade and their strength for the years 1911, 1921, 1931 and 1941. The scholars in all these institutions increased by $100^{\circ} 2$ per cent. in the first decade, 38.7 per cent. in the next and 30 per cent. in the last decade. The total increase of scholars has been 261 per cent. "There are only very few Pakuthies in Travancore without a school in or near them. New schools are opened year after year in localities where educational facilities do not exist to the fullest extent." The increase in the number and strength of primary schools is an index of the progress of literacy. Taking the State as a whole the average area served by each primary school was $5^{\circ} 3$ sq. miles in 1911, 2.2 in 1921, 23 in 1931 and 2.6 in 1941 . The average number of persons served by each school was 2,393 in 1911, 1,159 in 1921, 1,567 in 1931 and 2,092 in 1941. The higher ratios both in point of area as well as the average number of persons served by the schools when compared to those of 1931 are due to the fact that owing to the increased facilities for transport each school by providing additional accommodation, could cater to a larger number of pupils.

495. Co-education was introduced into the primary section. A great saving to Government was thus effected and at the same time the convenience to the public was increased. Encouragement was given to the starting of schools in localities where none existed before. Government discouraged the maintenance of schools which did not conform to the standard set up for the primary section by the Department. The results of these measures are seen in the higher percentage of children coming up to the Fourth Class standard from 1933 onwards, which has progressively increased the number of effec. tive literates in the State. The chances of wastage and stagnation in education and lapse into illiteracy are thas being progressively reduced.

For every 100 pupils in olass 1 in 1028 only 99 reached olass 4 in 1931, for every 100 in olass 1 in 1932-33, 57 reaohed class 4 in 1935-30; and for every 100 in olass 1 in 1030- 87,60 reached olass 4 in 1939-40.
496. No improvement in primary or seooudary education is possible without a competent staff. In 1831 nearly 60 per cont. of the teachers were not trained. On the reoommendations of the Education Reforms Comnittee the number of training schools wis increased. In 1931 there were only 18 training sohools in the State with 338 pupil-teachers in thom. In 1041 the corresponding figures are 47 and 1,428 . Better equipment and better standards werm demanded of these training sohools. A more thorough and efficient syatem of inspoction was. also inaugurated. Today in the mangement schools nearly 65 per cent. and in most of the Government schools nearly cent. par cent. of the teachers are trained.

- 497. The curricula of studies havo also bean considerably improed atd brought up to datn. The vast changes that have occurred in the last quarter of a contury in the system of education are embodied in the new syllabuses proscribud by the Syllabus Revision.Committees and adopted by the Departmant. The Education Code framed nearly a quarter of a century ago had become obsolete and a new code was brought into exism tence.

498. The problem of finding suitable text books for the several classes had been a vexed one for some years. With the progressive adoption of Malayalam and Tamil as the medium of instruction it was found difficult to get suitabletext books particularly on ecientific subjects. Government successfully tackled this problem also and it is indeed an achievement that in theshort span of one year suitable text books for the. various subjects have been published underdepartmental direction.
499. Education has been progressing to such a remarkable degree in the last few decades that Government rightly thought that the next step-
should be to make it more and more officient and to avoid wastage as far as possible. Public examinations were therefore instituted at the end of the Fourth Standard andithe Third Form. This ensured better qualified pupils going up for studies in higher classes. The resolts of the Middle School and the High School public exat minations bear ample testimony to the progress of effective edúcation.
500: The number of candidates presented for such public examinations has considerably inoreased. A noteworthy feature is that the Malaya lam and Tamil examinations have recorded a higher percentage of increase. In 1931 only 492 candidates appeared for the Malayalam and Tamil Higher Examinations while in 1941 the number increased to 3,810 . In the Malayslam and Tamil School Leaving Certificate Examinations the number of candidates sent up increasod from 5,831 in 1930 to 9,042 in 1941. Government's policy of making education more efficiont by instituting public examinations at the different stages and making these more and more rigid did not scare away the students, but instead produced only the encouraging result of an in. crease in the number of candidates appearing for them.

501: The education of the Backward Com munities had been engaging the attention of Government.even during the early years of the present century, Government schools were thrown open to all castes and communities, and deserving candidates of the Backward Communities were exempted from examination fees. Govornment even ordered that the necessary condition for the recognition of a private school by the Department of Education was that it should be thrown open to all classes of people. In 1936 liberal fee concessions were sanctioned. for the pupils belonging to these communities. As a result, such of their pupils as came up to the top classes of the primary section wera given the special advantage of being supplied with text books free of cost. In the last few years fee concessions were extended to them in the
higher classes also. As an experimental measure à Harijan Hostel was recently started in Trivandrum and it gives free board and lodging to the pupils of the Backward Communities. Special preference is also shown to these communities in the zhatter of recruitments to Public Sorvica. Privato agencies have also been encouraged to provide facilities for the education of the backward communities, by liberal grants from Government.
502. In the sphere of primary and secondary education therefore the State had introduced farreaching changes as a result of the recommendations of the Reforms Committee and Government felt that the reforms effected in the secondary education would not be sufficiently comprehensive or complete cnless followed by suitable changes in Collegiate education as well. A system of collegiate education which stood aloof and isolated from school education is bound to bo a misfit in any country. Collegiate oducation had made vast strides in the last half a century and at the beginning of the last decade the State had 10 Colleges of which 6 were maintained by Government and 4 by private management. There were nearly 3,000 undergraduates in all these institutions pat together. Besides these colleges, there were as many as 8 quasi-educational institutions useful for research and advanced technical studies by the University students. Despite the large amounts spent by Gorernment to provide accommodation in the colleges in Travancore, the number of applicants was far in excess of the accommodation available and many were therefore obliged to seek admission to institutions outside the State. The admission of Travancore students to technical and professional colleges outside the State was also becoming more and more difficult.
"503." In 1922 steps were taken by the Madras Government by means of a Bill in the Madras Legislative Assembly to concentrate the resources of the University of Madras and to create a synthesis involving a different level between the Colleges at Madras and the affiliated mofussil colleges. This was virtually a notice for separation.

- 504. The question of establishing a separate University for Pravancore so that the students of the State may not have to seek accommodation in outside colleges hadialready engaged the attenfion of Government and at the beginning of the decade itself Govermment were considering the' recommendations made by the Travancore University Committee of 1923 regarding the constitution of a separate University for Travancore.

505. Since 1916 three Universities, the Mysore, the Andbra and the Annamalai had come into existence by eqparation from the Madras Uriversity and in thl these cases- the resources and materials available for the creation of separ rate Universities were less addequate than those which Tratancore possessed. Farther, the recommendations of the Sadler Commission anu the Hartog Committee omphasised that the main sattempts of a University should be directed to its teaching and research side.
506. In 1936 a fully representative University Advisory Committée was constituted. On the basis of the suggentions made by this Committee a memorandum on the proposed Univer. sity was preparied and submitted by the special University Officer in May 1937 and the final draft of the University Act was presented on 19th October.
507. On 2nd Novembor 1937 His Highness the Maharaja issued a Proclamation embodying the Aot announcing the establishment and the incorporation of the "Travancore University". Immediately after its formation the University took up the question of providing facilities for professional education and established an Engineering College, an Institute of Textile Technology, a Central Institute of Research and an Institute of Forestry. With the inauguration of the new University great impetus was given to physical education by the establishment of a Physical Education Board. Apart from the encouragoment given tō games and athletics by providing additional fadilities in the various colleges thereby making it possible for a larger pumber of students to participate in the various
physicalactivities, the Board inaugurated a programme of inteuse and varied intor-oollegiate oompetitions. A comprehensive programme was alao drawn up for the development of indigevous games and exeroises. The most notable rohievement in this direction was the starting of the University Labour Corps. The ohiof objeots of the Corps were to give its meinbers military training and to instil in their minds a true idon of the dignity of manual labour.
508. The edncated Travanoorean may well pause and, consider, in this oomeotion, the weighty words of Sir Michael Sadlor when be lays that "the education of a people is not given by the schools and oolleges alone. Other influences blend with them. The spirit and temper of the community whioh they serve, the powar oxerted over its thought and oharacter by the prevalent aspirations and beliefs, the tone of its family life, the rules and restrictions imposed by social organisations, the conditions under which its whole work for livelihood is done."
509. Among the male population of 5 years and over the literates number $1,788,296$ or $67^{\prime 9}$ per cent. and among the females of 5 years and ofier there are $1,089,757$ literates or $42^{\circ} 1$ per cont.
510. The proportion of literacy by ageo group and sox according to the prosent Census is given in the subjoined table. It will be soon that

the peak point in literacy is reacbed in the 15-20 group among males and in the $10-15$ group among females.
-511. The proportional figures of literates by sex and locality derived from subsidiary table (ii) on Imperial Table XI are given below. It will be clear therefrom that of the Adminiltrative

Number per cent, of all ages 5 and over who are literates.
State or Division.

| - | Persons | ' Males ${ }^{\text {e }}$ | Females |
| :---: | :---: | :---: | :---: |
| State | $55^{\circ}$ | $67 \cdot 9$ | $42^{\circ}{ }^{\prime \prime}$ |
| Administrative Divisions |  | : . |  |
| Southern | $45 \%$ | 59.5 | 320 |
| Central | 59.2 | $72 \cdot 7$ | $45^{\circ} 7$ |
| Northern | $58^{\circ} 0$ | $69^{3}$ | $46^{3} 3$ |
| Natural Divisions |  |  |  |
| Lowland | $54^{\circ} 6$ | 68.4 | 41.0 |
| Midland | $57 \cdot 5$ | 69.8 | $45^{\circ} 0$ |
| Highland | 391 | $50^{\circ} 8$ | $26^{\circ} 0$ |

Divisions, the Central has the highest proportion of male literates and the Northern the highest proportion of female literates. Of the Natural Divisions the Midland records the highest and the Highland the lowest percentage of literacy.
512. Literacy in the urban areas is proportionately greater than that in the rural areas because the towns offer greater facilities for oducation. The subjoined statement shows the ratio of males and females in the towns and rural parts.

Literacy in urban and rural areas.

513. The percentage of literacy of both sexes in the Municipal towns in the State, including the Corporation of Trivandram, is given in the descending order of male literacy in the subjoined table. It 'will be seen that Trivandrum, the
Corporation or
Municipality.

1. Thiruvella
2. Kottayam
3. Changanachery
4. Alleppey
5. Kayankulam
6. Alwaye
7. Vaikom
8. Nagercoil
9. Trivandrum
10. Parur
11. Attingal
12. Quilon
13. Neyyattinkara.
14. Kulithura
15. Shenkotta
16. Padmanabhapuram
17. Colachel

Percentage of literates.

| Males | Females |
| :---: | :---: |
| 80.6 | 75.3 |
| $87 \cdot 5$ | 73.0 |
| $85^{\circ}$ | 64.8 |
| 82.9 | $56^{\circ} 8$ |
| 81.8 | 55.9 |
| $81^{\prime} 7$ | 58.0 |
| $80 \cdot 8$ | 551 |
| $80 \cdot 5$ | 48.5 |
| $80^{\circ} 2$ | $57 * 5$ |
| 79'8 | $56^{\circ} 2$ |
| $77 \times$ | 49.9 |
| 78.1 | 53.3 |
| 73.1 | 51.6 |
| $71 * 8$ | $40^{\circ} 9$ |
| 86.9 | 21.1 |
| 61.1 | 34.7 |
| $46^{\circ} 2$ | $28^{\circ} 6$ |


descending order bears out this fact: Two im. portant features emerge from a study of the table. In the first place the several taluks that top the list owe their high percentage of literacy more to private educational agencies than to government institutions. Again these taluks are .all located in Central Travancore. It may also be remembered that they owe thair places of honour to their priority in the establishment of schools within their bounds, chiefly through the efforts of Christian missionaries. Devikulam owes its melancholy distinction of holding the last place in the list obviously to its situation in the comparatively undeveloped High Ranges.
515 Taking all age groups together, the pro. portion of female to male literates is 62 to 100 butit varies considerably; in the different ager: groups as can be seen from the subjoined figures.:


The progressive increase revealed in female: literacy in the lower agegroups indicates the more rapid spread of female education in recent years, particularly during the last decade.
516. On ar comparison of the literacy figures pertaining to the major communities, it is found that the Christians record the highest percent.age. (See diagram.) Alarge proportion of the Hindus belonga to the Backward Communities who are not sufficiently advanced and that accounts for the comparative backwardness of the Hindus in point of literacy. The Muslims record the -lowest proportion of literates. 'They took to education seriously only from recent times but they have ever since been making substantial progress during the last few years. 'The subjoined table will show that the ratio of the

> Proportion per mille of Literates in each main Community

proportion of Hindu males to females is an $17: 10$ Christian 9:7 and Muslims 3:1. Among the

Number per oent. of the population 5 and over, who are literate in emoh main community.

| Commanity. | Persons. | Malea, | Fetnoles. |
| :---: | :---: | :---: | :---: |
| Hindu | 58.6 | 68.4 | $88^{\prime} 0$ |
| Muslim | $85^{\circ} 7$ | 58.0 | 17.0 |
| Chriatian | 65*2 | 78.8 | 80.3 |

male population of 5 years and over, 2 in every 3 among the Hindus, 3 in every 4 among Christians, and 1 in every 2 among, the Muslims are literate. Among the females, there is greater disparity. Two in every 5 among the Hindus, 3 in every 5 among the Christians and only 1 in every 6 among the Muslims are literate. The percentage of female to male literates is given in the subjoined table.

Literacy by gex in the main oommanities.
Community.
Numbar of female literates per 100 male literatea.
All oommunities 62
Hindu
Muslim
Christian

57
87 74

517. If the total literate population is taken .into account there are 62 females to 100 male literates. The Christians have a higher ratio than the State average. During the last decade the number of literate females per 100 literate males has increased from 35 to 57 in the case of Hindus, from 53 to 74 in the case of Christians and from 11 to 33 in the case of Muslime.
518. The boy or girl who has successfully completed the Seventh Class or the School Final Class may be regarded as having attained a sufficiently effective standard of literacy. Lapse into illiteracy will seldom happen after this period. A boy ordinarily gets to the 7th standard by his llth or 12th year and to the School Final Class by his 15th year. Effective literacy can therefore be ascertained from the age-group 10-15. Literacy in the next age-group $15-20$ will be useful in ascertaining the extent and progress of higher education in the State. The progress made in education in these two age-groups will give an idea of the material available for employment in Government service and to find out persons capable of taking up other professional careers. Effective participation in the life of the country will depend largely upon the equipment the individual gets during ages 15-20. The number of people who are thus equipped in society is a very important criterion in determining the possibilities of social progress. Further the number of educated persons in these two age-groups will also be helpful in examining the problems of educated unemployment. A. comparison with the percentages in these age-groups. with those of 1931 is also possible as the rigidity of the standard set up by the Census Commissioner for 1931 may not materially affect the corresponding figures.
519. The figures for males and females by the main communities are given in the subjoined table for the agegroups 10.15: and 15-20,

## Literacy by sex and community at the age-groups $10-15$ and $15-20$.

Nomber per cent. who are literate.
Period. Community.

| 10-15 |  | Males. | .Females. |
| :---: | :---: | :---: | :---: |
|  | Hindu | 78.8 |  |
|  | Musling | $59^{\circ} 7$ | $29^{\prime} 7$ |
|  | Christian | 82.3 | 74.1 |
| 15-20 | Hindu | 78.6 | $56^{\circ} 0$ |
|  | Muslim | 64.8 | 25.4 |
|  | Christian | 84.9 | $74 \%$ |

520. The statistics relating to the different castes and communitios are given below with a view to show the relative importance of each caste in point of literacy. The castes and sects are ranked in the order of the percentage of literates.

Percentage of Literscy of different castes and communities.

Caste or Community.

|  | Persong. | Males. | Females |
| :---: | :---: | :---: | :---: |
| 1. Kshatriya | 74.0 | -75.4 | $72 \cdot 5$ |
| 2. Brahman | 73.9 | 83.5 | $63^{\circ} 9$ |
| 8. Marthomite | $70 \cdot 7$ | $77 \cdot 4$ | 63.8 |
| 4. Ampalavasi | $69^{2}$ | 74.5 | 63.7 |
| 5. Jacobite | 62.5 | 71'6 | 53.1 |
| 6. Llavathi | 62.4 | $74 \cdot 3$ | 51.9 |
| 7. Syrian Catholio 4 . | 61.9 | 671 | 58.4 |
| 8. Kaniyan | $61^{\circ} 9$ | 77.0 | $46^{\circ} 4$ |
| 9. Nayar | 61.7 | 73.4 | 50.3 |
| 10. Vellalan | 56.7 | 78.1 | 40.4 |
| 11. Saliyan | $55^{\circ} 7$ | $71 \times 1$ | $40^{\circ} 0$ |
| 12. Anglican | 53.8 | . 60.0 | 472.1 |
| 13. Veluthadanayar | 53.5 | $65 \cdot 4$ | $42 \cdot 3$ |
| 14. Felakkithalanayar | $48^{\circ} 8$ | 621 | 34.9 |
| 15. S. I. U, C. | $47 \cdot 6$ | 55.2 | $39^{\circ} 8$ |
| 16. Kammalan | $46^{6} 6$ | 63.6 | 29.4 |
| 17. . Ilavan | 46.5 | 610 | $32 \cdot 2$ |
| 18. Chetti | $46^{\circ} 4$ | 58.8 | $32^{\circ} 0$ |
| 19. Roman Catholio | $43^{\prime} 5$ | $52^{\circ} 0$ | 84.9 |
| 20. Virasaipar | $43^{\prime} 4$ | 59.4 | $27 \cdot 2$ |
| 21. Panan | $42 \cdot 5$ | $57 \%$ | $28^{\prime} 7$ |
| 22. Arayan | $42 \cdot 3$ | 58.7 | 30.3 |
| 23. Vaniyan | $39^{\circ} 2$ | 50.7 | $21 \cdot 4$ |
| 24. Paravan | $37 \cdot 9$ | 58.7 | $22 \cdot 6$ |
| 25. Valan | $37 \times 7$ | 50.7 | $18^{\circ} \mathrm{O}$ |
| 26. Velan | 36.6 | $50^{\circ} 6$ | 22.8 |
| 27. Krishnampaka | . 85.9 | $53^{\prime} 7$ | 17.8 |
| 28. Yadavan | 35.9 | 52.3 | $19^{\circ} 4$ |
| 29. Vannan | $35^{\prime} 6$ | 471 | $24^{1}$ |
| 30. Mavanian | $35 \cdot 4$ | 58.6. | 11.6 |
| 81. Salvationists | $35^{\circ} 2$ | $44^{3} 3$ | $26^{\prime} 1$ |
| 32. Muslim | $80 \cdot 2$ | $44^{\cdot 8}$ | 151 |
| 33. Thandan | $28^{\prime} 1$ | $40^{\circ} 1$ | 16.1 |
| 34. Chackaravar | 28.1 | 88.3 | $16 \%$ |
| 35. . Nulayan | $25 \%$ | 88.1 | 115 |
| 36. Kudumi | $24^{\circ} 0$ | 37.8 | 8.5 |
| 37. Nadar | $22 \cdot 3$ | $33^{\prime} 3$ | 10.7 |
| 38. Velan | $18^{\circ} 2$ | $80^{\circ} 0$ | 8.4 |
| 39. Maravan | 18.8 | 81.5 | 52 |
| 40. Pulayan | 170 | 25.2 | $8^{\circ} 7$ |
| 41. Parayan | 16.4 | $25 \cdot 1$ | $7 \cdot 6$ |
| 42. Kanikkaran | 11.8 | 16.7 | 8.0 |
| 48. Ullatan | $10^{\prime} 2$ | 14.4 | 6.1 |
| 44. Kuravan | 7.8 | 12.8 | 3.2 |
| 45. Pallan | 6.0 | 10.7 | $1 \cdot 0$ |
| 46. Chakkiliyan | 6.0 | 9.5 | $2 \cdot 6$ |
| 47. Vetan | 8.8 | $5 \cdot 1$ | $2 \cdot 3$. |

521. It has been noticed that femele educition has been advancing rapidly in Travancore which in 1931 occupied the second place among the different Provinces and States in India in female literacy. During the decade so great an impetus was given to female education that she has attained the place of honour at this Census by taking the first rank in India. There are at present 421 per cent. female literates of 5 years and over in Travancore, the corresponding percentage for males being 67.9 .
522. The Table below shows the progress of literacy since 1901, From this it can be seen that literacy has made rapid progress in the State during the last 40 years. The graduated figures also show that literacy has

been making striking progress from decade to decade. In 1901, 7 males and 2 females were literate for every 50 males and 50 females, while in 1941, 38 males and 30 females are literate for every 50 males and 50 females in "the age-groups 10.15. The $5-10$ age-group of 1931 will be the 15-20 age-group of 1941. Daring the latter period the boy or girl ordinarily completes the school and collegiate education. The number in the above group should include, in a country where education is progressing, people who have had a sound education which would enable them effectively to participate in the life of the country as responsible citizens. Hence a comparison of figures during the last 40 years in this agegroup will be useful and nẹcessary. A clear idea of the comparative progress in effective education may be thus obtained from the actual number of literates in the agegroup 15-20 from the figures recorded in the last five censusees. It will be seen from the table given above that in this age-
group the percentage of literates has inareased from 26.4 males and 5.8 fomales in 1801 to 70.3 and 58.6 in 1941. In 1901 only 13 malea and 3 females for every 50 males and 50 females were literate. The figures have now increnmed to 40 per 50 among males and 29 per 50 among fomales. The figures for the last five censuses are given below.

Literater in age group 15-20 at the last five Censuscu.

| ar. | Persons. | Increase per cent. | Maler. | Increane per cont | Fenalen. | Inorenna por cent. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1901 | 48,887 | $\cdots$ | 85,778 | $\ldots$ | 8,100 |  |
| 1911 | 87,078 | 68 | 80,805 | 42 | 16,271 | 101 |
| 1821 | 129,780 | 98 | 84,578 | 60 | 45,157 | 178 |
| 1831 | 184,671 | 50 | 126,411 | 40 | 88,260 | 61 |
| 1841 | 428,510 | 120 | 244,420 | 88 | 184,090 | 170 |

523. The table below gives the number of literates per 100 of each sex in the age-group 15-20 in the Administrative Divisions at the last
$N$ nuber of literates per cent. of each sex at the age group 15-20 in the Adminiatrative Divinions at the last five censurew.
 five consuses. It shows the difference in the progress of education.in the different divisions. The greatest progress is seen in the Northern and the least in the Southern Divisions.

- 524. The proportion of the male and female literates of the different communities in the agegroup 15-20 from 1901 to 1841 are shown in the subjoined statement. The Christians record the greatest progress.


All Com-
$\begin{array}{lllllllllll}\text { munities } & 20^{\prime} 4 & 81.8 & 48.7 & 58.0 & 79.3 & 5.8 & 0.7 & 22.6 & 27.4 & 58.0\end{array}$
 $\begin{array}{llllllllllll}\text { Muslim } & 15.8 & 10^{\prime} & 22.7 & 31.8 & 64.8 & 1.6 & 2.0 & 4.9 & 4.6 & 25^{\prime} 4\end{array}$

*525` In Provincial Table II, the total literate population of each sex of the Hindus classified into Scheduled Castes and Others, of the Indian Christians, Muslime and Tribes is given. The
proportionate figures worked out from this table are shown in the table below. The proportion is

based on the total population of all ages. The Indian Christian males and feraales take the first rank in literacy. The Other Hindus come next and the Muslims occupy the third place. The Scheduled. Castes and the Tribes respectively take the last two ranks.
526. The literacy figures of the major provinces and Statos in India for 1941 are given in the table.below for purposes of comparison.

- Number literate per 1,000 of the total population in States and Provincess in Indis. ${ }^{*}$

| State or Provinco. | Number literate per 1,000 of the total population. |  |  |
| :---: | :---: | :---: | :---: |
|  | Persons | Males. |  |
| Travancore state | . 471 | 581. | 360 |
| Cochin State | . 354 | 447 | 265 |
| Barode State | . 228 | 327 | 123 |
| Coorg | . 205 | 270 | 128 |
| Bombay | . 195 | 296 | 86 |
| Bengal | . 181 | 247 | 66 |
| Western India States | . 148 | 221 | 70 |
| Ajmer-Merwara | $\therefore 135$ | 212 | 51 |
| Madras | . 130 | 205 | 56 |
| Punjab | . 129 | 179 | 70 |
| Mysore State | . 122 | 183 | 48 |
| Assam | . 115 | 185 | 37 |
| Central Provinces and Berar | , 114 | . | - |
| Orissa | . 109 | 198 | 24 |
| Baluohistan | $\therefore 104$ | 156 | 30 |
| Bihar | - 82 | 161 | 22 |
| Unitad Provinces | . 85 | 140 | 24 |
| North West Frontier Provinoes | 77 |  |  |
| Gwalior State | . 74 |  |  |
| Central India States | . 70 |  |  |
| Hyderabad State | - 69. | 114 | 22 |
| Kashmir State | - 66 | 104 | 22 |
| Rajputana | - 57 | 88 | 11 |
| Sikkim State | - 48 | 90 | 3 |
| INDIA | . 122 | 195 | 52 |

[^5]Cochin whioh occupied the first place in 1931 comes second followed by Baroda which occupied the third rank even in 1931. In the major Provinces in India, the percentage of literacy ranges from 8 to 20 per cent., the highest being in Bombay with 19.5 per cent. For India as a whole the percentage of literacy is only 12.2 per cent.
527. The number of literates in English in the total population of the State aged 5 years and over is 403,678 composed of 295,033 males and 108,645 femalies. Of these 216,793 persons are Hindus, 175,466 Christians and 10,837 are Muslims. The number of literates in English per 1,000 of the population of 5 years and over has increased from 6 in 1901 to 78 in 1941. Out of 1,000 of each sex 113 males and 42 females are now able to read and write English as against 10 males and 2 females in 1901. One in every 9 males (5 years and over) and one in every 25 females ( 5 years and over) have now acquired literacy in English.
528. The figures in the table below show the progress of literacy in English by sex in the State and the Administrative Divisions during the last 40 years. For the State as a whole 8. Number of literates in English per mille of all agea, five years and over.

|  | 1801 | 1911 | 1921 | 195 | 51 |  | 1941 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| State or Division. |  |  |  |  |  |  |  |
| STATE : | 102 | 152 | 258 | 31 | 7 |  | - $42{ }^{3}$ |
| Southern | 162 | 274 | $\therefore 387$ | 38 | 9 | 110 | 34. |
| Central | 7.1 | 102 | 235 | 29 | 7. | 126 | . 48 |
| Northern | 91 | 112 | 18 8 | 27 | 6 | 100 | 40 |

the proportion of male literates in English increased by 103. Among females the proportion has increased from 2 to 42 per mille.
529. The following table shows the variation in the proportion of literates in English per mille of each sex during the last 40 years. It will be

Variation in the proportion of literates in English per mille of each sex.

noted that thare has been an increase in the proportion of male literates in all the Divisions. In the Northern Division alone female literacy in English did not record any increse in 1921 to 1931. During the decade 1931 to 1941 the Central Division has recorded the highest proportion of increase among both malos and females. The Northern Division comes next and the Southern last.
530. The proportion of literates in English by sex in the main communities is given in the table below. The Christians have the highest

Number per mille, aged 5 and over, who are literate in English.

| Community. | Persons. | Males. | Females. |
| :--- | :---: | :---: | :---: |
| $\quad$ State | 78 | 113 | 42 |
| Hindu | 68 | 110 | 33 |
| (a) Scheduled castes | 12 | 22 | 3 |
| (b) Others | 78 | 121 | 37 |
| Muslim | 30 | 53 | 6 |
| Christian | 105 | .140 | 69 |
| (a) Indian Christian | 104 | 139 | 68 |
| (b) Anglo-Indian | 553 | 556 | 549 |
| (c) European | 861 | 800 | 920 |
| Tribes | 4 | 8 | 1 |

proportion of English literates among both males and females. The Hindus come next and Muslims third. Among the Maslim males only 53 per 1,000 are able to read and write English and among the females the proportion falle to 6 .
531. While literacy owes its existence and diffusion among the juvenile population to school and private instruction, it is primarily to the regular habit of reading newspapers and periodicals, more than books, that literacy owes its preservation and advancement among the adults many of whom might otherwise have lapsed into illiteracy. The cent per cent literacy obtaining in England, rendered possible by the prevalence of its system of compulsory elementary education has culturally stood that country in such good stead chiefly because there is no English home without its newspaper and there is no English man, woman or child that does not make profitable use of it every day. As for this State, there is no denying the fact that newspapers and
periodicals have coutributed very libasally towards its cultural progress.
532. In the first place they have always tunded to raise linguistic staudurds in the oral as well as written aspeots and to make for up-todateness of style in the exprossion of thought and feeling. Though litarary excollence has never been the aim of newspapers, and what is commonly understood as "journalese" has come in for a good deal of cavilling at the hands of ultra-oritical purists in style, the number of thosn who are indebted to the higholass journals they read for their linguistio attainments, is legion. Again journalism has always been a feodor to the stream of literature. The better types of pariodi. cals have never failed to embody, for the education of the young and the edifioation of the old, numerous little literary gems such as short storios or poems, skits or sketches, reviews or critical appreciations, tit bits and "bons mots" and surial publications, which subsequently reappoor in book form as anthologies or omnibus volumes. The literary novice who oleverly scribbles for the nonce something of ourrent topical interest is editorially encouraged to aspire to highor liturary achievement. Many an author of ropute in the State has started with a few linos in nowepapur columns as the first rung in the ladder of literary eminence and many a "litterateur" has found dabbling in journalism spelling for him the A B C of literary excellence. It is for this reason that the idea has been mooted of introducing a regular degree course in journalism in the University of Travancore. The prevalence of three main languages in the State has led to the riso of bilingual and even trilingual dailies, weeklios and monthlies. The number and variety of the newspapers and periodicals in circulation in the State at present as well as a decade ago can be studied from the subjoined table.

Newspapers and periodicals publishad

|  | Language | 1030 |  | 1940 |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | No. | Ciroulation | No. | Ciroulation |
| 1. | English | 21 | 16,575 | 18 | 18,220 |
| 2. | Malayalam | 50 | 58,015 | 27 | 38,658 |
| 8. | Tanil | 6 | 8,730 | 6 | 5,600 |
| 4. | Bilingual | 54 | 82,131 | 81 | 57,748 |
| 5. | Trilingual | 5 | 10,550 | 8 | 12,800 |

533. It will be seen therefrom that in most. cases there has been a fall both in the number of journals and in the numbers among whom they circulate. The reasons are not far to soek. The preference of the general reader for dailies, whether local or foreign, has elbowed out the biweekly and weekly papers. The craze for world news, particularly after the outbreak of the pre: sent war, has progressively lessened interest in local news and local politice. The radio has set the pace in this transition from provincialism to cosmopolitanism in the out-look of the reading public. This is particularly in evidence in their growing interest in all-India movements, political or otherwise. Since the bi-weoklies and weeklies cannot possibly keep pace with the dailies in catering to these new tastes and interests, the increasing number of the latter in the last decade is bound to be the natural outcome. This has proved an advantage to several foreign English dailies which find an easy circulation among the educated in the State particularly where their rates are on a par with those of the local dailies in the mother-tongue. This accounts for the reduction in the number. and circulation of the local papers as only those which are sufficiently well financed will be able to stand this keen competition. The indiscriminate production of newspapers by all and sundry has to a certain extent been curtailed by the licensing fee and the cash security which have put a check on irresponsible journalism. Latterly there has also been the scarcity of paper with the consequent doubling and even trebling of the rates of subscription, abridgement of contents, overcrowding and use of small types and other unavoidable evils inevitable to paper shortage. The reluctance of readers to subscribe for abridged papers at orhanced rates has led to the present day practice of several people jointly getting down a paper and making a common use of it and also of a few papers being merged into a single publication as a joint business proposition. The beginning of the decade was the golden age of newspapers in the State when more than half a dozen highclass dailies circulated among thousands at the cheapest
imaginable rate viz. a quarter of an anna each and many more at half an anna each. This facilitated so wide a dissemination as to enable the vast masses in the State not only to become newópaper-minded but to be more intelligently responsive to the reactions of the external world as well as to improve the standard of literacy they had already attained.
534. The variety of tastes and interests to which the current journals cater can be under. stood from their classification into different. categories according to their contents or the language in which they are couched. Of the 88 journals now in circulation, 27 are newspapers and 61 periodicals. Nineteen of them deal with general and political topics, 18 social and religious, 32 religious, 3 legal, 3 commercial,' 3 humorous, 1 relating to medical and public health matters. and 9 general, educational and literary. If they are classified according to language 29 are Malayalam publications, 35 quasi-Malayalam, 5 Tamil, 31 quasi-Tamil, 16 English, 31 quasiEnglish, 1 Sanskrit, 1 Syriac and a few Latin. Hindi Journals are also sure to come into existence in the State before long. The topical and linguistic variety of these journals is an index of their wide popularity. It is interesting to note that some of these are exclusively meant for children while a few pride themselves upon - being "journals of the women, for the women, by the women." A Department of Information has recently been instituted to co-ordinate journalism. in the State and give it a lead and a direction.
535. The cultural value of the journals in the State has been incalculable and this is evidenced by the rapidly growing number of reading rooms and the impatient eagerness with which readers. a wait the arrival of the ubiquitous newspapex-boy to be able to get the latest tidings hot from the oven. It is only a home truth that after "papertime" each day the next meal is scarcely rolished unless preceded by a rapid survey of the various. headlines and succeeded by a discussion setting forth one's views on the news items gathered with so much of avidity. It is small wonder that. the timely satiafaction of one's news-hunger by
shelling out just an anna or so is looked upon as tantamount to the gratification of one's wanderlust for which even the earnings of an entire lifo time would scarcely have sufficed. A running review, at a cursory glance, of the daily ocourrences in the world, or a leisurely study of a learned article in a quality magazine is no doubt the best liberaliser to the stay-at-home folk of the frog-in the well type whom Kipling had in mind when he asked, "What do they know of England, who only England know?" Any standard newspaper, in whatever way it is viewed,' whether as a barometer of public opinion ; a feeler that indicates the way the wind blows; a trumpet whose blast will never fail to give a loud advertisement; a handwriting on the wall that spells a timely warning; an eye-opener that shows both the obverse and reverse side of every medal; a corrective that pulls down some short. sighted public man a peg or two; a treasurechest that embodies profound wisdom or at least a map on which are spread out the daily happenings in the world, can undeniably claim a great share in the cultural progress of the State.
536. Though journals'have exercised a potent influence in the public life of Travarcore, especially in rousing the civic and political consciousness of the masses, the journalists themselves have to pause and consider whether the salutary effects of this noble aervico have not sometimes been vitiated by their abuse of their "organs of public opinion" into instruments of flattery or weapons of acrimony. All civio and political perspective can only be distorted by the prostitution of journalistic columns into cockpits of animosity, personal or communal or arenas for political tugs of war. Side by side with this is the fact that those journals are no less obnoxious which deteriorate into mere compendia of commercial advertisments, coloured news and jaundiced views.
537. The future of the press in the State, from what we know of its past, is certainly pro ${ }^{*}$ mising. As in all progressive States, it has functioned here not merely as the twin sister of the platform, but as the nurse of literacy and the
exponent of liberal ideas and idenls. The wastern world presents both types of undesirable extrumities between which the pross 'may swing undur the impact of popular influences or uphenvals. But in a progressive and eulightened Siate like Travancore with a well-balancud oonstitutional Government under the wiso aogis of liberal sovereigns, the pross can stear clear of the two extremes of irresponsible omnipotenoe or absolute impotence. The history of the pross in England presents a laudable example. It has evor been the link between literacy and demoornoy. To the Englishman, literacy without danocracy has no fruit and democracy without literacy has no root. In his country universal adult suffrage boonme a 'fait accomple' only long after ount per cent. litoracy was achieved by the introduction of compulsory elementary education, In the natural evolution of this State along lines indicated by her historical antecedents, literady in which she now stands first is bound, in the years that lio ahead, to determine the pace of her constitutional progress in which she has mado such rapid strides in the last deicade. It may therefore be hopod that the journals of the State, spreading authentic news, ventilating disinterested views, omitting light without generating heat and proviug luminous without being voluminous, will create for the growth of its citizens an atmosphere of real constitutional freedom that affords space enough for every wing and wind onough for every sail. That will really be the greatest contribution that any individual or institution could ever have made to the cultural progress of the State.
-538. Journals, in spite of the current topical interest they evoke, are as a rule more ephemeral in charactor than books. Apart from 'the books of the hour' which, like most of the journals, easily sink into oblivion, 'the books of all time' are to mankind what the memory is to the individual. The really good books that make up a nation's literature are not only the preservatives of its culture but the mirrors of national life, the repositories of national aspirations and the exponents of national ideals. Travancore has in every decade presented to the world its output
of literature the quality and quantity of which have reflected, as through the other phases of fine art, her instinct for cultural preservation. The subjoined table will help to gauge the literary contribution of the last decennium in comparison with that of the preceding years.

| Language. | Books published in |  |
| :---: | :---: | :---: |
|  | 1930 | 1040 |
| English | 145 | 54 |
| Malayalam. | 188 | 101 |
| Tamil ${ }^{\text {P }}$ | 6 | 5 |
| Sanskrit | 1 | $\cdots$ |
| Arabic | $\cdots$ | 6 |
| Bi-lingual | 10 | 8 |
| Tri-lingual | 1 | 4 |

539. The fall noticeable in the number of Dooks published is really a feature to be deplored. It is not possible to agree fully with those critics who are prepared to lay the blame for this at the door of either the system of education obtaining in the State till recently, as not being conducive enough to original thought and expression; or of the Department of Education that has recently taken over to itself the compilation and publica. tion of a good many of the text books required for use in schools. .The explanation lies deeper. The flowering of all art and thought is ever the outcome of peace of mind and ease of heart consequent on the circumstantial assurance of material sufficionoy that serves to dispel all mundane cares and worries. The persons taking to authorship as a profession in the State being few and far between, a period of economic depression can, in general, tend only to stifle rather than foster the growth of literature. One who recalls the withering nature of the trying years with which the last decade started, cannot but admit that the literary output as revealed by the figures given above is intimately connected with this phenomenon. It may, however be hoped that in the coming years, especially with the new orientation given to learning and the spur administered to original art and creative thought by the inauguration of the Travancore University and the overbauling of the secondary education in the State, along now lines side by side
with the cultural alignment of the State with the progressive elemonts of the outside world, by the impact of new cultural association in recent years the record of her achievement in literature will be consistent with her potentialities. The introduction of the Research Department in the University; the completion of lexicographical attempts to coin Malayalam and Tamil equivalents for scientific and technical terms in English and the rapid spread of the Rural Library and Village Welfare movements are unmistakable tendencies that will usher in a growing demand for new books in larger numbers.
540. The offlorescence of art has always been the best means not merely of the expression but of the preservation and perpetuation as well, of the cultural progress of a State. Rather than through the achievements of the industrial or utilitarian arts as practised by the artisan, it is through the masterpieces of fine art produced by the artist, that the cultural greatness of a nation is gauged and its cultural legacy transmitted from generation to generation. The manifestation of the aesthetic'sense through the plastic, graphic or rhythmic arts into something exquisite, in symmetry of shape or beauty of form, magic of word or colourfulness of sight, melody of sound or rhythm of movement, serves to delight the visual or auditory impression. And the thing of beauty that it becomes, proves a joy for ever and to one that comes to love it, "Its loveliness increases; It will never pass into nothingness." It makes life sweet and the world beautiful to live in.
541. Fine art in Travancore has had a long history, and the range, richness, variety and permanence of her artistic achievements, under the aegis of Sovereigns some of whom were themselves great artists, while all were lovers and patrons of art, have won ungrudging recognition at the hands of connoisseurs of art all the world over. Besides conforming in important respects to the characteristic features that individualise Indian art in general, the fine arts in the State have developed certain unique features indigenous to

Kerala in particular, as could be seen by a study - of art specimens and art relics now extant, as reminiscent of her past history. The cultural remains and art-treasures of her historio past, that still survive are so widely soattered, badly neglected, partially forgotten or blurred and dis. figured by the wear and fear of time, that the need was keenly felt to save them from irrepar. .able damage or even utter extinction. It is the systematio attempts towards the reinstatement of, fine art into the position of preeminence which it once enjoyed in the State, that have made the last decade the most memorable in the annals of art in Travancore. In fact it has aptly been .styled an era of artistio revival or "Renaissance". Fine art flowered in varied fields in warious ways in the State within the last ten years. and this cultural efflorescence has served to link the past with the present and the future, not merely in the continuity of cultural history but in serving to instil in her citizens a pride in the past, .as well as an ambition for the future,' which every true patriot is sure to feel in such an ennobling atmosphere of cultural renovation.
542. The collection and decipherment of inscriptions, the exploration of ancient works and sites of art such as sculptures on wood, metal and stone showing the wonderful sense of proportion and skill of the Travancore craftsmen in the past, in designing and execution have always. been patronised by Government and a separate Department has been in existence for sometime. The art treasures of the old palace of Padmanabha. puram have been recently renovated and its historical antiquities exhibited. To the Trivandrum Museum has been attached an Annexe, - quipped as a gallery of Far Eastern arts and crafts and exhibiting great works of art from China, Japan and the East Indies brought by Their Highnesses the Maharaja and Maharani after their tour of Java and Bali in 1937. To -enable outsiders to get an idea of the architec. tural and sculptural glories of the various temples in the State, perfect plaster replicas of deific and other figures have been executed and placed in
the Government Museum. The Rang Vilnamm Palace in the Fort has also been equipped into a Museum of Arts and a gallery of State portraiture and general painting acoumulated during provious reigns.
543. The institution primarily concerned with imparting education in art is the School of Arta, Trivandrum. It has continued to function and make itself useful to inoreasing numbers in the last deoade to qualify school teaohers to teaob fine arts and art crafts.
544. One, of the three new institutions that sprang into existence within the last doonde, is the Sri Chitralayain or the State "Picture Gallery, opened in September 1935. It is the second of its kind in South India (the firgt being the Chitrasala of Mysore) but the first in point of inclusiveness, containing as it does masterpieoos representing all schools and phases of the pietorial art in India from the days of cave-painting to the Bengal revival. By far the best of the exhibits are the paintings of the late Raja Ravi Varma. Examples of the Tibetan, Chinese and Jayanese method are furnished by the handiworks of the Russian artists, Nicholas Roorioh and his son Svetoslav Roorich. Another attractive feature of the gallery is the collection of duplicates of the renovated puranic mural paintings which for centuries had adorned the walls of many an old tomple and.palace. This art gallery presents a kaleidoscopio view of practically every era and style of painting in the East.
545. The 'Renaissance' in music took shape in the inauguration, in September 1938, of the Sri Swathi Thirunal Academy of Music, in memory of a great Maharaja who was "a musician among Kinge and a King among musicians". The devotional songs of olassical excellence which His Highness composed in Sanskrit, Tamil, Telugu and other languages embodying sublime sentiments couched in simple, mellifluous language and tuned to soul-stirring, melodious music are rare gems constituting a rich heritage to bumanity. It was with the threefold object of interpretinc
and popularising these for the joy of the human soul, conserving them for the enjoyment and enlightenment of future generations and initiating the untutored lay folk into the "terra incognita" of musical science that the academy; was started. It provides a three years' diplomacourse in vocal and instrumental music. The Department of Education has made arrangements both for getting the music teachers of the various schools trained' in the Academy and for pre-, ference in the recruitment of musis teachers to be shown to those so trained. Thus, through the ${ }^{\text {' }}$ Department of Education, it would: be serving its great purpose of popularising the rich musical legacy bequeathed by the great Maharaja Swathi, Thirunal.
546. Equally important was the resuscitation or the Indian Classical dance based on "Natya. Sasthra," as practised traditionally in Kerala. This took shape in the foundation in February 1937 of the Sri Chitrodaya Narthakalayam. In, this institution, instruction in dancing is imparted to boys and girls up to 18 and public demon. strations and performances are held from time to time by experts to the accompaniment of a welltrained orchestra. The main feature of the art as. practised and taught in the institution is the interpretative episodic dance based on the "Katha Kali", technique but modernised by being divested. of much of its exterior acooutrements. In the simple purity and resplendent beauty of its renovated form, the dance is " no longer a mere device "for swhetting the jaded appetite of the idle rich" but is ennobled into, a rhythmic movement made "to suit the music of the spheres" and to sweeter life with an occasional hour of solace and repose. It is really gratifying to remember, that "Kerala Natya Kala" has really come into its own "in which every motion is a word and every rest is eloquence ".
547. Besides leading to the foundation of new and improvement of old institutions for the development of fine art, the artistic revival characteristic of the last decade has been in special evidence in the annual celebration of the : Art Festival which has latterly been merged
most appropriately into the general festivities in. connection with His Highness the Maharaja's birthday. The principal feature of this festival. has been the putting on board of first-rate performances by reputed artistes, from within the State and outside, in music, dance and dramar juvenile talent being specially encouraged by the award of prizes, medals and cortificates of merit. Such an artistic background provided for life in general, lays the proper foundation for the edifice: of cultural eminence, for "each art is part of that greatest of cultures, the creation of a comprehensive, full ;and many sided life, which is humanity's climax and orown, its liberation and salvation".
548. It is indeed a happy coincidence that the earliest and the latest steps towards the oultural progress of the State should have been: taken respectively by two great Queens of the same name. Just as it was Rani Parvati Bayi. whose educational poliey embodied in the famous. Proclamation of 1817 set on foot the.seheme of. Malayalam education that paved the way for the rapid spread of literacy, it was left for the ver-: satile genius of Mahazani Setu Parvati Bayi in the present decade to set many a lustrous. jewel in the cultural diadem of the State. By her instinctive foresight and resplendent thinking Her Highness grasped the greatness of traditional art and by her dynamic power successfully saw to its reinstatement on the pedestal of its ancient-pre-eminence. Fine art in the State has thus had "the supreme good fortune to be tended and. fostered by a benevolent and exacting mentor who can not only visualise, but compel realisation".
549. Apart from the special features dis-, cussed above, the State is indebted for her cultural progress to numerons other sources which it is impossible to bring within the purview of this synoptic essay, particularly in instances where the operation of such agencies' was not confined to the last decade alone, and also for the reason that the Consus operations were not specially directed so as to comprehend, them within its scope. Nevertheless it will be:
an unpardonable fault of omission, if not of commission, if at least a passing mention of a general character is not made of such broad as well as deep tributaries that have continued to flow, silently and imperceptibly into the stream. of culture that is welding society into a coherent whole with a universal outlook. The various educational institutions in the State, under Govermment as. well private management, the academic associations and liberal olubs flourishing in various localities, the religious institutions and communal organisations with their special sessions and annual conferences, have, by their manifold activities, in the piece-meal way circumscribed by their limited soope, oontributed a great deal towards the cultural progress of the land. The socialising and liberalising influence diffused by such agencies has been widened still further by the participation of the State in various international associations and world movements functioning on a wide acale from different centres. The activities of the Boy Scout and Girl Guide Movements for juveniles and such bodies as the Y. M. C. A. and the Y. W. C. A. on the one hand and the active part played by the State in all progressive all-India movements and several world-conferences on the other, have served only to render more effective the spread of the spirit of human brotherhood by the newspaper, the cinema and the radio.
550. But the latest step towards focussing universal attention on the cultural progress of the State was taken in the last decade, which can, for that reason be very well said to have placed her in her proper setting on the cultural map of India. Not content with a mere alignment with the liberal movements of the outside world, she has culturally expanded herself to such large dimensions as to constitute a forum for the functioning of all-India movements under her own auspices from time to time. Instead of dangling in splendid isolation as a bright pendant, linked no doubt to the rest of India, she has latterly proved herself culturally spacious enough to attract to her capital city some of the progressive movements of the world beyond her frontiers, so that
by the absorption and adoption of the best they could contribute, she might demonstrate her oultural adaptability and, at the same time, by stamping on them the doep impross of her own indigenous influences, she might assort har oultural individuality. This was rendered possibla by the vision and imagination of the emineut statesman' Sachivottama Sir C. P. Ramaswami Aiyar, who, within the last quinqueunium, has placed the State in the forefront of India by giving her economic stability through prograssive industrialisation and aoademic independence by the inauguration of the Travancore University. This University though the youngest in India, has not been behind-hand in the assertion of the outstanding vigour of its youth, by conducting under its auspicen, not merely Inter-University tourneys and ocoasional demonstrations of athletio skill by world champions but the Sixteenth Session in January 1941 of the Inter-University Board Meeting, wherein the Vice-Chancellors of the various Universities in India took part and threshed out educational and cultural sohomes of great moment. A greater occasion was the Ninth Session' of the Oriental Confarence held in December 1937 in the metropolis of the State. This was attonded by about 150 Pandits from all parts. of India and 250 delogates from difforent parts of the world, representing the " oreme de la creme" of the world culture in its varied aspeots, and imparted much to, but imbibed more' from, the springs of national oulture in the State. The occasion, with its several sessions each dealing with a separate aspect of indigenous or exotic culture, really signalised a cultural illumiuation for mutual enlightenment and lasting edifioation.
$551^{\circ}$ If the view is sound that the best criterion of a nation's culture is the measure of progress attained by its women folk, Travancore which can boast of the first rank in India in the percentage of female literacy and the advent of the first women members not only in the Legislature but at the Bar and the Bench, can be said to have asserted her cultural pre-eminence in '1935. It was the occasion of the Tenth Session
of the All-India Women's Conference held in Trivandrum under the distinguished prosidenoy of Her Highness Maharani Setu Parvati Bayi, whose leadership of Indian Womanhood has inspired it with newer aspirations and emriched it with better realisation: The cultural efflorescence resulting from this historic conference and the continuation of Her Highness's leadership throughout the year that followed, has stood partioularly the women of the State in very good stead.
552. ,The cultural progress in the last decade has thus raised Travancore to the proeminence to which she is entitled as much by her historical antecedents as by her solid achievements, as
the cynosure of admiring eyes and the paradise of the discerning tourist and the devout pilgrim. Her epoch-making emergence into the wider world of today as a land of cultural unity, abiding : humanity and universal charity has set her on the road on which one of the youngest but by far the most widely-travelled of her great Maharajas had all his life been aspiring and striving to see her advance. In the spacious firmament of the wider outlook, down the corridor of cultural unity and beneath the arch of universal brotherhood, "where-through gleams that untravellod world",
"Una mente et uno corde proficiant omnes".

## APPENDIX I.

## Fertility Enquiry.

Fertility Enquiries were conducted in Travancore in 1921 and 1931. In 1921 the Enquiry was limited both in range as well as scope as it was confined only to a few aspects of the question in municipal towns. In 1931 it was carried out on a more elaborate soale, a special schedule having been drawn up for the purpose and the Enquiry extended to rural areas also. The schedules were distributed among the municipal staff in the municipal fowns and the school masters in rural areas. The latter in their turn distributed the schedules among the grown-up boys and girls to have them filled up at their houses in consultation with their parents. The items of information oollected included such points as caste, age of mother, occupation and age of father, duration of married life, uumber and sex of the children born and surviving and their ages.
2. In 1941 the Census Commissioner for India, with the idea of awakening publio consciousness of the importance of fertility studies proposed that two questions on fertility viz., the age at birth of.first child and the number of children born and surviving should be asked of each and every married woman. This time the Enquiry was therefore'extended to cover all the married females. Three further points regarding (1) the sexes of children born and surviving, (2) the duration of marriage and (3) the sex of the first child were also added to the Fertility Enquiry of this State. The difficulty of getting information on the effective duration of marriage has been recognised everywhere and presumably it was to avoid this that the Census Commissioner for India included the question regarding the age at birth of the first child, to which no one would resent to give an answer. It is evident that the age at birth of first child combined with the present age of the woman wanld itself indicate approximately the effective
3. For a oomparative study at the prosunt Census, homogeneous social units with a populntion of 50,000 and above were soleoted, The following groups were therefore broupht under tabulation viz. Non-Malayala Brahman, Ilava, Kammala, Kurava, Nadar, Nayar, Paraya, Pulaya, Vellala, Muslim and Syrian Christian. Within the limited time allowed for tabulation it was not possible to extract ull the requisite data to study the various aspects of the question. But in oombination with the results of the Vital Statistice Enquiry conduoted in selooted areas, the fertility data could throw much light on the population problems of Travanoore. The main tables prepared on fertility are given along with the subsidiary tables under Imperial Table VII.
4. The total number of slips pertaining to married women brought under tabulation was 873, 397. The following table shows the ago distribution of the married women and the number and percentage of those in each agegroup who have actually piven birth to childreu.

| Ago-group. | Total numbur of married women, | Numbar having childron. | Purceasage. |
| :---: | :---: | :---: | :---: |
| Less than 15 | 3,678 | 110 | $2 \cdot 00$ |
| 15-20 | 79,003 | 20,808 | 37.00 |
| 20-25 | 152,030 | 123,711 | 81.87 |
| 25-30 | 158,887 | 143,10. | 88.05 |
| 20-35 | 121,808 | 116,212 | 05.80 |
| $85-40$ | 114,768 | 109,844 | $95 \cdot 98$ |
| 40-45 | 78,655 | 78,096 | 05.60 |
| 45 and above | 108,015 | 186,698 | \$8.50 |
| * Total. | 878,897 | 761,538 | 8761 |

It is observed that $98^{\prime} 6$ por cent. of the marriod women in the 45 and above group have given birth to children and that 1 ' 4 per cont. are sterile. In 1931 the corresponding proportions wore the same.
5. Fertility will vary for'different age-groups of married women. Before considering the numhar of children born to married women in each
agegroup, fertility in general of the various communities may be compared. In the following table eleven communities are arranged in the order of their general fertility.


It is noted that the Kammalas, Ilavas, Syrian Christians and Muslims have on the average a larger number of children born to them than the others, the Brahmans coming last in the list. The Kuravas who are included under Tribes show a low fertility and so also the Pulayas and the Parayas. The Vellalas and Nayars form the middee group. The general average is observed to be 3.69 children per. woman. The corresponding average for 1931 was 4.10 but in comparing the two averages it is to be remembered that the 1931 Enquiry was mainly confined to the mothers of school children and hence a comparatively large proportion of the younger mothers whose children had not reached the school-going age might have been omitted. In making comparisons with the figures obtained for 1831 in other respects also this fact has to bo kept in views:
6. A real comparison of the fertility of the various communities can be made only if we conaider the number of children born to women of 45 and above, since these in all cases would have lived through their fertile periods. The following table which shows the number of chitden born to women of completed fertility agegroups reveals that the order of sequence has slightly varied but the inference that the Kamemalas, Ilavas, Syrian Christians and $\cdot$ Muslims have high fertility and that the Brahmans and Kuravas have low fertility still holds good. The figures for 1931 are obtainable only for certain
of the communities. These are given within. brackets for purposes of comparison.

Number of ohildren born per married woman 45 or above.

Community:


## 1

7. The following table gives the number of children born on the average per married woman of each age.group. Naturally the women of the higher age-groups have a larger number of chicdree than the women of the lower age -groups.


On a comparison with the figures obtained in 1931, it is observed that there is a close similarity between the two sets except for the agegroups $30-35$ and 35.40 . The high average in these two groups in 1931 ban be explained by the fact that the mothers of school-going children have fallen in these groups in comparatively high proportions while the mothers without r school-going children must have been excluded.
8. Incidentally it may be observed that from the average number of children born to married* women of each age-group, one can get some idea: of the specific birthrates for various age-groups. Thus women between 15 and 20 or 'who are on the average 17.5 years old have ' 45 children born to each ie. 450 per 1,000 . Similarly those who are between 20 and 25 or on the average

225 years old have 1,520 children per 1,000 . Thus the number of ohildren born in passing through the period of five years from 17.5 to 22.5 will be $1,520-450$ i.e. 1,070 or 214 por year. From the Vital Satistios Enquiry the specific birth-rate for $15-20$ has been observed to be 230 per $1 ; 000$ married women. . Similarly for the other age-groups the results obtained may be stated below.

| Fertili | Enquiry. | Yital Statistica Enquiry. |  |
| :---: | :---: | :---: | :---: |
| Age-group. | Approximate ostimated specific birth-rates. | Age-group. | Observed specifio birth-rates. |
| 17•5-22.5 | 214 | 15-20 | 230 |
| 225-275 | 236 | 20-25 | 247 |
| 27.5-825 | 210 | 25-30 | 222 |
| 32.5-37.5 | 188 | 30-35 | 187 |
| 37-5-42•5 | 100 | 35-40 | 141 |

9. In order to study the real effect of the ago at birth of first child on the number of children born or surviving, it is essential, that the women concerned should have lived through the whole fertile pariod. Hence it is necessary to take into account only those who have lived through the ohild-bearing poriod i. e. those who have passed 45, the age at which fertility generally ceases. Before oomparing the number of children born the proportion per cent. of the married women of 45 and above in each community who have given birth to the first child before attaining 20 and 25 may be examined with the aid of the following table.


Generally speaking 90 pur cont. of the women have given birth to the first ohild before attaining 25 and about 50 per cont. bofore attaining 20. Among Brahmans 70 per cent, havo given birth to the first ohild before nttaining 20 .
10. The following table shows for all oommunities the agos at birth of first ohild and tho number of ohildren bora against eado group.


It may be noted that the number of childrou born deoreases as the age at birth of first child advancos or in other words as the effoctive duration of marriage decreasos.
11. That there is a relation between the number of children born and the age at birth of first ohild is further olucidated in the following table which shows for each number of childrea born the percentage of women who have given birth to the first child before attaining 20 or 25.

| Number of children born. | Peroentage of women whone age at birth of tirat child was below |  |
| :---: | :---: | :---: |
|  | 20 | 25 |
| 1 | 288.8 | 86.3 |
| 2 | $32 \cdot 1$ | 74.0 |
| 3 | $30 \cdot 2$ | . 80.6 |
| 4 | 38.8 | 84.7 |
| 5 | 40.8 | $87 \cdot 8$ |
| 6 | 44.7 | 01.0 |
| 7 | 48.2 | 93.0 |
| 8 | 63.8 | 95.0 |
| 9 | 58.3 | $98.0{ }^{\circ}$ |
| 10 and sbove | 67.0 | 97.7 |

Of those who have ouly one child each, about 27 per cent. gave birth to it before 20 while of those who have 10 ebildren 67 por cent. gave
birth to the first child before 20. Converaely it has been observed that of those women who gave birth to the first child while between 15-20, 61 per cent. have 7 or more children while of those who gave birth to the first child between $20-25$ only 49 por cont. have 7 or more children. Again of those who gave birth to the first ohild while above 40 , no one was roturned as having more than 6 children whereas 67 per cent, have below 2 children. Out of the 166,596 mothers aged 45 and above, barely one per cent. gave birth to the first child after 35 (vide Fertility Table iii).
12. On comparing the average number of children born to married women living in urban and rural areas it is observed that fertility in the urban areas (municipal towns) is generally lower. The finding is substantiated by the Enquiry of 1931 also. . The following table shows the average number of children born for maxried women in each community in the urban and sural areas.

|  |  | mber of child | per family in |
| :---: | :---: | :---: | :---: |
| Commanity. | $\square$ | Urban area. | Rural area. |
| Brahman. | - | . 57 | $0 \cdot 3$ |
| Havs |  | 6.5.19 | 07 |
| Kammala $\because$ |  | 8.5 | 73 |
| Kurava |  | 56 | $5 \cdot 6$ |
| Nadar |  | B.5 | 8.5 |
| Nayar |  | 57 | 64 |
| Parsya |  | 6.0 | 60 |
| Pulaya |  | 6.0 | 64 |
| Vellals |  | 54 | 8.2 |
| Muslim |  | 6.0 | $7 \cdot 2$ |
| Syrian Christian |  | 71 | 711 |
|  | Average | 61 | 8.7 |

That urban fertility is generally lower than rural fertility has been substantiated by enquiries made in other places also.
13. The survival ratios (number of children surviving per 1,000 children born) of children born to married women of the various communities are given below along with the average number of children surviving.

| Community | Average number of children aurviving per family | Proportion surviving per 1000 born |
| :---: | :---: | :---: |
| Syrian Oliristian | 2.98 | 790 |
| Nadar | $2 \cdot 86$ | 788 |
| Kurava | $2 \cdot 43$ | 778 |
| Nayar | $2 \cdot 79$ | 766 |
| Muslim | $2 \cdot 83$ | 762 |
| Ilava | $2 \cdot 89$ | 753 |
| Kammala | $2 \cdot 92$ | 752 |
| Brahman | $2 \cdot 30$ | 734 |
| Vellala | $2 \cdot 47$ | 721 |
| Pulaya | $2 \cdot 38$ | 694 |
| Paraya | $2 \cdot 15$ | 660 |
| Average | 2.81 | 762 |

For a strict comparison of the survival rates of ohildren born in various communities, one should have a knowledge of the agerconstitution of the ohildren coming under each group. On comparing the figures of children surviving it is observed that Syrian Christians, Kammalas, Ilavas and Nadars show high averages. Parayas show the lowest average of children surviving. The ratio of survivorship is also highest for the Syrian Christians. The same ratio is lowest for the Parayas.
14. A comparision on the other hand of the average number of children surviving of mothers who are 45 years or above will show better the rate of survivorship in respect of eaoh community in as muoh as the age-constitutions of the children falling within each community are not likely to be materially different from one another. The following table shows the average number of children surviving for the different communities when only mothers of 45 and above are taken into account. The communities are arranged in the order of the rate of survival.


The Parayas and Pulayas appear last in the list.

The average number of children surviving is high for Syrian Christians, Kammalas, Muslims, Ilava and Nadars. The same ia low for Pulayas and Parayas. .

The average number of children surviving and rate of survivorship according to agegroups of mothers are given below :

| Age of mother | Average children surviving | Proportion surviving per 1,000 bora |
| :---: | :---: | :---: |
| Below 15 | -02 | ${ }_{6}^{67}$ |
| 15-20 | . 38 | 855 |
| 20-25 | $1 \cdot 28$ | 841 |
| 25-30 | $2 \cdot 26$ | 836 |
| 30-35 | 3.11 | 829 |
| 35-40 | $8 \cdot 76$ | 791 |
| 40-45 | $4 \cdot 16$ | 791 |
| 45 and above | $4 \cdot 41$ | 664 |
| All ages | 2.81 . | 762 |

15. The average number of children surviving is seen to be larger for the higher age-groups. When the actual rates of survivorship are con-' sidered certain variations are observed between the figures for different age-groups. The net survivorship of children of mothers of any agegroup will be the result of the specific moxtalities and the age constitution of the children of the inothers in the group and the period for which these children have been exposed to risk. Thus one may expect that the average age of children of women between 15 and 20 , will mostly be less than that of the children of women 45 and above, and that the latter will on the average have been exposed to longer periods of risk. The net result is, that the resulting mortality is most pronounced among children of mothers of 45 and above and decreases with the age of the mother. In the case of children of mothers below 15, the rate of mortality appears to be high.
16. The following table shows the number of children surviving and their rate of survivorship according to the age at birth of first child.

| Age at birth <br> of arst child | Average number <br> of children enrviving | Proportion <br> Burviving per <br> 1,000 born |
| :---: | :---: | :---: |
| Below 15 | 4.78 | 633 |
| $15-20$ | 4.91 | 664 |
| $20-25$ | 4.23 | 655 |
| $25-30$ | 3.63 | 713 |
| $30-35$ | 2.89 | 718 |
| $35-40$ | 2.05 | 679 |
| 40 and above | 1.49 | 662 |
| A verage | 4.41 |  |

In this table only women who have comploted their fertility period have been inoluded. Henco. the higher the age of the mother at birth of first child, the lower will be the avernge age of the children; and the pariod for which they may have been exposed to risk will oonsequently be amaller than in the oase of women who have given birth to first ohild at earliar agos. The net. survivorship will reflect all these faotors. It is significant however that the average number of ohildren surviving of mothers who gave birth to. the first child between 15 and 20 is ligher than the corresponding average for those who gave birth to the first obild below 15. ( 491 agniusb. 478).
17. The following table shows for each number of children surviving the peroentage of women who gave birth to their first child before 20 or 25 .


It was already shown that of the women of completed fertility, who have had 10 or more children born to them nearly 98 per cent gave birth to the first child before attaining the age of 25 . When we take into acoount only the number of ohildron surviving it is seen that of the womon who have. only one child surviving, 78 per cent had given birth to the first child before attaining 25 while of those who have 10 or more childron surviving. 98 per cent had given birth to the first child before attaining 25. Conversely it has boen observed that of those women who gave birth to the first child while betweon 15 and 20, 88 por cent have 7 children or less surviving. Of thoso who gave birth to the first child while above 40, no one has moro than 5 children surviving though 3 por cent. had 6 children born to them (vide Fertility Table iv).
18. The following table shows the average number of children surviving and the rrate of survivorship in urban and rüral áreas fór, various communities for women of completed fertility age-groups.


The average number of children surviving is 4.2 in the urban areas (as against 6.1 born) and $4^{\circ} 5$ in the rural areas (as against 6.7 born). The rate of survivorship is 686 per 1,000 born in the urban and 663 per 1,000 born in the rural areas. This may be due to the better facilities available in the towns in the matter of medical help.
19. It will be instructive to find out whether survivorship has any relation to the actual size of the family. Figures have been extracted for the above purpose and the results aro shown below (for completed fertility cases).

| Number of children dorn | Number of families | Number of children |  | Proportion. surviving per 1,000 born |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 2,419 |  | -• |  |
| 1 | 5,409 | 5,409 | 3,922 | 725 |
| 2 | 7,824 | 15,648 | 11,147 | 712 |
| 3 | 10,383 | 31,149. | 21,763 | 700 |
| 4 | 14,551 | 58,204 | 43,092 | 740 |
| 5 | 19,024 | 95,120 | 67.819 | 711 |
| 6 | 22,052 | 132,312 | 82,987 | 701 |
| 7 | 24,537 | 171,759 | 119,014 | 692 |
| 8 | 22,780 | 182,240 | 122,711 | 873 |
| 9 | 16,538 | 148,824 | 88,530 | 662 |
| 10 | 12,987 | 129,870 | 76,130 | 586 |

It is observed that there is a general tendency for survivorship to decrease with the number of children born though there is a rise in the rate at 4. Since the rate of survivorahip depends
upon the age-constitution of the children of each group any generalisation could ba made only with some reservation.
20. The fact that the larger the family, the greater the mortality may be inferred from an examination of the distribution of families accord. ing to the number of children born and surviving. Thus it is seen that out of 166,596 families of oompleted fertility there are only 23,500 families in which 10 or more children were born and of these there are only 2,094 families in which 10 or more children are surviving, that is to say, in 91 per cent of such families one or more children are dead. Similarly there axe 40,036 families in which 9 or more children were born of which only 5,990 families have 9 or more children surviving, i. e., in 85 per cent of the families one or more children are dead. As for families in which' 8 or more children are born it is found that the corresponding percentage is 73. There is therefore a progressive reduction of survivorship with increasing size of family.
21. The average numbers of children of mothers of each agegroup have already been indicated. But more important than the average itself is the distribution of families according to the number of children born. Thus out of 166,596 women of completed fertility, 48 per cent have 6 children or less and about 37 per cent have 8 or more children. The remaining 15 per cent have 7 children each and this is found to be the mode. In 1931 also the mode for women of completed fertility was found to be at 7 and the corresponding percentage of families to 13.
22. The model size and the corresponding percentages of families along with the vaxious agegroups of mothers are given below.

| Age of mother | Mode Percentage of families with children born |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | born) | Less than mode | $\begin{aligned} & \text { Equal to } \\ & \text { mode } \end{aligned}$ | $\begin{aligned} & \text { More than } \\ & \text { Imode } \end{aligned}$ |
| 15-20 | 1 | .. | 82 | 18 |
| 20-25 | 1 | $\cdots$ | 48 | 57 |
| 25-30, | 2 | 19 | 25 | -. 56 |
| 30-35 | 4 | 43 | 20 | 37 |
| 35-40 | 5 | 45 | 17 | - 38 |
| 40-45. | 5 | 36 | 14 | 50 |
| 45 and above | - 7 | 48 | 15 | 37 |

23. In a similar manner when the distribution of families in accordance with the number of children surviving is studied, it is found that the mode of children surviving is 4 in the case of women of completed fertility, the number of families having 4 children surviving being 27,460 out of $166,596 \quad$ i. e., 16, per cent. 34 per cent have 3 or less number of children surviving and the remaining 50 per cent have 5 or more children surviving. Similar proportions worked out for the different agegroups of mothers are given in the following table.

| Age | Mode (Children surviving) | - Percentage of mothers having ohildren |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Less than mode. | Equal to mode | More than mode |
| 15-20 | 1 | 12 | 75 | 13 |
| 20-25 | 1 | 7 | - 47 | 48 |
| 25-30 | 2 | 27 | - 28 | $\therefore 45$ |
| -30-35 | 3 | 36. | 21 | . 43 |
| 35-40 | 4 | 43 | 18 | 39 |
| $-40 \cdot 45$ | 4 | 37 | 16 | 47 |
| 45 and ab | ove 4 | 34 | - 16 | 50 |

24. Masculinity is defined as the ratio of male to female births. Variation in the proportion of males to females is the result of a number of complex factors, mainly of changing social conditions. Urbanisation for instance is said to decrease the proportion of male births while war will increase it. The results of the Vital Statistics Enquiry showing the variation of the proportion of male to female births with varying factors is examined in greater detail in the next Appendix. In the following discussions only children of mothers who have passed through their fertility periods,

- i. e., have arrived at the age of 45 or above are dealt with.

25. The 166,596 fertile married women of completed fertility age-groups have given birth to 1,121,826 children ( $6^{\circ} 7$ on the average) of whom $577 ; 530$ are males and 544,296 are females, the ratio of females to 1,000 males being 943 . If first births only are considered, it is found that of the 166,596 first births 91,143 are males and 75,453 are females the ratio of females to 1,000 males for this group being 828. Thus masculinity for first births very much exceeds masculinity for births generally. The average number of children born for women of the completed fertility group is $3^{\circ} 5$ males and $3^{\circ} 2$ females.
26. The ratios of female to 1,000 male children born to mothers of 45 and above of the different communities ars shown below.

| Oommunity | Proportion of female children to 1000 tuale children nmong |  |
| :---: | :---: | :---: |
|  | First Birthe | Total Births |
| Brlhman | 817 | 1124 |
| Ifava | 818 | 134 |
| Kammala | $8 \times 2$ | (10) |
| Kurava | 771 | Insil |
| Nadar | 748 | 1882 |
| Nayar | $\times 57$ | 1940 |
| Paraya | 757 | $0 \times 5$ |
| Pulaya | 768 | (103\% |
| Vellala | 877 | $11 \times 3$ |
| Muslim | 807 | 1128 |
| Byrisn Christian | 856 | ind |
| Average | -828 | 848 |

Among the first born masoulinity is low for Syrian Christiane, Vellalas and Nayars. It is high for Muslims, Pulayas, Parayas and Nadars. Among the total number of children born, masculinity is least for Vellalas and highest for Kammalas.
27. Of the total $1,121,826$ ohildren born to the 166,596 women of 45 years and above, 62,500 ( 31,919 malee and 30,581 females) are ohildren of 10,183 women residing in the urban areas and $1,059,326$ ( 545,611 males and 513,715 femaloa) are ohildren of women residing in rural areas. The ratio of females to 1,000 males is 958 in urban areas and 941 in rural artas. Thus masculinity in rural areas is higher than that in urban areas.
28. The following table shows for families up to 10 children, the number of male and female children and the proportion of female to mals children against enoh.

| $\underset{\text { Size of }}{\text { Sizily }}$ | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { families } \end{aligned}$ | Children |  | Proportion of fernalen to to 1000 malam |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Msle | Female |  |
| 1 | 5409 | 2702 | 2617 | 987 |
| 2 | 7824 | 8084 | 7614 | 948 |
| 3 | 10388 | 16169 | 14950 | 926 |
| 4 | 14551 | 29854 | 28350 | 848 |
| 5 | 18024 | 48887 | 48188 | 944 |
| $B$ | 22052 | 67998 | 84314 | 946 |
| 7 | 24537 | 88856 | 88403 | 444 |
| 8 | 22780 | 83701 | 88530 | 945 |
| 2 | 18586 | 76258 | 72571 | 4n2 |
| 10 | 12887 | 68818 | 63052 | 24 |

There does not appear any general trend in the variation of the sex-ratio. The drop observed in the ratios corresponding to 3 and 6 children may not have any significance.
29. It has been a matter of considerable speculation in the past whether the sex of first child will in any way indicate the probable sex constitution of the whole family. It has often been said that in respect of families in which the first child is a male there is a greater probability of males predominating. But it is obvious that the converse proposition may be equally true statistically viz. if males predominate in a family there is greater chance of the first or second or any other birth being a male.
30. The following table prepared from Fertility Table vi shows the proportion of families (grouped according to the sex of the first child) in which male or female children predominate.

| 0 |  | Percenta | of famili | ving |
| :---: | :---: | :---: | :---: | :---: |
| ( |  | Males greater than females | Males equal to females | Males less an females |
| : |  |  |  |  |
| All families |  | $45^{\circ} 2$ | 16.5 | $38 \cdot 3$ |
| Families wit first born | male | $57 \cdot 8$ | $10^{\circ} 6$ | $25^{\circ} 6$ |
| Fsmilies with | female |  |  |  |
| first born |  | . $30 \cdot 1$ | 16.4 | .. 53.5 |

In the general class of families 45 per cont record an excess of males and 16 pex cent. an, equality. But in families with male first born 58 per cent. have an excess of males and in families with females first born 53 per cent. have an excess of females:. These are different from the proportion for the generality of families.
31. It may be interesting to study whether there is any relation between the sex of the first child and the size of the family. The following table shows for each size of family up to 10 the number with male and female first born and the ratio of female first birth to 1,000 male births. Only women of completed fertility are taken into account. It is observed that the female ratio decreases up to four children and then agaia increases. Thus in very small as well as very large families there is gxeater chance of the first being a female than a male i.e., if the first child is a female, the family may be either very small or very large.

| Families with |  |  |  |
| :---: | :---: | :---: | :---: |
| Size of family | Male first birth | Female first birth | Proportion of female to 1000 males |
| 1 | 2,7,92 | 2,617 | 937 |
| 2 | 4,224 | 3,600 | 852 |
| 3 | 5,676 | 4,707 | 829 |
| 4 | 8,076 | 6,475 | 802 |
| 5 | 10.451 | 8,573 | 820 |
| 6 | 12,054 | 9,998 | 829 |
| 7 | 13,316 | 11,221 | 843 |
| 8 | 12,328 | 10,452 $\quad \therefore$ | 848 |
| 9 | 8,916 | 7,620 | 855 |
| 10 | 7,044 | 5,943 | 843 |

32. So far we have been dealing with the sexconstitution of the children born. It is worth whileto examine how the ratio of females to males varies with different communities when survivors. alone are considered. The following table gives: the figures for the different communities.


Generally speaking female survivorship exceedsmale survivorship. Kuravas, Nadars, Muslims and Syriap Christians, appear to be exceptions.
33. An attempt has been made in the foregoing pages to analyse the figures obtained for the Fertility Enquiry. It is for the experts in the fields of anthropology, medioine, public health etc. to go deeper into the subject and find reasons. physiological and psychological for the variations observed in the different communities at different agegroups. The function of the Census Commissioner stops with the analysis of the data and the presentation of the facts thereby dis-closed. This section should be read along with the next (Appendix II) on Vital Statistics to get a clear idea of the factors which determine the population trends in the State.

## APPENDIX II.

## Vital Statistics Enquiry.

It has already been stated in the preceding section that the Census Commissionar for India had introduced a few questions on fertility in the general enumeration card and that his object in doing so was to do something in the way of propaganda to awaken public iconsciousnass of the extreme importance of.vital statistics. In Travancore, the previous Census Commissioners have dwelt at length on the absence of reliable vital statistics data and the consequent difficulties encountered by them in giving a correct explanation of the growth of population. The Census figures reveal that the existing ivital statistical records are largely orroneous. This error must mainly be attributed to the inadequacy of the agency employed for registration of births and deaths to cope with the work. Further there are defects in the form of presen: tation of data such as the absence of information about the age of mother. Recent literature on population problems, foreign and Indian, lays considerable stress on the classification of births according to the age of mother. This information, coupled with that regarding the total number of married women in each age-group furnished by the Census, will enable us to calculate what are called the specific birth-rates. Similarly deaths have to be classified according to age-group and the number of deathe in each group studied with reference to the total population in that age-group. The variation of births and deaths from region to region or from season to season will not give any idea of the factors causing these variations unless the specific birthrates and death-rates are calculated. It was proposed therefore to utilise the opportunity afforded by the present Census to conduct. in
seleoted areas a special onquiry on biths and deaths occurring in one yem; of which list March 1941, the date of the Consus, was the central point. This devico elimizated the neoossity for estimating population in variousaga groups forning the basis of the figuros for the calculation of the specifio birth and deathrates.
2. Two cards ware designed for the purpose, containing a series of questions, one relating to births aud the other to deaths. Though for purposes of immediate population study such a large number of items was not necessary, most of the questions have a public health significauco and are helpful in illustrating the methods by which public health problems are to be tackled. Specimens of the Specifio Fertility and Mortality Enquiry Cards are appended.
3. The area selected for the Enquiry consistnd of the Police Conservancy Towns and the Health Unit at Neyyattinkara. The total population of these centres numbered 270,000 . In these centres the registration of births and deathe was done directly by the staff of the Public Health Department. The inveatigators wers thus people - with the necessary training and equipment. As each birth or death occurred, the particulars regarding the same were recorded in the spocified card and forwarded direct to the Ceusus Offios at the end of each month. The resulte obtained have amply justifiod the assumption that registration of birthe and deaths in these areas is more or less accurately carried on, by verification with the data obtained through the Population Census. The tabulation of the data was done in the Census Office. The tables prepared are mainly illustrative
of the uses to which vital statistics can be put. They are not exhaustive. As suggested in para I, in the case of births, the age of mother and in the case of deaths, the age of the deceased are fundamontally differentiating factors and honde the sorting of birth-cards was first done according to age of mother and the death-cards according to the age of the deceased. The birth-cards in each age-group of mothers wexe further sorted by community, means of livelihood of father, duration of marriage and rank of child born. Similanly the 'death-cards' in each age-group were further sorted by community, means of livelihood, cause of death and age of parents. It will be clear from the above that the method adopted will facilitate the extraction of the details required for a comprehensive stady of the subject.
4. In discussing the rpsults certain serious limitations of the. Enquiry have to be borne in mind. Firstly the Enquiry was confined to one year. The fact that the year chosen is a normal one from the point of view of public health and economic conditions, will, however enhance the value of the Enquiry. The second limitation is that the Enquiry has been confined to selected areas, viz., the Police Conservancy Towns and the Health Unit. Though the centres selected constitute the urban area only, the fact that in the State most of the Police Conservancy Towns are but outgrown villages will make it clear that the deductions from the data collected will generally apply to the rural population also. This is confirmed by the close approximation in most cases of the figures obtained by the Vital Statistics Enquiry with the population figures. The prosimity of these centres to the City or the municipal towns, where medical help in maternity cases is more easily available, constitutes an element of error but not to such an extent as to affect the general conclusions.
5. The total number of births registered in the areas selected was 7,432 in a population of 270,000 , thus giving a crude birth-rate of 28 per mille of the population. The number of deaths registered was 4,028 and the crude death-rate
was therefore 15 per mille. The number of infant deathe recorded was 949 thus giving a rato of 127 per mille of live births. Variations of these rates from region to region or from period to period will broadly indicate changes in public health conditions. Of the above three rates the infantile mortality rate is the most sensitive index of social conditions since it is directly and immediately affected by biological and environmental factors, economic condition of the . group dealt with, social customs, etc.
6. To illustrate by an example how the rates differ for different regions, the conservancy towns may be briefly classed under two groupsy one consisting of Aramboly, Bhuthapandy, Cape Comorin, Suchindram, Achanputhur and Samburvadakara and the other group consisting of the remaining towns. (For complete list refer to Table I at the end of this annexure.) In the former group the Tamilian element of the population predominates and their conditions correspond more or less to those prevailing in the neighbouring districts of Tinnevelly and Madura. In the remaining towns the Malayalee element predominates and they really represent the true conditions of the major portion of Travancore. The general averages howover have not deviated far from the avorage for the Malayalee group of towns since the percentage of total population in the Tamilian group of towns is only 13. This may be seen from the following table.

| Gronp of Towns | Birth rate per 1,000 | Death rate per 1,000 | Infantile mortality rate per 1,000 births |
| :---: | :---: | :---: | :---: |
| Tamilian | 37 | 22 | 199 |
| Malayalee | 26 | 14 | 111 |
| General Average | 28 | 15 | 127 |

Thus in the Tamilian areas the general mortality and the infant mortality-rate are higher than those prevailing in the other group. The constantaim of the Public Health staff is to bring down the mortality-rates of these areas when they are high, by ascertaining, controlling and regulating the factors which cause these variations. In the same manner the vital rates in the same region may vary from year to year.

Hence arises the necessity for keeping a continuous and complete record of vital statistics for each geographical unit. It is very apt that the recording of vital occurrences has been called the "book keeping of life" while the Census is'some. thing like a taking of stock at regular intervals.
7. Till recently it has boen assumed by popula. tion experts that the difference between the birthrate and death-rate will form a good index of the population growth and that so long as births exceed deaths the population may be considered to be increasing satisfactorily. More recent researches in vital statistics have revealed that this need not always be the case in as much as birthrates are different for different agegroups of mothers and it may happen that the apparent increase in births and decrease in deaths, may be merely the result of a favourable age-constitution and this favourable state of affairs may be suddenly replaced by quite unfavourable conditions due to changes in age-constitution. Since from the point of view of reproduction, women play a more prominent part it is highly essential that each girl born now should give birth at least to one girl before her death so that the population may replace itself adequately and this is the best index of population growth.
8. The following data are required to calculate what is generally called the net reproduction-rate which gives the ratio of future girls that will be born to every 1,000 girls now born:-
(i) Specific birth-rates at different agea of mothers from 15-50;
(ii) A life table showing the number of women who will survive at different ages according to current mortality-rates at each age;
(iii) Ratio of female births to total births; and
(iv) The proportions of married women to total women in each age-group.
Of these various requisites the Census will provide only the fourth. The remaining have to be obtained from a correct record of vital statistics. The results of the present Vital Statistics Enquiry have been utilised to extract the
required data on (i), (ii) and (iii) and theroly to get an idea of the current net reproduction-rato.
9. The 7,432 birthe recordod lave bean giouped acoording to the age of mothora. The totial number of married women living in eroh agngroup of mothor is also obtained from the Consus results. From these the speoifio birth-ratess are caloulated as below; .

| Age of mother. | No. of births for mothers | Total number of married Wouren | Numbor ot birthes por 1,000 marriexl woman. |
| :---: | :---: | :---: | :---: |
| 10-19. | 979 | 1,208 | 230 |
| 20-24 | 2,055 | 8,317 | 947 |
| 25-28 | 1,874 | 8,004 | 242 |
| $30-84$ | 1,281 | 7,065 | 167 |
| 85-39 | 888 | 6,804 | 141 |
| 40-44 | 200 | 4,470 | 45 |
| 45-49 | 51 | 8,345 | 15 |

10. Approximate specifio birth-ratos for naoh individual age have been workod out by graphical interpolation. These are given below. It may be noted that the birth-rate at the very early ages 15 or 16 is not so high as for the agos 10 or 20.. It is highest at about 23-24 and then steadily decreases till it falls to 0 after 50 . This is in accordance with the experienoe recorded of all countries.

| Ago | Specific Birth-ratax. (individual ager) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Children born per 1,000 married women. | Age | Children born per 1,000 married women. | Ago | Children born por 1,000 married wornen. |
| 15 | 222 | 27 | 231 | 30 | 100 |
| 16 | 226 | 28 | 221 | 40 | 87 |
| 17 | 229 | 29 | 211 | 41 | 72 |
| 18 | 232 | 30 | 200 | 42 | 54 |
| 19 | 285 | 81 | 102 | 43 | 43 |
| 20 | 237 | 32 | 185 | 44 | 37 |
| - 21 | 240 | 33 | 178 | 45 | 30 |
| 22 | 244 | 84 | 108 | 43 | 24 |
| . 23 | 246 | 35 | 154 | 47 | 10 |
| 24. | 248 | 36 | 144 | 48 | 14 |
| 25 | 245 | 37 | 120 | 49 | 7 |
| 26 | 240 | 38 | 115 | 50 | 2 |

11. The 4,028 deaths have been classified ac ${ }^{\circ}$ cording to the age of the deceased. The total population living in the areas selected in each age-group being known from the Census, the specific mortality rates for certain broad age-groups are calculated for males and females separately. In spite of the comparative smallness of the number of cards dealt with, it is noted that the law of mortality generally observed holds good for the State as a whole.

Mortality-rates by age and sex.

| Age-group. | Males. , | Females. |
| :---: | :---: | :---: |
| 0-1 | 143.2 | 111.5 |
| 1-5 | 195 | 28.7 |
| \%-10 | $4 \cdot 3$ | $4^{1} 1$ |
| 10-15 | $2 \cdot 5$ | - 27 |
| 15-20 | 40. | $4 \cdot 2$ |
| 20-25 | - 50 | $\bigcirc 5.5$ |
| 25-30- | 77. | $\therefore 71$ |
| 30-85 | 71 | 6.4 |
| 35-40 | $\cdots \% 8.6$ | 73 |
| 40-45 | 12.9. | - 8.5 |
| 45-50 | 16.6 | $11^{\circ} 0$ |
| $50-55$ | 18.5 | $12 \cdot 3$ |
| 55-60 | $30 \cdot 7$ | 20.5 |
| 60-65 | 51.9 | 32.5 |
| 65-70 | 61.6 | $58^{\circ} 0$ |
| 70 and over | 128.2 | 128.4 |

The slight inregularitios observed in the trend of the rates were smoothed out by meand of a graph and the mortality-rates for individual ages obtained by interpolation. The rates so obtained are given in column 4 of the Life Tables given at the end of this annexure. The following inferences are found to hold good.
(i) Between 0 and' 12 mortality among males is higher than that among females;-
(ii) Between 13 and 29 female mortality is higher;
(iii) After 29 female mortality is again lower.
12. Based on the mortality-rates estimated from the Vital Statistics Enquiry, a life table has been prepared, for males and females. This is the first life table prepared in this State from recorded vital statistics data. Starting
with 10,000 babies, we apply the mortality-rate at each age and successively calculate the number surviving and dying at each age till all of them die out. The average expectation of life at each age also has been worked out. A life table propared in 1931 from theorotically estimated mortality-zates gives figures for quinquennial ages only. The following table compares the figures, at decennial ages, of mortality-rates and expectation of life in 1931 and 1941. Even

though the mortality-rates for 1941 are. deduced from figures relating to conservancy towns only, we may not be wrong in inferning that the mortality rates for the State in 1941 are definitely lower than those that prevailed in 1931 and similarly the expectation of life in 1941 at all ages 'is higher than that revealed by the figures for 1931. Moreover the increase in female survivorship at all ages is greater than that in male survivorship. The fact that the female ratio in the general population is greater in 1941 than in 1931 can therefore be attributed at least in part to the increase in female survivorship. The sohemes of maternity and childwelfare work inauguxated during the last decade must have contributed to this.
13. Having constructed a life table for females and ascertained the speoific birth-rates for each individual age, the calculation of the total number of children that will be born to. 10,000 girls now born is an easy step. Applying the specific birth-rates to the number of women
who will survive at $15,16,17$, etc., to 50 , we find that the total number of children that will be born to 10,000 girls is 40,100 if all the girls get married. But in practice all these girls are not likely to get married. Taking into account only the proportions of those who will be married, it is noted that the total number of children will be reduced to 28,900 . The enquiry has further revealed that out of 7,432 births 3,827 are males and 3605 are females, the proportion of female to. total births being $48^{\prime} 5$ per cent. If this proportion is applied to the total number of children born to 10,000 girls as calculated above the total number of girls that will be born to 1,000 girls of today is 'found to be about 1,400 according to the current rate of marriages and fertility. The net reproduction rate is therefore $l^{\prime} 4$ which shows that the present age-constitution, mariage rates and fertility rates are quite satisfactory for adequate replacement and normal increase of population. The most important parpose for which: the Vital Statistics Enquiry was conducted viz, the calculation of the specifio birth-rates and death-rates the preparation of a life table and the calculation of the net reproduction rate, 'has been illustrated in this and the preceding paragraphs. In the following paragraphs othor salient features of the data collected are dealt with briefly.
14. It is observed that of the total of 7,432 births 5.011 or 67 per cent. are born to mothers below 30: Only 251 or 3 per cent. are born to those above 40 and about 30 per cent. to those between 30 and,40. These proportions may be assumed to hold good approximately at least for births in general in the State. The mean age of the mothers who give birth to children is 27, 4. The following table shows the -distribution of births according to the age of the father with the average age of the mother for each age-group of fathers. It is observed that $27^{\circ} 5$

| Age-group of father. | No. of births. | Percentage to total births. | Average age of mother |
| :---: | :---: | :---: | :---: |
| Below 20 | 6 | 0.1 | 17.5 |
| 20-24 | 455 | 6.1 | 18.1 |
| 25-29 | 1,606 | $21^{\prime 6}$ | 21.7 |
| 30-84 * | 1,883 | $22 \cdot 6$ | 25.1 |
| 35-39 | 1,639 | 22.1 | 28.8 |
| 40-44 | 1,028 | $13^{\prime} 6$ | $32 \cdot 9$ |
| 45-49 | 635 | $8 \cdot 5$ | $35 \cdot 4$ |
| 50-55 | 238 | $8 \cdot 2$ | $30^{\prime} 9$ |
| 55 and over | 142 | $2 \cdot 2$ | $36^{4}$ |

par cent, of the birthe are for fathers below 40 and only 2 par cent. take place in ruspeot of fathers above 55. The mean age of the fathers is $35^{\circ} 7$ so that the average of the differouce between the ages of the husband and wife is $8^{\prime} 3$. From the above table it is also seen that the disparity between the ages of the husband and wife is gruater with regard to the higher age groups of husbands. Thus husbends who are on the average 32.5 years have wives of average age $25^{\circ} 1$ yeara while those who are on the average 47.5 years have wives of average age $35^{\circ} 4$ years. After this agogroup of husbands the ohange in the avorage age of the wives who give birth to ohildron is not appreciable:
15. The following table shows the averago duration of marriage of mothers in eaoh agegroup and the average number of children born to thom.

| Age of mother | Average duration of. <br> marriage in year | Averagu number of <br> childron born in- <br> ciuding the prexent |
| :---: | :---: | :---: |
| ohild. |  |  |

A significant inference possible from the above table is that the average number of ohildren born to women for the various agegroups and particularly for the age-group 35-39, 40-44 and 45-49 is found to be comparatively highor than the average number recorded for the married women of these groups in the general population. It is likely that women with large families havo a tendency to give birth to more olildren after the age of 35,40 or 45 . The average age of the married women has been already shown to bo $27^{\circ} 4$ years and the averago duration of marriage is 10.3 years. The average age of marriage is therefore deduced to be $17^{\circ} 1$ years. When compared to this average it is found that the average age of marriage of the women who continue to give birth to children between 45 and 48 is also higher $\left(47 \cdot 5-25^{\circ} 4=22 \cdot 1\right)$ years. The average number of children born is $3 \cdot 8$. 1 Generally speaking about 53 per cent. of the total birthe occur in the case of mothers, the dura. tion of whose marriage is below 10 years and they
are either first, second or third births. Comparing individual ranks, it is seen that lat births predo. minate (about 20 per cent.), there being a steady decrease in the frequency of births of other rank. Similarly for births between different durations of marriage the frequency is greatest for duration below 5 years. The fall in frequencies must be due to the fact that fertility-rates decrease with age of woman (vide table on page 183).
16. The 7,432 births returned have been grouped according to the means of livelihood of the father in certain broad classes. Only under pasture and agriculture, industry, trade, professions and liberal arts, and unspecified labour have more than 500 cases been returned. Against public administration, 319 births have been recorded. A study of the births returned under the other means of livelihood may not be of any interest since their numbers are comparatively small. The following table shows the average age of the mothers returned against each prinoipal means of livelihood.

| Means of livelihood of father. | Number of births. | Average age of mother. |
| :---: | :---: | :---: |
| Agrioulture | : 2,643 | 276 |
| Industry | 901 | $27 .{ }^{\circ}$ |
| Trade | 1,336 | 271 |
| Public Administration | 318 | 27.9 |
| Professions and Liberal | rts 620 | 27.5 |
| Labour | 1,356 | 26.5 |

The average age will indicate the nature of the age-constitution of the wives. Since fertility is higher in the lower age-groups a lower average is conducive to higher birth-rate. It may be noted that the age-constitution of the wives of persons following public administration and professions is such as will bring down fertility; but in the case of labour, industry and trade the effect is just the reverse. The agriculturist will occupy; a middle place.
17. Since the figures for births returned against the various communities are too small it is not possible to compare the birth-rates for the different communities. The following table however shows the birth-rate calculated from population for the more important communitios
residing in the areas seleoted for the enquiry. It: appears that the Hindus and the Muslims have:

| Community. $:$ | Population. | Births. | Birth-rate. |
| :--- | ---: | ---: | ---: |
| Hindu | 163,000 | 4,621 | 28 per mille |
| Christian | 79,000 | 1,966 | 25 |
| Muslim | 28,000 | 845 | 30 |
| Total |  | 270,000 | 7,432 |

higher birth-rates than the Christians. The lower birth-rate for the Christians may be due to the fact that excepting for certain sections of the Syrian Christians, marriages take place among them at later ages.
18. Of the 7,432 births, 3,827 were males and 3,605 were females, the ratio of males to 1,000 female births being 1,061 . It is known that the ratio of males to females in the general population is only 1,007. Naturally it can be inferred that female survivorship is greater than that of male survivorship"in general.
19. It may be of interest to examine the varia tion of masculinity of birth for mothers of dif. ferent age-groups, different communities and for different durations of marriage, means of livelihood of father, etc. But the value of the data collected is very limited owing to the smallness of the numbers dealt with as well as the restricted area brought, under the enquiry. Masculinity in relation to age of mother.

| Age of mother. | Proportion of male birthe <br> to <br> $15-1,000$ <br> female births. |
| :---: | :---: |
| $20-24$ | 1,070 |
| $25-29$ | 1,090 |
| $30-34$ | 1,065 |
| $35-39$ | 1,011 |
| $40-44$ | 1,147 |
| $45-49$ | 700 |

One significant feature noted is that mascue linity is comparatively high in the earlier ages 15-19, 20-24 and $25-29$ and low in the higher. ages 40-44 and 45-49. ;Masculinity is very.

Masculinity vs. (Community.

| Community. | Proportion of male ta. <br> 1,000 female births. |
| :--- | :---: |
| Brahmin | 1,272 |
| Nayar | 1,059 |
| Ilava | 1,018 |
| Mualim | 1,280 |
| Syrian Christian | 1,101 |
| Nadar | 1,022 |
| Kammala | 1,000 |
| Vellala | 926 |

high for Brahmins and Muslims but Vellalas Nayars, Ilavas and Nadaxs record a low masculi-

Maseulinity vs. Means of Livelihood.

| Means of livelihood <br> of father. |  | Proportion of male births <br> to 1,000 female births. |
| :--- | :--- | :---: |
| Agriculture | $\ddots$ | 908 |
| Industry |  | 988 |
| Trade | 1,090 |  |
| Administration |  | 1,085 |
| Professions |  | 1,058 |
| Labour | 1,156 |  |

nity. On comparing the more important means of livelihood it is observed that in the case of labour proportionately more male children are born than in the case of the other means of livelihood.

Masoulinity vs. Rank of child.
Rank of child.
1
2
3
4
5
6
7
8.

Proportion of male to 1,000 femele births.
1,078
1,073
1,009
1,002
1,140
1,058
1,121
1,181

When masculinity is compared for births of different ranks it is observed that excepting in the case of 3rd and 4th births masculinity is generally high.


Masculinity is high in the earlier years of duration. At 15-19 years there is a fall. This is supported by the fact that the masculinity is found to be low among births by mothers of ages 40-49.
20. The most important olassification of deaths,viz, by age and sex has been discuseed in the earlier paragraphs in connection with the life table. The classification of deaths was also made according to means of livelihood of the deceased, community, cause of death and age of the dead and living parents. The results are shown in the tables at the end of this annezure.
21. The following table ahowe for each age of the decessed the proportion of mothers and fathers who are dead.

| Age of deceased | Proportion of mothers dead |  | Proportion of fathers dead |  |
| :---: | :---: | :---: | :---: | :---: |
| 0.1 | $2 \cdot 8$ per cent. |  | 1.8 per cunt. |  |
| 1-5 | $2 \cdot 6$ | 11 | 49 |  |
| 5-10 | 6.2 | " | $8 \cdot 7$ |  |
| 10-15 | 8.8 | 3 | 17.0 | 11 |
| 15-20 | 11.4 | " | $28 \cdot 7$ | " |
| 20-25 | $25^{\circ} 5$ | " | $45 \cdot 8$ | " |
| 25-80 | 80.1 | " | 11.2 | " |
| 30-85 | $48^{\circ} 5$ | " | $00^{\prime 7}$ | 11 |
| 35-40 | 04.1 | " | $77 \cdot 8$ | 11 |
| $40-46$ | 75.8 | " | $88 \cdot 2$ | " |
| 45-50 | $78^{\circ} 0$ | " | 01.7 | " |
| 50-55 | 88*7 | " | 1040 | " |
| $65-60$ | 85.9 | " | $100 \cdot 0$ | " |
| 60-65 | 97.2 | " | $100^{\circ} 0$ | 1 |
| 65-70 | 97* 8 | " | $100^{\circ} 0$ | in |
| 70 and over | $100^{\circ} 0$ | 11 | $100 \cdot 0$ | ' |

22. Naturally with the advancing age of the deceased, the proportions of mothers or fatbers dead also increase. For instance with rogard to deceased person aged $55-60,95^{\circ} 9$ por cont of the mothers and 100 per cent. of the fathers are dead. One noteworthy feature is that in the case of infant deathe the proportion of mothers dead is higher than the proportion of fathers dead. This is mostly due to the deaths. among women during child-birth. The table below shows for each agegroup of the doceased the average age at death of the mother and the. average age at death of the father. It is noted that excepting for one or two erratic cases, the higher the age of the deceased, the higher also is the age at death of the father or mother of the deceased. It substantiates a generally establishod finding that longevity has some relation to heredity.

|  | Average age at death of |  |
| :---: | :---: | :---: |
| Age of the deceased | $\sim$ |  |
|  | Mother | Father |
| - 0-1 | 28.8 | $40^{\prime 2}$ |
| 1-5 | $30^{\circ} 0$ | 86.2 |
| 5-10 | 81.0 | \$1.8 |
| 10.15 | $28 \cdot 8$ | 51.6 |
| 15-20 | $43^{\prime 7}$ | $40^{4} 8$ |
| 20-25 | $82^{\circ} 0$ | 51.2 |
| 25-80 | 474 | $48^{\circ} 4$ |
| 30-35 | 51.6 | $58^{\circ} 2$ |
| 85-40 | 54.8 | $60^{\circ} 8$ |
| 40-45 | $55 \cdot 9$ | 81.8 |
| 45-50 | $59^{\circ} 0$ | $80^{\circ} 0$ |
| 50-55 | 58.5 | $62^{\circ} 0$ |
| 55-80 | 68. 4 | 07.2 |
| 60-65 | 68.1 | $68^{\circ} 4$ |
| 65.70 | $65^{\circ} 4$ | $68^{\circ} 0$ |
| 70 and over | 67.0 | 71"4 |

Thus for persons deceased at 70 and over the average age of the mothers at death is $67^{\circ} 0$ and that of the fathers at death is $71^{\circ} 4$.
23. It is generally conceded that means of livelihood has some relation to mortality since some occupations are more conducive to longevity than others. A detailed analysis of the effect of the means of livelihood on mortality is not possible because the number of cards dealt with is too small. Only a few occupations have returned more than a hundred cases and the proportionate distribution of deaths calculated for certain broad agegroups for these is given below.

| Means of | Number of deaths | Proportion dying per mille at age |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Livelihood | ceturned | 0-20 | 20-60 | 60 \& over |
| Pasture \& Agriculture | 386 | 28 | 529 | 443 |
| Industry | 119 | 50 | 889 | 261 |
| Trade | 140 | 57 | 579 | 364 |
| Domestic Service | - 920 | 63 | 465 | 472 |
| Unspecified Labo | our 192 | 57 | 708 | - 235 |

The comparatively large proportions observed for the age-group 60 and above under pasture and agriculture and domestic service may indicate either that these occupations are favourable for longevity or that old persons also can continue these occupations. Similarly the high proportions for the agegroup $20-60$ under industry or labour indicate that these occupations are followed mostly by persons of middle age or that they are not favourable for longevity, I With regard to domestic service out of 920 persons returned 870 are females. For the other occupations the number of females returned are relatively very small.
24. Of the 4,028 deaths returned, $2,066 \mathrm{had}$ no occupations at all, i.e., they include children and wholly dependent persons. For the whole population in general it is observed that 498 per mille of those who die are below 20 years of age, 268 are between 20 and 60 and the rest (234) above 60 years. The following table shows
the crude deathrate calculated for the major communities. The Hindus and Musilms have

| Community | Number of <br> deaths | Population | Death rate per mille |
| :--- | :---: | :---: | :---: |
| Hindu | 2,617 | 163,000 | 16 |
| Christian | 976 | 79,000 | 12 |
| Muslim | 435 | 28,000 | 15 |
| Total | 4,028 | 270,000 | 15 |

higher death-rates than Christians. But as the birth-rate for Muslims and Christians is higher than that of Hindus the natural increase of the former is higher than that of the latter.
25. Of the major castes only Nayars, Ilavas, Muslims, Other Christians, Nadars and Kamma!as and Other Hindus have returned more than 200 deaths each in the year under enquiry in the selected centres. The following table shows the proportional distribution of deaths in certain broad age-groups for cortain communities.

|  |  | Proportion dying at ages |  |  |  |
| :--- | ---: | :---: | ---: | :---: | :---: |
| Community <br> (Caste) | Number of <br> deaths | Below 20 | $20-60$ | Above 60 |  |
| Nayar | 568 | 413 | 281 | 306 |  |
| Ilava | 437 | 458 | 311 | 231 |  |
| Vellala | 194 | 515 | 227 | 258 |  |
| Muslim | 435 | 538 | 248 | 214 |  |
| Syrian Christian | 197 | 457 | 298 | 244 |  |
| Kammala | 228 | 478 | 278 | 244 |  |
| Nadar | 237 | 477 | 244 | 279 |  |
| $\therefore$ |  |  |  |  |  |

It is noted that the Nayars show the highest proportion dying above 60 years and Muslims the least.
26. The 4,028 deaths returned have been classified according to certain major causes of death. A study of these figures has interest only from the public health aspect but has no direct bearing on the population problems. The value of the data is also limited by the fact that no statistios of morbidity are available, for unless the number of actual attacks under oach cause is known the incidence " of mortality cannot be measured.

The major cuuses of death are shown below along with percentage in each class of disease to the

| Cause of death | Number of deaths | Percentage to total |
| :---: | :---: | :---: |
| Siñalipox | 17 | 0.4 |
| Typhoid | 77 | 1.9 |
| Malaria | 28 | 0.7 |
| Fevers | 350 | $8 * 7$ |
| Dysentery \& Diarrhiea | 780 | $19 \cdot 3$ |
| Respiratory diseases | 744 | 18.4 |
| Diseases of the circulatory |  |  |
|  | 588 | $14 \cdot 5$ |
| Genito Urinary system | 50 | 1'2 |
| Maternal deaths | 62 | 1.5 |
| Acoidents | 87 | 2.2 |

total. Fevers, Dysentery and Diarrhoea, diseases of respiratory and the circulatory system predo. minate. Accidents also account for an appreciable number of deaths,
27. The following table shows the proportional distribution of deaths in certain broad age-groups for the more numerously returned of the causes.

| Cause of death | Number of deaths | Per mille dying in the ayes |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Bolow |  | above 60 |
| Typhoid | 77 | 545 | 455 | ..- |
| Fevers | 350 | 637 | ${ }^{\prime} 234$ | 129 |
| Dysentery and Diarrhoea | - 780 | 693 | 187 | 170 |
| Respiratory diseases | 744 | 375 | 421 | 204 |
| Diseases of the circulator system | y 583 | 182 | 336 | 482 |
| Maternal deaths | 62 | 258 | 742 | ... |
| Accidents | 87 | 414 | 494 | 02 |

From the above table it is seen that Typhoid, Fevers and Dysentery are more prevalent in the lower age-groups while diseases of the circulatory system are most prevalent in the higher age-group. Diseases of the respiratory system appear to be most prevalent in the middle agogroup.
28. In order to discover whether any periodicity exists in the variation of births and deaths it is necessary to have figures by months concerning a series of years. Since we have figures for one year only, such a process is not possible. Still the proportion of births to deaths (vital index) calculated for the various months will indicate. which are the most favourable monthe from the
standpoint of growth of population. The follors. ing table shows the vital indicos (births for every 100 deaths) caloulated for the various months.

| Month | Vital Indux |
| :--- | :---: |
| September | 107 |
| October | 880 |
| November | 194 |
| December | 179 |
| January | 168 |
| February | 289 |
| March | 185 |
| April | 187 |
| May | 172 |
| June | 178 |
| July | 180 |
| August | 181 |
| Total | 185 |

The vital index is above the avorage from September to November and Fobruary to April. It is very low for July, August, Docomber and January which are, as far as this State is concorned, considered as unhealthy months.
29. The vital indices calculated for cortain specified communities are also given bolow for comparison. A noteworthy feature is that the

| Commanity | Vital Indox |
| :--- | :---: |
| Brahman | 238 |
| Nayar | 180 |
| Ilava | 172 |
| Muslim | 194 |
| Syrian Christian | 838 |
| Nadar | 228 |

Syrian Christians have a comparatively high vital index.
30. Infantile mortality is the best indox of social welfare since it is susceptible to evon slight variations in public health, oconomio and other factors. The number of infant deaths recorded was 948 against 7,432 birthas thus giving a rate of 127 per 1,000 births. This is much lower than the rates prevailing in other parts of India which vary from 200 to 300 . It was already stated that on comparing different regions the Tamilian group of towng (Aramboly, Bhoothapandy, Cape Comorin, Suchindram, Achanputhur and Samburvadakara) bave a much higher infantile mortality rate ( 199 per 1,000 births) than the other towns, which have a rate only of 111 per 1,000 births. The difference must be mainly
due to the insanitary conditions, backwardness in education and unhealthy social customs of the Tamilian areas.
31. The following table shows the difference in infantile mortality with varying ages of mother and for certain communitios Age of mother vs. Infantile mortality

| Age of <br> mother | Number of <br> births | Number of <br> infant deaths | Infant deaths per <br> 1,000 births |
| :--- | ---: | :---: | :---: |
| $15-20$ | 979 | 132 | 135 |
| $20-25$ | 2,055 | 262 | 127 |
| $25-30$ | 1,974 | 208 | 105 |
| $30-35$ | 1,281 | 167 | 130 |
| $85-40$ | 889 | 133 | 149 |
| $40-45$ | 200 | 27 | 135 |
| 45 and above | 51 | 6 | 117 |


| Community ve. |  | Infantile mortality |  |
| :---: | :---: | :---: | :---: |
| Community | Nuraber of births | Number of infant deaths | Infant deaths per 1,000 birthe |
| Brahman | 250 | 37 | 148 |
| Nayar | 1,077 | 107 | 99 |
| Lava | 751 | 80 | 107 |
| Maslim | 845 | 116 | 137 |
| Syrian |  |  |  |
| Christian | 868 | 84 | 51 |
| Vellale | 287 | 54 | 188 |
| Kammala | 268 | 52 | 194 |
| Nadar | 540 | 52 | 96 |

Comparing different age-groups of mothers it appears that infantile mortality is low for the age-groups $20-25$ and $25-30$. The variations between communities are more marked. Nāyars, Ilavas, Syrian Christians and Nadars have low infant mortality rates. For Brahmans,

Muslims, Vellạas and Kammalas the rates are high.
32. The number of still births recorded in the year under enquiry was 168 ( 96 males and 72 females) giving a ratio of 22 per 1,000 live births. As the number of cards returned under this item is very small and as still births are of no special significance in vital statistical studies no detailed classification of these was attempted.
33. From the preceding paragraphs it may bs seen that a correct record of vital statistics is required for the formulation of population policies. The increasing attention bestowed on population problems and the intimate bearing which these have on social planning whether in .the field of public health, education, or economic development make it very essential to make the registration of births and deaths as accurate as possible. The registration of births and deaths is a tairly old practice and all civilized Governments have created administrative machineries to carry on this item of work, but perfection has been attained only in some of them. This is possible only by the hearty comoperation of the public with the Governments concerned. The public have in their turn to be properly enlightened by persistent propaganda in regard to the uses of vital statistics. If the present Vital "Statistics Enquiry in the State has served this purpose, to whatever little extent it may be, it can be said to have justified the time and effort spent on the same.


TABLES ON VITAL STATISTICS
TABLE 1－Classification of births according to months

| Months |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conservancy town |  |  |  | $\begin{aligned} & \text { \& } \\ & \stackrel{\text { E }}{0} \\ & \text { © } \end{aligned}$ | 关 |  | $\begin{aligned} & \text { 荡 } \\ & \text { K } \\ & \text { K } \end{aligned}$ | 曹 |  | $\stackrel{\unrhd}{E}$ | $\frac{2}{\Xi}$ | － | Total |
| 1 | 2 | 3 | 4 | 5 | ¢ | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Aramboly | 22 | 24 | 18 | 20 | 16 | 19 | 19 | 26 | 28 | 23 | 28 | 28 | 271 |
| Bhuthapandy | 12 | 12 | 12 | 10 | 14 | 16 | 27 | 17 | 11 | 13 | 17 | 18 | 178 |
| Cape Comorin | 18 | 12 | 16 | 19 | 8 | 11 | 12 | 9 | 14 | 14 | 16 | 15 | 164 |
| Suchindran | 16 | 7 | 8 | 10 | 8 | 12 | 13 | 20 | 11 | 14 | 10 | 12 | 141 |
| Eraniel | 24 | 23 | 22 | 16 | 27 | 25 | 19. | 34 | 17 | 28 | 35 | 30 | 300 |
| Thiruvithancode | 16 | 17 | 14 | 17 | 15 | 19 | 13 | 8 | 14 | 23 | 9 | 17 | 182 |
| Thirnvattas | 2 | 2 | 4 | 5 | 8 | 4 | 5 | 7 |  | ， | 3 | 4 | 55 |
| Parassala | 0 | 10 | － 9 | 10 | 16 | 24 | 5 | 6 | 8 | 8 | 13 | 10 | 128 |
| Nedumangad | $\cdots$ | 5 | 4 | 5 | 4 | 3 | 6 | 7 | 6 | 2 | 9 | 4 | 55 |
| Varkala | 14 | 10 | 14 | 12 | 10 | 3 | 9 | 9 | 9 | 12 | 12 | 4 | 118 |
| Kottarakkars | 18 | 7 | 13 | 11 | 16 | 25 | 14 | 15 | 15 | 15 | 13 | 14 | 176 |
| Punaliar | 45 | 19 | 23 | 26 | 32 | 42 | 26 | 23 | 36 | 36 | 27 | 31 | 366 |
| Achanputhur | 18 | 15 | 18 | 33 | －22 | 14 |  |  |  |  |  | 28 | 240 |
| Samburvadakara | 23 | 16 | 14 | 24 | ． 28 | 17 | 35 | 17 | 31 | 31 | 26 | 30 | 292 |
| Karunagapally | 26 | 16 |  | 13 | 18 | 14 | 15 | 7 | 16 | 27 | 10 | 16 | 187 |
| Haripad | 19 | 25 | 26 | 26 | 19 | 19 | － 17 | 24 | 29 | 26 | 19 | 22 | 271 |
| Mavelikara | 40 | 31 | 37 | 30 | 29 | 37 | 26 | 17 | 31 | 33 | 30 | 30 | 371 |
| Chengandur | 27 | 22 | 24 | 21 | 22 | 35 | 24 | 26 | 31 | 45 | 25 | 23 | 325 |
| Pathanatuthitta | 15 | 13 | 18 | 12 | 11 | 10 | 11 | 11 | 15 | 10 | 11 | 3 | 148 |
| Ambalapufa | 30 | 42 | 35 | 24 | 23 | 32 | 23 | 23 | 21 | 29 | 28 | 18 | 328 |
| Sherthala | 3 | 13 | 24 | 14 | 13 | 13 | 13 | 11 | 9 | 18 | 17 | 14 | 162 |
| Ettumanur | 21 | 27 | 12 | 18 | 15 | 20 | 10 | 8 | 18 | 18 | 13 | 17 | 197 |
| Minachil | 8 | 9 | 8 | 7 | 10 | 9 | 12 | 4 | 10 | 7 | $y$ | ¢ | 97 |
| Mundakayam | 12 | 14 | 22 | 13 | 13 | 14 | 16 | 13 | 15 | 20 | 17 | 31 | 200 |
| Muvattupala | 21 | 25 | － 19 | 20 | 25 | 23 | 15 | 16 | 21 | 7 |  | － | 192 |
| Thodupuia | 20 | 14 | 16 | 15 | 8 | 12 | 13 | 13 | 8 | 6 | 19 | 1 | 144 |
| Perumpavoor | 23 | 17 | 17 | 22 | 12 | 22 | 14 | 22 | 15 | 21 | 14 | 14 | 213 |
| Neysattinkara Health Unit | 143 | 171 | 175 | 176 | 175 | 153 | 179 | 161 | 178 | 178 | 142 | 99 | 1，931 |
| Total | 639 | 818 | 636 | 629 | 617 | 658 | 613 | 564 | 638 | 688 | 601 | 836 | 7，432 |

TABLE II-Classification of births by age and community of mother and sex of child


# TABLE III-Classification of births according to age of mother, age of father and sex of child 



Age of mother and sex of child


## TABLE IV -Classification of births according to age of mother, duration of marriage and sex of child



TABLE $V$-Classification of births according to age of mother and rank and sex of child



## TABLE VI－Classification of births according to age of mother， occupation of father and sex of child

| Age of mother and eex of child |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Occupation of father | Below 15 |  |  | 16－18 |  |  | 20－24 |  | 25－29 |  |  |  | 30－34 |  |  |
|  | 粊 品 品 | $\begin{aligned} & \text { 罢: } \\ & \text { en : } \end{aligned}$ | 器 | $\begin{aligned} & \text { \#0 } \\ & \text { O} \\ & \text { O} \\ & \text { An } \end{aligned}$ | $\frac{\stackrel{y y}{w}}{\frac{1}{4}}$ |  |  | $\frac{\&}{8}$ | $\begin{gathered} \text { 愚 } \\ \text { E } \\ \text { © } \end{gathered}$ | $\begin{aligned} & \text { 曷 } \\ & \text { 念 } \end{aligned}$ | $\frac{8}{\frac{y}{x}}$ | $\frac{8}{4}$ 慁 品 | $\begin{aligned} & \text { 有 } \\ & \text { \& } \\ & \text { \& } \end{aligned}$ | $\begin{aligned} & \text { 思 } \\ & =0 \end{aligned}$ | $\stackrel{8}{\text { \％}}$ |
| 1. | 2 | 3. | 4 ： | 5 | 8 | 7 | 8 | 9 | 10 | 11 | 12 | 18 | 14 | 15 | 16 |
| Exploitation of A nimals and vegetation |  |  |  | 824 | 161 | $188^{\circ}$ | 721 | 377 | 844 | 728 | 344 | 379 | 488 | 287 | 218 |
| Industry | 1 | 1 | $\cdots$ | 122 | 64 | 68 | 278 | 188 | 140 | 216 | 108 | 111 | 148 | 89 | 68 |
| Transport |  |  | － | 5 | 4 | 1 | 17 | 9 | 8 | 12 | 8 | 1 | 8 | 2 | 1 |
| Trade |  |  | $\because$ | 216 | 112 | 104 | 345 | 179 | 168 | 848 | 188 | 180 | 239 | 124 | 115 |
| Public Force |  |  | $\cdots$ | 2 | 1 | 1 | 5 | 4 | 1 | 8 | ． 5 | 8 | 2 | － | 2 |
| Public Administration | 1 | $\cdots$ | 13 | 28 |  | 18 | 97 | 44 | 58 | 78 | 49 | 80 | 62 | 28 | 31 |
| Protessions and Liberal， | － | ：${ }^{\text {a }}$ | － | 78 |  | 38 | 172 | 86 | 80 | 161 | 88 | 78 | 112 | 46 | ne <br> 16 |
| Pension |  | ＊ | － | ． |  | $\because$ | ＊ | ＊ | ＇• | －• | ＂ | － | 1 | 1 | 16 |
| Domestic service | $\cdots$ |  | －• | 18 | 7 | 9 | 48 | 28 | 17 | 88 | 20 | 18 | 28 | 12 | 11 |
| Unspecified labour |  |  | $\cdots$ | 174 | 94 | 80 | 368 | 205 | 168 | 367 | 187 | 170 | 244 | 120 | 134 |
| Unproductive | －$\cdot$ |  |  | 2 | 2 | ． | 1 | 1 | ＂ | － | ＂ | ＇ | 1 | 1 | ＊＊ |
| Student | 1 | $\cdots$ | 1 | 8 | 1 | 2 | ＂ | ＂ | ＂ | ＂ | ． | － | ＂ | $\cdots$ | ＊ |
| Nil ． | －． | $\bullet \cdot$ | －• | 9 | 5 | 4 | 13 | 8 | 5 | 22 | 14 | 8 | 10 | 6 | 4 |



| Occupation of father | Age of mother and sez of ohild |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 35－39 |  |  | 40－44 |  |  | 45 and above |  |  | Total |  |  |
|  |  | $\stackrel{\text { © }}{\stackrel{\text { Qu}}{4}}$ | 䍐 炭 品 |  |  |  | $\begin{aligned} & \text { 置 } \\ & \text { d } \\ & 0 \end{aligned}$ | $\stackrel{\mathscr{E}}{\underset{E}{E}}$ | $\begin{aligned} & \text { 劵 } \\ & \text { 曹 } \\ & \stackrel{y}{4} \end{aligned}$ | 若 | 曹 | 睪 |
|  | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| Exploitation of AnimalB and vegetation | 344 | 176 | 168 | 76 | 32 | 43 | 20 | 10 | 10 | 2，848 | 1,321 449 | 1,322 462 |
| Industry | 110 | 51 | 69 | 28 | 10 | 16 | 6 | 2 |  |  |  |  |
|  | 2 | 1 | 1 | 1 | 1 | ＊ | ＂＇ | $\cdots$ |  | 40 | 25 | 18 |
| Transport |  |  | 68 | 32 | 14 | 18 | 10 | 2 | 8 | 1，236 | 697 | 630 |
| Trade |  | 78 |  |  |  |  |  |  |  | 17 | 10 | 7 |
| Public force |  | ＂ | $\cdots$ | － | － | ． |  | ， |  |  | 186 | 168 |
| Public Administration． | 40 | 26 | 14 | 11. | 8 | 8＊ | 1 | 1 | ＂＇ | 318 |  |  |
|  |  |  | 29 | 16 | 8 | 8 | 3 | 1 | 2 | 620 | 818 | 302 |
| Professions and Libersl | 78 | 49 | 29 | 10 |  | 1 | 1 | ．．． | 1 | 4 | 2 | 2 |
| Pension | 1 | 1. | ＂ | 1 | ＊ | 1 | 1 | 1 | $\cdots$ | 131 | 71 | 60 |
| Domestic service |  | 5 | 4 | 1 | ＂ |  |  |  |  |  | 727 | 829 |
| Unspecified labour |  | 85 | 71. | 37 | 22 | 15 | 10 | 4 | 6 | 1，356 | 72 |  |
|  |  | 2 |  |  | ． | $\cdots$ | ＊＊ | ＂．＊ | ＂＇ | 6 | 6 | ＊＇ |
| Unproductive |  | 2 | －＊ | ． |  |  |  |  |  | 4 | 1 | 3 |
| Student | ＊ | － | ＂ | $\cdots$ | ． |  | $\cdots$ | $\ldots$ |  | 55 | 34 | 21 |
| Nil |  | 1 | －• | － | － | －• | ．．． | ＂＊ | ．．． |  |  |  |
| Total | 889 | 476 | 415 | 200 | 90 | 110 | 51 | 21 | 30 | 7，432 | 8，827 | 3，605 |

TABLE VII-Classification of deaths according to months

N. B.--11 cases were ownerless dead badies. Detailed information regarding these were not available. They have been

TABLE VIII－Classification of deaths by age，community and sex of the deceased


| Age and rex of the deceased |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Community of the deceased |  | 40－45 |  | 45－50 |  | 50－55 |  | $55-60$ |  | 60－65 |  | 65－70 |  | 70 and above |  |  | Totni |  |
|  |  | $\stackrel{\text { g }}{\vec{y}}$ |  | $\stackrel{\text { 巻 }}{\stackrel{\rightharpoonup}{\|c\|}}$ |  |  |  | $\stackrel{\stackrel{\infty}{0}}{\stackrel{0}{4}}$ |  | $\stackrel{\text { 券 }}{\underset{\sim}{4}}$ |  | $\begin{aligned} & \text { 爵 } \\ & \text { 萢 } \end{aligned}$ | $\begin{aligned} & \text { g } \\ & \text { 兑 } \\ & \text { a } \end{aligned}$ | -券 |  |  | $\frac{\stackrel{y}{4}}{\frac{0}{n}}$ |  |
| －．．－ | － | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 80 | 81 | 82 | 38 | 84 | 85 | 86 |
| Brahman | $\because$ | 2 | $\cdots$ | 3 | 1 | 1 | － | 1 | 1 | 8 | 8 | 4 | 8 | 4 | 8 | 105 | 68 | 82 |
| Nãyar |  | 6. | 11 | 10 | $15 \cdot$ | 12 | 6 | 20 | 15. | 25 | 17 | 19 | 18 | 41 | 54 | 560 | 280 | 280 |
| Ilava |  | 12 | 8 | 10 | 12 | 10 | 4 | 7 | 13 | 13 | 12 | 12. | 8 | 28 | 88 | 487 | 209 | 228 |
| Muslim |  | 9 | 5 | 16 | 2 | 8 | 6 | 13 | 5 | 20 | 7 | 14 | 7 | 23 | 22 | 485 | 258 | 177 |
| Syrian Ohristian |  | 8 | 2 | 6 | 4 | 8 | 3 | 2 | 1 | 9 | 5 | 4 | 4 | 18 | 7 | 187 | 116 | 68 |
| Other Christians |  | 15 | 9 | 16 | 11 | 14 | 10 | 20 | 9 | 20 | 11 | 14 | 21 | 51 | 44 | 779 | 410 | 860 |
| Other Hindus | ： | 11 | 14 | 13 | 6 | 14 | 8 | 15 | 11 | 13 | 13 | 20 | 20 | 82 | 54 | 740 | 381 | 365 |
| Vellala |  | 4 | － | 2 | 4 | ． | 8 | 4 | 1 | 10 | 4 | 1 | 5 | 18 | 17 | 194 | 96 | 98 |
| Kammala | － | 5 | 1 | 5 | 4 | 5 | 3 | 8 | 9 | 5 | 4 | 8 | 5 | 8 | 25 | 228 | 110 | 116. |
| Nadar |  | 5 | 3 | 6 | － | 2 | 4 | 6 | 3 | 8 | 3 | 4 | 6 | 23 | 22 | 237 | 123 | 114 |
| Pulaya |  | 1 | － | － | 1 | －• | ＊ | 6 | 1 | 1 | 1 | － | ＊ | 2 | 8 | 58 | 28 | 30 |
| Paraya |  | 1 | 1 | － | ＊ | － | － | － | 1 | 1 | ＊ | －＊ | 1 | 1 | 2 | 26 | 17 | 1 |
| Kurava |  | ＂ | $\cdots$ | $\cdots$ | － | $\cdots$ | ＊＊ | 1 | －• | 1 | 3 | ＊ | ＊ | 2 | 2 | 10 | 7 | 12 |
| Total |  | 79 | 54 | 87 | 60 | 80 | 52 | 103 | 70 | 120 | 83 | 100 | 98 | 242 | 298 | 4，028 | 2，088 | 1，94a |

TABLE IX-Classification of deaths by age, occupation and sex of the deceased


Agee and sex of the deceased


TABLE X－Classification of deaths by age and sex of the deceased and the cause of death

| Canse of death | Below 1 |  | 1－5 |  | 5－10 |  | 10－15 |  | ，15－20 |  | 20－25 |  | 25－80 |  | 30－85 |  | $3 \mathrm{Br}=10$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\frac{\mathbb{E}}{\mathbb{E}}$ |  | $\begin{aligned} & \frac{8}{0} \\ & \text { 思 } \end{aligned}$ |  | $\begin{aligned} & \frac{8}{\#} \\ & \text { m } \end{aligned}$ |  |  | 思 <br>  <br>  | $\frac{\frac{8}{x}}{\frac{6}{x}}$ | 8 畨 总 | $\frac{8}{\frac{8}{6}}$ | $\begin{gathered} 8 \\ \text { 8 } \\ \text { 晶 } \\ \hline \end{gathered}$ | $\frac{\square}{x}$ | $\begin{aligned} & \text { 思 } \\ & \text { 最 } \\ & \hline \end{aligned}$ |
| 1 | 2 | 8 | 4 | 5 | 6 | 7 | 8 | 9 | $10^{-}$ | 11 | 12 | 18 | 14 | 18 | 16 | 17 | 18 | 10 |
| Small－pox | － | 2 | $\therefore$ | 2 | $\cdots$ | － | － | $\cdots$ | ．． | － | ＊ | ＂ | 2 | 1 | 1 | $\cdots$ | 1 | 1 |
| Typhoid | $\cdots$ | 1 | 5 | 5 | 6 | 4 | 7 | 2 | 6 | 7 | 4 | 4 | 8 | 7 | 1 | 1 | 2 | ＂ |
| Malaria． | $\cdots$ | $\cdots$ | 1 | 1 | 1 | 2 | － | 1 | 2 | ． | $\cdots$ | $\cdots$ | 3 | － 9 | 1 | 2 | 1 | 2 |
| Other fevers | 39 | 33 | 35 | 54 | 13 | 7 | 10 | 12 | 14 | 6 | 6. | $B$ | 4 | 12 | 8 | 2 | 7 | 8 |
| Accident | 2 | 1 | 6 | 1 | 4 | 5 | 6 | 3 | 4 | 4 | 4 | 8 | 8 | － | 3 | 2 | 8 | 1 |
| Dysentery and Diar－ rhoea | 105 | 86 | 138 | 150 | 19 | 24 | 3 | 8 | 5 | 7 | 11 | 4 | 9 | 6 | 5 | 7 | 3 | 0 |
| Respiratory diseases． | 68 | 64 | 38 | 48 | 10 | $\theta$ | 0 | 11 | 14 | 18 | 16 | 20 | 30 | 10 | 21 | 20 | 21 | 20 |
| Genito urinary dis－ | 1 | $\cdots$ | － | $\cdots$ | 1 | ．． | 1 | ．． | $\cdots$ | － | ． | ＊＊ | 2 | 1 | 2 | 2 | 1 | 2 |
| Disenses of the circu－ latory system | 5 | 2 | 18 | 38 | 9 | 14 | 4 | 10. | 2 | 3 | 6 | 3 | 5 | 15 | $B$ | 7 | 12 | 10 |
| Other causes | 309 | 231 | 62 | 87 | 20 | 14 | 5 | 6 | 7 | 18 | 7 | 24 | 7 | 10 | 12 | 14 | 13 | 11 |
| Total | 529 | 420 | 304 | 381 | 83 | 79 | 45 | 49 | 63 | 66 | 65 | 88 | 78 | 78 | 60 | 87 | 68 | 86 |



TABLE XI-Distribution of deaths according to age of the deceased and the age of the deceased's mother (living and dead)


Age of mother living and dead

$N, B .-$ In the care of dead parente, the age group specified represents the age at the time of death

TABLE XII－Distribution of deaths according to age of the deceased and the age of the deceased＇s father（living and dead）

| Age of father living and dead |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\text { Below } 15$ |  | $\xrightarrow[\sim]{\text { 15-18 }}$ |  | $\begin{gathered} 20-24 \\ \sim \end{gathered}$ |  | $\xrightarrow[\sim]{20-29}$ |  | $\overbrace{\overbrace{}^{30-34}}$ |  | $\xrightarrow[\sim]{\text { 35-39 }}$ |  | 40-44 |  | $\begin{gathered} 48-49 \\ -20 \end{gathered}$ |  | $\xrightarrow[\sim]{80-84}$ |  | $\xrightarrow[\sim]{\text { 68 }}$ |  |
| Age of the <br> 1 deceased | $\begin{gathered} \text { 品 } \\ \frac{8}{n} \end{gathered}$ | $\begin{aligned} & \text { rad } \\ & \text { áa } \\ & \text { A. } \end{aligned}$ | $\begin{aligned} & \text { 品 } \\ & \text { a } \end{aligned}$ |  | 劳 |  | $\stackrel{\infty}{\stackrel{\infty}{E}}$ |  | 槵 |  | $\frac{\infty}{\frac{1}{5}}$ |  | $\frac{E}{E}$ | $\begin{aligned} & \text { "̈ } \\ & \text { 日, } \end{aligned}$ | 菭 | O゙ | E | $\begin{aligned} & \text { \# } \\ & 0 \\ & 0 \end{aligned}$ | $\frac{a 0}{5}$ | W゙ |
| 2 | 2 | 3 | $\mathrm{g}_{4}$ | 5 | 6 | 7 | 18 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 18 | 17 | 18 | 10 | 20 | 21 |
| 0－1 | ＊＊ | － | － |  | 87 |  | 186 | 1 | 194 | 1 | 188 | 1 | 140 | 1 | 89 | 3 | 80 |  |  |  |
| $1-5$ | $\cdots$ | $\because$ | $\because$ | ．． | 15 | 1 | 101 | 7 | ． 139 | 5 | 167 | 8 | 105. | 5 | 77 | 2 | 20 | 2 | 17 | 2 |
| $5-10$ | $\cdots$ | $\because$ | $\cdots$ | ．． | ． | $\cdots$ | 71 | 2 | 82 | 1 | 41 | 8 | 28 | 2 | 15 | 2 | 18 | 1 | 8 | 1 |
| 10－15 | $\cdots$ | 。 | ．． | ． | ． | ．． | 1 | － | 8 | ．． | 10 | 2 | 16 | 2 | 20 | 8 | 0 | 1 | 8 | 4 |
|  |  |  | $\cdots$ | －＊ | ＊ | ＊ | $\cdots$ | － | 1 |  | 1 |  | 18 |  | 20 | 5 | 18 | 2 | 12 | 2 |
| 20－25 | $\because$ | $\ldots$ | $\cdots$ | $\cdots$ | ． | ．． | $\cdots$ | ．． | $\cdots$ | 2 | ］ | 4 | 5 | ${ }^{5}$ | 18 | 12 | 11 | 18 | 8 | ${ }^{\text {H }}$ |
| 25－30 | $\because$ | $\cdots$ | $\cdots$ | $\cdots$ | ＊＊ | ＊ | ．． | $i$ | － | i | $\cdots$ | $\ddot{8}$ |  | 8 | 2 | 8 | 19 | ${ }_{8}^{8}$ | 11 | 12 |
| 30－35 | $\because$ | $\cdots$ | ． |  | ．． | ．． | ． | 1 | ．． | 1 | ．． | 3 | ．． | 4 | ．， | 6 | 1 | 0 | 0 |  |
|  |  |  |  |  | ．． | $\cdots$ |  |  | ＂ | 2 | ． | 8 | －• | 4 | －• | 5 | － | 14 | 2 | 0 |
| $\begin{aligned} & 35-40 \\ & 40-45 \end{aligned}$ | $\because$ | $\because$ | $\because$ |  | ．． | ．． | $\because$ |  | ＂ | 1 | ． | 8 | － | 4 | $\cdots$ | 5 | ．． | 9 | 1 | 14 |
| ${ }_{45-50}$ | $\because$ | $\because$ | $\because$ | ． | $\cdots$ | ．． | $\cdots$ | 1 | ．． | 1 | ．， | 3 | $\cdots$ | 1 | $\cdots$ | ${ }_{8}^{8}$ | －． | 14 | ． | 18 |
| 50－55 | ． | ， | ． | ． | ．． | ． | －• | － | － | 2 | － | 1 | ． | 3 | －• | ． 7 | － | 17 | ． | 9 |
|  | $\cdots$ | ． | － | ＊ | － | ． | $\cdots$ |  | $\bullet$ | 1 | －• |  | ＊＊ | 2 | ＊ | 5 | ． | 6 | ＂ |  |
| 60－65 | $\because$ | ．． | $\ldots$ | ． | － |  | $\cdots$ |  | － | 1 | － | 1 | $\cdots$ | 4 | $\because$ | 2 | $\because$ | 10 | $\cdots$ | 20 |
| 65－70 | $\cdots$ | ．． | $\bullet$ | － | ．． | 1 | ． | $\because$ | － | 2 | $\because$ | $\frac{1}{5}$ | $\because$ | ${ }_{6}^{8}$ | $\because$ | 7 | $\because$ | $\stackrel{9}{24}$ | $\because$ | 11 |
| $\cdots 70$ and above | ．． | ． | － | － | ＊ | － | －• |  | － | 4 | －• | 5 | ＇ | 6 | － | 6 | － | 24 | ＇ |  |

Age of father living and dead


LIFE TABLE-MALES.
(Prepared from smoothed specific mortality rates obtained from the vital statistical enquiry)


## LIFE TABLE-FEMALES <br> (Prepared from smoothed specific mortality rates obtained from the vital. statistical enquiry)



## APPENDIX III.

## Random"samples.

The study of a population neoessarily im. plies the study of the traits or characteristics that are common to the individuals in the group. Certain ebaractoristics are masuruble while others, though non-measurable, allow of qualitative estimation. These values are the constants called parameters that define the population.
2. The study of a population involves the evaluation of the parameters referred to above. The changes noticeable in these parameters due to differences in time and space indicate the trends in growth of the population: Hence a correct estimate of the parameters is of funda. mental importance in all population studies.
3. The Census that occurs once in ten years is an attempt at measuring the traits in the popu-lation-men and women in a country. The census oporations, in view of the fact that all the individuals in the country have to be enumerated, require the setting up of a very costly, complicated and unwieldy machinery. Even assuming that the cost should not stand in the way, it has to be observed that the Census enumerators are invariably new to the work, being mostly teachers from the various schools in the State. However correct and precise the instructions given to the enumeratoxs may be; it is only natural that a margin of error should creep in during the census work. Apart from the difficulties of the field work, the Tabulation in the Census Office is much too heary and laborious a process. Any one who has sorted the Census Cards before the Tables are presented in the form seen in the Censtss Report, will bear ample testimony to the time required for the different stages in the work and the possibilities of a slip here or there that wili bring about disparities between the final totals arrived at.
4. Thus from the different points of view from which the census operations can be looked at, one feels the uncomfortable misgiving if this laborious method is not in a sense 'primitive'. In statistical studies, as in all fields of human
aetivity, the aim should be to secure the maximum benefit with minimum expenditure and time. In spite of the supposed accuracy possible in the census one would unhesitatingly go in for a simpler and more convenient mode of approach where there is perfect certainty of the extent of erros that may be committed and where cost and time can be saved. To quote the Census Commissioner for India "If we can through improvement or skill, so lessen our error and extend our scope that we can ostablish types from which we can accurately project the whole we have before us the possibility of a far more useful application of our limited and relatively inextensible financial resources. That is, of course, sampling ".
5. A brief reference to the sampling method to bring out the advantages and limitations therein is only appropriate. The sampling method is resorted to in ordinary life almost involuntarily, by every one in making judgments or inferences. When you wish to buy anything from the bazaar you satisfy yourself as to itsiquality by testing it with the help of the sample. In large manufacturing concerns, the same method is employed in the control of quality of manufactured goods. "In Statistical sampling, however, we are not quite in the position of the commercial traveller and there is a great deal to do in the actual checking of our methods and the quality of the sample we produce by them".
6. Consider a homogeneous population for the sake of simplicity. The values of the characteristics for the large majority of individuals will lie in fairly short intervals round the corresponding values of the parameter in such populations. There will no doubt exist a small minority lying outside the regions so specified. If therefore, a sample is taken from such a population one can expect that most of the individuals in the sample will correspond to those that are in the neighbourhood of the population parameters and in consequence, the
sample can be utilised in estimating these parameters.
7. "The object of the sample is to afford an indication of the whole of which it is a fragment; and the better the sample, the more confidently and closely we can predict the whole". The success of the sampling method, therefore, depends on so designing it as to give a miviar. ture form of the original population. In the case of homogeneous groups, the end is achieved by picking out at random the individuals for the sample. It may mathematically be demonstrated that the method is correct and that the sample gives the values of the population constants with accuracy'that can be measured. The random selec. tion to form the sample has to be done by the lottery method. But when the population is large and where the individuals cannot be numbered in serial order, the method is not applicable. On' of the devices usually adopted to get a random sample from large populations is known as the n'th method. If it is desired for instanee to take a ten per cent. sample of the houses in a locality, the procedure is to take every tenth house that comes in by following a particular order in counting them. The method is not so efficient as the one nivolving the use of Random Sampling numbers. But the shortcomings may be overlooked wiren the sample itself is large.
8. It has been observed that the random sample is applicable only in the study of hamo. geneous populations. An indiscriminate use of the random sample in studying what may be callod heterogenoous populations will 'only give distorted facts regarding the population. In such cases the method for scientific inference is to resort to the Stratified Random Sample. This method has boen discussed at longth in the volume on Economic Survey.
9. The study of population problems by the sampling method necessarily involves the important step of taking a fairly good and representative sample. The theoretic method of the Stratified Representative Sampling is rundoubtedly more efficient. In studies based on this method,
stress is plaoed ou an intenaivo. nypraisal of the fentures relating to the many-sidod activities of the individuals forming the population. The study is in this rospect miaroscopio by taking soctions. Suob a study may not be neoossary in social and administrative problems where indices showing brond terrdencies aloue are required. The agercomposition of the population, thoir civil condition, litorany and occupational facilities-are some of the frotors that require measuremont, in tho bromd sense, before the trends oan be indionter. If each of these iteme has to be studied in dotail the ouly method available is the one mentionol above. But if only a birds-eyeview that gives the salient features of the group-is requirod the question may be asked why not the Rindom Sample method. "The predictive qualitios of a Statistical sample of this kind will vary according to the aspect under examination and in general will be best where the aspect is univer. sally present in the population". The wample should be selected by grouping throughout the entire group. Naturally the Prinoiple of Insufficient Fieason-in other words, the Principle of Equal Distribution of Ignoranco-urges one to assert that the Random Sample will give a miniature population containing all the traits of the parent group. How far this is correct onu be judged ouly by the results it yields.
10. The method suggested by the Census Commissioner for India enables a comparison of the Sample values with the population values. The results of the comparison may be accidontal. Before the final verdict on the utility of the method could be given the question as to how the results based on this method behave in repeated samples has to be gone into. But the possibility of verifying the rosults with the population censua figures has not wecessitated the further subdivision of the sample for noting the sampling fluctuations. It may however be pointed out that the surprising agreement between the sample values and the population values obtained in the prosent investigation warrants the statement that the linethod is
sufficiently reliable and efficient. It was sug. gested by the Census Commissioner for India that a $1 / 50$ sample of the population should be selected and that the sample slips so selected should be sorted for certain Imperial Tables and the results compared. The marking of the rsample slips was accordingly done before the enumeration pads were broken up for the general sorting. The pads were arianged in the serial order of the blocks, each taluk being treated as one whole unit, the Municipal town if any in a taluk being placed last in the list of pakuthies in each taluk. Counting from the first slip of each taluk, every 50th slip was marked off with a bold $X$ at the back (the marking being done for males and females in two separate series) till the whole taluk was finished. The actual extraction of the sample slips was done at the close of the general sorting. The sample slips were then sorted for Imperial Tables; VII, XI, and XIII and the data obtained are given at the end of this note.
11. The total number of slips obtained by this sampling amounted to 121,366 ( 60,889 males and 60,477 females.)
12. Imperial Tablé VII. This table is perhaps the most important of the Imperial Tables and one of the most expensive to compile. It is estimated that $1 / 3$ of "the expenditure on Tabulation has to be set apart for the sorting and the compilation of this table. If therefore the results of the sample sorting for Table VII prove satisfactory for studying the . nature and variation of the age distribution there will be sufficient justification for adopting this method in limiting tabulation to samples in future Censuses. The Census Commissioner has remarked that the results of the sample will be most satisfactory when the attribute studied is one universally present in the population ${ }^{\text {i }}$ as for instance age. For attributes which are likely to be localised in particular centres viz, comndunity or literacy or industry the value of the sample will decrease in proportion to such concentration. The following table gives the number of
persons in each age-group as per the sample side by side with the results estimated from the original Imperial Table and the range of possible divergence due to random sampling.

| Age.group | Number obtained as per sample | * Number calculated from the general distribution | Difference | * Possible range of error due to random sampling |
| :---: | :---: | :---: | :---: | :---: |
| 0-5 | 17,494 | 17,550 | - 56 | 246 |
| 5-10 | 16,886 | 16,716 | - 30 | 244 |
| 10-15 | 15,693 | 15,588 | +130 | 232 |
| 15-20 | 12,011 | 12,446 | +185 | 212 |
| 20-25. | 10,576 | 10,544 | +32 | 196. |
| 25-30 ${ }^{\text { }}$ | 9,181 | 9,336 | -155 | 188 |
| 30-35 | 8,070 | 8,153 | -83 | 174 |
| 35-40 | 7,251 | 7,176 | $+75$ | 164. |
| 40-m5 | 6,085 | 5,551 | +134 | 150 |
| 45-50 | 5,067 | 5,035 | + 32 | 138 |
| 50-55 | 3,898 | 3,991 | $-93$ | 124 |
| 55-60 | 3,086 | 3,180 | - 94 | 112 |
| 60-65 | 2,271 | 2,341 | - 70 | 96 |
| 65-70 | 1,535 | 1,538 | - 3 | 78 |
| 70 \& over | 1,862 | 1,879 | - 17 | 86 |

So far as the age distribution is concerned the results of the sample are highly satisfactory. In all cases the results of the sample are in close. agreement with the estimated results. A comparison of the proportional distribution of males and females according to age may be made from. the following and the same inference is patent.


The proportions in either case show very olose resemblance thereby revesling that the rosults obtained from the sample are very satiafactory.
13. The proportional distribution by oivil con. dition for certain age groups also confirms this fact (vide table below). The figures in italios show the proportions for the general population extracted from the subsidiary table on Imparial Table VII.

| Age-group | Proportional distribation by civil condition per 1,000 in each agegroup : |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unmarried, |  | Married |  | Widowed and Divoroe |  |
|  | Male | Female, | Male | Femalo | Malo | Femal |
| 0-5 | 1,000 | 1,000 |  | .. | ... | ... |
|  | 1,000 | 1,000 |  |  |  |  |
| 5-10 | 1,000 | 1,000 |  |  |  |  |
|  | 1,000 | 1,000 |  |  |  |  |
| 10-15 | 999 | 874 | 1 | - 25 |  |  |
|  | 998 | 875 | 2 | 25 | ... | $\ldots$ |
| 15-20 | 945 | 634 | 58 | 853 | 1 | 13 |
|  | 848 | 824 | 51 | - 363 |  | 18 |
| 20-40 | 318 | 92 | 664 | 828 | 18 | 80 |
|  | 320 | 85 | 660 | 854 | 20 | 81 |
| 40-60 | 20 | '8 | 904 | 580 | 76 | 403 |
|  | 24 | 11 | 807 | 645 | 68 | 344 |
| 60 \& over | 15 | 0 | 761 | 235 | 224 | 759 |
|  | 15 | 7 | 785 | 245 | 220 | 748 |
| All Ages | 608 | 498 | 367 | $890^{\circ}$ | 25 | 111 |
|  | 604 | 407 | 368 | 38.2 | 27 | 111 |

The proportions in most cases agree very closely. The results of the sample can therefore be relied upon for a study of the distribution of the population by age and civil condition.
14. Table $X 1$. Considering the next important Table viz., Literacy, it is observed that in the sample population of 121,366 persons 57,766 or 476 per cent. are literate. The corresponding proportion for the total population is 47.1 por cent. The proportion to the population literate in English according to the sample is 6.4 per cent. while that obtained from the Consus is 6.7 per cont. The result shows a slight variation and can be attributed to the fact that the literate in English are concentrated in urban areas and hence has affected the samplé. In general the distribution of literate population in various age groups is in close agreement to the distribution estimated from Imperial Table XI as may be seon from below:-

| . | Literacy by age-group. |  |
| :---: | :---: | :---: |
| Age-group. | Number estimated. | Number obtained as per sample. |
| 0-5 | ... |  |
| 5-10 | 8,519 | 8,554 |
| 10-15 | 10,686 | 11,690 |
| 15-20 | 8,570 | 8,617 |
| 20-30 | 11,978 | 11,948 |
| 30-50 | 12,709 | 12,448 |
| 50 and over | 4,694 | 4,508 |

A slight exaggaration is notod about tho group 10-15 probably beoause a largo number of school-going ohildren bolong to this group and since sobools are mostly present in urban arena there may be a bias for looaliaation in this group.
15. Table XIII. As rogards the distribution by community of the samplo population tho resemblance between the thoorotioal nud actual distribution is even more striking (vide table below).

| Communits. | Sample. | Estimatod, | laugo of random orrur. |
| :---: | :---: | :---: | :---: |
| Scheduled Hindu | 7,025 | 7,010 | 172 |
| Other Hindu | 62,057 | 62,011 | 948 |
| Muslim | 8,624 | 8,880 | 180 |
| Indian Christian | 80,140 | 80,168 | 826 |
| European | 12 | 10 | ${ }^{6}$ |
| Anglo-Indian | 20 | 25 | 10 |
| Jain | 1 | 1 | 12 |
| Jow | 4 | 7 | - 8 |
| Tribe | 2,772 | 2,608 | 104 |

The results indicate that oxcopting in the case of Tribes, the oommunity distributions of the sample are very close to the calculatod rosults. But even in their oase the differonoe is not much. The Tribes are a looalised community being confined mostly to Forest arasa. It is interesting to observo that in Daroda also this alight exaggeration in the figure for Tribes was noted in the sample table on community.
16. House sampling. One tabla has boun compiled to study the relation between the number of rooms and the size of the household on the basis of a sample of seleoted houses. One in 20 of the houses in certain taluks and Municipal towns was tioked off in the block lists and the table compiled for the houses so selected. The salient inferences obtained from this tablo have already been discussed in paragraph 100. The table is given along with the population sample tables.
17. It is evident from the investigations on the Sample that qualitative characteristics of a population can be assessed with great accuracy by the Sampling Method. Thus it may be possible to dispense with the compilation of the Imperial Tables on Age and Civil Condition, Literacy and Main Communitios and roplacod by a smaller and more compact procedure based on the sample. The investigators should however be specially trained and the units carefully selectod before the sample method is substituted for the census method.

## TABLE VIl-Age and Civil Condition



## 1/50 Sample

TABLE XI-Literacy


## TABLE XIII-Community

| State and admi nistrative Po |  |  |  | Scheduled Caste Hirdu |  |  | Other Hindu |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Persong | , Malee | Females ${ }^{\text {a }}$ | Persons | Males | Females | Pereone | Malea | Fomales |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | 10 |
| STATE | 121,866 | 60,889 | 60,477 | 7,925 | 8,986 | 8,889 | 62,957 | 81,467 | 81,600 |
| Edministrative Dixisions |  |  |  |  |  |  |  |  |  |
| Southern | 33,736 | 16,812 | 16,924 | 1,170 | 588 | 682 | 21,095 | 10,485 | 10,040 |
| Central | 48,824 | 24,383 | 24,441 | 13,269 | 1,688 | 1,681 | 27,126 | 18,469 | 18,657 |
| Northern | 38,800 | 19,694 | 18,112 | 8,486 | 1,760 | 1,728 | 14,780 | 7,653 | 7,188 |


|  |  | ian Cbrie |  |  | glo.Ind |  |  | aropean |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Persons | Males | Females | Persons | Males | Females | Persons | Males | Fomales |
|  | 11 | 12 | 13 | 14 | 15 | 18 | 17 | 18 | 10 |
| STATE | 39,149 | 10,697 | 19,452 | 20 | 10 | 10 | 12 | 6 | 6 |
| Administratixe | ons |  |  |  |  |  |  |  |  |
| Southern | 8,467 | 4,283 | 4,184 | 4 | 2 | 2 | 5 | 2 | 8 |
| Central | 12,646 | 6,347 | 6,299 | 7 | 8 | 4 | 2 | 2 | " |
| Northern | 18,036 | 19,067 | 8,969 | 9 | 5 | 4 | 5 | 2 | 3 |


|  | Muslim |  |  | Tribe |  |  | Jew |  |  | Jain |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Persons | Males | Females | Persons | Males | Female | Persons |  | emales | Perbona | Males | Females |
|  | 20 | 21 | 22 | 23 | 24 | 25 | 28 | 27 | 28 | 29 | 30 | 31 |
| STATK | 8,526 | \$,351 | 4,175 | 2,772 | 1,379 | 1,393 | 5 | 2 | 2 | 1 | 1 | ** |
| Administratixe Dixisions |  |  |  |  |  |  |  |  |  |  |  |  |
| Southern | 2,340 | 1,181 | 1,159 | 655 | 321 | 334 | $\cdots$ | . | " | - | * | - |
| Central | 3,913 | 1,891 | 1,922 | 1,860 | 982 | 928 | ** | * | - | 1 | 1 | * |
| Nerthern | 2,273 | 1,179 | 1,094 | 257 | 120 | 131 | 4 | 2 | 2 | - | . | -* |

## HOUSING CONDITION

## 1/20 sample from sèlected Taluks

Distribution of occupied houses by number of rooms and number of residents


## APPENDIX IV .

## Smooteing (Literacy Figures.)

The estimate of literacy by the enumerator cannot in the nature of things guarantee scientific accuracy. Whether a person possesses a working knowledge of the three R's will bo determined by the enumerator largely according to his own individual impression of what constitutes " a working knowledge:" If the test is too' rigid or too flexible there is the common danger, of not getting an exact estimate of the literates in a country. In a State like Travancore, one: should normally expect a uniform progress with only reasonable fluctuations if the test of literacy had been based upon a measurable standard, but unfortunately this has not been disolosed by the figures. It has therefore become necessary to smoothithe figures relating not only to literacy but to the population in the relevant agegroups. Any process of sntoothing is empirical and arbitrary. Hence it is not claimed that the process will eliminate all the errors of enumeration, but it will belp to a considerable extent in measuring with dependable accuracy the trenas in the progress of literacy from decade to decade.

The data available for the presept work consist of the Census figures forthe four decades -1901 to 1941. The figures are available in different age-groups for each Census. From the point of view of literacy, the study may be confined to the ages 5 and above. Great inaccuracies are likely to arise in the returns in the age-group 5-10 and consequently, for pur poses of analysis the data have been arranged into broad categories-5 to 10,10 to 20 and 20 and above. Thus the figures analysed may be given in the following tabular form.

| Age-group | Census year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 9 | 3 | 4 | 5 |
| $5-10$ | $p_{11}$ | $p_{12}$ | $p_{13}$ | $p_{14}$ | $p_{15}$ |
| $10-20$ | $p_{21}$ | $p_{22}$ | $p_{23}$ | $p_{24}$ | $p_{35}$ |
| Over 20 | $p_{31}$ | $p_{32}$ | $p_{33}$ | $p_{34}$ | $p_{35}$ |
| All ages | $p_{11}$ | $p_{12}$ | $p_{43}$ | $p_{44}$ | $p_{45}$ |

From a table of the above type it is clear that the data, for purposes of smoothing, are
scanty. Honce the usual methods of smoothing -the Summation Method of the aotunry or other methods based on elaborate mathomationl for mular-cannot with propriety be applied in the present case. The graphiosl method of plotting the pointa and drawing a smooth ourve through them either by freehand or by the use of a splino is probably adequate; but the space covired by the given points is so little that a cartain amount of lack of control is bound to orenp in allowing a great variety of curves to be fitted to the points. These considerations have made thu present problom rather too difficult for a satisfactory solution.

The data have been analysed in four steps corresponding to the four rows of the above Table. For convenience the figures in any row will be denoted by $p_{1}, p_{2}, p_{s}, p_{1}$, and $p_{3}$. Direct smoothing of these values by Polynominal Regression would mean assuming the values to ber given by $p=a+b t+o t^{9}+\ldots . .$. where $p$ dunotos the smoothed value and $t$, the Census yoar. The number of constants ( $a, b, \ldots \ldots$ ) has to bee very small as there are only five values in the Table. Further, in population problems whero the increase in figures is more or lese on the logarithmic scale, it will be more desirable to take logarithms of $p$ rather than the aotual $p$. If this method is adopted, the process of smoothing will take into account the relations between the several values of $p$ only through the coofficionts in the equation. It was felt therefore that a better way of levelling the inaccuracies in the values of $p$ would be to smooth the cumulative effect. Denoting this by $p$, it was found by actual trial that $Q=\log P$ approximately follow. ed the Parabolic Trend. Hence the formula for smoothing has boen takon as $\mathrm{Q}=a+b t+o t^{2}$.

Adopting the least square method of estimating the constants, we minimise

$$
\mathrm{U}=\sum_{1}^{5}\left[\mathrm{Q}_{i}-\left(a+b i+c^{2}\right)\right]^{2} \text { with rospect to } a,
$$

$b$ and $c$. This gives the following equations to . It is by using these formulae that the figures for determine the value of $a, b$ and $c$.
$5 a+15 b+550=\mathrm{R}$
$15 a+55 b+225 c=S$
$55 a+225 b+979 c=\mathrm{T}$
whare
$R=Q_{1}+Q_{2}+Q_{3}+Q_{4}+Q_{5}$.
$S=Q_{1}+2 Q_{2}+3 Q_{3}+4 Q_{1}+5 Q_{5}$
$T=Q_{1}+4 Q_{2}+9 Q^{3}+16 Q_{4}+25 Q_{5}$
$\mathrm{Q}_{1}=\log \cdot p_{1}$
$\mathrm{Q}_{2}=\log \left(p_{1}+p_{\mathrm{g}}\right)$
$\mathrm{Q}_{\mathrm{a}}=\log \left(p_{1}+p_{2}+\dot{p}_{3}\right)$
$Q_{4}=\log \left(p_{1}+p_{2}+p_{3}+p_{4}\right)$
$Q_{5}=\log \left(p_{1}+p_{2}+p_{3}+p_{4}+p_{5}\right)$
$a=(322 \mathrm{R}+35 \mathrm{~T}-231 \mathrm{~S}) / 70$
$b=(187 \mathrm{~S}-33 \mathrm{~T}-231 \mathrm{R}) / 70$ 。
$c=(7 R+T-6 S) \mid 14$
the four groups in the Table have been smoothed. The results of the smoothing are given in the final Table. The smoothed figures are in fair agreement with the unsmoothed ones as will be evident from the percentage of error given for each. Thus without shooting too wide of the'mark, the Table may be used with advantage in the study of trends regarding literacy in the State for. the last few decades.

Appendix IV
(TABLE)

| Agengrourp |  | 1901 |  |  | 1911 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\cdots$ | - | - | $\bigcirc$ |  | $\rightarrow$ - |
|  |  | Male | Female | Total | Male | Female | Total |
| $5-10$ | A | 193,654 | 193,563 | 387,217 | 230,525 | 228,858 | 459,383- |
|  | B | 198,790 | 194,264 | 388,054 | 299,276 | 226,672 | 455,948 |
|  | C | $0 \cdot 07$ | 0.36 | 0.22 | 0.54 | 0.96 | 0.75- |
| Di |  | 381,215 | 395,609 | 776,824 | 458,396 | 466,798 | 925;194 |
| D |  | 6,600 | 2,878 | 9,478 | 10,437 | 4,978 | 15,415. |
| El |  | 376,088 | 391,165 | 767,253 | 462,115 | 467,951 | 930,066 |
| E |  | 6,067 | 2,365 | 8,432. | 13,062 | 8,402 | 21,464 |
| F |  | $17 \cdot 31$ | $7 \cdot 27$ | 12.20 | 22,77 | 10.66 | 16.66 . |
| G |  | 16.13 | 6.05 | 10.89 | $28 \cdot 27$ | 17.95 | $23 \cdot 08$ |
|  |  | $\cdots$ |  |  |  |  |  |
| 10-15 | A. | 182,786 | 166,685 | 349,471 | - 216,495 | 200,873 | 417,368 |
|  | B: | 182,956 | 168,603 | 349,559 | 216,771 | 201,511 | 418,282 |
|  | C | 0.09 | 0.05 | 0.03 | $0 \cdot 13$ | 0.32 | $0 \cdot 22$ |
|  |  |  |  |  |  |  |  |
|  | D. | 24,980 | 7,186 | 32,106 | 36,565 | 14,339 | 50,904. |
|  | E | 23,346 | 6,640 | 29,986 | 43,515 | 17,702 | 61,217 |
|  | F | $136 \cdot 33$ | $43 \cdot 11$ | 91.87 | 168.90 | 71.38 | 121.96 |
| G |  | $127 \cdot 60$ | $39 \cdot 36$ | , $85 \cdot 78$ | 2000 74 | $87 \cdot 85$ | 146.35. |
|  |  |  |  | $=\ldots$ |  |  |  |
| 15-20 | A. | 135,496 | 140,126 | 275;622 | 159,985 | 166,980 | 326,915 |
|  | B | 135,737, | 140,325 | 276,062 * | 159,539 ${ }^{\prime}$ | 166,184 | 325,723: |
|  | c | $0 \cdot 16$ | $0 \cdot 14$ | $0 \cdot 16!$ | 0.25 | 0'48 | 0.37 |
|  | D | 35,778 | 8,109 | 43,887 | 50,805 | 16,271 | 67,076 |
|  | E. | 353,56 | 7,761 | 43,117 | 52,438 | 18,292 | 70,730 |
|  | F | 264.05 | 57.37 | 158.23 | $317 \cdot 66$ | 97.44 | $205 \cdot 18$ |
|  | ${ }^{\text {c }}$ | 260-47 | $55 \cdot 31$ | $156 \cdot 19$ | $328 \cdot 68$ | $110 \cdot 07$ | $217 \cdot 15$ |
|  |  | $!$ | - |  |  |  |  |
| 20 and over | A | 790,668 | -759,572 | -,550,240 | 896,537 | 862,961 | 1,759,498 |
|  | 1n | $\therefore 790,408$ | 759,847 | 1,550,255 | 896,745 | 859,247 | 1,755,992 |
|  | c | : 0.03 | $\because 0.05$ | $0 \cdot 01$ | 0.02 | -43 | 0.20 |
|  | D | 252,679 | 26,660 | 279,339 | 331,142 | 48,512 | '379,654 |
|  | E | 252,503 | 24,549 | 277,052 | 381,747 | 60,448 | 392,195 |
|  | F | 319.58 | $35 \cdot 10$ | $180 \cdot 18$ | $369 \cdot 36$ | 56.22 | $215 \cdot 77$ |
|  | G | 319.46 | $32 \cdot 30$ | 178.70 | $369 \cdot 95$ | $70 \cdot 35$ | $2: 23 \cdot 35$ |
| 1. |  |  |  |  |  |  |  |
| All Ages | A | 1,490,165 | 1,481,982 | 2,952,15\% | 1,731,363 | 1,697,612 | 3,428,975 |
|  | B | 1,485,189 | 1,458,040 | 2,943,229 | 1,735,170 | 1,694,898 | 3,430,063 |
|  | 0 | . 0.34 | $0 \cdot 27$ | $0 \cdot 30$ | $0 \cdot 22$ | $0 \cdot 16$ | 0.03: |
|  | D | 319,977 | 44,833, | 364,810, | \$28,949 | 84,100 | 513,049 |
|  | E | 317,272 | 41,315, | 358,587. | 440,762 | 104,844 | 545,608 |
|  | F | 214.73 | $30 \cdot 68$ | 123.57 | 247.75 | $49 \cdot 54$ | $149 \cdot 62$ : |
| G |  | $213 \cdot 62$ | $28 \cdot 34$ | 121-88: | $254 \cdot 02$ | $61 \cdot 86$ | 159.07 |
| $\text { Population }\left\{\begin{array}{l} A-\text { Census figures, } \\ B-\text { - moothed figures } \\ C-\text { percentage' of error } \end{array}\right.$ |  |  |  |  |  |  |  |

[^6]| : | : 1921 |  | - ${ }^{\text {a }}$ | 1031 | 1 |  | $1 \mathrm{H1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male | Ferale | Total | Male | Female | Total | Malo | Femalo | 'Tutal |
| 272,589 | 269,029 | 541,618 | 341,345 | 331,750 |  |  |  |  |
| 275,808 | 270,949 | 546,857 | 337,712 | 331,712 | 669,424 | $410,0 \times 2$ 420,441 | 116,736 418,218 | 8435,778 8316,8619 |
| 1-20 | 0.71 | 0.96 | 1.68 | 0.01 | 308,42 0.54 | 120,441 0.38 | 18,218 0.12 | 8310,4631 0.11 |
| 538,800 | 535,007 | 1,073,807 | 782,196 | 768,141 | 1,650,337 |  |  |  |
| 36,831 | 39,970 | 76,801 | 66,520 | 73,141 37,425 | $1,000,831$ 03,951 | 861,076 238,058 | 801,716 102,102 | $\begin{array}{r} 1,718,291 \\ 428,478 \end{array}$ |
| 571,911 | 568,737 | 1,140,648 | 712,252 | 701,966 | 1,414,218 | 892,189 | 879,40\% | 1,771,891 |
| 31,127 | -26,992 | 58,119 | 82,099 | 78,410 | 160,509 | 239,885 | 2(k, Mis | 446,650 |
| $68 \cdot 36$ | $74 \cdot 71$ | 71.52 | $72 \cdot 27$ | 48.72 | 60-60 | 270.50 | 20061 | . 44.188 |
| 54.43 | $47 \cdot 46$ | $50 \cdot 95$ | $115 \cdot 27$ | 111-70 | 113,50 | $288 \cdot 50$ | $23+13$ | 201-5\% |
| 262,894 | 248,386 | 511,230 | 313,728 | 304,211 | 817,939 | 398,643 | $3 \times 4,416$ | 77\%,140 |
| 260,435 | 246,759 | 507,194 | 317,279 | 305,818 | 028,195 | 391,948 | $3 \times 3,9638$ | 775,011 |
| 0.94 | $0 \cdot 68$ | 0.81 | $1 \cdot 12$ | $0 \cdot 58$ | 0.84 | 0.41 | $0 \cdot 17$ | 0.40 |
| 93,747 | 52,275 | 146,022 | 98,484 | 60,828 | 150,412 | 300,447 | 233,089 | 16H,3H3 |
| 82,272 | 44,636 | 126:915 | 157,818 | $1{ }^{06,481}$ | 264,274 | 307,048 | 240,177 | 047,228 |
| $356 \cdot 60$ | $210 \cdot 46$ | 285.80 | 313.92 | $200 \cdot 28$ | $257 \cdot 97$ | $769 \cdot 44$ | 608.24 | 480,73 |
| 315.98 | 1.80 .89 | $250 \cdot 23$ | $497 \cdot 40$ | 348.01 | 494.08 | 788.39 | 625.02 | 706.97 |
| 193,514 | 199,843 | 383,457 | 238,498 | $2^{49,418}$ | 487,912 | 808,260 | 314,058 | 682,320 |
| 192,926 | 210,105 | 403,031 | 240,077 | 248,678 | 488,755 | 307,410 | 814,210 | B21,023 |
| $0 \cdot 30$ | $0 \cdot 58$ | $0 \cdot 15$ | $0 \cdot 66$ | $0: 80$ | 0.17 | $0 \cdot 28$ | 0.05 | 011 |
|  |  |  | * |  | , |  |  |  |
| 84,573 | 45,157 | 129,780 | 126,411 | 68,260 | 104,671 | 244,420 | 184, 016 | $42 \times, 810$ |
| 82,592 | 41,363 | 123,955 | 138,146 | 89,740 | 227,886 | 245,353 | 186,800 | 432,103 |
| 437-04 | 225.85 | $320 \cdot 72$ | 530.03 | $273 \cdot 68$ | 398.998 | $792 \cdot 88$ | 686.17 | (0)5-53) |
| $428 \cdot 10$ | $205 \cdot 68$ | 314-58 | $575 \cdot 42$ | $360 \cdot 87$ | $486 \cdot 26$ | $788 \cdot 28$ | 644.60 | 6130-25 |
| 1,037,345 | 990,173 | 2,027,518 | 1,200,650 | 1,209,135 | 2,439,785 | 1,481,716 | 1,474,52> | 2,1\%3, 243 |
| 1,038,681 | 1,000,108 | 2,038,789 | 1,228,262 | 1,198,309 | 2,420,571 | 1,482,812 | 1,475,033 | 2, 2430,677 |
| $0 \cdot 13$ | 0.98 | $0 \cdot 55$ | $0 \cdot 18$ | 0.90 | 0,54 | $0 \cdot 08$ | $0 \cdot 24$ | $0 \cdot 10$ |
|  |  |  |  |  |  |  |  |  |
| 456,915 | 158,665 | 615,580 | 584,892 | 184,093 | 768,890 | 900,378 | 478,806 | 1,4011,170 |
| 466,307 | 134,537 | 580,844 | 657,079 | 270,653 | 927,732 | 040,574 | 402,145 | 1,462,719 |
| $440 \cdot 47$ | $160 \cdot 24$ | $303 \cdot 61$ | $475 \cdot 27$ | $153 \cdot 00$ | 315.56 | 665.40 | 32.72 | 4965 |
| $439 \cdot 31$ | $134 \cdot 52$ | $239 \cdot 80$ | $537 \cdot 97$ | $225 \cdot 86$ | $382 \cdot 32$ | 688.02 | 338.67 | $600 \cdot 77$ |
| 2,032,553 | 1,973,509 | 4,006,062 | 2,565,078 | 2,580,900 | 5,095,973 | 3,045,102 | 8,024,016 | 8,070,018 |
| 2,063,953 | 2,016,708 | 4,080,682 | 2,487,870 | 2,454,869 | 4,952,739 | 8,074,339 | 8,055,906 | 6,130,245 |
| 1.52 | $2 \cdot 14$ | 1.83 | $2 \cdot 68$ | $3 \cdot 10$ | $2 \cdot 89$ | 0.95 | 1.01 | 0.108 |
| 672,066 | 296,067 | 968,133 | 866,313 | 351,611 | 1,217,924 | 1,768,206 | 1,089,767 | 2,5978,0:38 |
| 652,305 | 247,528 | 899,833 | 1,035,137 | 545,264 | 1,580,401 | 1,782,890 | 1,125,087 | 2,907,777 |
| $330 \cdot 65$ | $150 \cdot 02$ | $241 \cdot 67$ | $337 \cdot 73$ | 138.88 | 238.00 | 580•70 | $340 \cdot 23$ | 470.85 |
| 316.05 | 122.74 | $220 \cdot 51$ | $414 \cdot 41$ | $222 \cdot 12$ | 819.10 | 679.86 | $368 \cdot 17$ | 474.33 |
| D1-Population below 10 (Census). |  |  |  |  |  |  |  |  |
| Ed-Population below 10 (Smoothed figures). |  |  |  |  |  |  |  |  |
| Literate per $1000\left\{\begin{array}{l}\mathrm{F}-\text { (Census.) } \\ \mathrm{G}-\text { (Smoothed). }\end{array}\right.$ |  |  |  |  |  |  |  |  |

## GLOSSARY

ADVAITA-The system of Vedsnta philosophy expounded by Sri Sankaraoharya

ALLOMS-Saltepans
ANANTHASAYANAM-Repose on Anantha (The infinite repose)
ANCHAL-Travancore and Cochin postal servioe
ASAN-Village sohoolmaster
ASRAMAS-Hermitages
ATTAKKATHA-A kind of dramatio literature peouliar to Kerala
CATHANAR-Syrian Christian priest
CHAMPU-A classical form of Malayslam Literature where prose and verse intermingle
CHITTY-Chit Fund
ILLOMS-Malayala Brahman houses
JENMI-Landlord
KALABI-Pbysical Academy
KARA-A minor subdivision of a taluk
KARAKKAR-People of a kara
KAFANAVAR-Head of a family
KARIMTAMIL-An old form of Tamil
KATHAKALI-A kind of pantomime peculiar to Kersla -
KAYAL-Backwater or lagoon
KETTUTHENGU SYSTEM-Payment in kind, (ooconuts), proportionste to the yield
KILIPPATTU-A form of nelodions pootry reprasented as being sung by a parrot
KUDIVAROM-Tenant's share of oxop
KUDIVILA-Tenant's share of price
KUDIYAN-Tenant
MAHTAB SYSTEM-Maslim systern of sohools
MAKKATHAYAM-Inheritance from father to son
MAKKATHAYIS-Those who follow the system of inheritance from father to son
MARUMAKKATHAYAM-Inheritanoe in the female line
MARUMAKKATHAYIS-Those who follow the gystem of inheritance in the female line
MELKOIMA-Overiordship--Suzerainty
MELVAROM-Government's share of rent-additional rent MUNDU-Loin Cloth usually worn by the people of Kerala

NALUKETTU-A building with four sepsrate apartmente with an open quadrangle in the centre
NAMASANKIRTHANAM-Recitation of the ngme of the. Lord
Narthakalayam-Dancing School.
NATYASASTRA-The Science of danoing
NITHISASTRA-The Scienoe of law and morality
PUDAVA-Kerala women's garment
PULIKUDI-A ceremony observed by women during the first pregnancy
PUNJA-Wet cultivation ; wet land
BOWKA-A jacket worn by Kerala women
SAIVITES-Worshippers of God Siva
SAMBANDHOM-Maeriage
SAMSKARA-Ceremony
SANATANISTS-Followers of orthodox Hinduism
SAVARNAS-Those belonging to the four castes of Hindu

1. Society

SHASHTIABDAPOORTHI-Completion of the 60th year ; a ceremony oonducted in connection with it.
SLOKAS-Verses
SRI VALUMKODE-(Lit-the land of prosperity) Ancient. name of Travancore
SURMA-Collyrium
TARAWAD-Joint-family
THALIKETTU-A marriage ceremony, the important item of ' which is the tying of a neck-arnament (Thali)
THIRANTU KALYANAM-A ceremony conuected with the attainment of puberty
THORTHU-Towel-
THRIPPADIDANAM-Dedication to God
THULLAL KATLA-A variety of Malayalam poetry
UTHSAVAMS-Yeriodical temple celebrations
VaISHNAVITES-Worshippers of God Vishnu
VANAPRASTHAM-(Lit.-Retiring to the forest) the third stage of life prescribed for the higher castes
VEDANTISM-The system of religious philosophy generally accepted by the Hindus
VISISHTADVATIOM-A philosophical system expounded by Sri Ramenujacharya

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[^0]:    * The ares has been altered from 7,625 sq. miles in 1931 to $7,662 \mathrm{sq}$. miles in 1941 . According to the Survey of India, the area of Travanoore ia $7,662 \mathrm{sq}$, miles. It bas been sccepted by the Governinent of Travancore as the official figure.

[^1]:    114. It is urgently necessary therefore, to
[^2]:    ${ }^{*}$ Coconat is an indispgasable item in the dietary of the Travisacorean.

[^3]:    *There are numerous other factories and concerns under each industry that have not come within the ambit of the Act. There are eight mining centres also in various parts of the. State.

[^4]:    Parnar
    等
    Karthikapally
    
    Changanachery
    Kunnathunad Yaikem

    Pathamamthitta Kunnathup Minachil

    Muvattupula Pathanapuram Devikulam Shenketta Thodupula Pirmade

[^5]:    * The above proportions are based on the Provisional literacy figures published by the Government of India.' Figuras for Travanoore and Baroda are final.

[^6]:    Kitaracy
    $\left\{\begin{array}{l}\mathrm{D}-\text { Census figures } \\ \mathrm{E}-\text { Smoothed figures }\end{array}\right.$

