

CENSUS OF INDIA, 1951

VOLUME XI

ORISSA

Part I—Report



सत्यमेव जयते

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ORISSA

PART I—REPORT

M. AHMED, M.A.
Superintendent of Census Operations
Orissa

CUTTACK
SUPERINTENDENT, ORISSA GOVERNMENT PRESS
1953

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ECONOMIC MAP OF ORISSA

Scale 1 Inch to 25 Miles or 1:584,000

REFERENCES

SCALE OF RECTANGLES : 1sq inch = 1,000,000 persons

BOUNDARY OF DISTRICTS

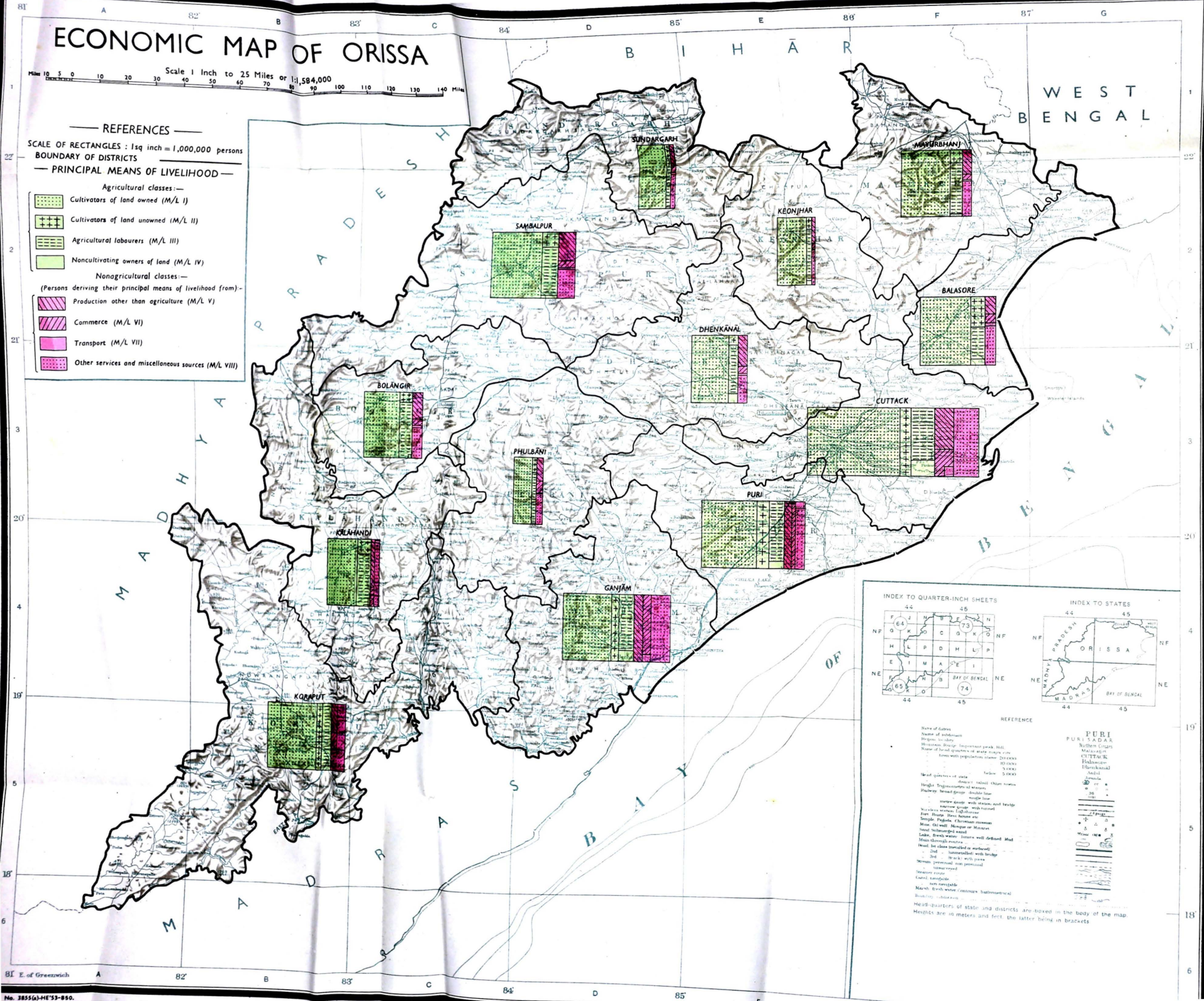
PRINCIPAL MEANS OF LIVELIHOOD

Agricultural classes:—

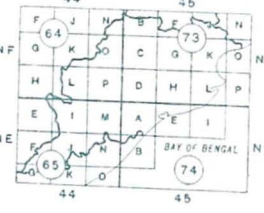
- Cultivators of land owned (M/L I)
- Cultivators of land unowned (M/L II)
- Agricultural labourers (M/L III)
- Noncultivating owners of land (M/L IV)

Nonagricultural classes:—

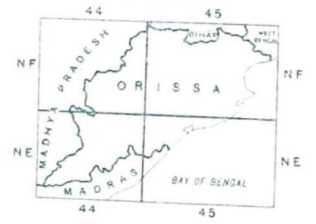
- (Persons deriving their principal means of livelihood from) — Production other than agriculture (M/L V)
- Commerce (M/L VI)
- Transport (M/L VII)
- Other services and miscellaneous sources (M/L VIII)



INDEX TO QUARTER-INCH SHEETS



INDEX TO STATES



- REFERENCE
- Name of station
 - Name of subdivision
 - Region boundary
 - Mountain Range (important peak, hill)
 - Name of head quarters of state (circle)
 - Towns with population above 25,000
 - 10,000
 - 5,000
 - 2,500
 - Head quarters of state
 - Height (Trigonometrical station)
 - Railway broad gauge double line
 - narrow gauge with station and level
 - narrow gauge with tunnel
 - Wireless station (Lighthouse)
 - Fort House Rest house etc
 - Temple Pagoda Christian mission
 - Mine Oil well Mangrove Mangrove
 - Sand Saltpetre mine
 - Lake Fresh water Irrigation well Dammed Mud
 - Main through route
 - Head 1st class (tunnel or surface)
 - 2nd - 3rd - 4th
 - 3rd - 4th - 5th
 - Stem permanent non permanent
 - Stem canal
 - Canal (irrigable)
 - Canal (non-irrigable)
 - Marsh
 - Marsh Fresh water Contaminated
 - Building

- PURI
- PURI SADAR
 - Northern Orissa
 - Malkangiri
 - CUTTACK
 - Balasore
 - Dhenkanal
 - Medical

Head-quarters of state and districts are boxed in the body of the map. Heights are in meters and feet, the latter being in brackets.

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25	1	2	6	6·32	63·2
65	..	Table	(Column 4)	—350	+350
107	..	Table	(Column 6)	217, 12	217,612
151	..	Table	(Population against less than 500)	7,266,033	7,265,533
170	20	(Ganjam Plains)	Table 2·3	13,933	331,589
171	9	(Sambalpur)	Table 2·3	120,715	129,715
172	4	(Puri)	Table 2·5	78·2	98·2
176	2	(Table)	Against Madhya Bharat	13,700	12,895
			Against West Bengal	13,6 2	13,636
185	2	(2nd Table)	Against Kanpur	705,383	636,443
			Against Lucknow	496,861	444,711
206	4	(Orissa)	Table 3·3	386,576	386,756
	20	(Ganjam Plains)	Table 3·3	25,459	15,459
210	2	(Orissa Inland Division)	Table 3·8	225,932	225,937
	5	(Orissa Coastal Division)	Table 3·8	29,828	29,288
	2	(Puri)	Table 3·8	5,544	75,544
220	1	1	13	64·5	64·7
224	1	(Table)	India (Column 2)	28·7	28·5
		India	(Column 3)	59·6	59·0
		India	(Column 4)	11·7	12·5
		Punjab	(Column 3)	58·2	58·4
		Punjab	(Column 4)	15·0	14·8
227	1	(Table)	Punjab (Column 3)	25·0	24·9
		Punjab	(Column 4)	11·9	12·0
242	2	(2nd Table)	Assam (E.D.)	12·2	14·2
265	Table	Sambalpur	(Column 3)	108·2	180·2
		Dhenkanal	(Column 4)	42·7	32·7
		Sambalpur	(Column 6)	79·3	75·3
		Koraput	(Column 6)	148·5	138·5
		Kalahandi	(Column 6)	26·9	25·9
275	8	(Orissa Coastal Division)	Table 4·5	11	14
277	12	(Balasore)	Table 4·7	44,450	14,450
	10	(Phulbani)	Table 4·7	119,595	116,595
340	2	(Orissa Rural)	Table 5·7 (a)	766,616	761,616
346	6	(Orissa Rural)	Table 5·13 (a)	143	134
349	2	(Balasore)	Table 5·16	911	991
	8	(Orissa)	Table 5-16	2,346	2,364
389	13	(Mayurbhanj)	Table 6·4	769	793
393	14	(Ganjam Agency)	Table 6·7	498	494
	14	(Ganjam Plains)	Table 6·7	364	368
407		Table (1951)		12, 65,272	12,065,272
414		Table 1941 (Muslims)		Faint impression	165,661
		Table 1921 (Muslims)		Faint impression	138,360
		Table 1921 (Buddhists)		Faint impression	1,612
445	36	(Lower half)	Table 7·5 (Dhenkanal)	0	30
446	6	Table 7·6	(Mayurbhanj)	6	62
447	12	Table 7·6	(Ganjam Plains)	1	17

PREFACE

The Census of 1951 is the ninth Indian Census taken since 1872. This census has high importance for Orissa as it is the first census taken after amalgamation of the major portion of Oriya-speaking tracts into one single political and administrative unit. As a result of integration of the ex-state areas of Orissa with older districts, a new sense of unity and homogeneity developed among the population of both the tracts who were counted as members of a single territorial unit in one single operation for the first time in the history of the Oriya-speaking people. The result of such an important operation has been embodied in this Report. Orissa had no Census Report of its own, for although she was constituted into a Province of India in 1936, and a population census followed in the year 1941, there was no writing of the Report that year due to war conditions. This is thus the first comprehensive review of demographic facts and problems relating to Orissa as one political unit.

2. The actual operation of counting began on the 9th February 1951 and continued for 20 days ending at the sunrise of the 1st of March. A vast number of 35,000 enumerators were employed to do this work all over Orissa who were assisted by another large number of 5,000 officers charged with supervision, direction and control of the operation. This large army of workers visited about three million houses scattered over 48 thousand villages and towns of Orissa, and prepared a record of every individual living therein. This record relates principally to the name, nationality, religion and age of the individual, as well as to many other details, such as marital status, mother tongue and other linguistic details, literacy and education, economic status particularly relating to dependency and employment, means of livelihood both principal and secondary, area of land owned and cultivated and so on. This fact-finding mission kept the enumerator engaged till the 28th February 1951. That night he was required to make a special hunt for 'houseless' or 'floating' population, which he finished counting by the next sunrise, the sunrise of the 1st of March. For a final check-up and bringing the enumeration up-to-date with reference to subsequent births and deaths prior to the sunrise of the 1st of March, three days were allowed, namely 1st to 3rd March 1951.

3. *System of enumeration*—The practice of counting the population in course of a single night was abandoned after the Census of 1931. This system was based on the principle of *de facto* enumeration and aimed at recording, as in England, the actual or *de facto* population of the country in a particular night. Wherever a person happened to be between the hours of 6 P. M. and mid-night on the 26th February 1931, there was he brought to account in the population of that place. No person was asked to mention his ordinary place of residence. This procedure involved enormous administrative difficulties and was perhaps not fully conducive to accurate enumeration. The system introduced first in 1941 was based on modified *de jure* principle, the *de facto* principle being resorted to under certain restrictions. The system adopted in 1951 is the same as in 1941, with some refinements. Under this scheme, a person was enumerated in his *normal residence*, if (i) he was ordinarily residing there between 9th February and 1st March or (ii) he left such

residence on or after 9th February, irrespective of his date of return or (iii) he returned to the residence before the sunrise of 1st March 1951, irrespective of the period of his absence from the normal place of residence. But if such a person left the house before 9th February and remained absent beyond the sunrise of 1st March, he was not required to be enumerated at his normal residence, but at the place he was actually found during the period. The principle of enumeration adopted in 1951 is thus a compromise between *de facto* and *de jure* principles. A full account of the procedure adopted for the enumeration of population and the compilation of results has been given in the Administration Report published separately.

4. *Reliability of Statistics*—Facts and figures appearing in this Report have been drawn chiefly from two sources, census and non-census. Statistics embodied in Parts II-A and II-B of this Report are purely of census origin, but the subsidiary tables displayed at the end of each Chapter of this volume are partly based on census figures and partly on the reports, statements and information made available by various departments of the Government. All statistics of census origin are distinguished by a high degree of reliability, but the same cannot be said in respect of all statistics of non-census origin, as will appear from the comments in the Chapters that follow. There are good reasons why it is now possible to accept the comparative accuracy of census figures. In the past no attempt was made to verify the degree of error, if any, that existed in the enumeration figures. But on the present occasion, a verification of the 1951 Census count was undertaken for the first time through the independent agency of local magistrates of senior rank. The results of this magisterial verification has been summarised in the Administration Report for Orissa as follows :

“ The results of the sample verification of the 1951 Census count has been very useful for dispelling the notions of the critic that the census enumeration has been vitiated considerably by under enumeration. The net shortage of 0.54 per cent may be considered to be an error of no considerable magnitude, particularly when it relates to a country-wide administrative operation such as the census.”

5. It is, however, not pretended that inaccuracies or other types of blemishes contained in this Report are limited to the small and negligible extent of under enumeration as found out by magisterial investigation, or to the incomplete and erroneous character of departmental figures of non-census origin. There are various stages in which there is the lurking danger of errors being introduced by inadvertence or ignorance. The sorting and tabulation operations constitute one such stage, because a band of 600 inexperienced youngmen, mostly fresh from schools and colleges, temporarily employed for three or four months on unattractive remuneration and having no immediate prospect for the future, by no means create ideal conditions for patient, accurate and reliable statistical work. The remedy was, however, provided by adoption of a system of checks and counter-checks not only in local offices but also in the headquarters. Finally thanks to the innovation and foresight of the Registrar General, a central tabulation office at New Delhi remained ever vigilant in scrutinising and rectifying defects, if any, in the mass of statistical tables turned out by local offices. The inaccuracies in the final result as now published have thus been reduced to the minimum.

6. *Outstanding Features*—The Census of 1951 is distinguished by number of new features, some of which are described below :—

(i) *Economic Classification*—In the past, population was classified on the basis of religion but now this has been done on economic basis. This is one of the most important changes made at this census. The present population has been divided broadly into two categories, namely, agricultural and non-agricultural. The agricultural population has again been divided into four classes according to difference in the status of ownership and in cultivating activities. Similarly the non-agricultural population has been divided into four classes according to the nature of employment or profession. The statistics gathered on the basis of such classification give a useful economic picture of the society.

(ii) *National Register of Citizens*—An important gift of the present census is a complete record of all individuals living in Orissa on the 1st March 1951. The names of citizens have been arranged by households, villages, police-stations, taluks (if any) and subdivisions in each district and information relating to their sex, age, education, economic status, means of livelihood, land owned and cultivated, etc., have been recorded therein. The register is useful for various administrative purposes, such as revision of electoral rolls as well as for socio-economic surveys which may be taken up from time to time.

(iii) *District Census Handbooks*—Compilation of District Census Handbooks for all districts of the State is a formidable task which was taken up for the first time in Orissa and completed successfully. These Handbooks contain a complete set of population and household statistics for each village in the district and statistics relating to small-scale industries and displaced persons. They also contain General Population Tables and Economic Tables relating to the district. As mentioned elsewhere in this Report, it is regrettable that the Handbooks were not printed by the State Government, so that they could be available to the public on sale. A limited number of sets were cyclostyled at the cost of Government of India and distributed.

(iv) *Census of small-scale Industries*—Shortly before the population census was taken, a census of small-scale industries was organised and conducted for the first time in this State. Industrial establishments engaging less than 20 persons working without the aid of power (electric, gas, etc.) or those engaging less than 10 persons working with the aid of such power have been classed as small-scale industries. The result have been embodied in the District Census Handbooks and have been very briefly referred to in an appropriate place in this Report.

(v) *Caste Tabulation discontinued*—Yet another significant change made at this census is the abandonment of the collection and tabulation of data for different castes and communities. The only exception made is with regard to the backward classes and the Anglo-Indians.

(vi) *Verification of the Census Count*—The population census, like all other administrative operations of comparable magnitude, is liable to error. In the past, no attempt was made to verify the extent of error that existed in the enumeration figures. But as increasing importance is attached

to population data, it was considered desirable that the degree of error in the census count should be ascertained in order to facilitate correct study and interpretation of the available data. The verification work was entrusted to non-census agencies, namely to magistrates mostly of senior rank under the employment of the State Government. The results of such verification have been discussed in the Administration Report.

7. *Scope of the Report*—Reports of the Indian Census of the past were distinguished as works of great scholarship and erudition, written with a view to lead and guide all thinking men of India in the matter of outstanding problems. But now with the growth of specialized knowledge in different fields of human activities, it was realised that the scope should be limited to collection and presentation of statistical data and to do as little as possible of writing and to leave the figures to speak for themselves. Transition in the object and purpose of report-writing was first noticed in 1941, when Mr. Yeatts, the Census Commissioner of India held the view that the old styled omnibus report was out of date, and proposed to cut down the scope of the Census Report to such materials as were necessary to interpret and understand the tables.

8. The scope of the present Report has been defined in a memorandum of Shri R. A. Gopaldaswami, Registrar General, India, limiting the comments to the “numbers, life and livelihood of the people”. It has been laid down that apart from an Introduction and (if necessary) some Appendices, the subject matter of the 1951 Census Report will be arranged in six Chapters as below :—

Chapter I	..	General Population
Chapter II	..	Rural Population
Chapter III	..	Urban Population
Chapter IV	..	Agricultural Classes
Chapter V	..	Non-agricultural Classes
Chapter VI	..	Families, Sexes and Principal Age Groups

9. This limitation implied that the Report will exclude detailed treatment of the data relating to a number of subjects, such as literacy and education, language, religion, backward classes, displaced persons, etc. Special permission was, however, secured to include brief narratives of these special topics at the end of prescribed Chapters, which now find place in this Report in the closing Chapter VII. The directions issued by the Registrar General, India also discouraged the display of maps and diagrams except one population map. In practice, however, the limitation had to be relaxed to an extent so that the present volume contains a few diagrams and maps, which though by far smaller in number than those that filled the pages of old series of Census Reports of India, are considered adequate for the present purpose. Lastly, in writing this Report, the ultimate object according to the official instructions was to present such matters as “will be of value mainly as the starting point of more detailed studies (to be undertaken subsequently) of the inter-relationship of population changes and economic changes in the country as a whole

as well as in the different States and natural divisions of the country". In this connection, it is considered necessary to mention that the statements made and conclusions drawn in this Report are wholly the responsibility of the author alone in his personal capacity and do not necessarily represent the views of the Government.

10. *Acknowledgments*—It remains to convey my acknowledgments to those who by their co-operation and assistance made the taking of the present census possible. A census may be as good or as bad as the moral attitude of the people towards it. To begin with, therefore, I must pay tribute to the people of Orissa whose good sense of citizenship was behind the smooth and orderly manner in which the operations were conducted. Conditions prevailing in 1951 were more favourable to the taking of a good and reliable census than ever before in the history of census of the country, for no such difficulty was encountered as the highly disturbed vital occurrences preceding the Census of 1921, or the Civil Disobedience Movement during the Census of 1931, or the uncertain war conditions and embittered communal relations at the time of the Census of 1941. In 1951, however, the material condition of the people was far from satisfactory and if the people in general displayed a sense of civic responsibility and co-operation in a country-wide administrative operation such as the Census, their correct attitude cannot but be admired. Side by side, I must also place on record my gratitude to that great body of nearly 35,000 honorary enumerators who at the cost of their convenience and profits took the trouble of visiting over three million houses to prepare at the spot a record of every individual living therein. Acknowledgments are likewise due to other men and officers included in the census hierarchy, viz., Supervisors, Charge Superintendents, District Census Officers and District Magistrates, connected with the execution, supervision and control of the operation at different levels. Without their active interest and close co-operation, the degree of success achieved in the conduct of the operation would have been impossible.

11. I am also grateful to my Tabulation staff, a large body of about 600 paid workers, who turned out immense mass of figures, sitting cross-legged on floor before small pigeon-holes in sombre serious atmosphere from morning to evening day after day. Many of these workers showed admirable zeal and outstanding merit in their work and won the President of India's medals, like so many brilliant workers engaged in the enumeration operations. Their names have been mentioned in the Administration Report. I should, however, like to make special mention of two of my officers, namely, Shri Padmanabha Misra, B.Sc., of the Orissa Administrative Service who as Deputy Superintendent of my office gave me ungrudging help in the preparation of the District Census Handbooks and Shri K. Sriramamurti of the Orissa Subordinate Administrative Service who apart from being useful in his capacity as Assistant Superintendent of the Tabulation Office, was placed in charge of the final stages of the operation at the headquarters.

12. I wish to express my obligation to all those persons, institutions and Government departments to whom I am indebted for assistance and information received on various occasions. To the Director of Industries, of Health and of Agriculture of the Government of Orissa, I am obliged for furnishing

facts and figures relating to their departments and to the Surveyor-General of India for preparing the maps and a few diagrams exhibited in this Report. I am under a debt of thanks to Shri S. H. Khan, Superintendent of the Orissa Government Press and his Deputy and Assistant Superintendents for the unbounded patience and the technical resources with which they undertook and completed the printing of all the Parts of the present Report against heavy odds. The printing of the statistical tables is burdened with extremely meticulous instructions and if a congested, over-busy and inadequately equipped Press is able to complete printing neatly and expeditiously, it is a matter of skill and labour not commonly seen.

13. I cannot acknowledge too fully the valuable guidance and instructions received by me from Shri R. A. Gopaldaswami, Registrar General, India in course of different stages of the operation from preliminary organisation of enumeration work to the writing of the Report. If his imagination and initiative were behind the several new lines of investigation for which the Census of 1951 has earned distinction, his ready appreciation of individual difficulties and his effective and practical method of tackling complicated problems acted as a source of inspiration and strength so much necessary for bringing a stupendous country-wide operation to a satisfactory conclusion. I must also express my keen sense of gratitude to Shri D. Natarajan, Assistant Census Commissioner for his sympathetic and prompt action in all technical and administrative matters and to Shri P. N. Kaul, Central Tabulation Officer, for his ever vigilant eye on the mass of statistics on which the present Report is based, which were checked and verified by him not only thoroughly but also most expeditiously.

14. I cannot conclude without paying grateful tribute to the late Mr. Asaf Ali who as the Governor of Orissa when the Census of 1951 was conducted, took keen interest in the result of the operations and more than once called for compiled figures and descriptive report which were mostly in manuscript form at that time. He perused with scholarly zeal whatever material was available till then and was pleased to record a note of appreciation which appears in the following page.

CUTTACK :

The 30th. April 1953

M. AHMED

*Superintendent of Census Operations
Orissa*

GOVERNMENT HOUSE, PURI
The 26th April, 1952

Modern census operations and the comprehensive preparation of a mass of statistical data for the interpretation of experts in sociology, anthropology and economics in relation to a sub-continent of India's dimensions involve an organised effort of immense magnitude. One has only to look at the bulk of several district handbooks containing facts and figures connected with the Province of Orissa which have emerged from these labours to realise how much of intelligent and mechanical work goes into their presentation. The census of 1951 in India was undertaken with several new lines of investigation, because some of the basic facts and figures concerning the living conditions, economic structure, and the assets and liabilities of the State were not available. Without precise or at least highly approximate data no clear picture of the ascending or descending trends of national life can be formed and no plans for the correction of deficiencies or the pursuit of progressive development can be effectually laid down. If the effort made during the census operations of 1951 has been successful throughout the country, the data made available will be of immense value to statesmen and to all others concerned.

I have had the privilege of looking at the 13 volumes of handbooks and two volumes of maps prepared by the staff of the Census Officer of Orissa (the final report is still in the course of elaboration) and I feel bound to place on record my unstinted appreciation of the work done. In spite of the formidable array of statistical material these volumes are attractive enough by their neat and methodical presentation, even for laymen.

Ever since I have been in charge of Orissa I have been emphasising the urgency of revising the District Gazetteers which in a sense are the Bible of the District Officers and which have long been out of date. Further, since the integration of the 24 Eastern States with Orissa and the reorganisation of the old and new districts, all the maps have become partially obsolete. I am, therefore, particularly pleased to find that up-to-date maps of districts and thana-wise distribution of population, etc., have been prepared and included in the Census Handbooks. The data supplied in these books with these maps will greatly facilitate the preparation of a supplementary volume of the revised contents of District Gazetteers.

Orissa is almost the richest Province potentially for its size: for it covers 60,000 square miles of territory with 23,000 square miles of forests, nearly 300 miles of sea-board, immense water and hydro-electric power, vast mineral deposits including coal, iron and manganese ores, bauxite, chromite and some 30 other occurrences of industrial value, and immense possibilities of pisci-culture, eri and ceri-culture, poultry farming and cattle breeding, in addition to its existing land produce, which is already enough to permit of an exportable surplus of over 1,00,000 tons of rice, etc. It is the paradise of enterprising industrialists and experienced farmers. But when we look at the existing conditions of life in its 48,000 villages and some five towns of modest size and another 34 of a smaller size, and study the facts and figures of its industrial and commercial output, and further scrutinies the charts of its citizens' health, education and average income, we cannot fail to recognise its heartrending poverty in almost every direction, except the passionate desire of its far-seeing and well-informed citizens for rapid improvement.

The facts and figures supplied in this Report will greatly help to pick out the directions in which improvement is demanded in the highest order of priority.

I congratulate the Census Officer, Mr. M. Ahmed and his colleagues, staff, and casual helpers on their achievement, and commend the Census Report of Orissa to the notice of all who are interested in the welfare of the State.

M. ASAF ALI
GOVERNOR OF ORISSA

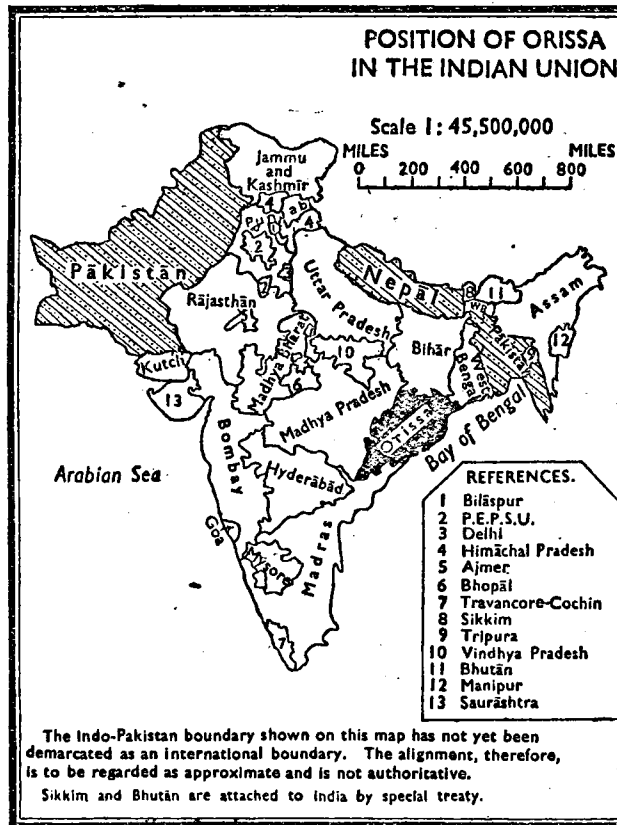
INTRODUCTION

I. General Description of the State

GEOGRAPHICAL SETTING

1. The State of Orissa situated on the east coast of India is bounded by Bihar on the north, Madras on the south,

West Bengal on the east, Madhya Pradesh on the west and faces the Bay of Bengal on the south-east. It lies between $17^{\circ}50'$ and $22^{\circ}34'$ north latitude and between $81^{\circ}27'$ and $87^{\circ}29'$



east longitude. The whole area of the State lies in the tropical zone, its most northerly point being about 1° below the Tropic of Cancer. Physiographically, the territory of the State of Orissa may be divided into four well-defined tracts, each having its own distinguishing characteristics, namely, the Northern Plateau, the Eastern Ghats, the Central Tract and the Coastal Plains.

PHYSICAL CONFIGURATION

2. The Northern Plateau covers the districts of Mayurbhanj, Keonjhar, Sundargarh and the Pal-Lahara subdivision of Dhenkanal district. It is an undulating upland tract with general slope from north to south. It is much broken by ragged ranges of hills and is traversed by drainage channels leading

from hill ranges to rivers, viz., the Subarnarekha, the Burabalang, the Salandi, the Baitarani and the Brahmani. Isolated hills rising abruptly from the plains are common. Further towards north and east, occurrence of ranges of hills becomes frequent, finally ascending into table lands and peaks. Maximum height is attained by the peaks Mankadanacha (3,639 feet) and Badamgarh (3,525 feet) of Bonai subdivision in Sundargarh district, Malyagiri (3,895 feet) in Pal-Lahara subdivision of Dhenkanal district and Meghasani (3,824 feet) in the Similipal hills of Mayurbhanj district. These hills are the outer fringes of the Central India mountain ranges. Their slopes are buried in thickly grown large tropical forests. On their foot are frequently seen extensive plains and valleys with cultivation varying from fine cultivated paddy to occasional hill crops.

3. The Eastern Ghats region has upland plateaus, hills and peaks which are the highest in Orissa. The plateaus have wide expanse of open country fringed by forests and hills. The Deomali hills (5,486 feet) whose twin peaks can be clearly seen from Koraput town when the sky is clear, has the highest altitude in Orissa. The Turiakonda (5,244 feet) and the Polamokani Parbat (5,201 feet) of Koraput district and the Bankasamo (4,182 feet) and the Karlapat (3,981 feet) of Kalahandi district are among the highest hills of the Eastern Ghats section in Orissa. While the summits of these hills reach sub-temperate altitude, their slopes are covered with thick forest growth. The Eastern Ghats region extends over the districts of Koraput, Kalahandi, Ganjam Agency and extends along the right bank of the Mahanadi from district Phulbani onwards.

4. The Central Tract lies in between the Northern Plateau and the Eastern Ghats region and mainly covers the districts of Bolangir, Sambalpur and Dhenkanal. Isolated hills rising abruptly from the plains are commonly seen in this tract. This tract contains some of the fertile parts of the State, such as the Bargarh plains. It is drained by the river Mahanadi and its tributaries and is nowhere bare of vegetation and the villages are deeply embowered with palm and mango groves.

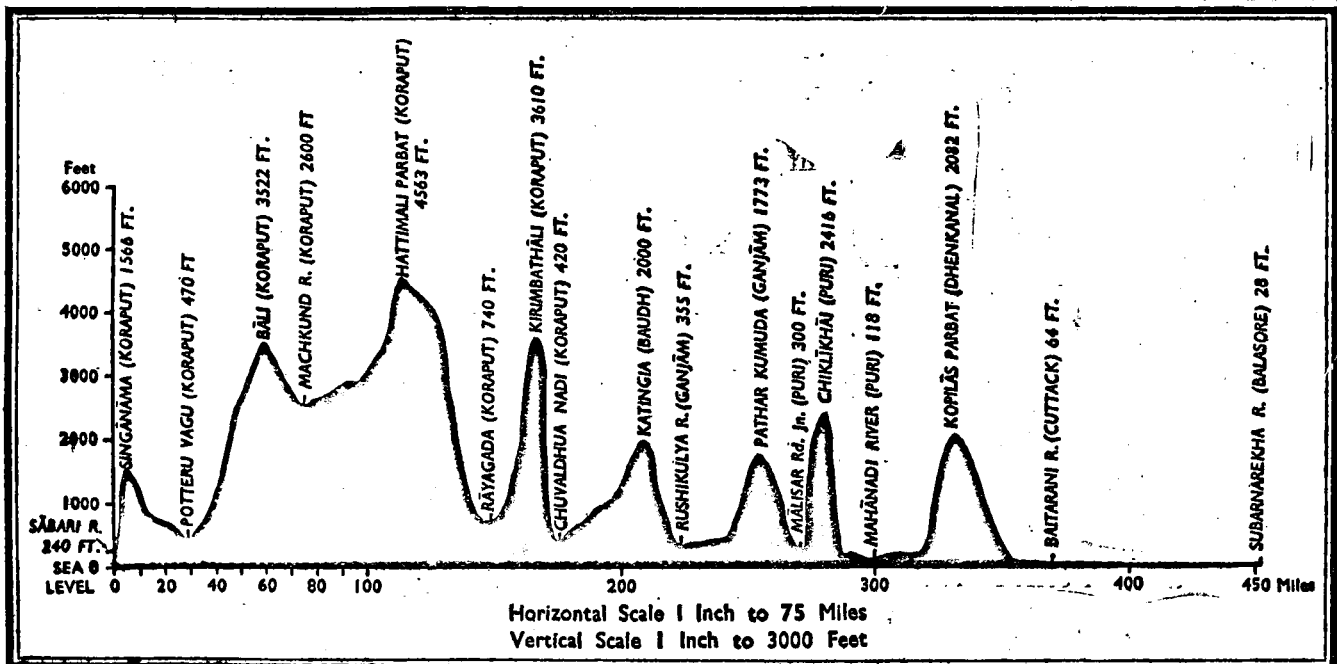
5. The Coastal Plains are principally a maritime tract along the Bay of Bengal and lie between the borders of West Bengal and Madras. The greater part of the region is the outcome of alluvial deltaic formation of the river system of Orissa. It is the most fertile and densely populated region in the State, containing rich mango, cocoanut and palm groves and very extensive rice fields well watered by a network of rivers and irrigation canals. The belt of land near-by the sea coast is marshy and abounds in swamps intersected by innumerable winding creeks and sluggish rivers. Tracts of blown sand are also noticeable along the coast in the shape of sand dunes or ridges. The central portion of the delta, approximately 3,000 square miles in area is subject to damage by floods almost every year.

RIVERS

6. The principal rivers are the Mahanadi, the Brahmani and the Baitarani, all running almost parallel from north-west to south-east. There are also some smaller rivers, namely, the Salandi, the Burabalang and the Subarnarekha, flowing over the northern part of the State and the Rushikulya, the Vansadhara, the Nagavali, the Indravati, the Kolab and the Machkund draining the districts of Ganjam and Koraput in the south. The Mahanadi is the largest among them with a total length of 533

miles, about half of which lies in Madhya Pradesh. It drains a basin of 51,000 square miles and discharges during highest floods 1.6 million cusecs, or nearly as much as the Ganges. Rising in Raipur district, it passes through Bilaspur before entering into Orissa in district Sambalpur where its tributaries, the Ib, the Ong and the Tel and numerous minor streams make it a river of the first magnitude with a width of more than a mile. It then passes

through some rapids and deep gorges of the Eastern Ghats and ultimately reaches the deltaic region at Naraj, about seven miles west of Cuttack. It traverses Cuttack district from west to east throwing off numerous branches and falls into the Bay of Bengal through several channels near the False Point. The deltaic region has a net-work of branches and channels due to the inter-mingling of the three principal rivers of Orissa.



CROSS-SECTION OF ORISSA

7. The above diagram, drawn to scale, represents the cross-section* of Orissa. It gives a picture how Orissa will look like if cut along a line running north-east from the Sabari river in Koraput district (Latitude $18^{\circ}05'$ and Longitude $81^{\circ}30'$) to the mouth of the Subarnarekha river in Balasore district (Latitude $21^{\circ}33'$ and Longitude $87^{\circ}24'$).

It shows the great irregularity of contour having steep elevations and abrupt falls all through. There are, however, distinguishing features, one end being the low level flat belt of the deltaic plains next to the sea coast and the other end being a tableland of notable elevation beyond the plains of Rayaghadā. It will be seen that over this tableland runs the Machkund river at a height of 2,600 ft. above the sea level leading to

* Strictly speaking this is not the cross-section running along a straight line between two points. Such a geometrical method will miss salient physical features of the country. Slight deviations are made with a view to pass over typical elevations and depressions, so as to secure a panoramic view of the hills and dales against the sky-line coinciding with the section line.

the advantage of the great hydro-electric power station at a suitable spot in the course of the river at Duduma, which is now under construction. In between the deltaic plains and the tablelands beyond Rayaghada, lies a tract of uncertain

surface of great heights alternating with low valleys, between the Kapilas Parbat in Dhenkanal district and the Kirimbathali Peak in Koraput district. The general relief of the country offers scope for interesting study.

II. Brief History of the Land and the People

8. Emerging from pre-historic times with references in the Vedic and Epic literatures, the people of ancient Kalinga distinguished themselves as pioneers in maritime activities and overseas colonisation in early days and took to empire-making under the Jain king Kharavela before the Christian era. He became the over-lord of the south and the west India and then spread his conquests towards the north. After Kharavela, Kalinga had periods of subjugation by foreigners, viz., by the Kushans and the Guptas, but mostly had dynasties of its own ruling over the land and spreading their sway over neighbouring countries. These dynasties had powerful kings credited not only for military prowess but also for cultural activities of abiding glory. The most noted kings are Lalatendu Kesari, the builder of the Bhubaneswar temple about the middle of the 9th century, Anangabhima Deva II, the builder of the Jagannath temple at Puri towards the close of the 12th century, Narasimha Deva, the builder of the Konarka temple about the middle of the 13th century and Mukunda Deva, the builder of the Barabati Fort in the second half of the 16th century. At the height of their powers, the kings of the mighty kingdom of Kalinga ruled over the territory extending from the banks of the Godavari on the south to the Ganges on the north.

9. Orissa came under the Pathan Sultans of Bengal and later under the Mughal Emperors of Delhi from 1568 to 1751 when it was ceded to the Marhattas by Alivardi Khan, Nawab of Bengal. It continued to be under the sway of the

Marhattas for about half a century till 1803 and was then conquered by the British in India.

10. Orissa was then attached to the province of Bengal and in 1804 a Board of two Commissioners was appointed to administer the territory. It was constituted into the district of Cuttack in 1805, but in 1823 it was first split up into three regulation districts of Cuttack, Balasore and Puri and 17 non-regulation tributary Mahals administered by native chiefs under the responsibility of a Commissioner. Khondmals was ceded in the year 1835 by the tributary chief of Baudh state while Angul was annexed in the year 1847. Ultimately, Sambalpur district was transferred from the Central Provinces to Orissa in 1905. Five tributary states of Patna, Kalahandi, Sonapur, Bamra and Rairakhol were also transferred from the Central Provinces to Orissa and in the same year the two states of Gangpur and Bonai were transferred from Chotanagpur Division.

11. Orissa continued to be an outlying Commissioner's Division of Bengal till 1912 when it was transferred to Bihar. Ultimately it was constituted into a separate province on the 1st of April 1936 by the Government of India (Constitution of Orissa) Order, 1936, when some portions of the Central Provinces and Madras, namely, Nawapara subdivision and Ganjam and Koraput districts were added to the bounds of Orissa. This was the result of prolonged and intensive movement for amalgamation of all Oriya-speaking tracts which gradually gathered so much

force that ultimately in January 1936 an Order in Council was promulgated by the British Government creating Orissa as a separate province.

12. The province of Orissa as thus constituted comprised the six districts of Cuttack, Balasore, Puri, Sambalpur, Ganjam and Koraput. Oriya-speaking feudatory states, numbering twenty-four were placed under the Political Agent in charge of the Eastern Zone stationed at Sambalpur. One of the first tasks of the Government of the newly constituted province was to reconcile different systems of administration obtaining in the old districts of Orissa, in the ex-Madras areas now constituted into two districts, and in the portion of the Central Provinces which was added to the district of Sambalpur. The systems were in many respects entirely different in detail and sometimes in underlying principles.

13. The province was in its infancy when signs could be read of a forthcoming change arising from conditions created by the World War in which India was engaged and ultimately culminated in the termination of the British rule in India in the year 1947. The withdrawal of the British resulted in the lapsing of the British sovereignty over the Indian States. Side by side with the rising tide of nationalism in the British India territory, there was a rapid growth of peoples' movement in the state areas. Anticipating troubles, the rulers of Orissa states attempted to form the Eastern States Union in 1947. The idea of creation of a separate province was also an alternative suggestion occurring to many who were opposed to the creation of the Eastern States Union. But ultimately it was the development of events in the small state of Nilgiri which was the basis of an eventful decision. In the month of November 1947, the Adibasi problem

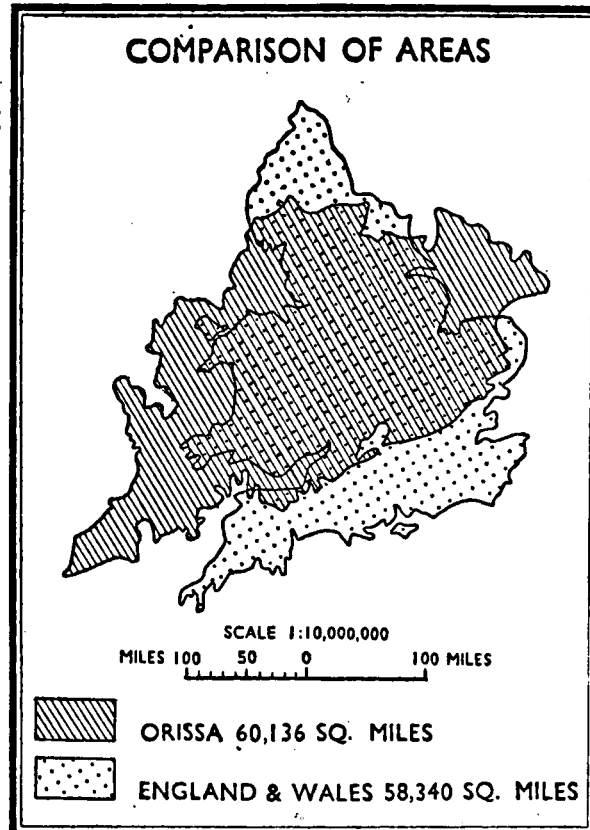
became so acute in the state of Nilgiri that the ruler could not himself control it and the infuriated Adibasis rising up with bows and arrows began to occupy the lands of other people. The situation was out of control and the Government of Orissa apprehended that the repercussions may extend to the neighbouring district. The matter was placed before the National Government of India, with whose permission, the Government of Orissa took charge of the administration of Nilgiri.

14. Within a month of taking over of the administration of Nilgiri, the situation in other states of Orissa called for intervention on the part of the Government of India. This ultimately resulted in the merger of 23 states with Orissa with effect from the 1st January 1948. Conditions existing in another state, namely, Mayurbhanj were somewhat different as the ruler had vested extensive administrative powers on a local body. It, however, took one full year for events to reach a parallel state in Mayurbhanj, which on the 1st January 1949 finally merged with the State of Orissa.

15. The State of Orissa with 6 districts existing since the year 1936 and with 23 ex-state areas merged in 1948 and another in the year 1949, acquired its final territorial shape as it now stands. There was then the reconstitution and delimitation of districts. Some of the ex-states were attached to the adjoining old districts, while others particularly with a reasonable size were given the status of a district of the State. In this way, Orissa came to have the present number of 13 districts. The State has now an area of 60,136 square miles and a population of 14,645,946. One of the late Governors is of the view that "In respect of its resources in land forests, rivers, waterfalls, mines and maritime potentialities put together,

Orissa is next to none of the major Provinces of India". In territorial extent, Orissa is bigger than England and Wales and is over four times as large as Egypt. It has 23,000 square miles of forests and 300 miles of sea-board,

enormous prospect of hydro-electric power, vast mineral deposits, namely, coal, iron, manganese ore, bauxite, chromite, mica, limestone and 30 other occurrences of industrial value and immense possibilities of development of



capital and cottage industries. Even if a part of the immense resources in land, water, minerals and man-power can be explored, Orissa will rise to unprecedented height of prosperity and power. The mineral wealth of the State is lying unexplored and unexploited, the man-power which is admittedly intelligent and industrious is being wasted for want of opportunity. Thus, in spite of tremendous wealth in various forms, it is still in a state of backwardness. Characteristically, the people of Orissa are simple, goodnatured and contented.

They are generally not excitable and they accept the vagaries of nature with philosophic calm, seeing the hand of God in draught, rainfall, flood and pestilence. They are hospitable and so inherently conservative in rural areas that they have deeprooted distrust of any idea which is new. But those that have modern education, have effectively discarded this conventional character and are progressive, ambitious and dynamic.

16. Such is the land of Orissa.

III. Change in Area

17. The changes in the area of Orissa since the year 1872 are shown in the statement below : —

Year	Area in square miles		
	Orissa proper	Orissa states	Total
(1)	(2)	(3)	(4)
1872	7,717	16,184	23,901
1881	9,053	15,187	24,240
1891	9,853	14,387	24,240
1901	9,841	14,387	24,228
1911	13,743	28,046	41,789
1921	13,736	28,046	41,782
1931	13,706	28,046	41,752
1941	32,198	25,194	57,392
1951	60,136	..	60,136

18. As shown above, the area of the province of Orissa in 1941 was 32,198 square miles. The Province was constituted at that time of six districts only, viz., Cuttack, Balasore, Puri, Sambalpur, Ganjam and Koraput. So far as census operations of 1941 were concerned, there was a common authority for these six districts as well as for 23 feudatory states comprising Mayurbhanj, Patna, Kalahandi and all the states in the Orissa States Agency except Gangpur, Kharswan and Saraikela. The area of these 23 feudatory states was 25,194 square miles, so that the total area of the province of Orissa together with the 23 states was 57,392 square miles as shown in the Census Report of 1941.

19. The present area of the State as furnished by the Surveyor General, India is 60,135.9 square miles. This area is, however, different from that obtained from local sources which comes to 60,127 square miles. Generally the latter figure has been adopted for purpose of discussion of census statistics, as the Surveyor General, India does not keep a record of areas of administrative units below district level. The areas of smaller units had therefore to be ascertained from local sources, which give a slightly different total.

20. The increase in the area of the State from 32,198 square miles in 1941 to 60,136 square miles in 1951 is primarily due to the integration of the ex-state areas with the old area of the province. On the 1st August 1949, 24 ex-states were completely merged with the province under the States Merger (Governor's Provinces) Order, 1949, increasing the area of the State to what it is now. The ex-states which thus merged are Athgarh, Tigiria, Baramba, Narsingpur, Nilgiri, Nayagarh, Daspalla, Khandpara, Ranpur, Bamra, Rairakhol, Dhenkanal, Talcher, Pal-Lahara, Athmalik, Hindol, Keonjhar, Baudh, Patna, Sonapur, Gangpur, Bonai, Kalahandi and Mayurbhanj.

IV. Population Zones and Natural Divisions

21. For a comprehensive study of the population data, it is necessary to proceed by suitable divisions of the country on the basis of administrative set up or physical features. This practice was in vogue in past censuses but it fell into disuse after 1911 in respect of all-India Report. On the present occasion, however, it was considered necessary to revive the practice and, accordingly, India has been divided into 6 Union Population Zones on the basis primarily of contiguity and

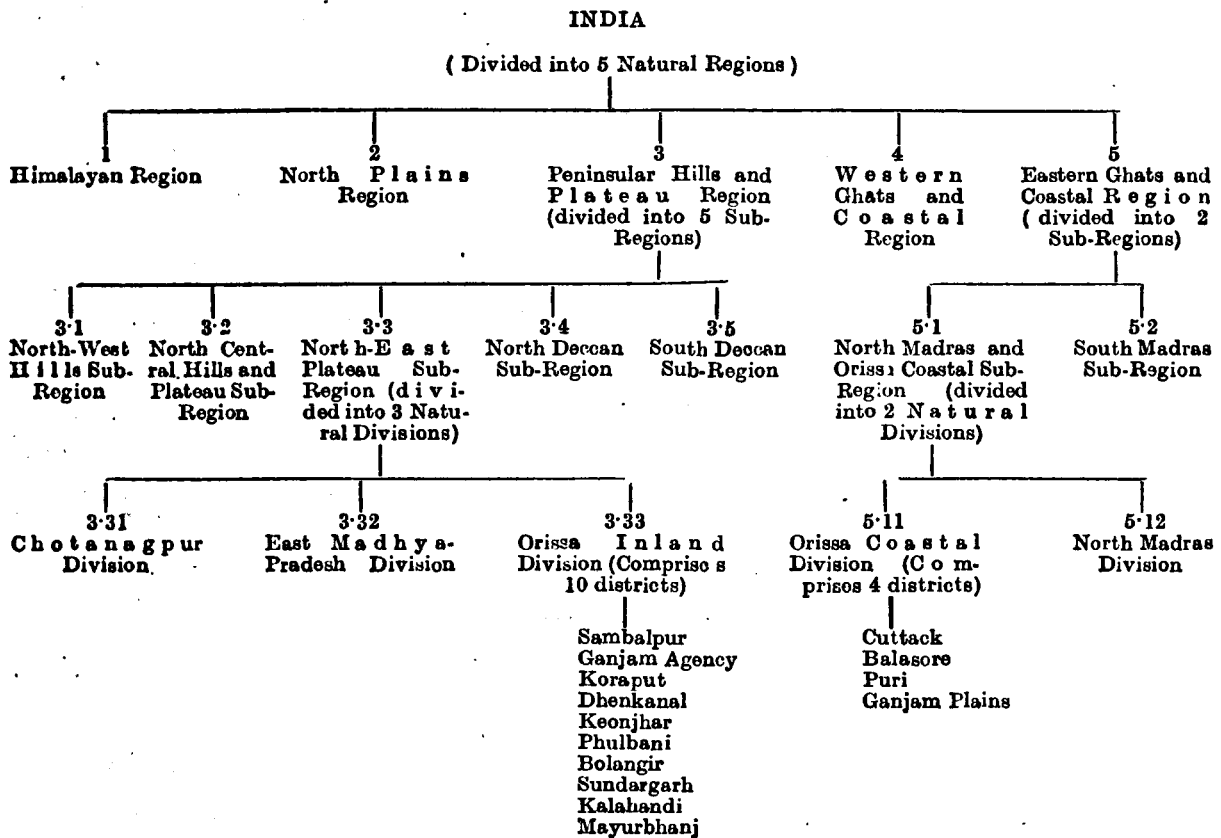
convenience for purpose of review. Out of these six Zones, namely—(i) North India, (ii) East India, (iii) South India, (iv) West India, (v) Central India and (vi) North-West India Zones, Orissa along with some other States of Eastern India, namely, Bihar, West Bengal, Assam, Manipur, Tripura and Sikkim comes under Zone No. (ii) namely, East India.

22. Administrative or political divisions of a country are not wholly

convenient for discussing the results of the census in all its aspects. Therefore a further division of the country becomes indispensable. Such a division of India has been made on the basis of physical features, independent of political or administrative considerations. Accordingly, India has been divided into five 'Natural Regions', based solely on physical features and without reference to the material differences in soil and rainfall conditions. These five Natural Regions have been sub-divided into 15 Natural Sub-Regions

on the basis of substantial difference within each Natural Region in respect primarily of soil or rainfall conditions, and also taking into account differences in the cropping pattern. The 15 Natural Sub-Regions, in turn, have been divided into 52 Natural Divisions on the basis primarily of intersection of Sub-Regions with existing political divisions.

23. The scheme of Natural Divisions, particularly relating to the State of Orissa is shown below :—



24. In accordance with the above scheme, Orissa has two Natural Divisions, namely, Orissa Inland Division (Code No. 3.33) and Orissa Coastal Division (Code No. 5.11).

25. The Orissa Inland Division is formed of an extensive hinterland extending over the three well-defined tracts of Orissa, namely, the Northern Plateau, the Eastern Ghats and the

Central Tract. This natural division comprises the administrative districts of Sambalpur, Ganjam Agency, Koraput, Dhenkanal, Keonjhar, Phulbani, Bolangir, Sundargarh, Kalahandi and Mayurbhanj and has an area of 46,052 square miles. The Orissa Coastal Division

comprises the administrative districts of Cuttack, Balasore, Puri and Ganjam Plains only with an area of 14,075 square miles. The description of physical features of these areas has been given in earlier paragraphs.

V. Geology and Minerals

GEOLOGICAL OUTLINE

26. The territory covered by the State of Orissa is geologically one of the least known regions of India. There was no regular geological survey, but there were occasional traverses and some amount of mapping made in selected areas during the last 80 years. An attempt to make a systematic geological survey of all reported mineral occurrences was made in the year 1939. The progress of work has been slow indeed, but steady and a preliminary account of the known deposits visited by officers of the Geological Survey of India is now available.

27. In earlier geological times, the portion of Orissa now occupied by the Eastern Ghats was low in level and the main streams, the Mahanadi and the Brahmani which were then in existence flowed eastwards. The whole surface, sloping eastwards, was flat to moderately undulating with occasional hills rising here and there. In the next phase, there was the deposition of Gondwana beds, which led to the uplift of a belt extending from Chotanagpur, through Keonjhar south to Phulbani, Ganjam and Koraput and finally into Madras. This uplift took place in a series of geological events. The first uplift was of the order of about 1,000 feet, creating plateaus and uplands which became covered with extensive capping of laterite as represented by the high hills of the Eastern Ghats and the Koraput plateau. A prolonged erosion of the surface ensued reducing the altitude of the western part. Then

came the second uplift elevating the southern portion to a level of 3,000 feet and the much-eroded western portion to 2,000 feet. The western portion was again subjected to erosion but the plateau from Khariar to Jeypore was spared to a considerable extent.

28. East of the uplifted region is a zone of irregular and interspersed hills which can be followed up to a few miles parallel from the coast line. This zone also has attained its final elevation by a succession of uplifts. Lastly, comes the coastal strip, gradually sloping into the Bay of Bengal. Even this low-lying region is the result not merely of deltaic activity of rivers but of uplift movements, for around the Chilka lake certain deposits of shells of estuarine type occur at a height of 20 to 30 feet above the present high water level indicating recent uplift.

MINING : EARLY HISTORY

29. The use of metals is older than the recorded history of mankind. In the past, iron, copper and other metals seem to have been worked extensively in India, as is evident from archaeological finds. The fame of ancient Indian Steel, *Wootz*, a very high grade of steel exported to Europe even before the Christian era for manufacture of swords and weapons, testifies to the mining and metallurgical skill of Indians. Indian metals also appear to have reached the south-east Asia in those early days. It is conceivable that Orissa must have played a prominent part in the extraction

of iron and other metals, not only for export to foreign countries, but also for military and domestic requirements of the homeland, for of all localities in India, iron is available in enormous quantity and high quality within bounds of Orissa and the adjoining areas of Chotanagpur and Madhya Pradesh. But this is ancient history. Later on, the iron workers of Orissa were content with smelting of low grade iron that could be available by simple quarrying of superficial deposits, lying scattered from Koraput to Mayurbhanj.

30. Notions of modern mining did not originate in India. Since the 18th century when James Watt of England invented the steam engine and Abraham Darby first used coke for smelting iron, the use of minerals has been increasingly associated with day-to-day life. The Industrial Revolution emphasised the value of coal and iron as the most coveted minerals of a country. Since then, the rise of industrial nations in the world has been largely dependent upon their possession or exploitation of adequate quantities of these two valuable minerals. The rapid development in the use of iron and steel led to an ever-increasing demand for other metals and minerals. Under these conditions, search for different minerals received great impetus and the Geological Survey started investigations in Indian soil in the last century. Private enterprises gradually appeared in the field of extraction of minerals.

SLOW UNMETHODICAL DEVELOPMENT

31. Orissa received rather cursory attention in the past from the Geological Survey of India. This is because, till late nobody knew that a colossal wealth of economic minerals is hidden in her bowels. A survey was made as late as 1939 and even this is not to be regarded as a comprehensive work. Under the circumstances there was no incentive

for mining activity in Orissa. Of course, the discovery of coal in Talcher and Sambalpur is nearly one century old, but these were stray cases, hardly attracting the attention they deserved. Slow, occasional and unmethodical extraction of minerals was started in the present century. At present, the ore-bodies are worked, not for the extraction of metals contained in them, but for the purpose of exporting them in raw condition. The absence of metallurgical enterprise in Orissa has led to the total neglect of mineral deposits except in case of those whose export in raw condition is paying. Even this activity is being done in a restricted manner on account of shipping difficulties, as Orissa has no port of its own worth the name. This is a serious drawback in the exploitation and development of mineral resources of Orissa. Moreover, the haphazard manner and the crude methods which characterise the present day mining in Orissa amount to serious loss of national resources. The ores which are rich in mineral contents are taken out while those containing lesser percentage of minerals are left to waste. It should not be forgotten that unlike forest or agricultural products, minerals once extracted mean decrease in the total quantity of that particular wealth. Therefore, as far as possible, even the poorer grade of ores should be utilised to the full. This requires technical knowledge, in which field our mine-owners are so deplorably ignorant. Unless more enlightened types of lessees come in future, there will be justification in considering the controversial issue of nationalization, of at least a few key minerals which are assets of the nation.

MINERAL RESOURCES

32. The description of mineral resources of the State may be given, first, on the basis of two Natural Divisions of Orissa separately.*

* Based on information collected from the Geological Survey of India.

ORISSA INLAND DIVISION

33. This Natural Division is a part of the Natural Sub-Region 3·3—North-East Plateau, consisting of Chotanagpur division, east Madhya Pradesh division and Orissa Inland division. This Sub-Region is the most highly mineralised region in the whole of the Indian sub-continent and carries large reserves of iron ore, manganese ore, copper, bauxite, coal, limestone and mica, in addition to the other less important minerals like kyanite, chromite, wolfram, tantalite, pitchblende, vanadiferous magnetite, asbestos, graphite, clays, etc. The greater portion of the region is occupied by crystalline schists, gneisses and granites of Archaean age in which occur patches and large basins of sedimentary rocks of Purana group as well as coal-bearing Gondwanas. The Sub-Region is important for the large reserves of lower Gondwana coals estimated at about 4,500 million tons within a depth of 2,000 feet, of which nearly 2,000 million tons are good quality coking coal.

34. The whole of Gangpur, Bonai, Keonjhar, Mayurbhanj and adjoining areas are made up of phyllites schists, limestones, dolomites and other crystalline rocks. The hill masses in Bonai, Keonjhar and parts of Mayurbhanj contain banded hematite quartzites and iron ores. A large region in east Keonjhar and Mayurbhanj extending upto south Singhbhum is composed of intrusive granites called the Singhbhum granites which are traversed by a network of dolerite dykes. The rocks of the iron ore series in South Singhbhum, Bonai, Keonjhar and Mayurbhanj carry large reserves of workable iron ore estimated at 8,000 million tons, and amounting to nearly 60 per cent of the total Indian reserves. The deposits at Badampahar, Gorumahisani and Sulaipat in the district of Mayurbhanj are being worked by Tata Iron and Steel Company

and those at Barabil in Keonjhar by Bird and Company. The total quantity of iron ore produced from these areas is of the order of over $2\frac{1}{4}$ million tons per annum. In addition to the iron ore, there are large deposits of manganese ore in the iron ore series rocks in South Singhbhum, Bonai and Keonjhar. The annual output of manganese ore from this area has increased in recent years from about 60,000 tons in 1946 to nearly 1,00,000 tons in 1949.

35. Other important minerals from the above mentioned areas are chromite, vanadiferous magnetite, kyanite, steatite, limestone, dolomite, china-clay, asbestos and apatite. The annual production of chromite from Singhbhum and Keonjhar now is about ten to thirteen thousand tons. The kyanite deposits of Kharswan, Seraikela and Mayurbhanj are the largest in the world with an annual output of 12,000 to 14,000 tons. The reserves of kyanite at Kharswan has been estimated to be over 2 million tons. The production of steatite from Seraikela, Singhbhum, Keonjhar and Mayurbhanj is about 1,000 tons annually. The reserves of limestone and dolomite in Sundargarh district are very large and these supply the entire demands of flux-grade limestone and furnace-grade dolomite to the iron and steel factories of eastern India. The annual production is of the order of 8,00,000 tons of limestone and 70,000 tons of dolomite. There are also deposits of china-clay in Singhbhum, Mayurbhanj and Keonjhar which produce 20,000 to 30,000 tons per annum.

36. There is a stretch of coal bearing sand-stones and shales of lower Gondwana age along the valley of the Ib in Sundargarh and the adjoining areas of Madhya Pradesh. There are several small coal fields like Rampur and Hemgiri in this area.

37. The Eastern Ghats south of the Mahanadi in Patna, Kalahandi, Khondals, Koraput and Ganjam are composed of rock groups called the khondalites and charnockites, and carry untapped reserves of manganese ore, graphite, bauxite, etc., but owing to inaccessibility these areas remain still undeveloped. Numerous small deposits of bauxite estimated to contain over 3,50,000 tons occur in the Karlapat hills in the Kalahandi district and also in the Khariar highlands. The graphite deposits of Athmalik, Patna, Rairakhol, Sambalpur and Koraput are known to be the largest in India, the annual production of the mineral varying from about 500 tons to 1,500 tons. Deposits of manganese ore have recently been located in Kalahandi and adjoining areas and a production of a few thousand tons has been recorded from Koraput. Other important minerals are limestone, marble, clays, glass-sands, steatite, etc. A small patch of coal-bearing sandstones covering an area of 200 square miles occurs in Talcher. Two workable seams of coal are known to occur, but though the field is worked, it has not yet been prospected in detail for proving the reserves. The present production of coal from the field is about 3,00,000 tons annually.

ORISSA COASTAL DIVISION

38. This division along with the North Madras Natural Division forms the Eastern Ghats and Coastal Sub-Region extending along the sea coast from Balasore in the north to Madras City in the south. Balasore, Cuttack and Puri districts are underlain by recent deposits of sands, silts and clays with large patches of laterite extending for a width of 30 to 40 miles from the coast beyond which occur Khondalites and charnockites. In Ganjam district, the gneissic rocks approach the coast with only a fringe of recent

deposits along the shore and river valleys. The Eastern Ghats of Ganjam and Visakhapatnam extending southwest into the East and the West Godavari districts are made up of charnockites, Khondalites and associated bands of quartzites and marbles.

39. Except for small deposits of steatite, litho-marge, iron ore, fire-clay and pottery clay in the Cuttack district and numerous small occurrences of mica, some china-clay and manganese ore in the Ganjam district, the Orissa Coastal Division is poor in mineral resources.

ECONOMIC MINERALS

40. The above review of mineral resources of Orissa has been a little too technical and an attempt is made below to give a simple outline of the economic minerals found in the State. With regard to the industries connected with mining and metals, reference may be made to Sections V and VII of Chapter V of this Report.

IRON

41. This mineral is the backbone of modern civilization. It is most fortunate for Orissa that there are immense deposits of high grade iron within its bounds. Iron ores probably not inferior to the best quality in the world are found in Mayurbhanj, Bonai and Keonjhar where the total deposits may exceed 2,000 million tons. In other words, if exploitation is made at the rate of 2 million tons of ore a year, the deposits in Orissa will be sufficient to last 1,000 years. This gives some idea of the colossal quantity of deposits in the State. Another special feature about this mineral in Orissa is that it is capable of being cheaply mined being located in comparatively less inaccessible tracts. Besides there are huge quantities of low grade iron ores spreading over different areas of Orissa from Koraput to

Mayurbhanj. Sambalpur district has several small occurrences of low grade iron estimated at nearly 50 million tons scattered over different localities. In the district of Koraput there are several smaller deposits lying scattered here and there. High grade iron ores have been located at the Hirapur hills, in Umerkote police-station in Koraput district, which though small, being estimated at 10 million tons, have high iron content ranging upto 63 per cent. A small deposit of iron ore, the total quantity of which has not yet been estimated, has been found in Sukinda in Cuttack district. Its iron content is supposed to be very high, namely, 66 per cent to 69 per cent. This may be compared to iron ores of America which contain about 55 per cent of iron and of Lorraine which are smelt and worked in France and Germany containing 35 to 40 per cent of iron. The ores found in England have a still lower iron content. The richness and high commercial value of the iron ores of Orissa are thus evident. At present the annual production of iron ores in Orissa is nearly one and a half million tons, mostly utilized by the Tata Iron and Steel Factory.

COAL

42. Coal is the most important of mineral products in Orissa. Knowledge of occurrence of coal in Orissa dates back to 1837, when a small deposit was noticed in Talcher. In 1854 another deposit of coal was discovered in Sambalpur. But active development on modern lines was not commenced in Sambalpur till 1909 and in Talcher till 1919. At present five areas are known to have major coal-bearing rocks, namely, the Talcher Coal Fields, the Rampur Coal Fields in Sambalpur, the Hingir Coal Fields in Sundargarh, the Athgarh basin in Cuttack and the Khondmals basin. The Talcher Coal Fields yielded about 5 thousand tons of coal in 1923, developing to over three and a half lakh tons

in 1933. In the Rampur Coal Fields production began in 1910 with about 100 tons, rising to 61,000 tons in 1914. Since then the production has been fluctuating from year to year between 20 and 30 thousand tons. The Hingir Coal Fields in Sundargarh district yield a good quality of coal though the quantity of production is small. Coal is also reported to occur near the Sidheswar hills, about 7 miles west of Cuttack but this has not been properly investigated. The Athgarh and Khondmals basins however do not hold out much prospect of success in a commercial sense. The total production of coal in Orissa exceeds 4 lakh tons per year at present.

MANGANESE

43. India is one of the largest producers of manganese ores in the world, being second only to Russia. Most of such ores in India is being mined in Madhya Pradesh. Orissa may also be able to produce this mineral in large quantity as there is field for extensive extraction. Large deposits of high grade manganese have been recently found at Kutingi nearby the Rayaghada railway station. The present production is between 80 and 90 thousand tons per year. It is estimated that about 4 lakh tons of manganese are available in the Kutingi deposits. Manganese mines are also being worked at present in Keonjhar district.

BAUXITE

44. Bauxite which yields the valuable industrial metal aluminium is available in the laterite hill tops of the Eastern Ghats in the northern portion of Koraput district, particularly in the Giriliguma hills. High grade aluminia laterite is to be seen in several hills of the Khariar tableland and in Karlapat hills in Kalahandi district. These deposits are believed to be the best in quality in India. As electricity plays a vital part in aluminium metallurgy, there is good

prospect of development of this industry in Kalahandi and Koraput districts, when cheap electric power from the Machkund Hydro-Electric Project will be available.

CHROMITE

45. This is an important industrial mineral which is being mined in the district of Keonjhar. The production ranges between 5 to 6 thousand tons per year at present.

LIMESTONE

46. Extensive deposits of limestone and dolomite, suitable for lime burning and cement making as well as for fluxing the iron and steel industry occur in Sundargarh, Sambalpur and Koraput districts. The extent and magnitude of deposits have not been surveyed but it appears that hundreds of million tons of this mineral will be available in these districts. Limestone deposits also occur along the Kolab and the Sabari rivers in Malkangiri in Koraput district. These limestones are of high quality, free from impurities and containing nearly 96 per cent of calcium carbonate and are suitable not only for cement making but also for chemical preparations. In the district of Sambalpur, extensive deposits have been located at Sulai, Padampur, Lakshmanpur, Dungri and in the neighbouring areas. Sundargarh district has very high quality of limestone and dolomite, extensively scattered throughout the district, making possible the establishment of a modern cement factory at Rajgangpur and several lime manufacturing concerns in the country nearabout.

MICA

47. India is the largest producer of mica in the world, most of which comes from Bihar. It is also available within Orissa, though in a much smaller extent. A small occurrence was found in village Baghudi about 4 miles from Soro railway station in Balasore district. Occurrence

in some villages of Cuttack, such as, Baideswar and Chhatia and in some localities in Ganjam, Koraput and Sambalpur districts have been reported. Some of these deposits are being surreptitiously exploited.

GLASS-SAND

48. Pure quartz-sand, free from all iron impurities and possessing a uniform grain and texture, is of economic value in the manufacture of glass. Such materials are rare. Gondwana sand-stones, however, found near Naraj in Cuttack district as well as in the adjacent village Talgarh on the Mahanadi are sufficiently fine-grained and friable and are used for manufacture of glassware at the glass factory at Barang. Such sand-stones are also available near Dalapur in Koraput.

VANADIUM

49. Orissa is the only State in India where vanadium which is an important mineral has been located. This mineral occurs in the district of Mayurbhanj but its production has not been high and has been subjected to fluctuation on account of unsatisfactory management.

OTHER MINERALS

50. Orissa abounds in many other economic minerals of lesser importance, scattered over different districts. To mention a few out of them, are abrasives, such as, garnets available in abundance in village Banapur in Koraput district and Mudepala in Nawapara subdivision of Kalahandi district; gondwanas suitable for mill-stones, hones, or grindstones available in Khandagiri and Nayapali in Khurda subdivision of Puri district; white clay available at Naraj in Cuttack district; refractories, such as, Kyanite, sillimanite and fire-clay available over different parts of the country, and building stones, such as, Khondalites, quartzites, garnetiferous granitic gneisses and

charnockites meant for walls and floors of houses, roof-making, bridge-building and even for works of arts, sculpture and

carving, which are available extensively throughout the State.

VI. The Soil

51. There has been no systematic survey of different types of soil of Orissa. Such a survey will eventually be necessary, primarily for development of forestry and agriculture, both of which play an important part in the economy of the State.

CONSTITUENTS

52. The soil derives almost the whole of its constituents from the rocks underlying it, although some organic acids and carbon, being the product of environment get into its formation independently. The classification of the types of soil of Orissa has to be mainly based on the relative silica-clay composition. The other soil constituents, such as, potash, phosphates, manganese, iron, etc., which are born of the rocks below, provide a scope for examination but the present knowledge about them is so scanty that the matter is left out of consideration. Even in respect of calcium which is regarded as the most important constituent of Orissa's soil next to silica and clay adequate knowledge is wanting, except that it is found in the shape of limestones or *kankar* scattered over or buried in surface soil in all districts of Orissa.

THE NORTHERN PLATEAU

53. This tract has a type of soil which is known as red earth. The granite which is so widespread in this region, gives rise to a rather coarse sandy soil with just sufficient clay to hold it together. The soil is comparatively open in texture. Moreover, there are extensive iron ore deposits in this area and the climate is humid. This results in accumulation of plenty of iron hydroxide on the surface, which causes

the uppermost crust of the soil to set as hard as cement in the dry season. The soil is poor in organic matter and plant nutrients and is therefore not particularly fertile and suitable for agricultural operations. These characteristics are most marked in Bamanghaty subdivision of Mayurbhanj district, Bonai subdivision of Sundargarh district and in the basin of Sundargarh subdivision.

THE EASTERN GHATS REGION

54. It has mostly lateritic soil, but as the region has varying levels of elevation and abounds in slopes and is subjected to difference in normal rainfall on the lee-ward and wind-ward sides of the Ghats, the natural environment and the action of weather find maximum scope for formation of the soil. The rains wash down the silica and kaolin contents of the soil and bring them to lower beds leaving a preponderance of aluminium and ferric oxides higher on the slope. The existence of higher percentage of iron oxide is the principal characteristic of laterite soil.

55. The covering of laterite soil is generally superficial, being limited to a few inches of thickness, though at times, it may be several feet, particularly at higher level. Laterites may be classified as high level or low level laterites on the basis of elevation at which they are found, resulting in difference in appearance and properties. High level laterites are found in the uplands of Ganjam and Koraput and may be divided into sub-classes according to constituents. In consequence of its high iron content, the laterite soil is useless for agricultural purposes and does not permit dense and thickly

developed jungle growth. The hill tribes practice shifting cultivation on this soil.

56. The soil of lower altitudes of the Eastern Ghats has greater silica rather than iron content and is more appropriately called the red earth. Valuable bases which are drained down by water from higher levels, enrich the soil of the lower tracts, but even in the lower tracts, the bases generally remain separate in depressed or hollow spots in the form of solutions ultimately drying into grey earth while sand is left behind to form high crests of red earth.

THE CENTRAL TRACT

57. This tract has a variety of soils, such as those that are formed out of the parent rock below and those that are transported from a distance and are redistributed. The black cotton soil is found on either side of river Mahanadi, spreading from Angul and Athmalik subdivisions on the left bank to Baudh subdivision on the right, extending far into the districts of Bolangir and Kalahandi along the northern banks of the rivers Suktel and Tel. The black soil is also found in the north-eastern part of district Ganjam. In Angul and Athmalik, the soil has a light black colour and is well-suited for bamboo plantation but elsewhere it is grey in colour, good for scrub jungle. The black soil has a higher content of a clay mineral called montmorillonite, remarkable for swelling properties on wetting. It has usually an admixture of *kankar* and is therefore limey. The soil cracks during the summer and becomes sticky during the rains. It is not ideal for building purposes but is more productive than red soil. Application of nitrogenous manure renders the soil suitable for growing foodcrops.

58. The soil to the east of the river Ib in Sambalpur district and extending

upto Rairakhol subdivision is known as yellow soil. The colour is the outcome of iron oxide and silicic acid salts which occur in the soil. It is sticky and is poor in fertility for cultivated crop.

59. Over the rest of the area comprised in the central tract, the soil is of distributed type. The innumerable streams of this tract drain granitic and gneissic rocks, so that the sediments are mainly sandy, but proportion of clay increases downstream in consequence of sorting. But at places, there are clay sediments followed in the lower courses by sand. This is possible because where the streams traverse clayey rocks, the sediments contain more of clay and where they pass over siliceous rocks, there will be greater proportion of sand. In the mica-schist area of Sambalpur district, the soil is of the type of potter's clay, while the Gondwana beds lower down in Dhenkanal district contain heavy loam in the soil. Laterite capping is also present to some extent in this tract. On the whole, the central tract is more widely covered with redistributed surface soils than any other natural tract in Orissa.

THE COASTAL DIVISION

60. It contains deltaic alluvial soil. It has larger content of clay, but the soil in various parts of the delta may be differentiated according to the clay-silica composition. In the northernmost section which lies in district of Balasore and which has been formed by the rivers Subarnarekha, Burabalang and Salandi, the soil is sandy loam, while in the delta of the Baitarani and Brahmani stretching over Bhadrak and Jajpur subdivisions, the soil varies from clay loam to stiff clay. The delta of the Mahanadi which covers portions of Cuttack and Puri districts has a liberal proportion of clay and silt but further south, the Rushikulya delta of Ganjam

is remarkably sandy. There is a narrow stretch of saline soil along the sea board and also marshy and swampy patches of land here and there. Sand dunes are noticeable along the surf-beaten coast.

SOIL EROSION

61. As in the case of soil distribution, there has been no survey of soil erosion in Orissa. No information is available regarding the extent of scouring of the soil, the extent of erosion by action of wind, the loss of tonnage of soil per acre of cultivated area, the acreage of ravine lands formed due to erosion and so on. Even in the absence of such information, there is no difficulty in coming to the conclusion that soil erosion has been going on on account of such reasons as formation of fissures or nallahs, over-grazing and extension of cultivation. The extraction of stumps and roots and the destruction of forests and scrub jungle done in the interest of Intensive Cultivation Scheme or Grow More Food Campaign expose the bare land to the quick work of water and wind with the result that the top soil, which is generally fertile, is lost. Nothing has been done to

prevent or retard the pace of this loss by blocking the fissures, strengthening embankments and bunds, planting of suitable trees, grass or fodder crops or by stopping indiscriminate grazing and destruction of jungle growth. The consequences are felt in the tragedy of loss in the yield of crops, silting of anicuts and dams and rising up of the beds of rivers, particularly in the coastal division, which in turn, has been causing devastating floods in the country at frequent intervals.

62. In the coastal division, soil erosion does not appear to have become a serious problem. Some extent of erosion, caused by over-grazing and opening of land for cultivation purposes in this division is mostly counter-balanced by the slow but steady deltaic activity of its rivers. The problem, however, is different in the inland division, particularly in the Eastern Ghats Region, where the steeply inclined hill slopes and the undulating surface soils are subjected to rapid erosion due to heavy rainfall and stream activity. This again is aggravated by deforestation. The problem calls for early preventive measures.

VII. Climate and Rainfall

63. As characteristic of maritime tropical countries, Orissa may be roughly said to have three seasons, the cold weather, the hot weather and the rains. The cold weather lasts from November to February. The hot weather commences in March and terminates with the setting in of the rains in June. Thereafter the rains continue till the month of October. The climatological particulars of the two natural divisions are mentioned below separately.

ORISSA INLAND DIVISION

64. This division consists of mountains, peaks, low hills, valleys and plains,

interspersed among one another and varying in altitude upto nearly 4,000 feet. In an area of such varying orography and physical features, the climatic conditions are expected to vary considerably.

65. December is the coldest month of the year when the mean maximum temperature is 80°F at Sambalpur (500 feet above sea level) and 77°F at Koraput (3,000 feet above sea level). The mean minimum is 54°F and 48°F respectively. The lowest minimum temperature recorded is 40°F at Sambalpur and 37°F at Koraput. December is the driest month of the year, when

little or no rain is recorded. In January and February, however, some rain amounting to half an inch or one inch occurs, generally as thunder-showers.

66. The weather starts getting hot by March and continues so upto the onset of the monsoon in June. In May, the hottest month of the year, the mean maximum temperature is 107°F at Sambalpur, but very much lower, 94°F at Koraput. In the hilly areas, the temperature is expected to be appreciably lower than in the valleys or plains. Sambalpur has recorded the highest maximum temperature of 117°F in May and 116°F in June, whereas at Koraput it has been only 104°F. Thunderstorms are fairly frequent during the hot season and some of them are accompanied by showers and squalls.

67. The onset of the monsoon which takes place by about the 10th or 15th of June is preceded by the pre-monsoon thunderstorms which are very frequent. Even during the monsoon season, there is very pronounced thunderstorm activity. The period June to September is the rainiest part of the year and July and August are the wettest months. Nearly 60 per cent of the annual rainfall is recorded during these two months. The division lies in the path of the cyclonic storms or depressions which pass across north India from the Bay of Bengal and in association with their formation and movement very heavy rain is sometimes experienced. Sambalpur has thus recorded in a single day 10 inches of rain in June, 15.8 inches in July, 10.5 inches in August and 6.8 inches in September and October. The rainfall in this division is mainly controlled by the formation and movement of these monsoon depressions. In those years when these are few or are not of sufficient intensity, rainfall is much below normal and in other years when monsoon depressions form one

after another in succession, there is an abundance of rainfall sometimes leading to floods. Thus, Sambalpur, which receives on an average 20.56 inches of rain in July had 41.96 inches of rain in that month in 1892, but only 7.43 inches in 1911. Similarly in August, when the average rainfall is 19.04 inches, a quantity of 35.83 inches of rain was recorded in 1907 but only 4.75 inches in 1892. The rainfall in the wettest year at Sambalpur was 91 inches and that during the driest year 37 inches compared to an average annual of 66 inches. The monsoon generally withdraws from the division by about the 15th October. The weather starts cooling by November.

ORISSA COASTAL DIVISION

68. This division is directly in the track of storms which frequently cross inland from the Bay of Bengal during the south-west monsoon. Rainfall is more in the northern districts than in the southern. On an average, about 60 inches of rain falls in the northern districts while in the southern districts, it is about 50 inches. In the rainiest year the northern districts have received as much as 100 inches while in the southern districts the maximum was about 80 inches. Another important feature of the division is that the rainfall has never fallen below 50 per cent of the normal. In the plains, the south-west monsoon rains are heavier inland than on the coast while the north-east monsoon gives more rain on the coast than in the interior. Data of over 50 rain recording stations and of the observatories at Balasore, Cuttack, Puri and Gopalpur illustrate the climatic features.

69. December to February has a fine weather except occasionally when the weather is slightly disturbed and light rainfall for about one or two days each month occur near the coast. Two to five days of thunder each month have

been recorded near the hills. The early mornings are cool and misty. For about five to ten days in December and January, thick mist persists till about 10 A.M. in the Mahanadi delta. The early morning temperature is of the order of 60°F and the afternoon temperature ranges between 83°F to 88°F. The lowest temperature of 44°F has been recorded at Balasore and 46°F at Cuttack. Winds are mainly N-NW. In the afternoons, winds near the coast become easterly in December changing to southerly in February.

70. March to May is the hottest season with the average maximum temperature in the northern districts of Balasore and Cuttack about 100°F and in the southern districts about 90°F. In May, a temperature of 116°F has been recorded at Balasore and Cuttack. Gopalpur has once recorded 110°F in May, Puri having never recorded more than 103°F. Skies get more clouded with the advance of the season and together with it, rainfall associated with thundershowers occur. On the average, about 5-6 inches of rain falls, the northern districts getting more than the southern ones. The frequency of thunderstorms increases from 6 days in March to 12 days in May. Winds are south-westerly but change to southerly in the evenings.

71. June to September is the main rainy season when the south-west monsoon contributes nearly three-quarters of the annual rainfall. Monsoon advances in the first week of June usually ushered in by depressions which form at the head of the Bay of Bengal. A series of such depressions which move west or north-west cross the Orissa coast

in July and August giving widespread and heavy rain. Associated with cyclonic storms, Balasore and Cuttack have recorded rainfalls of 13.67 inches and 12.63 inches respectively in a day. The atmosphere becomes hazy and visibility is reduced to less than 2 miles on many days. Winds are SW-S. The monsoon generally withdraws in the last week of September or first week of October. But in October, a few storms which form in the Bay of Bengal recurve near Madras coast and move north or north-east affecting weather over the Orissa coast. They cause very heavy rain near the coast. On one single day in October, a rainfall of 12.48 inches and 10.09 inches have been recorded at Puri and Gopalpur respectively. On the average, about 11-12 inches of rain falls in the southern districts and about 7-8 inches in the northern districts during the months of October and November.

RAINFALL STATISTICS

72. The monthly rainfall during the year 1950 in the districts of Orissa is given in the following page together with the annual normal rainfall for each district.* The annual normal is the arithmetical mean computed by the usual method of dividing the sums of the appropriate rainfall amounts for the district by the number of years to which the date relates. The period on the basis of which the normals are calculated for any station or district is not fixed, nor is it the same for all stations or districts. As much of the available data as possible are utilised for computing the normals for each locality. Normals are, however, not worked out with less than five years data.

* Figures obtained from Deputy Director-General of Observatories, Poona.

Monthly Rainfall (in inches) in Orissa in 1950

District	January	February	March	April	May	June	July	August	September	October	November	December	Annual normal rainfall
Cuttack ..	0	0.60	2.50	0.97	2.39	8.91	13.19	14.24	12.93	2.49	8.40	0	58.51
Balasore ..	0	0.52	2.95	0.42	3.79	8.68	12.35	8.32	11.83	3.25	7.47	0	59.41
Puri ..	0	0.33	3.83	1.05	2.31	10.46	12.59	9.59	7.75	2.66	9.31	0	57.38
Sambalpur ..	0	1.27	2.62	0	0.06	8.08	15.09	21.23	7.42	0.38	1.09	0	60.56
Ganjam ..	0	1.01	3.14	0.45	1.21	6.61	10.25	7.33	5.92	3.03	6.31	0	51.93
Koraput ..	0	0.73	1.16	0.39	1.92	7.46	11.45	13.03	6.22	2.97	4.71	0	59.58
Dhenkanal ..	0	1.33	2.90	0.08	1.40	5.52	8.82	13.96	7.00	1.46	3.49	0	55.91
Keonjhar ..	0	0.69	2.90	0.27	6.07	7.59	15.32	11.25	9.90	0.78	4.98	0	62.13
Phulbani ..	0	1.37	4.91	0.13	1.60	12.66	13.00	15.77	8.35	0.77	5.86	0	63.65
Bolangir ..	0	1.09	3.51	0	0	9.81	13.69	13.52	7.55	1.42	1.26	0	58.16
Sundargarh ..	0	1.42	3.13	0	..	10.36	20.21	14.69	6.85	..	1.25	0	65.65
Kalahandi ..	0	1.27	2.11	0	..	..	10.32	10.85	9.46	0.24	2.43	0	54.76
Mayurbhanj ..	0	0.98	3.36	0.51	1.31	..	..	..	..	3.44	3.26	0	63.46

73. The following statement shows the annual rainfall of all districts from 1931 to 1950.

Annual Rainfall (in inches) of Districts of Orissa (1931-1950)

Name of the district	Annual rainfall for the year									
	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940
Cuttack ..	59.01	56.35	75.89	57.80	48.86	81.14	60.53	51.38	47.81	65.01
Balasore ..	67.09	58.55	83.20	58.36	47.47	75.55	63.69	56.54	51.29	73.36
Puri ..	54.23	58.78	65.57	52.58	48.04	82.04	59.62	60.62	48.51	67.43
Sambalpur ..	60.61	54.29	74.64	61.84	51.48	74.48	71.01	56.80	75.51	62.23
Ganjam ..	49.79	50.99	72.00	44.70	35.53	61.65	47.99	50.92	46.32	62.59
Koraput ..	65.87	53.56	66.30	64.81	48.92	73.20	57.84	65.70	58.97	60.46
Dhenkanal ..	58.45	58.14	73.75	54.18	44.49	70.09	56.65	47.65	65.16	60.66
Keonjhar ..	66.07	63.21	63.54	59.05	49.82	66.06	71.51	58.40	62.93	81.46
Phulbani ..	51.21	61.96	91.98	65.53	53.64	88.68	69.31	53.89	80.46	69.90
Bolangir ..	50.57	66.72	80.92	57.29	39.34	74.18	64.16	45.57	69.68	65.08
Sundargarh ..	61.08	51.77	63.99	74.20	56.46	82.39	67.50	57.04	72.26	60.80
Kalahandi ..	38.34	59.05	67.92	59.39	42.77	71.35	63.76	57.69	58.41	58.70
Mayurbhanj ..	64.62	60.92	78.63	51.90	56.92	65.93	70.45	52.18	74.58	83.97
Name of the district	Annual rainfall for the year									
	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Cuttack ..	60.39	53.92	57.21	67.97	51.13	66.39	64.73	58.64	46.21	66.62
Balasore ..	70.32	54.33	60.28	59.62	63.35	77.28	51.03	56.66	61.91	59.58
Puri ..	49.23	49.50	68.41	70.69	57.04	67.31	56.42	57.63	52.04	59.88
Sambalpur ..	64.81	57.25	76.88	67.71	60.86	67.79	52.61	48.91	62.88	57.24
Ganjam ..	44.12	41.74	..	58.46	47.91	54.32	51.53	45.45	50.62	45.26
Koraput ..	51.79	47.57	57.51	63.59	39.07	72.17	63.58	55.15	101.24	50.34
Dhenkanal ..	54.66	49.07	65.65	68.51	51.09	64.93	47.96	50.34	..	45.96
Keonjhar ..	72.91	58.33	63.97	62.17	61.90	77.18	57.03	57.51	..	59.75
Phulbani ..	59.93	56.13	77.50	74.75	64.57	57.68	63.66	41.53	59.72	64.42
Bolangir ..	46.37	58.92	61.61	60.34	52.77	45.40	48.18	52.07	52.92	51.85
Sundargarh ..	70.37	63.34	83.59	59.89	62.01	74.91	49.38	63.97	..	..
Kalahandi ..	38.49	49.40	70.51	68.82	59.11	48.93	58.83	..	..	..
Mayurbhanj ..	74.75	70.33	83.22	69.29	64.62	81.40	56.62	69.10	52.83	..

VIII. Forests

AREA

74. Orissa has extensive and rich forests. The total area under forests is approximately 23,000 square miles, comprising—

- (i) Demarcated forests 10,256 square miles out of which 8,524 square miles are reserved and the rest protected forests.
- (ii) Undemarcated forests 6,534 square miles containing protected forests and Khasra forests.
- (iii) Privately owned forests exceeding 6,000 square miles, which may completely come under the Government after abolition of Zamindaries.

75. The demarcated and undemarcated forests, with a total area of 16,790 square miles as mentioned above, are under the direct control of the State Forest Department. Besides, a small extent of privately owned forests has also been taken under departmental control with a view to put an end to the indiscriminate and excessive exploitation of such forests for personal ends.

CLASSIFICATION

76. The control and management of the forests hitherto do not appear to be the result of a vigorous constructive policy. Forests have been classified under the Forest Act on the basis of the degree of departmental control exercisable over them. Such a classification does not help to focus attention on the object of management from the point of view of national well-being. As early as 1894* the Government of India enunciated the general policy of

management of forests by recommending classification of forests on functional basis, which 34 years later was reiterated by the Royal Commission on Agriculture in India. It appears that the policy enunciated was not put into execution till 1952, when the needs of reconstruction schemes and development of industries and communications heavily demanding all categories of forest produce led to the re-orientation of the forest policy afresh.† Accordingly, forests are to be classified on functional basis as follows :—

- (i) Protection forests, i.e., those forests which might be preserved or created for physical and climatic considerations ;
- (ii) National forests, i.e., those which have to be maintained and managed to meet the needs of defence, communications, industry and other general purposes of public importance ;
- (iii) Village forests, i.e., those which have to be maintained to provide firewood to release cowdung for manure, and to yield small timber for agricultural implements and other forest produce for local requirements and to provide grazing for cattle ;
- (iv) Tree-lands, i.e., those areas which though outside the scope of the ordinary forest management are essential for the amelioration of the physical conditions of the country.

77. The functional classification, rather than the classification based on the degree of departmental control, will

*Resolution No. 22-F., dated the 19th October 1894 of the Government of India in the Department of Revenue and Agriculture.

† Resolution No. 13-1/52-F., dated the 12th May 1952 of the Ministry of Food and Agriculture, Government of India.

help to indicate if the utility of a particular forest is of local, commercial or national significance. The area of Orissa's forests classified on functional basis is not available and so the study of the part which the forests will play in the economy of the State will be restricted. There can hardly be any doubt, however, that the forests of Orissa, if properly developed, will be a source of wealth and strength for the country.

DISTRICTWISE DISTRIBUTION

78. The distribution of the demarcated and undemarcated forests in different districts is shown below :—

State and district	Total area of demarcated, undemarcated forests	Demarcated forests	Undemarcated forests
ORISSA	16,790	10,256	6,534
Orissa Inland Division	14,364	8,499	5,865
Orissa Coastal Division	2,426	1,757	669
Cuttack ..	252	200	52
Balasore ..	375	75	300
Puri ..	1,076	759	317
Sambalpur ..	1,990	1,530	460
Ganjam ..	870	870	..
Agency ..	147	147	..
Plains ..	723	723	..
Koraput ..	..	..	..
Dhenkanal ..	2,029	1,288	741
Keonjhar ..	1,500	700	800
Phulbani ..	1,316	1,016	300
Bolangir ..	732	463	269
Sundargarh ..	2,423	1,513	910
Kalahandi ..	1,991	691	1,300
Mayurbhanj..	2,236	1,151	1,085

79. In addition to the demarcated and undemarcated forests, the Annual Administration Report of the Forest Department for 1949-50 approximately shows the area of privately owned forests as 6,000 square miles as follows :—

Kalahandi ..	400 square miles
Sundargarh ..	500 square miles
Cuttack ..	250 square miles
Ganjam ..	750 square miles
Koraput ..	4,100 square miles

EXTENT

80. The Director of Forests, Orissa agrees that the figures shown above may be much less than the correct extent of Zamindari forests. In fact, the above total of 6,000 square miles does not include any Zamindari forests in many districts, namely, Sambalpur, Puri, Balasore, etc., although these districts are known to have some extent of Zamindari forests. It is also likely that the area of Zamindari forests in the districts named in the Annual Administration Report may be less than the correct figure. Under the circumstances, it may be reasonable to hold that the total extent of Zamindari forests exceeds 6,000 square miles. Accordingly, Orissa may be shown to possess 23,000 square miles of forest area, in round figure, of which an extent of 16,790 square miles constitute Government Controlled forests and the rest privately owned forests. These private forests will be soon forming part of the State forests when abolition of Zamindari is achieved. As the State has an area of 60,136 square miles, the extent of forests works out to 38.2 per cent of the area of the State. According to the present National Forest Policy, India aims to maintain one-third of its total land area under forests. Orissa has thus more than this proportion. Correct information regarding the extent of forests in other States is not available, but it is likely that Assam and Madhya Pradesh of all States in India may have a larger proportion of forest areas than Orissa while other States have a lower percentage.

INCOME AND FOREST PRODUCE

81. The gross income from forest revenue exceeded Rs. 86 lakhs in the year 1949-50. When the undemarcated forests are demarcated, and the privately owned forests are brought under control, the revenue will improve considerably.

82. Among the forest produce, the most important items are timber and fuel which yielded an income of about Rs. 41 lakhs and Rs. 13 lakhs respectively in the year 1949-50. Bamboo is under extensive exploitation in Angul, Athmalik, Hindol, Daspalla, Narsingpur, Sambalpur, Rairakhol and Bamra for manufacture of paper pulp. Short

term leases of three years are given in respect of minor forest products, such as, Sabaigrass, Mohua flower, lac, cane, catechu, honey, charcoal, hide, tamarind and broom grass. Kendu leaves are generally leased out for a term of five years, yielding more than 14 lakhs as revenue per year.

APPENDIX I

No. 3482-P.H.

FROM

LT.-COL. P. PAPATLA, B.A., M.B.,B.S. (Madras), F.R.C.S. (Edin.), D.O.M.S., D.L.O., D.P.H. (Lond.),
DIRECTOR OF HEALTH AND INSPECTOR-GENERAL OF PRISONS, ORISSA.

To

THE SUPERINTENDENT OF CENSUS OPERATIONS, ORISSA, CUTTACK.

Dated Bhubaneswar, the 29th May 1953

SUBJECT—Collection and Registration of Vital Statistics

SIR,

In continuation of this office letter No. 244-P.H., dated the 10th January 1952 on the subject indicated above, I forward herewith a note giving details of the system of collection and registration of vital occurrences in the State of Orissa as discussed in my office on the 12th May 1952.

Yours faithfully

P. PAPATLA

*Director of Health and Inspector-General
of Prisons, Orissa*

Collection and Registration of Vital Statistics in the State of Orissa

Vital occurrences are collected according to the Madras and Bengal Births and Deaths Registration Acts in South and North Orissa districts respectively.

South Orissa—The Madras Births and Deaths Registration Act (Act III of 1899) is extended to the rural and urban areas of the districts of Ganjam and Koraput, vide Government of Madras Orders No. 912-P.H., dated the 29th June 1922 and No. 2448-P.H., dated the 1st December 1925 respectively.

It is compulsory in municipal towns of Berhampur, Parlakimedi, Panchayat Boards and villages having a population of 2,000 and over in Ganjam Plains.

It is extended to the entire Ganjam Plains, 3,634 villages in Ganjam Agency and Union Board areas of Jeypore, Koraput, Nawrangpur, Gunupur, Rayaghada, Kotpad and Gudari in the district of Koraput.

In municipal areas, the figures are collected by the municipal staff and a monthly statement of vital statistics is submitted to the office of the Director of Health and Inspector-General of Prisons by the Chairman.

As regards the rural areas, the figures are collected by village Headmen and a monthly return is sent to the Taluk Officers every month. The Taluk Officers submit them to the office of the Director of Health and Inspector-General of Prisons where they are consolidated into taluk and district figures.

In the Union Board areas of Koraput district vital occurrences are collected by the staff of the Board and a monthly return is submitted to the Health Directorate by the President of the Board.

North Orissa—The Bengal Births and Deaths Registration Act (Act IV of 1873) is extended to North Orissa Districts (ex-Bihar and Orissa and ex-C. P. area).

It is compulsory in 6 municipalities of Cuttack, Kendrapara and Jajpur in Cuttack district; Balasore, Puri and Sambalpur. It is extended to the rural areas of the districts of Cuttack, Balasore, Puri, Sambalpur including Nawapara subdivision now transferred to Kalahandi district, Angul and Khondmals subdivisions now merged in Dhenkanal and Phulbani districts respectively.

According to rule 127 of the Orissa Police Manual, Vol. I, collection of vital occurrences in municipalities has been transferred from Police Department to the municipal authorities who collect the figures by their staff and furnish a monthly statement to the Civil Surgeon concerned for inclusion of the same in the monthly district figures compiled in his office.

According to rule 126 of the Orissa Police Manual, Vol. I, the vital statistics of rural areas are collected by the village chawkidars and reported to the Thana Officers concerned who, after registering the same furnish a consolidated monthly report to the office of the Civil Surgeons for compilation of district return.

The work of compiling district vital statistical figures has since been transferred to the District Health Officer from the Civil Surgeon. Monthly returns received from the village Headmen through Taluk Officers; Chairmen, Municipalities; and Presidents of Union Boards in respect of South Orissa districts are consolidated in district figures in the Health Directorate.

The district figures received from the offices of the Civil Surgeons in respect of old North Orissa districts are consolidated into Provincial figures in the office of the Director of Health and Inspector-General of Prisons, Orissa.

The provincial area of the State is divided into 9 rural and 14 urban units for the purpose of reporting of vital statistics as detailed below:—

Rural Unit (District)		Urban Unit (Town)	
1. Cuttack	6. Khondmals	1. Cuttack	8. Bargarh
2. Balasore	7. Ganjam Plains	2. Kendrapara	9. Angul
3. Puri	8. Ganjam Agency	3. Jajpur	10. Phulbani
4. Sambalpur	9. Koraput	4. Bhadrak	11. Balasore
5. Angul		5. Puri	12. Berhampur
		6. Khurda	13. Parlakimedi
		7. Sambalpur	14. Jeypore

An advance manuscript copy of the monthly vital statistical return compiled in the Health Directorate is sent to the Director-General of Health Services, India, New Delhi as first hand information and another copy to Government Press for publication in the State Gazette. Printed copies are also supplied to the Director-General of Health Services, New Delhi, Secretary to Government of Orissa, Health Department, Senior Statistician of the Cabinet Department of Government.

Annual statistical data required for the Public Health Report of the State are collected from the registers of vital statistics maintained in the Directorate. 21,894 square miles having a population of 7,588,473 according to the Census, 1941, are brought under registration.

The population of non-registered area is not taken for the purpose of the report. The figures are also not available.

Although the above system of collecting vital statistics is in vogue in most of the States of the Indian Union, it is very defective with regard to correct classification of causes of deaths as the Chawkidars and village Headmen are mostly uneducated and entirely depend on the reports of the villagers. In the circumstances the classification of deaths based on such diagnosis is not all accurate. Sometimes omissions occur and as the collecting agencies don't feel for its importance, they don't take pains to account for such omissions.

Ceded areas—Prior to the integration there was no arrangement for collection of vital statistics in ceded areas. Pending introduction of the registration of births and deaths according to the Bengal Births and Deaths Registration Act, arrangement was made for the collection of weekly figures of attacks and deaths from cholera and smallpox with effect from July 1948—for taking preventive measures. Arrangement has been made for the collection and registration of vital statistics in ceded areas with effect from the 1st January 1952, under the Bengal Births and Deaths Registration Act, 1873. A proposal for bringing uniformity and accuracy in collecting vital occurrences throughout the State of Orissa is under the consideration of the State Government.

Besides this weekly vital occurrences in towns having a population of 30,000 and over and weekly epidemic report in respect of all districts and towns showing attacks and deaths from smallpox and cholera are issued every week from this Directorate.

Infant mortality is limited to one year of age for the purpose of statistical report.

The area of the 7 Union Boards of Koraput district which are under the registration of vital statistics has been taken to be 117 square miles in total area according to the Census of 1941.

If during Census Operations of 1951, it is revealed that the area of these Union Boards including Machkund has been 20 square miles the actual area of the Union Boards brought under the registration of vital statistics may be corrected accordingly and an intimation to the effect is given to this office.

APPENDIX II

SRI D. MISRA. B.Ag. (Nag), DIP.-IN-AGRI. (Cantab.),
DIRECTOR OF AGRICULTURE AND FOOD
PRODUCTION, ORISSA.

OFFICE OF THE DIRECTOR OF AGRICUL-
TURE AND FOOD PRODUCTION, ORISSA

D. O. No. 6460/Agri.-9S-118-52.

Dated Cuttack, the 13th May 1952

DEAR MR. AHMED,

Will you kindly refer to your D. O. No. 752-Cen., dated the 8th May 1952. The figures so far available in this office have been furnished in the prescribed tables along with the explanatory notes.

Yours Sincerely

D. MISRA

To

M. AHMED, Esqr.

Superintendent, Census Operations, Orissa.

EXPLANATORY NOTE

Table No. IV (7)—Figures for average net area as per column A(1), A(2), A(3) and A(4) for different decades in all the districts of present Orissa have been adopted from the following sources :—

For Cuttack, Balasore, Puri and Sambalpur districts

For decades 1921 and 1931 have been taken from the Season and Crop Report, Bihar and Orissa. For decades 1941 and 1951—from the Season and Crop Report of Orissa.

Ganjam Agency and Plains

For decades 1921 and 1931—Figures have been taken from Statistical Atlas of Madras.

For decades 1941 and 1951—Separate figures for Agency and Plains are not available. So only one figure for the entire district has been furnished from Season and Crop Report of Orissa.

Orissa States

Figures for 1941 have been taken from the report of Agricultural Statistics of Eastern States Agency compiled by Agricultural Adviser, Eastern States Agency. The same figures are adopted for the decades 1921 and 1931 as there was no other source for which figures of the above decades could be compiled.

For 1951 decade the figures have been taken from the report of District Officers and compiled by the Statistics Section of Agricultural Department. As regards Mayurbhanj state the figures for 1931, have been collected from the Directory of villages compiled by Census Officer of the said state. Figures for 1921 and 1941 are not available from any authentic source.

Table No. IV (8)—This table will be compiled by the Census Department utilising the figures of IV(7).

Table No. IV (9)—Figures from 2 to 7 will be compiled by the Census Department. Yield figures are not available for state districts. The average yield figure of the Eastern States as a whole have been furnished. Dependable data regarding the size of holdings are not available except in the case of Ganjam district where the average holding recorded 3.77 acres.

Production Capacity 4-9

	Cuttack	Balasore	Puri	Sambalpur	Ganjam	Koraput	Mayurbhanj	Dhenkanal	Keonjhar	Kalahandi	Eastern States
1921	10.5	Mds. 11.5	10.3	8.5	..	..	..	..	..	..	..
	per acre.										
1931	7.1	Do. 8.4	12.9	8.1	..	..	..	..	..	..	681 lbs.
1941	6.8	7.1	6.3	7.4	5.6	7.8	..	..	..	9.5	443 lbs.
1951	6.0	6.6	5.6	5.9	4.4	7.5	6.9	7.3	..	10.5	..

Name (1)	Average net area sown (A1) in acres				Average area sown more than once (A2) in acres			
	1951	1941	1931	1921	1951	1941	1931	1921
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ORISSA ..	12,126,542	11,805,190	12,366,909	12,974,005	1,065,259	679,473	613,433	716,378
3-33 Orissa Inland Division ..	8,213,202	7,958,462	8,307,755	8,372,004	194,369	129,444	120,311	193,838
5-11 Orissa Coastal Division ..	3,913,340	3,846,728	4,059,154	4,602,001	870,890	550,029	493,122	522,540
Cuttack ..	1,115,858	1,268,321	1,223,600	1,388,430	550,872	195,830	182,244	230,041
Balasore ..	1,019,834	970,321	993,189	1,031,189	9,199	2,332	10,100	9,500
Puri ..	1,063,534	817,003	854,398	1,101,798	167,681	218,330	179,792	119,592
Sambalpur ..	1,365,240	1,240,461	1,191,266	1,173,566	76,098	29,570	15,816	82,601
Ganjam ..	770,865	839,435	1,068,437	1,169,154	178,923	136,971	120,986	163,407
<i>Ganjam Agency</i> ..	56,751	48,352	80,470	88,570	35,785	3,434	..	..
<i>Ganjam Plains</i> ..	714,114	791,083	987,967	1,080,584	143,138	133,537	120,986	163,407
Koraput ..	1,419,370	1,416,261	1,460,501	1,511,549	2,694	2,694	10,222	17,749
Keonjhar ..	592,768	508,625	508,625	508,625	7,000	11,720	11,720	11,720
Dhenkanal ..	702,371	764,430	764,430	792,230	14,496	34,300	34,900	34,100
Bolangir ..	1,171,056	1,209,111	1,209,111	1,209,111	38,378	38,378	38,378	38,378
Sundargarh ..	751,669	734,849	734,849	734,849	11,717	..	..	..
Phulbani ..	481,425	363,821	452,110	447,111	1,136 (Baudh)	9,348	9,875	9,290
Kalahandi ..	874,712	874,712	874,712	874,712	Not available	..	..	..
Mayurbhanj ..	797,840	..	1,031,681	..	7,065	Not available	..	..

Name (1)	Average net area irrigated (A3) in acres				Average area irrigated more than once (A4) in acres			
	1951	1941	1931	1921	1951	1941	1931	1921
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
ORISSA ..	1,889,320	1,553,337	1,607,922	2,405,640	7,131	115,238	1,343	78,280
3-33 Orissa Inland Division ..	981,646	674,950	663,600	1,366,115	5,024	..	..	552
5-11 Orissa Coastal Division ..	907,674	878,387	944,322	1,039,525	2,107	115,238	1,343	77,728
Cuttack ..	319,244	274,627	348,805	408,000	1,640	111,603	..	74,489
Balasore ..	6,084	12,882	14,450	73,635	-	470	..	-
Puri ..	257,993	216,903	367,074	366,884	-	..	-	-
Sambalpur ..	295,330	48,490	319,223	397,977	5,024	..	..	-
Ganjam ..	324,353	373,975	213,993	191,006	467	3,165	1,343	3,209
<i>Ganjam Agency</i> ..	..	..	..	..	..	..	..	..
<i>Ganjam Plains</i> ..	324,353	373,975	213,993	191,006	467	3,165	1,343	3,209
Koraput ..	473,366	471,655	236,140	1,055	-	-	-	552
Keonjhar ..	Figures	not	available	..	Figures	not	..	available
Dhenkanal ..	Figures	not	available	34,100	Figures	not	..	available
Bolangir ..	Figures	not	available	781,482	Figures	not	..	available
Sundargarh ..	Figures	not	available	12,950	Figures	not	..	available
Phulbani ..	116,595	95,630	47,632	22,001	..	..	..	..
Kalahandi ..	62,219	59,175	..	..	..	..	..	..
Mayurbhanj ..	44,136	..	60,605	..	..	..	..	..

Group Code Number	Occupation	ORISSA								
		3-33 Orissa Inland Division			5-11 Orissa Coastal Division					
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
ALL INDUSTRIES AND SERVICES		919,249	716,458	201,791	416,458	336,147	80,311	501,791	380,311	121,480
Division 0. Primary Industries not elsewhere specified		66,803	55,640	11,163	27,014	23,231	3,783	39,789	32,409	7,380
0-1	Stock Raising	29,704	23,769	5,935	13,488	11,473	2,015	16,216	12,296	3,920
0-11	Herdsmen and shepherds	20,720	16,298	4,422	6,908	5,905	1,003	13,812	10,393	3,419
0-12	Breeders and keepers of cattle and buffaloes	8,983	7,470	1,513	6,579	5,567	1,012	2,404	1,903	501
0-10	Breeders and keepers of other large animals including transport animals.	1	1	..	1	1	..	..	..	..
0-2	Rearing of small animals and insects	516	424	92	393	305	88	123	119	4
0-21	Poultry farmers	315	251	64	204	144	60	111	107	4
0-22	Beekeepers	105	89	16	98	82	16	7	7	..
0-23	Silkworm rearers	34	34	..	29	29	..	5	5	..
0-24	Cultivators of lac	62	50	12	62	50	12	..	..	..
0-3	Plantation Industries	944	794	150	552	440	112	399	354	38
0-31	Tea plantation	193	168	35	157	122	35	36	36	..
0-30	All other plantations but not including the cultivation of special crops in conjunction with ordinary cultivation of field crops.	751	636	115	395	318	77	356	318	38
0-4	Forestry and woodcutting	11,505	7,967	3,538	5,475	4,296	1,179	6,030	3,671	2,359
0-40	Planting, replanting and conservation of forests (including forest officers, rangers, and guards).	1,393	1,385	8	1,158	1,150	8	235	235	..
0-41	Charcoal burners	204	137	67	172	112	60	32	25	7
0-42	Collectors of forest produce and lac	2,044	1,388	656	1,529	1,137	392	515	251	264
0-43	Woodcutters	7,864	5,057	2,807	2,616	1,897	719	5,248	3,160	2,088
0-5	Hunting (including trapping and game propagation).	61	57	4	43	39	4	18	18	..
0-6	Fishing	24,073	22,629	1,444	7,063	6,678	385	17,010	15,951	1,059
0-60	Fishing in sea and inland waters including the operation of fish farms and fish hatcheries.	23,843	22,400	1,443	7,054	6,669	385	16,789	15,731	1,058
0-61	Gatherers of chanks and pearls	1	1	..	..	..	..	1	1	..
0-62	Gatherers of sea weeds, sea shells, sponges and other water products.	229	228	1	9	9	..	220	219	1
Division 1. Mining and quarrying		11,216	8,803	2,413	8,726	6,395	2,331	2,490	2,408	82
1-0	Non-metallic mining and quarrying not otherwise classified—including mining and quarrying of such materials as precious and semi-precious stones, asbestos, gypsum, sulphur, asphalt, bitumen.	112	96	16	11	9	2	101	87	14
1-1	Coal mining—Mines primarily engaged in the extraction of anthracite and of soft coals such as bituminous, sub-bituminous and lignite.	4,549	3,730	819	4,287	3,434	803	362	246	16
1-2	Iron ore mining	3,404	2,192	1,212	3,391	2,137	1,204	13	5	8
1-3	Metal mining except iron ore mining	922	739	183	494	311	183	428	428	..
1-32	Lead, silver and zinc	8	8	..	..	..	..	8	8	..
1-33	Manganese	502	319	183	485	302	183	17	17	..
1-30	Other metallic minerals	412	412	..	9	9	..	403	403	..
1-5	Stone-quarrying, clay and sand pits. Extraction from the earth of stone, clay, sand and other materials used in building or manufacture of cement.	1,793	1,615	178	526	339	187	1,267	1,226	41
1-7	Salt, saltpetre and saline substances	436	431	5	17	15	2	419	416	3
Division 2. Processing and manufacture—Foodstuffs, textiles, leather and products thereof.		130,614	87,965	42,649	70,114	53,928	16,186	60,500	34,037	26,463
2-0	Food Industries otherwise unclassified	2,782	2,123	659	1,401	1,257	144	1,331	866	518
2-01	Canning and preservation of fruits and vegetables.	2,100	1,489	611	1,064	960	104	1,036	529	507
2-03	Slaughter, preparation and preservation of meat.	444	438	6	190	190	..	254	248	6
2-00	Other food industries	238	196	42	147	107	40	91	89	2

Non-agricultural Occupations

Keonjhar		Phulbani		Bolangir		Sundargarh		Kalahandi		Mayurbhanj		Group Code
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Number
(80)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(1)
10,155	3,515	24,547	5,728	38,689	9,946	19,630	4,237	30,242	9,166	30,533	9,977	
1,208	397	2,824	740	2,103	190	1,108	130	1,098	313	1,200	243	Divn. 0
742	367	2,086	629	358	52	477	41	546	143	351	79	0-1
..	..	1,495	521	180	8	470	41	104	36	272	55	0-11
742	367	591	108	178	49	7	..	442	107	79	26	0-12
..	..	..	..	..	..	..	..	..	..	..	..	0-10
15	..	21	11	31	..	11	1	51	22	45	..	0-2
1	..	21	11	23	..	10	1	4	..	2	..	0-21
..	..	..	..	5	..	..	..	24	10	11	..	0-22
5	..	..	..	3	..	1	..	..	..	20	..	0-23
9	..	..	..	..	..	..	..	23	12	12	..	0-24
3	13	17	2	175	85	23	2	53	21	1	6	0-3
8	13	..	..	53	1	..	..	53	21	1	..	0-31
..	..	17	2	122	34	23	2	..	..	..	6	0-30
301	17	112	98	502	38	319	47	273	94	703	155	0-4
93	..	32	..	102	..	20	..	117	8	344	..	0-40
..	..	..	..	7	..	9	8	12	5	43	18	0-41
99	7	19	17	91	7	60	12	81	48	135	84	0-42
109	10	61	81	302	31	230	27	63	33	181	53	0-43
..	..	..	..	13	..	10	..	7	4	..	..	0-5
147	..	588	..	1,024	65	266	39	168	29	100	3	0-6
147	..	588	..	1,024	65	266	39	168	29	91	3	0-60
..	..	..	..	..	..	..	..	..	..	..	..	0-61
..	..	..	..	..	..	..	..	..	..	9	..	0-62
445	168	90	..	7	4	580	295	..	..	1,850	1,068	Divn. 1
..	..	..	..	4	2	..	..	..	..	..	..	1-0
..	..	..	..	..	..	95	9	..	..	6	3	1-1
433	167	..	..	2	..	..	..	..	..	1,751	1,037	1-2
9	..	85	..	1	1	113	180	..	..	93	..	1-3
..	..	..	..	..	..	..	..	..	..	..	..	1-82
4	..	85	..	1	1	113	180	..	..	93	..	1-33
5	..	..	..	..	..	..	..	..	..	..	..	1-30
2	..	..	..	..	..	369	106	..	..	..	28	1-5
1	1	5	..	..	1	3	..	..	..	..	..	1-7
2,108	506	3,607	1,184	9,714	2,392	2,288	689	6,609	1,210	4,204	1,252	Divn. 2
15	..	7	..	359	20	72	32	13	18	56	..	2-0
..	..	..	..	239	14	..	..	3	18	40	..	2-01
15	..	3	..	100	..	13	..	10	..	7	..	2-03
..	..	4	..	20	6	59	32	..	..	9	..	2-00

Group Code No.	Occupation	ORISSA								
		ORISSA			3-33 Orissa Inland Division			5-11 Orissa Coastal Division		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2-1	Grains and pulses	43,790	14,585	29,205	15,093	6,846	8,247	28,697	7,739	20,958
2-11	Hand pounders of rice and other persons engaged in manual dehusking and flour grinding.	20,650	1,916	18,734	5,887	1,201	4,686	14,763	715	14,048
2-12	Millers of cereals and pulses	2,352	1,583	769	502	420	82	1,850	1,163	687
2-13	Grain parchers and makers of blended and prepared flour and other cereal and pulse preparations.	20,788	11,086	9,702	8,704	5,225	3,479	12,084	5,861	6,223
2-2	Vegetable and dairy products	5,500	4,613	887	3,040	2,550	490	2,460	2,063	397
2-21	Vegetable oil pressers and refiners	4,321	4,064	257	2,403	2,254	149	1,918	1,810	108
2-22	Manufacturers of hydrogenated oils	22	21	1	..	..	..	22	21	1
2-23	Makers of butter, cheese, ghee and other dairy products.	1,157	528	629	637	296	341	520	232	288
2-3	Sugar Industries	751	692	59	271	231	40	480	461	19
2-31	Gur manufacture	577	549	28	183	159	24	394	390	4
2-30	Other manufactures and refining of raw sugar, syrup and granulated or clarified sugar from sugarcane or from sugar beets.	174	143	31	88	72	16	86	71	15
2-4	Beverages	935	894	41	748	715	33	187	179	8
2-41	Brewers and distillers	257	242	15	226	211	15	31	31	..
2-42	Toddy drawers	596	578	18	505	487	18	91	91	..
2-43	Ice-manufacturers	29	25	4	15	15	..	14	10	4
2-40	Manufacture of aerated and mineral waters and other beverages.	53	49	4	2	2	..	51	47	4
2-5	Tobacco	6,853	4,803	2,050	4,630	2,973	1,657	2,223	1,830	393
2-51	Manufacture of bidis	6,411	4,521	1,890	4,530	2,874	1,656	1,881	1,647	234
2-50	Manufacture of tobacco products (other than bidis) such as cigarettes, cigars, cheroots and snuff. Stemming, redrying and other operations connected with preparing raw leaf tobacco for manufacturing are also included.	442	282	160	100	99	1	342	183	159
2-6	Cotton textiles	37,879	32,020	5,859	26,793	22,642	4,151	11,086	9,378	1,708
2-61	Cotton ginning, cleaning and pressing	1,251	1,033	218	834	707	127	417	326	91
2-62	Cotton spinning, sizing and weaving	36,186	30,606	5,580	25,618	21,630	3,988	10,568	8,976	1,592
2-63	Cotton dyeing, bleaching, printing, preparation and sponging.	442	381	61	341	305	36	101	76	25
2-7	Wearing apparel (except footwear) and made-up textile goods.	11,517	10,631	886	6,518	6,280	238	4,999	4,351	648
2-71	Tailors, milliners, dress makers and darners	5,208	4,798	410	1,608	1,565	43	3,600	3,233	367
2-72	Manufacturers of hosiery, embroiderers, makers of crepe, lace and fringes.	195	126	69	118	87	31	77	39	38
2-73	Fur dressers and dyers	570	544	26	529	522	7	41	22	19
2-74	Hat-makers and makers of other articles of wear from textiles.	2,101	2,028	73	2,054	2,019	35	47	9	38
2-75	Manufacture of house furnishing of textiles	2,466	2,222	244	1,919	1,845	74	547	377	170
2-70	Makers of other made-up textile goods including umbrellas.	977	913	64	290	242	48	687	671	16
2-8	Textile Industries otherwise unclassified	17,405	14,729	2,676	9,607	8,589	1,018	7,798	6,140	1,658
2-81	Jute pressing, baling, spinning and weaving.	4,272	3,640	632	2,461	2,237	224	1,811	1,403	408
2-83	Silk reeling, spinning, twisting and weaving	2,191	1,913	278	1,201	966	235	990	947	43
2-84	Hemp and flax spinning and weaving	394	163	231	157	101	56	237	62	175
2-86	Manufacture of rope, twine, string and other related goods from cocconut, aloe, straw, linseed and hair.	10,535	9,000	1,535	5,787	5,284	503	4,748	3,716	1,032
2-80	All other (including insufficiently described) textile industries, including artificial leather and cloth.	13	13	..	1	1	..	12	12	..
2-9	Leather, leather products and footwear	3,202	2,875	327	2,013	1,845	168	1,189	1,030	159
2-91	Tanners and all other workers in leather	159	121	38	107	73	34	52	48	4
2-92	Cobblers and all other makers and repairers of boots, shoes, sandals and clogs.	2,912	2,628	284	1,865	1,736	129	1,047	892	155
2-90	Makers and repairers of all other leather products.	131	126	5	41	36	5	90	90	..

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

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Cuttack		Balasore		Puri		Sambalpur		Ganjam		Group Code No.
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(1)
4,352	8,839	958	4,461	1,573	4,623	2,731	3,302	876	3,110	2-1
205	5,813	223	3,307	130	2,572	174	1,984	171	2,427	2-11
521	35	543	652	14	..	17	..	85	..	2-12
3,626	2,991	192	502	1,429	2,051	2,540	1,318	620	683	2-13
483	109	109	1	511	220	1,073	163	980	69	2-2
475	..	23	..	478	63	1,049	..	854	46	2-21
..	..	..	..	..	..	..	..	21	1	2-22
8	109	86	1	33	157	24	163	105	22	2-23
171	17	8	2	188	..	..	..	98	..	2-3
105	2	6	2	188	..	..	..	95	..	2-31
66	15	2	..	..	..	..	..	3	..	2-30
110	8	14	..	32	..	402	13	25	..	2-4
9	..	..	..	10	..	104	13	14	..	2-41
53	..	5	..	22	..	293	..	11	..	2-42
10	4	..	..	..	..	5	..	..	..	2-43
38	4	9	..	..	..	..	..	..	..	2-40
777	184	397	63	40	..	2,337	1,626	636	150	2-5
652	64	397	63	40	..	2,333	1,626	578	111	2-51
125	120	..	..	..	..	4	..	53	39	2-50
3,393	625	717	191	1,526	359	5,912	1,262	3,874	541	2-6
306	91	..	..	..	..	9	..	20	..	2-61
3,023	517	712	183	1,526	359	5,783	1,242	3,847	541	2-62
64	17	5	8	..	..	120	20	7	..	2-63
2,124	361	515	87	1,231	200	4,670	36	495	..	2-7
1,701	315	453	51	609	1	314	..	484	..	2-71
9	9	30	29	..	..	39	8	..	..	2-72
22	19	..	..	..	..	522	7	..	..	2-73
4	18	..	..	5	20	1,949	17	..	..	2-74
..	..	..	7	377	163	1,841	9	..	..	2-75
388	..	32	..	240	16	5	..	11	..	2-70
4,061	956	822	101	732	558	234	84	533	45	2-8
1,139	377	67	9	123	16	41	29	74	6	2-81
..	..	552	34	51	9	51	27	344	..	2-83
41	164	21	11	..	..	19	..	..	..	2-84
2,881	415	170	47	558	533	123	28	115	39	2-86
..	..	12	..	..	..	..	..	..	..	2-80
304	151	74	7	255	..	688	92	406	1	2-9
28	..	20	4	..	..	..	..	..	..	2-91
276	151	54	3	255	..	688	92	316	1	2-92
..	..	..	..	..	..	..	..	90	..	2-90

Group Code No.	Occupation	Agency		Plains		Koraput		Dhenkanal	
		Males	Females	Males	Females	Males	Females	Males	Females
(1)	(2)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
2-1	Grains and pulses	20	75	856	3,035	518	230	500	1,141
2-11	Hand pounders of rice and other persons engaged in manual dehusking and flour grinding.	14	71	157	2,856	21	165	196	973
2-12	Millers of cereals and pulses .. ..	..	..	85	..	64	3	..	..
2-13	Grain parchers and makers of blended and prepared flour and other cereal and pulse preparations.	6	4	614	679	433	112	304	170
2-2	Vegetable and dairy products	20	2	960	67	102	17	292	23
2-21	Vegetable oil pressers and refiners	20	1	834	45	102	9	245	1
2-22	Manufacturers of hydrogenated oils .. ..	..	..	21	1	..	..	..	..
2-23	Makers of butter, cheese, ghee and other dairy products.	..	1	105	21	..	8	47	22
2-3	Sugar Industries	4	..	94	..	10	..	120	3
2-31	Gur manufacture	4	..	91	..	10	..	86	..
2-30	Other manufactures and refining of raw sugar, syrup and granulated or clarified sugar from sugarcane or from sugar beets.	..	..	3	..	..	..	34	2
2-4	Beverages	2	..	28	..	1	..	100	7
2-41	Brewers and distillers	2	..	12	..	1	..	26	..
2-42	Toddy drawers .. ..	..	..	11	..	..	..	73	7
2-43	Ice-manufacturers .. ..	..	..	..	..	..	..	1	..
2-40	Manufacture of aerated and mineral waters and other beverages.	..	..	..	..	..	..	..	..
2-5	Tobacco	20	4	616	146	44	8	225	1
2-51	Manufacture of bidis	20	4	558	107	44	8	225	1
2-50	Manufacture of tobacco products (other than bidis) such as cigarettes, cigars, cheroots and snuff. Stemming, redrying and other operations connected with preparing raw leaf tobacco for manufacturing are also included.	..	..	58	39	..	..	..	..
2-6	Cotton textiles	132	8	3,742	533	1,011	469	1,471	169
2-61	Cotton ginning, cleaning and pressing .. ..	..	..	20	..	10	..	..	..
2-62	Cotton spinning, sizing and weaving	132	8	3,715	533	997	469	1,471	169
2-63	Cotton dyeing, bleaching, printing, preparation and sponging.	..	..	7	..	4	..	..	..
2-7	Wearing apparel (except footwear) and made-up textile goods.	14	..	481	..	267	..	321	11
2-71	Tailors, milliners, dress makers and darners	14	..	470	..	262	..	143	10
2-72	Manufacturers of hosiery, embroiderers, makers of crepe, lace and fringes.	..	..	..	..	..	..	..	..
2-73	Fur dressers and dyers .. ..	..	..	..	..	..	..	..	..
2-74	Hat-makers and makers of other articles of wear from textiles.	..	..	..	..	..	..	3	1
2-75	Manufacture of house furnishing of textiles	..	..	..	..	..	..	..	..
2-70	Makers of other made-up textile goods including umbrellas.	..	..	11	..	5	..	175	..
2-8	Textile Industries otherwise unclassified ..	8	2	525	43	459	..	698	70
2-81	Jute pressing, baling, spinning and weaving.	..	..	74	6	..	..	594	4
2-83	Silk reeling, spinning, twisting and weaving	..	..	344	..	..	..	61	1
2-84	Hemp and flax spinning and weaving .. ..	..	..	..	..	49	..	33	56
2-86	Manufacture of rope, twine, string and other related goods from coconut, aloe, straw, linseed and hair.	8	2	107	37	410	..	10	9
2-80	All other (including insufficiently described) textile industries, including artificial leather and cloth.	..	..	..	..	..	..	..	..
2-9	Leather, leather products and footwear ..	9	..	397	1	178	..	70	13
2-91	Tanners and all other workers in leather	..	..	..	..	..	..	16	7
2-92	Cobblers and all other makers and repairers of boots, shoes, sandals and clogs.	9	..	307	1	178	..	54	6
2-90	Makers and repairers of all other leather products.	90

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

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Keonjhar		Phulbani		Bolangir		Sundargarh		Kalahandi		Mayurbhanj		Group Code No.
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(1)
180	119	163	568	1,412	1,243	443	441	709	679	170	400	2-1
65	44	..	289	420	484	82	257	184	224	45	198	2-11
..	..	..	..	4	..	..	..	295	74	40	5	2-12
113	75	168	279	988	759	361	184	230	881	85	197	2-13
197	7	191	33	477	151	55	13	147	61	66	15	2-2
99	4	177	5	893	105	40	..	83	20	46	4	2-21
..	..	..	..	..	..	..	..	..	..	..	..	2-22
28	3	14	33	84	46	15	13	64	41	20	11	2-23
4	17	10	..	72	19	..	2	..	..	11	..	2-3
4	17	10	..	34	5	..	2	..	..	11	..	2-31
..	..	..	..	38	14	..	..	..	..	..	..	2-30
84	..	9	..	68	2	73	2	21	3	5	1	2-4
26	..	..	..	28	..	24	2	..	..	..	..	2-41
6	..	9	..	37	2	49	..	17	8	3	1	2-42
2	..	..	..	3	..	..	..	2	..	2	..	2-43
..	..	..	..	..	..	..	..	2	..	..	..	2-40
107	..	55	..	53	3	55	12	23	3	70	..	2-5
37	..	55	..	33	2	35	12	22	3	70	..	2-51
70	..	..	..	25	1	..	..	..	..	..	..	2-50
781	177	1,570	823	6,779	892	1,306	134	1,307	118	2,373	604	2-61
25	7	170	84	43	17	59	..	891	19	..	..	2-61
756	170	1,985	239	6,736	875	1,224	134	914	94	2,232	588	2-62
..	..	15	..	..	..	23	..	2	..	141	16	2-63
185	41	245	20	187	7	106	14	92	83	243	26	2-7
119	5	239	20	150	..	48	..	77	2	199	6	2-71
10	21	..	..	27	7	..	..	..	..	1	..	2-72
..	..	..	..	..	..	..	..	..	..	..	..	2-73
6	3	..	..	..	..	58	14	3	..	..	..	2-74
..	12	..	..	..	..	..	..	4	53	..	..	2-75
..	..	6	..	..	..	..	..	8	28	43	20	2-70
367	145	1,333	235	71	56	29	34	4,254	219	1,146	193	2-8
132	80	97	85	45	16	..	16	1,328	44	..	..	2-81
..	..	107	14	..	..	..	..	..	..	747	193	2-83
..	..	..	..	..	..	..	..	..	..	..	..	2-84
225	65	1,129	186	26	20	29	18	2,926	175	398	..	2-86
..	..	..	..	..	..	..	..	..	..	1	..	2-80
368	..	24	..	231	19	169	5	44	26	64	13	2-9
..	..	2	..	29	5	..	..	21	9	5	12	2-91
368	..	22	..	181	12	169	5	8	14	59	..	2-92
..	..	..	..	21	2	..	..	15	3	..	..	2-90

Group Code No.	Occupation	ORISSA								
		ORISSA			3-33 Orissa Inland Division			5-11 Orissa Coastal Division		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
DA. 3.	Processing and Manufacture—Metals, Chemicals and Products thereof	21,420	19,257	2,163	13,789	12,242	1,557	7,821	7,015	606
3-0	Manufacture of metal products, otherwise unclassified.	15,976	14,349	1,627	10,614	9,404	1,210	5,362	4,945	417
3-01	Blacksmiths and other workers in iron and makers of implements.	11,369	10,250	1,119	7,655	6,833	822	3,714	3,417	297
3-02	Workers in copper, brass and bell metal	4,552	4,070	482	2,910	2,548	362	1,642	1,522	120
3-03	Workers in other metals ..	55	29	26	49	23	26	6	6	..
3-1	Iron and steel (Basic manufacture) .. Manufacture of iron and steel, including all processes such as smelting and refining; rolling and drawing; and alloying and the manufacture of castings, forgings and other basic forms of ferrous metals.	2,450	2,114	336	2,095	1,778	317	355	336	19
3-2	Non-ferrous metals (Basic manufacture). Smelting and refining, rolling, drawing and alloying and the manufacture of castings, forgings, and other basic forms of non ferrous metals.	345	339	6	223	218	5	122	121	1
3-3	Transport equipments ..	1,460	1,310	150	862	842	20	398	368	130
3-31	Building and repairing of ships and boats	241	110	131	71	63	8	170	47	123
3-32	Manufacture, assembly and repair of railway equipment, motor vehicles and bicycles. (Railway fitters are included in this group).	928	921	7	811	311	..	617	610	7
3-34	Coach builders and makers of carriages, palkis, rickshaws, etc. and wheelwrights	291	279	12	180	168	12	111	111	..
3-4	Electrical machinery, apparatus, appliances and supplies.	611	489	82	131	126	5	230	208	17
3-43	Manufacture of electric wire and cable	68	68	..	58	58	..	10	10	..
3-40	Manufacture of electrical generating, transmission and distribution apparatus; electrical household appliances other than lights and fans; electrical equipment for motor vehicles, aircraft and railway locomotives and cars; communication equipment and related products, including radios, phonographs, electric batteries, X-Ray and therapeutic apparatus; electronic tubes, etc.	443	421	22	73	68	5	270	353	17
3-5	Machinery (other than electrical machinery) including Engineering Workshops, Engineering Workshops engaged in producing machine and equipment parts. Mechanics unspecified.	229	221	8	63	63	..	166	158	8
3-6	Basic industrial chemicals, fertiliser and power alcohol.	116	113	3	32	32	..	84	81	3
3-62	Dyes, explosives and fireworks ..	116	113	3	32	32	..	84	81	3
3-7	Medical and pharmaceutical preparations	44	44	..	12	12	..	32	32	..
3-8	Manufacture of chemical products otherwise unclassified.	289	278	11	67	67	..	222	211	11
3-81	Manufacture of perfumes, cosmetic and other toilet preparations.	9	8	1	..	..	..	9	8	1
3-82	Soaps and other washing and cleaning compounds	127	117	10	81	81	..	96	86	10
3-83	Paints, varnishes and lacquers and polishes.	12	12	..	12	12	..	..	..	..
3-85	Matches ..	19	19	..	7	7	..	12	12	..
3-86	Candle ..	88	88	..	..	..	..	88	88	..
3-87	Starch ..	29	29	..	12	12	..	17	17	..
3-80	Other chemical products ..	5	5	..	5	5	..	..	..	..

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

Cuttack		Balasore		Puri		Sambalpur		Ganjam		Group Code No.
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(1)
2,292	568	605	33	1,788	2	2,640	311	2,392	4	Dn. 3
1,060	388	415	24	1,518	2	2,144	291	2,011	4	3-0
742	277	179	18	1,112	..	1,247	45	1,443	3	3-01
318	111	236	6	400	2	897	246	568	1	3-02
..	..	..	..	6	..	..	..	..	..	3-03
265	11	42	8	1	..	5	17	29	..	3-1
..	..	24	1	..	..	135	..	12	..	..-2
401	130	59	..	46	..	314	2	262	..	3-3
47	123	..	..	..	..	39	1	..	..	3-31
264	7	46	..	38	..	188	..	262	..	3-32
90	..	13	..	8	..	87	1	..	..	3-34
271	17	5	..	84	..	6	1	3	..	3-4
..	..	5	..	5	..	..	..	..	..	3-43
271	17	..	..	79	..	6	1	3	..	3-40
78	8	8	..	23	..	13	..	51	..	3-5
51	3	6	..	11	..	10	..	13	..	3-6
51	3	6	..	11	..	10	..	13	..	3-62
12	..	10	..	..	..	..	..	10	..	3-7
79	11	26	..	105	..	13	..	1	..	3-8
6	1	2	..	..	..	..	..	..	..	3-81
73	10	12	..	..	..	10	..	1	..	3-82
..	..	..	..	..	..	..	..	..	..	3-83
..	..	12	..	..	..	3	..	..	..	3-85
..	..	..	..	88	..	..	..	..	..	3-86
..	..	..	..	17	..	..	..	..	..	3-87
..	..	..	..	..	..	..	..	..	..	3-80

Group Code Number	Occupation	ORISSA								
		ORISSA			3-33 Orissa Inland Division			5-11 Orissa Coastal Division		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Division 4. Processing and Manufacture—Not elsewhere specified.		71,376	59,345	12,031	32,920	27,176	5,744	38,456	32,169	6,287
4-0	<i>Manufacturing industries otherwise unclassified.</i>	13,289	12,009	1,280	5,275	4,789	486	8,014	7,220	794
4-02	Photographic and optical goods ..	21	21	..	11	11	..	10	10	..
4-03	Repair and manufacture of watches and clocks.	258	258	..	118	118	..	140	140	..
4-04	Workers in precious stones, precious metals and makers of jewellery and ornaments.	8,836	8,644	192	3,407	3,336	71	5,429	5,308	121
4-05	Manufacture of musical instruments and appliances.	1,014	864	150	493	413	80	521	451	70
4-06	Stationery articles other than paper and paper products.	176	128	48	..	..	..	176	128	48
4-09	Toy makers	1,139	635	504	715	512	203	424	123	301
4-00	Other miscellaneous manufacturing industries, including bone, ivory, horn, shell, etc.	1,845	1,459	386	531	399	132	1,314	1,060	254
4-2	<i>Bricks, tiles and other structural clay products.</i>									
	Structural clay products such as bricks tiles, etc.	2,177	1,920	257	909	769	140	1,268	1,151	117
4-3	<i>Cement—Cement pipes and other cement products.</i>									
	Manufacture of cement, cement pipes and cement concrete products.	59	50	9	59	50	9	..	..	..
4-4	<i>Non-metallic mineral products ..</i>	16,759	14,153	2,606	7,044	6,095	949	9,715	8,058	1,657
4-41	Potters and makers of earthen ware ..	15,589	13,079	2,510	6,680	5,785	895	8,909	7,294	1,615
4-43	Glass bangles, glass beads, glass necklaces, etc.	350	308	42	206	188	18	144	120	24
4-44	Makers of other glass and crystal ware ..	657	639	18	19	19	..	638	620	18
4-40	Makers of other miscellaneous non-metallic mineral products and lime burners.	163	127	36	139	103	36	24	24	..
4-5	<i>Rubber products</i>	6	6	..	..	..	..	6	6	..
4-6	<i>Wood and wood products other than furniture and fixtures.</i>	35,909	28,644	7,265	17,854	13,941	3,913	18,055	14,703	3,352
4-61	Sawyers	2,244	2,240	4	1,161	1,157	4	1,083	1,083	..
4-62	Carpenters, turners and joiners ..	15,444	15,338	106	5,009	5,008	1	10,435	10,330	105
4-64	Basket makers	16,285	10,197	6,088	10,586	7,187	3,399	5,699	3,010	2,689
4-60	Other industries of woody material, including leaves, but not including furniture or fixtures.	1,936	869	1,067	1,098	539	509	838	280	558
4-7	<i>Furniture and fixtures</i>									
	Manufacture of household, office, public building, professional and restaurant furniture; office and store fixtures, screens, shades, etc., regardless of material used.	1,547	1,177	370	600	570	30	947	607	340
4-8	<i>Paper and paper products</i>									
	Manufacture of paper and paper board and articles of pulp, paper and paper board.	1,088	887	201	1,085	884	201	3	3	..
4-9	<i>Printing and allied industries ..</i>	542	499	43	94	78	16	448	421	27
4-91	Printers, lithographers, and engravers ..	63	63	..	20	20	..	43	43	..
4-92	Book binders and stitchers	479	436	43	74	58	16	405	378	27
Division 5. Construction and Utilities		35,754	27,529	8,225	14,408	10,600	3,808	21,346	16,929	4,417
5-0	<i>Construction and maintenance of works—otherwise unclassified.</i>	6,925	5,972	953	3,211	2,710	501	3,714	3,262	452
5-1	<i>Construction and maintenance—buildings</i>									
5-11	Masons and bricklayers	1,679	1,679	..	568	568	..	1,111	1,111	..
5-12	Stone-cutters and dressers	1,570	1,497	73	537	489	48	1,033	1,008	25
5-13	Painters and decorators of house ..	142	122	20	129	109	20	13	13	..
5-10	Other persons engaged in the construction or maintenance of buildings other than buildings made of bamboo or similar materials.	9,164	6,599	2,565	1,766	907	859	7,398	5,692	1,706

DISTRICT INDICES OF NON-AGBL. OCCUPATIONS

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Cuttack		Balasore		Puri		Sambalpur		Ganjam		Group Code Number
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	(1)
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
13,322	3,035	2,123	400	8,640	1,455	6,993	1,688	8,326	1,443	Division 4
2,891	428	488	191	2,681	155	1,268	114	1,196	23	4.0
3	..	..	..	..	..	6	..	7	..	4.02
97	..	1	..	38	..	2	..	4	..	4.03
1,662	..	452	79	2,086	33	950	25	1,144	12	4.04
155	34	7	4	276	32	162	27	13	..	4.05
128	48	..	..	..	..	..	..	..	..	4.06
70	213	5	66	20	11	35	21	28	11	4.09
776	133	23	42	261	79	113	41	..	..	4.00
276	79	34	26	406	12	82	51	442	..	4.2
..	..	..	..	..	..	..	..	..	..	4.3
4,096	1,210	599	66	1,597	5	1,090	164	1,835	389	4.4
3,429	1,177	531	57	1,572	5	994	160	1,831	389	4.41
72	15	44	9	..	..	96	4	4	..	4.43
595	18	..	..	25	..	..	..	..	..	4.44
..	..	24	..	..	..	..	..	..	..	4.40
6	..	..	..	..	..	..	..	..	..	4.5
5,253	990	961	177	3,802	1,266	3,369	1,153	4,817	1,009	4.6
348	..	190	..	252	..	136	..	298	..	4.61
4,684	73	384	11	2,127	..	1,355	..	3,143	21	4.62
170	661	288	88	1,324	1,106	1,715	1,098	1,339	845	4.64
51	256	99	18	99	160	163	60	37	143	4.60
448	318	38	..	99	..	299	2	22	22	4.7
1	..	..	..	2	..	884	199	..	..	4.8
351	10	3	..	53	17	1	..	14	..	4.9
29	..	3	..	10	..	..	..	1	..	4.91
322	10	..	..	43	17	1	..	13	..	4.92
4,235	1,797	1,292	76	7,915	1,299	3,073	1,589	3,675	1,315	Divn. 5
1,058	157	52	..	2,001	244	558	65	164	55	5.0
1,147	1,097	669	15	4,375	475	120	595	1,754	155	5.1
102	..	174	..	233	..	44	..	617	..	5.11
88	..	28	..	466	..	54	..	474	25	5.12
13	..	..	..	..	..	..	..	..	..	5.13
944	1,097	467	15	3,676	475	22	595	663	130	5.10

Group Code Number (1)	Occupation (2)	Agency		Plains		Koraput		Dhenkanal	
		Males	Females	Males	Females	Males	Females	Males	Females
		(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
Division 4. Processing and Manufacture—Not elsewhere specified.		242	46	8,084	1,397	2,497	416	3,258	559
4-0	<i>Manufacturing industries otherwise unclassified.</i>	36	3	1,160	20	480	77	469	65
4-02	Photographic and optical goods ..	..	..	7	..	..	..	3	..
4-03	Repair and manufacture of watches and clocks.	..	..	4	..	19	..	24	..
4-04	Workers in precious stones, precious metals and makers of jewellery and ornaments.	36	3	1,108	9	323	7	275	11
4-05	Manufacture of musical instruments and appliances.	..	..	13	..	14	1	91	..
4-06	Stationery articles other than paper and paper products.	..	..	..	..	..	..	..	..
4-09	Toy makers .. ..	..	..	28	11	120	68	8	30
4-00	Other miscellaneous manufacturing industries, including bone, ivory, horn, shell, etc.	..	..	..	..	4	1	68	24
4-2	<i>Bricks, tiles and other structural clay products.</i>								
	Structural clay products such as bricks, tiles, etc.	7	..	435	..	44	..	35	2
4-3	<i>Cement—Cement pipes and other cement products.</i>								
	Manufacture of cement, cement pipes and cement concrete products.	..	..	..	..	..	..	..	..
4-4	<i>Non-metallic mineral products ..</i>	69	13	1,766	376	613	162	812	44
4-41	Potters and makers of earthen ware ..	69	13	1,762	376	613	162	777	44
4-43	Glass bangles, glass beads, glass necklaces, etc.	..	..	4	..	..	..	3	..
4-44	Makers of other glass and crystal ware ..	..	..	..	..	..	..	..	..
4-40	Makers of other miscellaneous non-metallic mineral products	..	..	..	..	..	..	32	..
4-5	<i>Robber products .. ..</i>	..	..	..	..	..	..	..	..
4-6	<i>Wood and wood products other than furniture and fixtures.</i>	130	30	4,687	979	1,209	177	1,885	448
4-61	Sawyers	5	..	293	..	21	..	63	..
4-62	Carpenters, turners and joiners ..	8	..	3,135	21	416	..	380	1
4-64	Basket makers	111	11	1,228	834	761	173	1,153	365
4-60	Other industries of woody material, including leaves, but not including furniture or fixtures.	6	19	31	124	11	4	289	82
4-7	<i>Furniture and fixtures</i>								
	Manufacture of household, office, public building, professional and restaurant furniture ; office and store fixtures, screens, shades etc., regardless of material used.	..	..	22	22	138	..	7	..
4-8	<i>Paper and paper products</i>								
	Manufacture of paper and paper board and articles of pulp, paper and paper board.	..	..	..	..	..	..	..	..
4-9	<i>Printing and allied industries ..</i>	..	..	14	..	13	..	50	..
4-91	Printers, lithographers, and engravers ..	..	..	1	..	1	..	15	..
4-92	Book binders and stitchers .. ..	..	..	13	..	12	..	35	..
Division 5. Construction and Utilities		188	70	3,487	1,245	1,153	215	672	228
5-0	<i>Construction and maintenance of works—otherwise unclassified</i>	13	4	151	51	130	..	86	..
5-1	<i>Construction and maintenance—buildings</i>	121	11	1,633	144	528	113	55	4
5-11	Masons and bricklayers	15	..	602	..	251	..	38	..
5-12	Stone-cutters and dressers	48	..	426	25	58	..	5	..
5-13	Painters and decorators of house .. ..	..	..	..	..	..	..	..	..
5-10	Other persons engaged in the construction or maintenance of buildings other than buildings made of bamboo or similar materials.	58	11	605	119	219	113	12	4

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

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Keonjhar		Phulbani		Bolangir		Sundargarh		Kalahandi		Mayurbhanj		Group Code
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Number
(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(1)
2,608	305	1,781	301	3,600	424	1,723	294	1,108	613	3,366	1,098	Divn. 4
551	20	347	..	1,103	26	85	32	130	96	320	53	4-0
..	..	..	..	..	..	..	..	2	..	..	..	4-02
..	..	2	..	46	..	8	..	4	..	13	..	4-03
286	..	267	..	846	3	54	3	77	5	222	14	4-04
7	..	28	..	..	..	12	11	14	2	85	39	4-05
..	..	..	..	..	..	..	..	..	..	..	..	4-06
162	20	23	..	145	21	..	4	19	39	..	..	4-09
96	..	27	..	66	2	11	14	14	50	..	..	4-00
96	17	15	7	248	23	64	11	156	8	22	21	4-2
..	..	..	..	..	..	36	9	14	..	..	..	4-3
330	..	533	..	834	140	530	95	369	146	915	185	4-4
327	..	531	..	750	126	530	95	298	110	896	185	4-41
3	..	2	..	84	14	..	..	..	..	..	..	4-43
..	..	..	..	..	..	..	..	..	..	19	..	4-44
..	..	..	..	..	..	..	..	71	36	..	..	4-40
..	..	..	..	..	..	..	..	..	..	..	..	4-5
1,631	268	886	294	1,409	231	919	120	407	349	2,096	838	4-6
217	4	98	..	85	..	82	..	76	..	374	..	4-61
370	..	409	..	565	..	585	..	184	..	736	..	4-62
1,044	264	379	294	759	231	229	107	147	331	889	525	4-64
..	..	..	..	..	..	23	13	..	18	97	313	4-60
..	..	..	..	..	..	89	27	30	..	7	1	4-7
..	..	..	..	..	2	..	..	..	..	..	..	4-8
..	..	..	..	6	2	..	..	2	14	6	..	4-9
..	..	..	..	2	..	..	..	..	..	2	..	4-91
..	..	..	..	4	2	..	..	2	14	4	..	4-92
337	177	1,124	380	996	246	728	174	1,229	440	1,100	289	Divn. 5
52	31	239	72	375	56	299	13	410	134	493	126	5-0
62	43	604	26	85	2	88	19	254	93	156	21	5-1
3	..	53	..	41	..	20	..	40	..	63	..	5-11
25	21	196	..	26	2	14	..	51	25	12	..	5-12
13	7	23	..	18	..	..	..	24	1	31	12	5-13
21	15	332	26	..	..	54	19	139	67	50	9	5-10

Group Code No.	Occupation	ORISSA			3-33 Orissa Inland Division			5-11 Orissa Coastal Division		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
5-2	Construction and maintenance—Roads, bridges and other transport works.	4,200	3,903	297	2,433	2,262	171	1,767	1,641	126
5-3	Construction and maintenance—Telegraph and telephone lines.	478	478	..	282	282	..	196	196	..
5-4	Construction and maintenance operations—Irrigation and other agricultural works.	4,123	2,659	1,464	2,530	1,468	1,062	1,593	1,191	402
5-5	Works and services—Electric power and gas supply.	347	343	4	172	172	..	175	171	4
5-51	Electric supply	347	343	4	172	172	..	175	171	4
5-6	Works and Service—Domestic and industrial water-supply.	360	274	86	175	112	63	185	162	23
5-7	Sanitary works and services—Including scavengers.	6,766	4,003	2,763	2,605	1,521	1,084	4,161	2,482	1,679
Division 6. Commerce		138,539	104,694	33,845	47,035	36,373	10,662	91,504	68,321	23,183
6-0	Retail trade otherwise unclassified ..	43,186	32,791	10,395	16,218	13,079	3,139	26,968	19,712	7,256
6-01	Hawkers and street-venders otherwise unclassified.	6,248	3,536	2,712	2,499	1,528	971	3,749	2,008	1,741
6-02	Dealers in drugs and other chemical stores	756	748	8	317	312	5	439	436	3
6-03	Publishers, booksellers and stationers ..	3,523	3,163	360	1,476	1,384	92	2,047	1,779	268
6-00	General storekeepers, shopkeepers and persons employed in shops otherwise unclassified.	32,659	25,344	7,315	11,926	9,855	2,071	20,733	15,489	5,244
6-1	Retail trade in foodstuffs (including beverages and narcotics).	53,317	40,162	13,155	17,180	12,790	4,390	36,137	27,372	8,765
6-11	Retail dealers in grain and pulses; sweetmeats, sugar and spices, dairy products, eggs and poultry; animals for food; fodder for animals; other foodstuffs, vegetables and fruits.	38,939	28,510	10,429	12,066	8,671	3,395	26,873	19,839	7,034
6-12	Venders of wine, liquors, aerated water and ice in shops.	1,004	978	26	402	389	13	602	589	13
6-13	Retail dealers in tobacco, opium and ganja	1,158	1,114	44	604	573	31	554	541	13
6-14	Hawkers and street-venders of drink and foodstuffs.	4,098	2,873	1,225	827	612	215	3,271	2,261	1,010
6-15	Retail dealers in pan, bidis and cigarettes	8,118	6,687	1,431	3,281	2,545	736	4,837	4,142	695
6-2	Retail trade in fuel (including petrol) ..	14,355	8,154	6,201	3,859	2,684	1,175	10,496	5,470	5,026
6-21	Petroleum distributors	454	449	5	92	87	5	362	362	..
6-20	Retail dealers (including hawkers and street-venders) in firewood charcoal, coal, cow dung and all other fuel except petroleum.	13,901	7,705	6,196	3,767	2,597	1,170	10,134	5,108	5,026
6-3	Retail trade in textile and leather goods ..	7,249	6,757	492	3,113	2,913	200	4,136	3,844	292
6-4	Wholesale trade in foodstuffs. Wholesale dealers in grains and pulses, sweetmeats, sugar and spices dairy products, eggs and poultry animal for food, fodder for animals, other foodstuffs, wholesale dealer in tobacco, opium and ganja.	6,159	4,334	1,825	2,304	1,252	1,052	3,855	3,082	773
6-5	Wholesale trade in commodities other than foodstuffs	9,686	8,447	1,239	3,655	3,117	538	6,031	5,330	701
6-6	Real Estate House and estate agents and rent collector except agricultural land.	352	236	116	122	71	51	230	165	65
6-7	Insurance Insurance carriers and all kinds of insurance agents and other persons connected with insurance business.	67	62	5	10	10	..	57	52	5

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

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Cuttack		Balasore		Puri		Sambalpur		Ganjam		Group Code No.
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(1)
192	126	162	..	254	..	918	27	636	..	5.2
108	..	14	..	25	..	36	..	49	..	5.3
455	120	242	36	196	58	872	497	313	216	5.4
55	4	17	..	56	..	48	..	13	..	5.5
85	4	17	..	56	..	48	..	13	..	5.51
77	6	25	6	36	4	41	30	24	7	5.6
713	287	111	19	972	518	480	375	722	682	5.7
23,447	8,807	5,875	1,587	16,913	4,124	6,621	2,931	24,662	9,056	Division.6
5,257	1,915	2,057	437	3,980	1,243	2,513	690	9,172	2,853	6.0
948	866	233	216	515	568	150	221	343	133	6.01
47	..	168	..	86	..	74	..	135	3	6.02
234	..	242	55	904	140	419	22	399	73	6.03
4,028	1,049	1,414	166	2,475	535	1,870	447	8,295	3,644	6.00
8,516	4,061	2,594	792	7,858	1,356	2,224	883	8,952	2,647	6.1
5,072	3,349	2,041	702	6,173	881	1,312	596	7,021	2,184	6.11
27	..	92	5	154	..	90	..	316	8	6.12
171	..	19	..	176	..	218	18	175	13	6.13
1,451	530	29	..	437	329	120	36	357	155	6.14
1,795	182	413	85	918	146	484	233	1,083	287	6.15
1,532	1,379	81	85	971	1,339	236	152	3,526	2,331	6.2
341	..	2	..	5	..	13	..	14	..	6.21
1,241	1,379	79	95	966	1,339	223	152	3,512	2,331	6.20
1,716	155	280	19	863	..	570	94	1,170	118	6.3
1,137	521	222	160	1,265	56	371	735	526	36	6.4
2,066	472	610	61	1,786	116	570	282	1,112	52	6.5
132	50	1	15	31	..	35	32	1	..	6
15	12	4	26	..	7

DISTRICT INDICES OF NON-AGBL. OCCUPATIONS

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Keonjhar		Phulbani		Bolangir		Sundargarh		Kalahandi		Mayurbhanj		Group Code No.
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	(1)
(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(1)
51	..	114	48	288	32	219	27	232	..	216	37	5-2
14	..	13	..	36	..	11	..	52	..	43	..	5-3
96	85	56	73	72	38	34	51	85	110	43	58	5-4
6	..	3	..	18	..	27	..	7	..	10	..	5-5
6	..	3	..	18	..	27	..	7	..	10	..	5-51
3	6	..	..	6	8	10	8	13	5	15	4	5-6
53	12	45	161	116	110	40	56	176	98	119	43	5-7
1,443	337	4,362	899	3,826	1,418	1,943	498	3,639	1,442	2,993	687	Divn. 6
617	131	1,236	250	1,137	498	868	113	1,401	519	1,275	330	6-0
337	120	43	58	662	316	38	44	117	69	69	91	6-01
105	5	8	..	..	..	14	..	23	..	26	..	6-02
104	..	38	12	29	17	114	11	108	2	113	..	6-03
71	6	1,147	180	446	165	702	58	1,153	448	1,045	261	6-00
501	145	2,356	602	1,434	728	823	247	1,593	664	995	251	6-1
395	129	1,570	464	1,276	678	594	167	808	388	510	187	6-11
14	..	23	..	7	..	17	..	64	3	15	6	6-12
21	7	120	..	14	..	48	..	19	2	29	..	6-13
..	..	415	125	..	..	8	42	..	..	53	8	6-14
71	9	228	13	137	50	156	38	702	271	388	50	6-15
73	61	102	46	80	47	23	15	85	95	73	10	6-2
..	..	..	..	7	..	..	..	24	5	31	..	6-21
73	61	102	46	73	47	23	15	61	90	42	10	6-20
166	..	281	1	562	28	127	5	281	37	260	21	6-3
43	..	179	..	21	27	18	46	100	91	160	34	6-4
33	..	205	..	746	33	81	32	103	25	172	26	6-5
..	..	..	..	1	..	2	..	19	10	5	9	6-6
..	..	..	..	..	..	..	..	9	..	..	..	6-7

Group Code Number	Occupation	ORISSA			3-33 Orissa Inland Division			5-11 Orissa Coastal Division		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
6-8	<i>Moneylending, banking and other financial business.</i> Officers, employees of joint stock banks and co-operative banks, munims, agents or employees of indigenous banking firms, individual money lenders, exchangers and exchange agents, money changers and brokers and their agents.	4,168	3,751	417	574	457	117	3,594	3,294	300
Divn. 7.	Transport, Storage and Communications ..	25,900	24,508	1,392	9,410	9,037	373	16,490	15,471	1,019
7-0	<i>Transport and communications otherwise unclassified and incidental services.</i>	913	864	48	643	621	22	269	243	26
7-1	<i>Transport by road</i> Owners, managers and employees connected with mechanically driven and other vehicles (excluding domestic servant) palki, etc., bearers and owners, pack elephant, camel, mule, ass and bullock owners and drivers, porters and messengers, persons engaged in road transport not otherwise classified including freight transport by road, the operation of fixed facilities for road transport such as toll roads, highway bridges, terminals and parking facilities.	8,851	8,420	431	3,052	2,974	78	5,799	5,446	353
7-2	<i>Transport by water</i> Owners and employees, officers, mariners, etc., of ship plying on the high seas, ships and boats plying on inland and coastal waters, persons employed in harbours, docks, rivers and canals, including pilots, ship brokers.	2,590	2,438	152	659	621	38	1,931	1,817	114
7-3	<i>Transport by Air</i> Persons concerned with air fields and aircrafts other than construction of airfields and air ports.	39	39	..	5	5	..	34	34	..
7-4	<i>Railway transport</i> Railway employees of all kinds except those employed in manufacture, assembly or repair of railway equipment and those employed on construction works.	9,948	9,338	610	3,426	3,279	147	6,522	6,059	463
7-41	Railway employees of all kinds except those employed on construction work.	6,861	6,261	600	2,412	2,266	146	4,449	3,995	454
7-42	Railway porters	3,163	3,153	10	1,090	1,089	1	2,073	2,064	9
7-5	<i>Storage and warehousing</i> The operation of storage facilities such as warehouse, cold storage, safe deposits when such storage is offered as an independent service.	848	704	144	564	476	88	284	228	56
7-6	<i>Postal services</i>	2,332	2,330	2	884	884	..	1,448	1,446	2
7-7	<i>Telegraph Services</i>	73	73	..	18	18	..	55	55	..
7-8	<i>Telephone Services</i>	151	146	5	72	71	..	80	75	5
7-9	<i>Wireless Services</i>	156	156	..	88	88	..	68	68	..
Division 8.	Health, Education and Public Administration	59,909	55,458	4,451	24,552	23,667	885	35,357	31,791	3,566
8-1	<i>Medical and other health services</i> ..	6,957	5,864	1,093	2,649	2,343	306	4,308	3,521	787
8-11	Registered medical practitioners ..	1,421	1,418	3	655	654	1	766	764	2
8-12	Vaids, Hakims and other persons practising medicine without being registered.	1,958	1,953	5	836	836	..	1,122	1,117	5
8-13	Dentists	10	10	..	4	4	..	6	6	..
8-14	Midwives	389	..	389	140	..	140	249	..	249
8-15	Vaccinators	220	220	..	94	94	..	126	126	..
8-16	Compounders	1,160	1,160	..	368	368	..	792	792	..
8-17	Nurses	555	24	531	124	9	115	431	15	4
8-18	Veterinary Services	76	76	..	36	36	..	40	40	..

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

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Cuttack		Balasore		Puri		Sambalpur		Ganjam		Group Code Number
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	(1)
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
2,946	254	30	18	147	10	102	63	177	18	6.8
6,110	526	2,183	192	4,003	119	2,550	94	3,189	182	Dn. 7
62	26	..	..	174	..	1	5	7	..	7.0
2,164	111	734	97	1,117	83	1,011	17	1,411	62	7.1
1,344	113	96	..	203	1	125	5	174	..	7.2
25	..	..	..	4	..	5	..	5	..	7.3
1,408	270	1,233	95	2,370	34	1,126	60	1,048	64	7.4
708	270	745	95	1,737	34	549	60	805	55	7.41
700	..	488	..	633	..	577	..	243	9	7.42
15	..	4	..	7	..	119	7	207	56	7.5
960	2	93	..	95	..	119	..	307	..	7.6
36	..	5	..	7	..	4	..	7	..	7.7
48	4	8	..	13	1	16	..	6	..	7.8
28	..	10	..	13	..	14	..	17	..	7.9
14,412	2,185	4,635	353	6,341	492	7,578	287	6,830	554	Dn. 8
1,840	433	288	52	643	124	569	67	733	133	8.1
256	..	112	..	113	..	150	..	290	2	8.11
571	..	89	..	140	..	119	..	343	5	8.12
4	..	1	..	1	..	..	..	..	..	8.13
..	102	..	30	..	25	..	23	..	97	8.14
20	..	26	..	16	..	9	..	64	..	8.15
514	..	41	..	152	..	83	..	85	..	8.16
8	261	6	21	..	55	..	22	1	79	8.17
23	..	3	..	14	..	10	..	..	..	8.18

Group Code Number	Occupation	Agency		Plains		Koraput		Dhenkanal	
		Males	Females	Males	Females	Males	Females	Males	Females
(1)	(2)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
6-8	<i>Moneylending, banking and other financial business.</i>								
	Officers, employees of joint stock banks and co-operative banks, munims, agents or employees of indigenous banking firms, individual moneylenders, exchangers and exchange agents, money changers and brokers and their agents.	6	..	171	18	65	..	34	..
Div. 7. Transport, Storage and Communications ..		14	..	3,175	182	875	27	1,304	24
7-0	<i>Transport and communications otherwise unclassified and incidental services.</i>	..	..	7	..	..	..	6	..
7-1	<i>Transport by road</i>								
	Owners, managers and employees connected with mechanically driven and other vehicles (excluding domestic servant) paliki, etc., bearers and owners, pack elephant, camel, mule, ass and bullock owners and drivers, porters and messengers, persons engaged in road transport not otherwise classified, including freight transport by road, the operation of fixed facilities for road transport such as toll roads, highway bridges, terminals and parking facilities.	..	..	1,411	62	350	3	351	8
7-2	<i>Transport by water</i>								
	Owners and employees, officers, mariners, etc., of ship plying on the high seas, ships and boats plying on inland and coastal waters, persons employed in harbours, docks, rivers and canals, including pilots, ship brokers.	..	..	174	..	20	2	113	2
7-3	<i>Transport by Air</i>								
	Persons concerned with air fields and aircrafts other than construction of airfields and air ports.	..	..	5	..	..	..	..	..
7-4	<i>Railway transport</i>								
	Railway employees of all kinds except those employed in manufacture, assembly or repair of railway equipment and those employed on construction works.	..	..	1,048	64	215	..	596	2
7-41	Railway employees of all kinds except those employed on construction work.	..	..	805	55	215	..	263	1
7-42	Railway porters ..	..	..	243	9	..	..	333	1
7-5	<i>Storage and warehousing</i>								
	The operation of storage facilities such as warehouses, cold storage, safe deposits when such storage is offered as an independent service.	5	..	202	56	148	22	68	12
7-6	<i>Postal services</i> ..	..	9	..	298	..	131	..	151
7-7	<i>Telegraph Services</i> ..	..	..	..	7	..	3	..	2
7-8	<i>Telephons Services</i> ..	..	..	..	6	..	..	..	8
7-9	<i>Wireless Services</i> ..	..	..	..	17	..	8	..	9
Div. 8. Health, Education and Public Administration		427	17	6,403	537	3,117	57	4,141	126
8-1	<i>Medical and other health services</i> ..	33	5	750	178	526	28	282	56
8-11	Registered medical practitioners ..	7	..	283	2	78	..	93	..
8-12	Vaids, Hakims and other persons practising medicines without being registered.	26	..	317	5	343	..	38	..
8-13	Dentists ..	..	..	..	92	..	27	..	21
8-14	Midwives ..	..	5	..	..	..	..	..	..
8-15	Vaccinators ..	..	..	64	..	6	..	25	..
8-16	Compounders ..	..	..	85	..	94	..	61	..
8-17	Nurses	1	79	..	1	..	31
8-18	Veterinary Services	5	..	7	..

DISTRICT INDICES OF NON-AGBL. OCCUPATIONS

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Keonjhar		Phulbani		Bolangir		Sundargarh		Kalahandi		Mayurbhanj		Group Code Number
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	(D)
(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(D)
10	..	3	..	145	7	1	40	48	1	53	6	6.8
247	7	272	20	1,585	58	954	28	421	20	815	95	Dn. 7
8	..	1	..	..	..	429	12	33	5	143	..	7.0
116	..	50	11	480	7	333	5	106	2	177	25	7.1
4	..	82	..	245	28	17	1	5	..	..	..	7.2
..	..	..	..	..	..	..	..	..	..	..	..	7.3
..	..	..	..	709	17	41	..	178	2	414	66	7.4
..	..	..	..	709	17	27	..	178	2	325	66	7.41
..	..	..	..	..	..	14	..	20	..	145	..	7.42
26	7	48	9	13	6	18	10	25	11	6	4	7.5
72	..	84	..	113	..	97	..	55	..	53	..	7.6
1	..	1	..	2	..	3	..	1	..	1	..	7.7
13	..	..	..	10	..	8	..	7	..	9	..	7.8
7	..	6	..	13	..	8	..	11	..	12	..	7.9
757	28	828	51	1,792	90	1,456	72	1,273	67	2,298	90	Dn. 8
133	16	80	17	232	39	92	27	168	25	228	26	8.1
39	..	30	..	41	..	33	..	50	..	83	1	8.11
82	..	33	..	88.	..	14	..	34	..	59	..	8.12
..	..	..	..	..	..	..	..	1	..	3	..	8.13
..	7	..	17	..	24	..	6	..	3	..	7	8.14
8	..	7	..	7	..	1	..	16	..	15	..	8.15
4	..	10	..	41.	..	25	..	12	..	38	..	8.16
..	9	..	..	..	15	..	5	4	14	5	18	8.17
..	..	..	..	5	..	2	..	..	..	7	..	8.18

Group Code No. (1)	Occupation (2)	ORISSA			3-33 Orissa Inland Division			5-11 Orissa Coastal Division		
		Persons (3)	Males (4)	Females (5)	Persons (6)	Males (7)	Females (8)	Persons (9)	Males (10)	Females (11)
		8-10	All other persons employed in hospitals or other public or private establishments rendering medical or other health services; but not including scavengers or other sanitary staff.	1,163	1,003	165	392	342	50	776	661	115
8-2	<i>Educational Services and Research</i> ..	14,378	12,554	1,824	5,340	5,028	312	9,038	7,526	1,512
8-21	Professors, lecturers, teachers and research workers employed in universities, colleges and Research Institutions.	539	516	23	81	81	..	458	435	23
8-22	All other professors, lecturers and teachers	12,911	11,198	1,713	4,691	4,428	263	8,220	6,770	1,450
8-20	Managers, clerks and servants of educational and research institutions, including libraries and museums, etc.	928	840	88	568	519	49	360	321	39
8-4	<i>Police (other than village watchmen)</i> ..	10,057	10,057	..	6,003	6,003	..	4,054	4,054	..
8-5	<i>Village Officers and servants, including village watchmen.</i>	8,157	7,907	250	4,037	3,989	48	4,120	3,918	202
8-6	<i>Employees of municipalities and local bodies (but not including persons classifiable under any other division or subdivision).</i>	2,579	1,680	899	660	503	157	1,919	1,177	742
8-7	<i>Employees of State Governments (but not including persons classifiable under any other division or subdivision).</i>	14,165	13,832	333	3,699	3,677	22	10,466	10,155	311
8-8	<i>Employees of the Union Governments (but not including persons classifiable under any other division or subdivision).</i>	3,616	3,564	52	2,164	2,124	40	1,452	1,440	12
Division 9.	Services not elsewhere specified ..	356,718	273,259	83,459	168,480	133,498	34,982	188,238	139,761	48,477
9-0	<i>Services otherwise unclassified (Palmists, astrologers, zamindar's rent collection staff, home guards, etc fall under this subdivision).</i>	208,047	150,856	57,191	110,690	86,025	24,665	97,357	64,831	32,526
9-1	<i>Domestic services (but not including services rendered by members of family households to one another).</i>	77,632	59,768	17,864	33,782	25,902	7,880	43,850	33,866	9,984
9-11	Private motor drivers and cleaners ..	1,133	1,133	..	678	678	..	455	455	..
9-12	Cooks ..	15,279	12,771	2,508	2,927	2,325	602	12,352	10,446	1,906
9-13	Gardeners ..	1,841	1,404	437	1,059	679	380	782	725	57
9-10	Other domestic servants ..	59,379	44,460	14,919	29,118	22,220	6,898	30,261	22,240	8,021
9-2	<i>Barbers and beauty shops</i> Barbers, hair dressers and wig makers, tattooers, shampooers, bath houses.	13,639	12,797	842	5,613	5,425	188	8,026	7,372	654
9-3	<i>Laundries and laundry services</i> Laundries and laundry services, washing and cleaning.	21,639	15,280	6,359	9,041	6,898	2,143	12,598	8,382	4,216
9-4	<i>Hotels, restaurants and eating houses</i> ..	3,351	3,027	324	1,078	1,057	21	2,273	1,970	303
9-5	<i>Recreation Services</i> Production and distribution of motion pictures and the operation of cinemas and allied services, managers and employees of theatres, opera companies, etc., musicians, actors, dancers, etc., conjurers, acrobats, wrestlers, pahalwans, reciters, exhibitors of curiosities and wild animals, radio broadcasting studios.	3,391	2,517	874	1,018	933	85	2,373	1,584	789
9-6	<i>Legal and business services</i> ..	13,408	13,405	3	3,380	3,380	..	10,028	10,025	3
9-61	Lawyers of all kinds, including qazis, law agents and mukhtars.	4,427	4,427	..	974	974	..	3,453	3,453	..
9-62	Clerks of lawyers, petition writers, etc. ..	6,969	6,966	3	1,786	1,786	..	5,183	5,180	3
9-63	Architects, Surveyors, Engineers and their employees (not being State servants).	1,310	1,310	..	200	200	..	1,110	1,110	..
9-64	Public Scribes, Stenographers, Accountants, Auditors.	298	298	..	198	198	..	100	100	..
9-65	Managers, clerks, servants and employees of Trade Associations, Chamber of Commerce, Board of Trade, Labour Organisation and similar organisation of employers and employees.	404	404	..	222	222	..	182	182	..
9-7	<i>Arts, letters and journalism</i> ..	1,723	1,723	..	240	240	..	1,483	1,483	..
9-71	Artists, sculptors and image makers ..	1,575	1,575	..	221	221	..	1,354	1,354	..
9-72	Authors, editors and journalists ..	68	68	..	12	12	..	56	56	..

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

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Cuttack		Balasore		Puri		Sambalpur		Ganjam		Group Code
Males (12)	Females (13)	Males (14)	Females (15)	Males (16)	Females (17)	Males (18)	Females (19)	Males (20)	Females (21)	No. (1)
444	70	10	1	207	44	198	22	..	..	8-10
2,354	1,039	1,251	75	2,285	230	1,101	76	1,785	172	8-2
320	20	62	..	23	..	45	..	30	3	8-21
1,862	982	1,128	73	21	230	1,029	76	1,750	169	8-22
172	37	61	2	83	..	27	..	5	..	8-20
2,051	..	212	..	752	..	1,262	..	1,078	..	8-4
1,563	199	245	3	1,006	..	935	..	1,210	..	8-5
270	388	201	32	299	138	145	93	427	192	8-6
5,851	114	1,621	190	1,267	..	1,587	11	1,493	7	8-7
483	11	817	1	89	..	1,979	40	64	..	8-8
60,668	19,058	13,884	4,603	23,728	3,344	26,600	8,252	44,132	22,865	Divn. 9
27,312	15,077	8,024	2,902	7,189	908	20,094	6,918	23,875	14,646	9-0
15,105	1,867	3,010	1,321	6,916	1,423	2,671	624	9,312	5,631	9-1
194	..	113	..	82	..	204	..	68	..	9-11
6,237	878	290	45	3,421	..	263	9	599	1,078	9-12
345	..	72	25	230	32	48	..	85	..	9-13
8,329	989	2,535	1,251	3,183	1,391	2,156	615	8,560	4,553	9-10
2,385	145	539	73	2,073	436	979	32	2,494	..	9-2
3,338	1,049	558	273	2,158	523	1,235	613	2,457	2,496	9-3
822	275	247	6	288	22	312	8	644	..	9-4
1,107	645	140	23	242	32	366	57	101	92	9-5
7,782	..	360	3	543	..	360	..	1,425	..	9-6
3,095	..	73	..	126	..	90	..	181	..	0-61
4,465	..	260	3	330	..	154	..	167	..	9-62
93	..	18	..	87	..	49	..	927	..	9-63
83	..	..	..	..	..	..	..	23	..	9-64
46	..	9	..	..	..	67	..	127	..	9-65
922	..	7	..	482	..	10	..	74	..	9-7
855	..	1	..	459	..	10	..	39	..	9-71
21	..	6	..	22	..	..	..	7	..	9-72

Group Code No. (1)	Occupation (2)	Agency		Plains		Koraput		Dhenkanal	
		Males (22)	Females (23)	Males (24)	Females (25)	Males (26)	Females (27)	Males (28)	Females (29)
8-10	All other persons employed in hospitals or other public or private establishments rendering medical or other health services; but not including scavengers or other sanitary staff.	..	..	..	..	..	..	58	4
8-2	Educational Services and Research ..	149	4	1,636	168	700	29	929	23
8-21	Professors, lecturers, teachers and research workers employed in universities, colleges and Research Institutions.	..	..	30	3	..	..	..	..
8-22	All other professors, lecturers and teachers	149	4	1,601	165	700	29	905	23
8-20	Managers, clerks and servants of educational and research institutions, including libraries and museums, etc.	..	..	5	..	..	..	24	..
8-4	Police (other than village watchmen) ..	39	..	1,039	..	616	..	1,276	..
8-5	Villages Officers and servants, including village watchmen.	106	..	1,104	..	900	..	821	4
8-6	Employees of municipalities and local bodies (but not including persons classifiable under any other division or subdivision).	20	8	407	184	64	..	101	32
8-7	Employees of State Governments (but not including persons classifiable under any other division or subdivision).	77	..	1,416	7	287	..	728	11
8-8	Employees of the Union Governments (but not including persons classifiable under any other division or subdivision).	3	..	51	..	24	..	4	..
Division 9.	Services not elsewhere specified ..	2,651	1,393	41,481	21,472	32,446	3,526	9,986	1,811
9-0	Services otherwise unclassified (Palmists, astrologers, zamindar's rent collection staff, home guards, etc., fall under this subdivision).	1,569	1,007	22,306	13,639	11,389	1,011	7,206	1,250
9-1	Domestic services (but not including services rendered by members of family households to one another).	477	258	8,835	5,373	15,528	2,109	766	245
9-11	Private motor drivers and cleaners ..	2	..	66	..	20	..	66	..
9-12	Cooks ..	101	95	498	983	668	50	95	..
9-13	Gardeners ..	7	..	78	..	13	..	13	..
9-10	Other domestic servants ..	367	163	8,193	4,390	14,827	2,059	592	245
9-2	Barbers and beauty shops Barbers, hair dressers and wig makers, tattooers, shampooers, both houses.	119	..	2,375	..	1,210	..	586	9
9-3	Laundries and laundry services Laundries and laundry services, washing and cleaning.	129	125	2,328	2,371	1,672	402	912	273
9-4	Hotels, restaurants and eating houses ..	31	..	613	..	389	3	10	1
9-5	Recreation Services Production and distribution of motion pictures and the operation of cinemas and allied services, managers, and employees of theatres, opera companies, etc., musicians, actors, dancers, etc., conjurers, acrobats, wrestlers, pahalwans, reciters, exhibitors of curiosities and wild animals, radio broadcasting studios.	6	3	95	89	250	1	45	3
9-6	Legal and business services ..	85	..	1,340	..	619	..	96	..
9-61	Lawyers of all kinds, including qazis, law agents and mukhtiyars.	22	..	159	..	116	..	22	..
9-62	Clerks of lawyers, petition writers, etc. ..	42	..	125	..	158	..	39	..
9-63	Architects, Surveyors, Engineers and their employees (not being State servants).	15	..	912	..	73	..	13	..
9-64	Public Scribes, Stenographers, Accountants, Auditors.	6	..	17	..	163	..	..	..
9-65	Managers, clerks, servants and employees of Trade Associations, Chamber of Commerce, Board of Trade, Labour Organisation and similar organisation of employers and employees.	..	..	127	..	109	..	22	..
9-7	Arts, letters and journalism ..	2	..	72	..	2	..	37	..
9-71	Artists, sculptors and image makers ..	..	..	39	..	1	..	34	..
9-72	Authors, editors and journalists.	7	..	1

DISTRICT INDICES OF NON-AGRL. OCCUPATIONS

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Keonjhar		Phulbani		Bolangir		Sundargarh		Kalahandi		Mayurbhanj		Group Code
Males (30)	Females (31)	Males (32)	Females (33)	Males (34)	Females (35)	Males (36)	Females (37)	Males (38)	Females (39)	Males (40)	Females (41)	No. (1)
..	..	..	..	..	..	17	16	51	8	18	..	8-10
251	12	203	34	589	40	249	25	238	24	619	45	8-2
..	..	..	..	18	..	..	..	1	..	17	..	8-21
180	9	203	34	399	20	240	25	98	16	525	27	8-22
71	3	..	..	172	20	9	..	139	8	77	18	8-20
131	..	223	..	368	..	693	..	444	..	951	..	8-4
109	..	214	..	328	3	188	16	144	13	244	12	8-5
36	..	26	..	35	8	26	4	29	5	21	7	8-6
90	..	77	..	215	..	196	..	209	..	211	..	8-7
7	..	5	..	25	..	12	..	41	..	24	..	8-8
6,199	1,589	8,936	2,153	13,877	5,014	7,664	1,911	14,177	4,787	10,962	4,548	Divn. 9
2,948	1,048	7,135	1,879	9,618	2,841	6,105	1,657	12,225	3,510	7,736	3,514	9-0
1,051	426	570	159	609	1,922	752	164	1,350	1,142	2,128	831	9-1
22	..	10	..	16	..	20	..	146	..	172	..	9-11
151	42	92	91	127	93	265	..	150	210	413	12	9-12
152	52	10	..	96	202	52	..	232	95	56	31	9-13
726	332	458	68	370	1,627	415	164	822	837	1,487	788	9-10
1,199	3	208	6	500	17	150	7	169	61	305	53	9-2
709	110	708	106	724	229	229	77	203	72	377	136	9-3
8	2	83	2	52	2	77	..	42	..	53	3	9-4
16	..	24	1	37	3	113	6	30	2	46	9	9-5
53	..	49	..	1,906	..	71	..	31	..	110	..	9-6
23	..	33	..	608	..	20	..	10	..	30	..	9-61
24	..	15	..	1,233	..	26	..	15	..	80	..	9-62
2	..	..	..	43	..	1	..	4	..	..	..	9-63
4	..	1	..	22	..	..	..	2	..	..	..	9-64
..	..	..	..	..	..	24	..	..	..	..	..	9-65
18	..	7	..	121	..	3	..	23	..	17	..	9-7
16	..	4	..	116	..	3	..	23	..	14	..	9-71
2	..	3	..	5	..	..	..	..	..	1	..	9-72

Group Code Number	Occupations	ORISSA								
		3-33 Orissa Inland Division						5-11 Orissa Coastal Division		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
9-73	Photographers, employees of Newspaper Press other than authors, editors, journalists, lithographers and engravers.	80	80	..	7	7	..	73	73	..
9-8	<i>Religious, Charitable and Welfare Services</i>	13,888	13,836	2	3,638	3,638	..	10,250	10,248	2
9-81	Priests, Ministers, monks, Nuns, Sadhus, Religious mendicants and other religious workers.	12,187	12,185	2	3,057	3,057	..	9,130	9,128	2
9-82	Servants in religious edifices, burial and burning grounds, pilgrim conductors and circumcisors, etc.	1,411	1,411	..	318	318	..	1,093	1,093	..
9-83	Managers and employees of organisations and institutions rendering charitable and other welfare services.	290	290	..	263	263	..	27	27	..
Unproductive occupations		39,600	26,048	13,554	16,395	10,213	6,182	23,205	15,833	7,372
Persons living principally on income from non-agricultural property.		2,495	1,985	510	390	239	101	2,105	1,696	409
Pensions	.. .. .	986	864	122	141	126	15	845	738	107
Remittances	.. .. .	3,890	3,472	418	393	236	157	3,497	3,236	261
Scholarships	.. .. .	116	94	22	..	..	..	116	94	22
Other funds	.. .. .	10	7	3	..	..	..	10	7	3
Jails	.. .. .	3,682	3,607	75	1,969	1,931	38	1,713	1,676	37
Asylums	.. .. .	737	442	295	528	313	215	209	129	80
Alm houses	.. .. .	1	1	..	..	..	..	1	1	..
Recipients of doles	.. .. .	9,480	4,550	4,930	5,561	2,861	2,700	3,919	1,689	2,230
Beggars and vagrants	.. .. .	18,049	11,024	7,025	7,393	4,457	2,936	10,656	6,567	4,089
All other persons living principally on income derived from non-productive activities, procurers and prostitutes.		154	..	154	20	..	20	134	..	134

Group Code Number	Occupation	Agency		Plains		Koraput		Dhenkanal	
		Males	Females	Males	Females	Males	Females	Males	Females
		(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
9-73	Photographers employees of Newspaper Press other than authors, editors, journalists, lithographers and engravers.	2	..	26	..	..	..	3	..
9-8	<i>Religious, Charitable and Welfare Services</i>	233	..	3,517	..	1,387	..	328	..
9-81	Priests, Ministers, Monks, Nuns, Sadhus, Religious Mendicants and other religious workers.	233	..	3,362	..	925	..	315	..
9-82	Servants in religious edifices, burial and burning grounds, pilgrim conductors and circumcisors, etc.	..	..	155	..	216	..	..	..
9-83	Managers and employees of organisations and institutions rendering charitable and other welfare services.	..	..	..	..	246	..	13	..
Unproductive occupations		62	53	2,857	1,176	1,250	379	851	459
Persons living principally on income from non-agricultural property		..	..	..	17	52	4	26	5
Pensions	.. .. .	..	..	18	2	7	..	7	1
Remittances	.. .. .	24	20	104	91	..	..	50	62
Scholarships	.. .. .	..	..	..	..	..	..	..	..
Other funds	.. .. .	..	..	..	..	..	..	..	..
Jails	.. .. .	..	..	631	8	406	2	183	..
Asylums	.. .. .	..	..	25	16	40	27	15	12
Alm houses	.. .. .	..	..	1	..	..	..	..	..
Recipients of doles	.. .. .	..	..	..	..	..	..	..	..
Beggars and Vagrants	.. .. .	33	33	2,078	1,008	745	346	570	379
All other persons living principally on income derived from non-productive activities, procurers and prostitutes.		..	..	..	34	..	..	..	..

APPENDIX IV

List of Registered Factories in Orissa

District	Centre of location	Total number of Factories	Type of Factories	Number
(1)	(2)	(3)	(4)	(5)
CUTTACK (59 Factories)	1. Banki	.. 1	Lime	.. 1
	2. Barang	.. 2	Glass	.. 1
	3. Cuttack	.. 45	Ceramics	.. 1
			Rice Milling	.. 2
			Biscuit	.. 2
			Ply-Wood	.. 1
			Iron and Steel	.. 1
			General Engineering	.. 3
			Lime	.. 1
			Bidi	.. 3
			Tobacco	.. 1
			Saw Milling	.. 8
			Bobbin	.. 1
			Printing	.. 14
			Dyeing	.. 1
	Automobiles	.. 2		
	B.-N. R. Workshop	.. 1		
	Spray Painting	.. 1		
	Hume Pipe	.. 1		
Ice	.. 2			
4. Jagatsingpur	.. 1	Textile	.. 1	
5. Kendrapara	.. 6	Bidi	.. 6	
6. Chaudwar	.. 1	Textile	.. 1	
7. Byree	.. 1	Rice Milling	.. 1	
8. Baitarani Road	.. 1	Rice Milling	.. 1	
9. Narsingpur	.. 1	Bidi	.. 1	
BALASORE (48 Factories)	1. Bhadrak	.. 3	Rice Milling	.. 2
	2. Chandbali	.. 5	Oil Crushing	.. 1
			Rice Milling	.. 5
	3. Markona	.. 2	Rice Milling	.. 2
	4. Soro	.. 3	Rice Milling	.. 2
	5. Bahanaga	.. 3	Iron and Steel	.. 1
			Rice Milling	.. 3
	6. Khantapara	.. 3	Rice Milling	.. 3
	7. Balasore	.. 11	Rice Milling	.. 6
			General Engineering	.. 1
			Saw Milling	.. 1
			Printing	.. 1
			Electricity	.. 1
			Arms and Ammunitions	.. 1
			Rice Milling	.. 5
8. Rupsa	.. 5	Rice Milling	.. 5	
9. Basta	.. 6	Rice Milling	.. 6	
10. Jaleswar	.. 6	Rice Milling	.. 5	
		Hosiery	.. 1	
11. Lakhannath Road	.. 1	Rice Milling	.. 1	

LIST OF REGISTERED FACTORIES

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District	Centre of location	Total number of Factories	Type of Factories	Number		
(1)	(2)	(3)	(4)	(5)		
FURI (2) Factories)	1. Puri	1	Electricity	1		
	2. Sakhigopal	1	Rice Milling	1		
	3. Jatni	6	Wheat Flour	1		
			Rice Milling	3		
	4. Balugaon	4	Lime	1		
			Bidi	1		
			Rice Milling	1		
			Saw Milling	1		
5. Kaluparaghat	1	Ice	2			
6. Tangi	1	Ice	1			
7. Bhubaneswar	5	Rice Milling	1			
8. Khandpara	1	Saw Milling	5			
			Printing	1		
SAMBALPUR (123 Factories)	1. Sambalpur	99	Rice Milling	2		
			Oil Crushing	2		
			Weaving	1		
			General Engineering	1		
			Bidi	82		
			Saw Milling	8		
			Sisal Hemp	2		
			Dyeing and Bleaching	1		
			2. Sason	10	Rice Milling	1
					Bidi	8
			3. Jharsuguda	10	Dyeing and Bleaching	1
					Bidi	9
			4. Brajarajnagar	1	Saw Milling	1
					Paper	1
			5. Bamra	4	Saw Milling	2
					Printing	1
6. Bargarh	1	Woodware	1			
		Rice Milling	1			
7. Burla	1	Automobiles	1			
GANJAM (28 Factories)	1. Ramtha	3	Rice Milling	2		
			Ice	1		
	2. Chatrapur	1	Oil Crushing	1		
	3. Aska	5	Sugar	1		
			Distillery	1		
			Saw Milling	1		
			Aurvedic Pharmacy	1		
			Automobiles	1		
	4. Berhampur	14	Rice Milling	5		
			Distillery	1		
			Oil Crushing	1		
			General Engineering	1		
			Saw Milling	1		
			Hosiery	2		
			Electricity	1		
			Metal Works	1		
5. Parlakimedi	1	Jewellery Workshop	1			
6. Russelkonda	4	Rice Milling	1			
		Saw Milling	4			

APPENDIX IV

District	Centre of location	Total number of Factories	Type of Factories	Number
(1)	(2)	(3)	(4)	(5)
KORAPUT (31 Factories)	1. Gunupur	.. 2	Rice Milling	.. 1
			Distillery	.. 1
	2. Rayaghada	.. 4	Sugar	.. 1
			Distillery	.. 1
			General Engineering	.. 1
			Agar Factory	.. 1
	3. Koraput	.. 1	Rice Milling	.. 1
	4. Jeypore	.. 11	Rice Milling	.. 8
			Distillery	.. 1
		Tile	.. 1	
		Automobiles	.. 1	
	5. Machkund	.. 2	General Engineering	.. 1
			Electricity	.. 1
	6. Boriguma	.. 2	Rice Milling	.. 2
	7. Kotpad	.. 4	Rice Milling	.. 4
	8. Nowrangpur	.. 4	Rice Milling	.. 4
	9. Boipariguda	.. 1	Saw Milling	.. 1
DHENKANAL (17 Factories)	1. Dhenkanal	.. 1	Saw Milling	.. 1
	2. Meramundali	.. 1	Saw Milling	.. 1
	3. Angul	.. 15	Bidi	.. 13
			Saw Milling	.. 1
			Automobiles	.. 1
KEONJHAR (1 Factory)	1. Keonjhar	.. 1	Printing	.. 1
PHULBANI (1 Factory)	1. Baudh	.. 1	Tanning	.. 1
BOLANGIR (11 Factories)	1. Titlagarh	.. 8	Rice Milling	.. 1
			Tannery	.. 1
			Weaving	.. 1
			Tile	.. 1
			Saw Milling	.. 1
			Printing	.. 1
			B. N. R. Workshop	.. 1
			Graphite Mining	.. 1
		2. Bolangir	.. 2	Bidi	.. 2
	3. Kantabanji	.. 1	Saw Milling	.. 1
SUNDARGARH (8 Factories)	1. Birmitrapur	.. 3	Lime	.. 1
			Lao	.. 2
	2. Hemgir Road	.. 1	Saw Milling	.. 1
	3. Bisra	.. 2	Saw Milling	.. 2
	4. Jaraikella	.. 1	Saw Milling	.. 1
	5. Rajgangpur	.. 1	Cement	.. 1

LIST OF REGISTERED FACTORIES

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District	Centre of location	Total number of Factories	Type of Factories	Number
(1)	(2)	(3)	(4)	(5)
KALAHANDI (10 Factories)	1. Khariar Road	.. 7	Rice Milling	.. 4
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			Saw Milling	.. 1
	2. Nawapara Road	.. 2	Ice	.. 1
			Rice Milling	.. 1
	3. Kesinga	.. 1	Saw Milling	.. 1
Rice Milling			.. 1	
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	2. Betnoti	.. 3	Rice Milling	.. 3
			Rice Milling	.. 1
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