

ECONOMIC  
RESOURCES  
OF  
INDIA

BY  
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Famines in Bengal, 1770-1943*

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TO  
*The Sacred Memory*  
OF MY  
**MOTHER**

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## FOREWORD

The attempt made by Mr. Kali Charan Ghosh to compile a brief treatise on the "Economic Resources of India" is welcome. Since Sir George Watt compiled the *Dictionary of the Economic Products of India* about fifty years ago, there has not been a comprehensive, detailed and scientific monograph on the subject. A Dictionary of economic products and industrial resources of India is, however, under compilation by the Board of Industrial and Scientific Research and it is hoped that this will be ready and made available to the public at an early date. Mr. Ghosh's work which is an almost unaided effort, is a bold venture, but as the reader will discover, it will serve as a useful reference book. Mr. Ghosh is a well-known author on economic subjects both in Bengali and in English and his recent publication on "Famines in Bengal" has attracted considerable public attention. Any factual study of the economic products and resources of India by him is entitled to be considered as a contribution to our economic literature and is an essential to any planning of economic development.

The problem of raw materials so far as India is concerned has undergone a complete change since the publication of Sir George Watt's *Dictionary*. The economy of India was then considered on the basis of supply and export of raw materials from India to the industrially developed countries of the world which sent back finished products. India was, in a literal sense, looked upon and treated as a hewer of wood and drawer of water. India's economy was to be complementary to Britain in production and supply of raw products. It was only with the passage of time that the situation has changed and India is being transformed into a manufacturing country from a primary producing one. A study of economic resources and raw materials today would, therefore, have an entirely different purpose. The object today must be to know not what products should be exported in order to gain the incidental advantages of middlemen but what agricultural commodities and mineral products are available in this vast country which, given the skill, the enterprise and the organisation, could and should be utilised and developed within the country for making India economically self-reliant. The drugs industry, for example, should utilise indigenous raw materials and herbs which would naturally be more suitable for the

constitutions of the people of the country. India has so long been a principal source of raw materials for the world that the idea of our utilising our natural wealth of raw materials within the country has not received adequate consideration. It is true that our agriculture might still have a surplus of raw materials to export. But we have to formulate and evolve a co-ordinated national economic policy with a view to intensive development of the internal resources of the country in order to raise the standard of life of the mass of people.

This war has shown the strategic importance of the control of basic materials like oil, iron ore, copper etc. The basic raw materials are vital not only for economic but also for defensive purposes. Because of this importance, a Combined Raw Materials Board was set up early in 1942 and among the materials which came under its review were rubber, phosphorus, non-ferrous metals, silk, wool, hemp, etc. Similarly, the Foreign Economic Administration (known popularly as F.E.A. of the United States) which operates in several countries, including India, is concerned with strategic raw materials and rare metals. The possession and control of raw materials will, in fact, be a vital factor in post-war economic and industrial development. It is this realisation which makes the

powerful nations of the world insist on schemes of international control and distribution of raw materials in the post-war period. The economic war aims of the United Nations include, therefore, provisions regarding such international control and supply of raw materials in future. Clause 4 of the Atlantic Charter emphasises the need of "equal access to raw materials" of the world.\* The plan of international economic reconstruction has been a four-fold one including primary products, commercial policy, international investment as well as monetary stabilisation. It was reported last year that Lord Keynes had formulated a scheme for International Commodity Pools, particularly as it was felt that this was an important problem for Britain which was in a position to plan for primary products rather than for international investment. While schemes for International Commodity Stabilisation Corporation have been sponsored in Britain, the problem has also been receiving considerable attention in the United States where a world cartel to control world production, distribution and prices of raw materials and to govern both sources and supplies of basic raw materials and to be modelled on the

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\* For a fuller discussion of this question, the reader is referred to my article on this subject entitled "Equal Access to Raw Materials" in "Indian Finance" Year Book 1942.

present Combined Raw Materials Board is receiving considerable attention. It was stated sometime ago that the United States Government are surveying the world supply and demand position of essential raw materials to implement the Atlantic Charter's Clause 4 and would hold a Conference of all the United Nations concerned with such primary resources to consider the matter.

It need hardly be emphasised that so far as world economy is concerned, it is divided into "have" and "have-not" nations on the basis of their economic development and their capacity to control and purchase essential raw materials and turn them into finished products. It is evident that proposals of equal access to raw materials are mainly designed to benefit industrially developed countries with a view to their being provided with abundant and cheap raw materials. It is precisely for this reason that backward countries like India should be wary about such schemes and should see that we are not asked to provide raw materials for nations who might menace our own industries with the goods manufactured with such raw materials. We should ensure that in the ordering of our own national economic life we are not compelled to defer to the needs of other countries. India is, therefore, entitled to claim the liberty to determine

the manner in which her productive resources and energies should be distributed among the various channels—to utilise her raw materials for herself in the first instance and to dispose them of on the best available terms in the interests of her cultivators without dictation from external quarters.

It is clear, however, that such freedom and power cannot be India's without full and complete autonomy. A tendency has been recently visible in responsible quarters to ask the people of India to concentrate on economic problems and issues rather than on political questions. Those in authority seem to think that provision of "good" government combined with redress of economic grievances and measures to improve economic conditions is what India requires. No greater illusion is possible. The plea for freedom, said Burke, needs no offset of grievances. But even if good government were a substitute for self-government which a great British Premier denied when recognising the claim of South Africa, the fact remains that no good government, in the true sense of the word, is possible without self-government. Attempts to divert public energies and attention to economic problems are but meant to side-track the fundamental issue. The experience of Indian industry during war-time and the apprehensions and misgivings

felt by it about the future serve to confirm the view that no economic advancement is possible unless the keys of power are with the representatives of the people of the country. We hear of India being a predominantly agricultural country and yet the country does not grow enough food for its own maintenance. What have those who want us to leave industrial development to other and advanced countries done for the cultivator of this land ? The analysis of the existing conditions which the Industrialists' Plan, for example, makes in regard to poverty, low standard of living, illiteracy, ill-health and economic backwardness of the country is a factual condemnation of the character, outlook and policy of the Government which has ruled this country for the last 150 years. The objectives that the Planners have propounded are such that the British Government in India should have placed before them and achieved by now. The history of British administration in India proves beyond a shadow of doubt that foreign rule, however benevolent in intentions, can never ensure the economic well-being or promote the vital economic interests of the country. Making all allowances for the social traditions and customs of the people—which themselves can never be reformed by an alien government—it cannot be gainsaid that the woeful economic

conditions of the country are the direct result of non-Indian rule over this country. The essential condition, therefore, which the Indian industrialists have laid down as a pre-requisite of economic planning in India is that of a national government deriving its strength and power from the people of the land. A national government alone can mobilise public opinion and elicit the creative energies of the people ; it alone can adequately legislate, tax and even, in the last resort, coerce in the wider interests of the people as a whole. The Indian people have realised all too keenly that the solution of India's economic problems is impossible without the achievement of political independence and national emancipation. We cannot have economic progress without political power.

I trust Mr. Ghosh will be able to bring out an enlarged and revised edition of his work after the war containing fuller information and data.

CALCUTTA,  
5th September, 1944. }

G. L. Mehta

## PREFACE

Stray notes collected in connection with a bigger volume entitled "Bharater Panya", (the Commercial Commodities of India) of which Parts I and II have been published and the third is in the press, have been printed in *The Economic Resources of India*. This small treatise is intended to serve as a ready reference book for those who are now busy with the future economic planning of India. It may also prove to be of some interest to students and teachers of Commerce, members of the Legislatures and the public men of India and businessmen and industrialists of all nations. The idea behind this publication is to create interest in the different aspects of the economic resources of India and to encourage the readers to know more. In this connection my humble suggestion is that each Secondary School and College in India should have an Educational Museum of its own and under each exhibit put explanatory notes, as given in this book, so that young minds can find greater interest not only in their studies but also in the future industrial possibilities of our Motherland.

From its very nature, the book cannot contain very comprehensive information with regard to all the different subjects dealt with in its small compass. Some rather trivial objects in the "Raw Materials" Section have received attention alongside commodities of international importance and they will go to show that neglected materials, when properly tackled, can be of good commercial value. This, it is hoped, may encourage some people to carry on researches regarding commodities that hitherto have received but scant attention.

In the Industrial Resources Section, only the large-scale manufacturing units have been taken into account. It would have been necessary by this time, if the Government had not unnecessarily intervened, to write something about the progress of the automobile, aircraft and the ship-building industries in India. I do not know if it will fall to my lot to record their progress in the near future. If I cannot write anything about the Indian ship-building industry, which at the present moment is nothing but assembling of parts by non-Indians in a few hulls made of Indian timbers, India can claim a little about her shipping industry established after great struggle against unequal odds and at a huge sacrifice of Indian

money. The *addendum* (p. 242) will give an idea of the present position of the Industry.

The figures for *maximum* imports of manufactured goods disclose the capacity for expansion of Indian markets. With a better standard of living and an increase in population this will automatically widen further and so long as the peak of imports is not exceeded by the production of Indian industries, the Indian industries taking care of probable imports, can, at least, advance to that extent with a certain amount of confidence.

The figures represent the latest that are available unless where specific years have been mentioned against them. Collection of current statistics have been rendered extremely difficult for the very simple reason that all Governments have ceased publication of statistics due to the exigencies of the War. Such statistics as appear in this book have been culled from the articles written by specialists and from monographs and other sources which may be termed as 'intelligent approximations'. Nevertheless, the readers will have to remain satisfied with them so far as the present is concerned.

Vernacular names have been given to help the readers in identifying materials which they see around

them but the scientific or commercial nomenclature of which they are not conversant with. This identification will encourage them to consult this *Dictionary* and will bring to their mind the real value of things. To help the readers in their study a rather elaborate *Index* has been appended to this book where the **antique** (thick or bold) **types** represent the names of subjects receiving individual treatment in the pages of this book, the CAPITALS, the Latin names, and the *italics*, the vernacular.

The work of compilation has been carried on almost singlehanded and any error or omission that will be detected by careful observers may kindly be condoned on this score.

I owe a deep debt of gratitude to Mr. Gaganbihari Lal Mehta for writing, inspite of very exacting demands on his time, the *Foreword* to this book. Other informations, kindly supplied by him, a past President of the Federation of Indian Chambers of Commerce and Industry and an economist of great eminence, have greatly enhanced its value. I take this opportunity of offering my sincere thanks to him for taking such interest in a publication which is rather insignificant in comparison to the high position he holds in Indian public life.

I cannot give adequate expression to my feeling of gratitude when I try to speak about the generosity of my friend Shri Vinayaklalji Khanna, Proprietor, The Hindu Library, 69A, Balaram De Street, Calcutta, who placed at my disposal his entire library of rare books for study at home.

6, RAJA BASANTA RAY RD.,  
KALIGHAT, CALCUTTA  
*The 1st July, 1944*

AUTHOR

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**"If I were to look over the whole world to find out the country most richly endowed with all the wealth, power and beauty that nature can bestow —in some parts a very paradise on earth—I shall point to India."**

*—Max Muller*

Ere the pyramids looked down upon the valley of the Nile, when Greece and Italy, those cradles of European civilization, nursed only the tenants of the wilderness, India was the seat of wealth and grandeur. A busy population had covered the land with the marks of industry ; rich crops of the most coveted productions of nature annually rewarded the toil of the husbandmen. Skilled artisans converted the crude products of the soil into fabrics of unrivalled delicacy and beauty. Architects and sculptors joined in constructing works, the solidity of which has not, in some instances, been overcome by the evolution of thousands of years. .... The ancient state of India must have been one of extraordinary magnificence."

*—Thornton*

“I do not agree that India is an agricultural country ; India is as much a manufacturing country as an agricultural ; and he who would seek to reduce her to the position of an agricultural country seeks to lower her in the scale of civilisation. I do not suppose that India is to become the agricultural farm of England ; she is a manufacturing country, her manufactures of various descriptions have existed for ages, and have never been able to be competed with by any nation wherever fair play has been given to them. I speak now not of her Dacca muslins and her Cashmere shawls, but of various articles which she has manufactured in a manner superior to any part of the world. To reduce her now to an agricultural country would be an injustice to India.”

—*Montgomery Martin.*

"It was stated in evidence, that the cotton and silk goods of India up to this poriod (1813) could be sold for a profit in the British market, at a price from fifty to sixty per cent. lower than those fabricated in England. It consequently became necessary to protect the latter by duties of seventy to eighty per cent. on their value or by positive prohibition. Had this not been the case, had not such prohibitory duties and decrees existed, the mills of Paisley and of Manchester would have been stopped in their outset, and could scarcely have been again set in motion even by the powers of steam. They were created by the sacrifice of the Indian manufactures. Had India been independent she would have retaliated ; would have imposed preventive duties upon British goods and would thus have preserved her own productive industry from annihilation. This act of self-defence was not permitted her ; she was at the mercy of the stranger. British goods were forced upon her without paying any duty : and the foreign manufacturer employed the arm of political injustice to keep down and ultimately strangle a competitor with whom he could not have contended on equal terms."

*—Horace Hayman Wilson.*

"Outside the entrance of the single village street, on an exposed rise of ground, the hereditary potter sits by his wheel moulding the swift revolving clay by the natural curves of his hands. At the back of the houses, which form the low irregular street, there are two or three looms at work in blue and scarlet gold, the frames hanging between the cacia trees, the yellow flowers of which drop fast on the webs as they are being woven. In the street the brass and copper smiths are hammering away at their pots and pans ; and further down, in the verandah of the rich man's house, is the jeweller working rupees and gold mohurs into fair jewelry, gold and silver earrings, and round tires like the moon, bracelets and tablets and nose rings, and tinkling ornaments for the feet, taking his designs from the fruits and flowers around him, or from the traditional forms represented in the paintings and carvings of the great temple, which rises over the grove of mangoes and palms at the end of the street above the lotus-covered village tank."

—*George C. M. Birdwood.*

"When England came to possess political supremacy over India, she went on draining the resources of India to England, which the poet Thomas Campbell referred to in the following lines :

*"Rich in the gems of India's gaudy zone  
And plunders piled from kingdoms not their own."*

—*Major B. D. Basu.*

“It is unfortunately a fact...that in many ways, the sources of national wealth in India have been narrowed under British Rule. India in the eighteenth century was a great manufacturing as well as a great agricultural country, and the products of the Indian loom supplied the markets of Asia and Europe. It is, unfortunately, true that the East India Company and the British Parliament, ...discouraged Indian manufacturers in the early years of British Rule in order to encourage the rising manufactures of England. Their fixed policy ...was to make India subservient to the industries of Great Britain, and make the Indian people grow raw produce only, in order to supply material for the loom and manufactories of Great Britain. This policy was pursued with unwavering resolution and with fatal success.”

—R. C. Dutt.

“India has long been at a disadvantage on account of her position as a dependency of Great Britain. The rule from that distant island, being akin to that of an absentee landlord, has taken away from the people some of their natural functions, some of the duties and services which they owe to themselves and their fellowmen, almost all the privileges connected with the initiation and control of high policies and the planning and regulation of their own economic order. By keeping the people ignorant and by reducing their opportunities for work and initiative, the present administrative system has increased their dependence on foreign countries for many of the commodities which require technical knowledge and manual skill for their manufacture.”

—*Sir M. Visvesvaraya.*

# ECONOMIC RESOURCES OF INDIA

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## CLASSIFICATION OF AREA (1937-38)

	THOUSAND ACRES
Area by professional survey	511,794
Area according to village papers	511,302
Area under forest	68,001
Area not available for cultivation	92,402
Culturable waste other than fallow	91,969
Fallow land	45,437
Net area sown	213,493
Irrigated area	52,833

**CULTIVATED AND UNCULTIVATED AREA  
IN EACH PROVINCE OF INDIA (1937-38)**

Province	Area	Cultivable*	Waste*	Forests
Ajmer-Merwara	1,770.9	511.7	1,162.4	96.8
Assam	43,375.4	7,897.4	23,434.0	4,153.4
Bengal	49,258.0	29,411.6	15,363.5	4,482.9
Bihar	44,314.7	26,289.9	11,417.9	6,606.9
Bombay	48,721.9	33,774.4	6,611.3	8,336.1
C. P. & Berar	63,004.8	28,343.0	18,891.8	15,857.0
Coorg	1,012.3	309.3	371.1	331.8
Delhi	363.4	224.5	143.8	...
Madras	79,808.6	41,483.1	25,141.9	13,178.2
N. W. F. P.	8,437.6	2,685.1	5,538.8	352.9
Orissa	20,582.6	8,184.5	9,782.4	2,637.9
Punjab	61,001.6	30,992.6	27,186.8	1,975.2
Sind	30,179.5	10,013.7	19,448.1	717.7
U. P.	67,848.9	38,808.8	19,876.9	9,274.6
Total	519,685.2	258,930.0	184,370.8	63,001.4

\*See page 1.

# Economic Resources of India

## Raw Materials

*Figures indicate annual returns  
(Production or Consumption)*

**AJAMA or AJMOT**  
*(Carum Roxburghianum)*

[*Essential Oil seed\**]

*Chief Producer in the World :*

India ; grows almost in every part of India.

*Chief Buyers of Indian Produce :*

Aden ; Ceylon ; Straits Settlements ; etc.

*Uses :*

Condiment ; in confectionery ; essential oil ; in medicine ; etc.

*Vernacular names :*

Randhuni, ájmúd, ajmúdá, ajmot, chanu, dágá-vóman, ajmuda vomaru, ajmodá vova, etc.

---

\* Trade name or division.

**AJWAN***(Carum copticum)*

[Essential Oil seed]

*Chief Producers in the World :*

Baluchistan ; Afghanistan ; Egypt ; Persia ; India.

*Principal Indian Provinces and States :*

Bengal ; Indore ; Hyderabad.

*Chief Buyer of Indian Produce :*

United Kingdom.

*Uses :*

As a condiment and in cooking ; in pan chewing ; in medicine ; beverages ; essential oil ; thymol. -

*Vernacular names :*

Jowan, ajwan, jamani, ajamo, chohara, owa, aman, oman, omámi, omamu, omu, oma, etc.

**ALUMINIUM***World Consumption : 500,000 tons*

(See "Bauxite")

**ANISEED***(Pimpinella anisum)**[Essential Oil seed]**Chief Producers in the World :*

Spain ; Germany ; Italy ; U. S. S. R. ; Malta ; Asia Minor ; etc.

*Principal Indian Provinces and States :*

United Provinces ; Punjab ; (Orissa).

*Chief Buyer of Indian Produce :*

Ceylon.

*Uses :*

Condiment ; in confectionery ;

Essential oil : in medicine ; perfumery, soaps and other toilet articles and beverages ; (anethol) ; etc.

*Vernacular names :*

mauri ; muhúri, saunf, saónf, pán-mahúri, anisun, ervados, sewa, somp, badi-shep, sombú, shómbu, kuppi, pedda, júlakara, sópu, pedda sadapa, etc.

**APATITE**

[Mineral]

*Chief Producers in the World :*

U. S. A. ; North Africa ; Canada ; Norway.

*Principal Indian Provinces and States :*

BIHAR : Singhblum ;

MADRAS : Trichinopoly.

*Uses :*

Source of phosphate of lime ; super phosphate—fertiliser ; source of phosphorus in Norway and Canada.

**ARJUNA**( *Terminalia arjuna* )

[Tanning bark]

*Occurrence in India :*

Central and Southern India (mostly on the banks of rivers). West Coast.

*Uses :*

BARK : "The dry bark from the stem contains from 20 to 24 per cent. of tannin"....."can be used for production of fine upper leather and excellent sole leather."

TIMBER : Carts and agricultural implements ; etc.

*Vernacular names :*

Arjun, savimadat, sadura, arjuno, arjan, koha, kowa, yermaddi, vella marda, kula maruthu, billi matti, etc.

**ANNATTO or ARNOTTO**  
*(Bixa orellana)*

[Dye]

*Occurrence in India :*

South India ; (Mysore) ; Bengal ; Burma.

*Uses :*

PULP (of the fruit) : dyeing for wool, silk and calico goods ; in paint, varnish lacquer and soap ; for colouring butter, cheese, chocolate. Medicine, etc. ;

FIBRE : Cordage.

*Vernacular names :*

Latkan, lathikan, jarat, jolandhar, gūlbas, powasi, kisri, kesari, sendri, japhara-chettu, jafra-vittulu-chettu, japhra-naram, jafra-virai-maram, kurungumunjil-varai-maram, rangamali etc.

**ASAFŒTIDA (Hing)**  
*(Ferula foedita)*

[Resin]

*Chief Producers in the World :*

Turkey ; Persia ; Afghanistan ; Central Asia  
 (Caspian and Ural regions) ; Tibet.

*Principal Indian Provinces and States :*

Kashmir.

*Uses :*

For flavouring sauces, curries, etc. ; medicine.

*Vernacular names :*

Hing, hingra, anguza-kema, hingra, hingu, etc.

**ASBESTOS**[*Mineral*]*World Production : 550,000 tons**Chief Producers in the World :*

Canada ; Rhodesia ; U. S. S. R., South Africa  
Cyprus ; China ; U. S. A. ; Italy ; Finland ; etc.

*Principal Indian Provinces and States :*

MADRAS : Cuddapah ;

RAJPUTANA : Alwar State ;

mysore : Seraikela.

*Uses :*

Fireproof fabrics ; boiler packing mill boards ; insulating material (in cold storage plants) ; boards ; slates, roofing tiles, sheets, bricks ; in paints and roofing cement ; etc.

**BABUL**

(Indian Gum Arabic Tree)

*(Acacia arabica)*[*Tanning bark*]*Chief Producers in the World :*

Arabia ; Egypt ; Sudan ; Senegambia ; etc.

*Occurrence in India :*

"Throughout the drier regions of the North".  
 Sind ; Central Provinces ; Berar ; Bombay ; Madras ;  
 Punjab ; Bengal ; etc.

*Uses :*

**WOOD** : Cart parts (spokes, naves) ; agricultural implements ; tool handles ; sugarcane rollers.

**BARK** : Tanning.

**GUM** : Mucilage in calico printing ; sizing paper ; ingredient in making up whitewashes ; paints ; in the preparation of native sweet meats ; etc,

**PODS** : Black dye.

**LEAVES** : Fodder.

**THORNS** : as pins. etc.

*Vernacular names :*

Babul, jali, gobli, gobalu, vedi-babul, babbar, babur, kalikikar, nalla tuma, tuma, tamma, karuvelam, kikar, etc.

**BAMBOO***(Bambusae)*[*Bamboo*]*Occurrence in India :*

"Bamboos occur in most tropical countries, but they are especially common in the monsoon regions of Eastern Asia"; throughout India, (especially Assam, Bengal), Burma.

*Uses :*

"The native uses of the bamboo are legion for all parts of the plant are of value."

Posts and fencing; roofing; rafters and battens; wickerwork and furniture; matting; boat masts; clubs or *lathis*, bows and arrows, spear and other tool handles; water pipes; fishing rods; flutes, musical instruments; domestic "utensils"; sieves; fish traps; umbrellas or '*tokas*'; (twigs) support for creeping plants; medicine (*tabashir*) etc.

Extensively used in the manufacture of paper.

**SHOOTS AND SEEDS :** Food.

**LEAVES :** Cattle food.

*Vernacular names :*

Báns, bansa, kattang, buáh, bariala, mandgay, mangal, mulkas, kanka, bonga, verduru.

**BANANA or PLANTAIN***(Musa paradisiaca ; M. sapientum)*

[Fruit]

"*Musa paradisiaca* is one of the great food plants of the tropics. A native of Southern Asia, it has furnished food for all tropical peoples for centuries."—Hill, A. F.

"The plantain is cultivated very nearly throughout India except in the extreme north-west and from sea-level upto 5,000 to 6,000 feet in altitude."—Watt, G.

*Uses :*

**GREEN FRUIT** : Food ; diet or meal in sickness ; cooked food.

**RIPE FRUIT** : Edible.

**FLOWERS and flower stalk (the *thor*)** : edible.

**STEM** : Fodder ; water purifier ; (the convolute leaf sheaths) in Hindu religious observances ; fibre.

**LEAVES** : (Ashes) for washing clothes ; dressing in blisters ; cattle food ; medicine.

**ROOT** : Medicine.

*Vernacular names :*

Kela, ram-kela, kanch-kela, muz, kewiro, vazhaip, pazham, valei, anati, amti, ariti, bále, kadali, rambha, etc.

**BARLEY***(Hordeum vulgare)*

[Foodgrain]

<i>World Production</i>	52,000,000 tons
<i>Indian Production</i>	2,000,000 tons
<i>Indian Acreage</i>	6,200,000 acres

*Chief Producers in the World :*

U.S. S. R. ; China ; U. S. A. ; Germany ; India  
 Turkey ; Spain ; Rumania ; Canada ; etc.

*Principal Indian Provinces and States :*

United Provinces ; Bihar ; Punjab , etc.

*Prominent Districts in the Provinces :*

Gorakhpur. Azamgarh (U.P.) ;  
 Muzaffarpore (BIHAR) ; Gurgaon (PUNJAB).

*Uses :*

Food ; bread ; biscuit ; sick-diet ; malt ; maltose  
 dextrine, etc.

*Vernacular names :*

Jav, jao, jowa khar, jao, sij, thanjat, nai, nas, satu,  
 baril, arisi, pachcha yava, barlibiyam, indrajau, etc

**BAUXITE***[Mineral]**World Production : 4,000,000 tons**Chief Producers in the World :*

France (75%) ; Iceland ; Hungary ; U. S. A. ; Italy ;  
 Yugoslavia ; British and Dutch Guiana ; etc.

*Occurrence in India :*

"The bauxite deposits of India are as large and their quantity as good as those of any other country in the world."

*Principal Indian Provinces and States :*

C. P. : Jubbulpore, (Balaghat, Maudla, Bilaspur).  
 (Sirguja and Jaspur States).

BOMBAY : Kaira ; (Gujrat).

Western Ghats.

(Kohlapur State).

BIHAR : Ranchi.

KASHMIR : Chakar.

*Uses :*

As the principal source of aluminium ; aluminium salts ; in the manufacture of refractory bricks ; (alumina fused) cements ; abrasives ; in kerosene purification ; as a corrective for slag in the smelting of iron ; road making ; filler in paints ; as chemical reagent ; etc.

**ALUMINIUM :** Car and plane bodies ; accessories, fittings, structural parts etc. ; containers, cans, utensils, pipings, valves, etc. in chemical and other industries ; electrical parts ; building furnishings ; metallurgical alloy ; in paints, glass, ceramics, fireworks, explosives ; welding ; as a reducing agent ; filler in rubber ; decorative material ; wires, foils : toys ; aluminium compounds ; etc.

### BETEL-NUT

(*Areca Catechu*)

[Spices]

*Chief Producers in the World :*

Western India (sea coast) ; Burma ; Ceylon ; Malay ; Straits Settlements.

*Principal Indian Provinces and State :*

BENGAL : (Bakarganj, Noakhali, Faridpur, 24-Perganas).

ASSAM ; MALABAR ; MYSORE.

BOMBAY : Kolaba, Thana, and Kanara to Goa.

*Chief Buyers of Indian Produce :*

Burma ; Union of South Africa ; Kenya ; Fiji ; etc.

*Uses :*

Masticatory ; tanning ; medicine.

*Vernacular names :*

Supári, supyári, gua, tambul, póka-vakka, vakka, kamugu, pakku, kottai-pákku, adiké, sopari, hopari adaka, kavugu, gubak, kasaille, etc.

**BHABAR or SABAI GRASS**

(*Ischænum angustifolium*)

[*Grass*]

*Principal Indian Provinces and States :*

Bihar ; Orissa ; Bengal ; United Provinces ; Punjab ;  
Nepal Terai.

*Uses :*

Paper making (nearly 50,000 tons are annually used in the Indian paper mills) ; rough ropes and mats.

*Vernacular names :*

Bhabai, baboi, sabai, bankas, bankus munji, mulka-gadi, som, etc.

**BLOOD MEAL**

[*Manure*]

*Blood meal* in bags is exported to Japan ; United Kingdom ; etc.

The supply is mainly derived from the slaughter houses of Calcutta, Madras, Bombay. Quantity exported is about 700 tons per annum.

**BONES***[Manure]**Indian Production : 50,000 tons**Chief Sources of Supply :*

Calcutta ; Bombay ; Madras.

*Chief Buyers of Indian Produce :*

Ceylon ; Belgium (bones) ; United Kingdom (bone-meal) ; etc.

*Uses :*

Bone black ; buttons ; handles ; toys ; source of superphosphates ; manure ; glue ; etc.

**CAMPHOR***(Cinnamomum camphora)**[Drug or Medicine]**Chief Producer in the World :*

Japan (Formosa). (China; New Zealand).

*Principal Indian Provinces and States :*

Madras ; United Provinces ; etc.

*Uses :*

Manufacture of celluloid and nitrocellulose compounds ; medicinal ; in perfumes ; preventive against insects (in warm clothing) ; flavouring agent.

OIL : In perfumery ; substitute for turpentine ; illuminant ; etc.

*Vernacular names :*

Karpūr, kafur, kapur, ghausar, kārpurā, karuppūram, karporabarus, karpūram.

**CANE (Rattan)***(Calamus)*[*Cane*]*Chief Producers in the World :*

Sumatra ; Borneo ; Siam ; Straits Settlements ;  
Burma.

*Principal Indian Provinces and States :*

Bengal ; Assam ; South India.

*Uses :*

Chairs, sofas, fancy baskets, granary baskets ; substitutes for ropes (for towing heavy objects), binding elephants, 'bearing ropes of suspension bridges ;' walking sticks ; handles ; floor mats ; in paper manufacture (China).

*Vernacular names :*

Bet, pepa, prabba, perambu, beta mu, bettam, bettalu-chettu, pepu, prabhali, vetasa, etc.

**CARAWAY (Black)**

(*Carum bulbocastanum or nigrum*)

[*Essential Oil seed*]

*Chief Producers in the world :*

Morocco ; Holland ; Norway ; North America ; etc.

*Principal Indian Provinces :*

All provinces.

*Uses :*

Condiment ; in confectionery ; perfumery ; medicine ; beverages.

Carvone (essence).

*Vernacular names :*

Shah zirah, shimal-shiragam, simajilakara, pilappu shiragam, etc.

## CARDAMOMS

(*Elettaria Cardamomum* chhoto-elachi)

(*Amomum subulatum* bara-elachi)

[*Spices*]

*Principal Provinces and States in India :*

Western and Southern India ; Nepal (*Amomum subulatum*).

*Chief Buyers of Indian Produce :*

United Kingdom ; Germany ; United States of America ; Arabia ; etc.

*Uses :*

Medicinal ; flavouring agent ; (ingredient in sausages).

*Vernacular names :*

Bari-elach, eláchi ; elcho ; periya-yelak-kay, káttu-yelakkay ; pedda-yéla-káyalu, adavyéla-káya, brihat upakunchika. velloda, elákai ; chettu, vittula.

### CASHEW NUTS

(*Anacardium occidentale*)

[Fruit]

*Chief Producers in the World :*

India ; South America ; East Africa.

*Principal Indian Provinces and States :*

Southern Coast Forests ; Bengal.

*Chief Buyers of Indian Produce :*

U. S. A. ; U. K., Netherlands ; etc.

*Uses :*

**FRUITS** : Edible fruit and kernel ; edible oil (from kernels).

**SHELL OIL** : for tanning and colouring boats, etc ; for waterproof and vermin proof paints and varnishes ; insulating materials ; etc.

**GUM** : Insecticide.

**SAP** : Indelible marking ink.

**TIMBER** : Boat-building ; packing cases ; charcoal.

*Vernacular names :*

Kájú, hijli bádám, káju-kaliyá, mundiri, kottai, jidi-mámidi vittu, jiédi pundu, jidi vate, etc.

**(Tanner's) CASSIA***(Cassia auriculata)**[Tanning bark]**Chief Producers in the World :*

Western India ; Ceylon.

*Occurrence in India :*

"A tall shrub found plentifully in Central and South India as far north as Rajputana....."

*Uses :*

BAKK ; Tanning ; (used extensively by Madras tanners) ; used to modify dyes.

SEEDS, LEAVES : Medicine.

*Vernacular names :*

Tarwar, tarota, taravada, avari, ammera verai, avirai, tangedu, thangedu, avareke, tengedu, etc.

**CASTOR***(Ricinus communis)*

[Oil seed]

*World Production :* 11,200,000 tons

*Indian Production :* 100,000 tons

*Indian Acreage :* 1,000,000 acres

*Chief Producers in the World :*

India ; (Uganda ; Kenya ; Brazil, E. and W. Indies ; Java ; Mexico ; Panama ; Manchuria ; Australia).

*Chief Indian Provinces and States :*

Hyderabad ; Madras ; Mysore ; Baroda ; Bombay ; Bihar ; etc.

*Prominent Districts in the Provinces :*

Anantpur (MADRAS) ; Kaira (BOMBAY) ; Bhagalpur (BIHAR) ; etc.

*Chief Buyers of Indian Produce :*

Netherlands ; United Kingdom ; Germany.

*Uses :*

SEEDS : OIL : lubricant (in extremely low temperatures as in aeroplanes) ; illuminant ; leather tanning ; mordant in dyeing ; in toilet ; in the manufacture of soap, artificial leather, linoleum, rubber substitute ; in medicine ; etc.

LEAVES : Food for eri worm.

CAKE : Manure.

*Vernacular names :*

Arand, erand, eri, grundi, erendi, amanakkam, sittamunuk, amadam, amdi, eramudapu, etc.

**CHAMP (Champa)**  
*(Michelia champaca)*

[Timber]

*Occurrence :*

Assam ; Bengal (from Nepal eastwards) ; Burma.

*Uses :*

Furniture ; bent-wood work ; coat hangars ; ceiling and floor boards ; scantlings ; etc.

*Vernacular names :*

Tita sopa, champa, champaea, kud champa, shimbu, shempangam, chambagam, sampige, etc.

**CHICKLING VETCH**

*(Lathyrus sativus)*

[Pulses]

*Principal Indian Provinces and States :*

Central Provinces ; Sind ; Madras ; Bombay ; (almost all over India).

*Prominent Districts in the Provinces :*

Allahabad (UNITED PROVINCES) ; Jhang (PUNJAB) ; Nagpur, Chhattisgarh (CENTRAL PROVINCES) ; Broach (BOMBAY) ; Larkana (SIND).

*Uses :*

Food and fodder.

*Vernacular names :*

Khesari, kassur, latri, teora, tiura, kisara, chural chapa, karail, mattar, triputi.

**CHIKRASSY***(Chukrasia tabularis)*

[Timber]

*Occurrence in India :*

Assam ; Bengal (Chittagong) ; Madras ; Mysore.

*Uses :*House building ; beams, furniture ; scantlings ;  
ply-wood boards ; etc.*Vernacular names :*Chikrassi, boga poma, madagari vembu, aglay,  
malei veppu.

**CHILLIES***(Capsicum)*

[Spices]

*Chief Producers in the World :*

Grown all over the world. United States ; Japan ; East Africa ; Mexico ; India.

*Principal Indian Provinces and States :*

BENGAL : All districts ; (esp. Noakhali, Bogra, 24-Perganas) ; PUNJAB ; CENTRAL PROVINCES (almost all districts) ; BIHAR (Patna) ; MADRAS (Malabar, South Canara).

*Uses :*

In the preparation of curries ; chutnies, pickles and morobbas ; eaten raw ; in medicine ; stomachic, stimulant and astringent ; as counter-irritant.

*Vernacular names :*

Lál mircha, mircha, lanka, etc.

**CHINA CLAY**

[Mineral]

*World Production : 4,000,000 tons**Chief Producers in the World :*

Occurs throughout the world ; best quality is obtained in Cornwall (U. K.) ; China ; Japan ; Germany ; France ; U. S. A. ; U. S. S. R. ; Czechoslovakia ; Italy ; etc.

*Principal Indian Provinces and States :*

BIHAR : Sonthal Perganas (Rajmahal Hills-Mangal Hat),

Bhagalpur (Patharghatta),

Singhbhum (Kendposi, Hat-Gamaria) ;

UNITED PROVINCES : Kasumpur (near Delhi) ;

CENTRAL PROVINCES : Jubbulpore ;

BOMBAY : Kanara (Castle rock) ;

MYSORE : Bangalore (Arjunbettahalli, near Golhalli), Kadur.

*Uses :*

In the porcelain and earthenware industries ; in the manufacture of dyes such as lakes and ultramarine, and pigments ; in paper making and textile finishing ; in colour-washing ; manufacture of soap ; medicine etc.

**CHROMITE (Chromium)**

[Mineral]

*World Production (Chromite) : 1,000,000 tons**Indian Production (Chromite) : 50,000**Chief Producers in the World :*

Turkey ; South Rhodesia ; Union of South Africa ;  
 Turkey ; Cuba ; Yugoslavia ; New Caledonia.

*Chief Provinces and States in India :*

BALUCHISTAN : Zhob ;  
 BIHAR : Singhbhum ;  
 MYSORE : Mysore, Hasan.

*Chief Buyers of Indian Produce :*

Germany ; U. K. ; U. S. A. ; Norway ; etc.

*Uses :*

Alloy in the manufacture of steel (stainless) ; high-temperature furnace and container coatings ; arms and armaments, high class tools and cutting instruments ; dyes and tanning industries ; in photography ; in electroplating ; etc.

**CINCHONA**

[Drug]

*Indian Production : 80,000 lbs.**Chief Producers in the World :*

Java (almost a monopoly) ; Ceylon ; Jamaica ; India.

*Principal Indian Provinces and States :*

BENGAL : Darjeeling (Munsung, Mungpoo) ;

MADRAS : (Annamalai) Nilgiris (Nadubattam, Dodabetta) ;

TRAVANCORE ; MYSORE ; COORG.

*Chief Buyers of Indian Bark :*

United Kingdom ; France ; (Germany).

*Uses :*

Medicine ; insecticide.

**CINNAMON***(Cinnamomum zeylanicum)*

[Spices]

*Chief Producers in the World :*

Ceylon is the only important producer.

*Principal Indian Provinces and States :*

Western Ghats.

*Uses :*

Flavouring agent ; medicine, etc.

"The root yields camphor."

*Vernacular names :*

Dalchini, daruchini, taj, karruwa, lavangappattai ; saualinga ; etc.

**CITRONELLA**  
(*Cymbopogon Nardus*)

[*Essential oil*]

*Occurrence :*

Java ; Ceylon ; Malacca ; India.

*Principal Indian Provinces & States :*

Travancore ; Malabar ; Cochin.

*Uses :*

“The pale yellow-oil is inexpensive and is much used for cheap soaps and perfumes and as an insect repellent. Important as a substitute for otto of roses.”

*Vernacular names :*

Ganjni ; ganjni-ká-ghás, kamá-kher usadhan, kámákshi-kasuvre, kamdkshi-pullu, mándap-pullu, kámanchi-gaddi, etc.

## CLOVES

(*Eugenia caryophyllata*)

[*Spices*]

*Chief Producers in the World :*

Zanzibar ; Pemba ; Madagascar ; Mauritius ; Cameron (W. Africa) ; Malay ; Penang ; Sumatra ; Java.

*Principal Indian Provinces and States :*

Trivancore ; (Madras).

*Uses :*

CALYX (dry) : Culinary spice, flavouring agent, medicine.

OIL : Medicine ; counter-irritant ; in perfumery, soap ; in histological work ; (artificial) vanilla.

*Vernacular names :*

Lavanga, lang, karanfal, kiramber, ilavangap-pu, karuvap-pui crambu, lavangalu, etc.

## COAL

[Mineral]

*World Production* 1,420,000,000 tons*Indian Production* 24,700,000 tons

[Carbon and volatile matter content in each kind of coal] :

	Carbon %	Volatile matter %
Wood	50	
Peat	52-60	
Lignite	57-67	45
Bituminous	65-85	
non-coking		40-45
gas coals		32-40
furnace coals		26-32
coking coals		18-26
Semi-bituminous		
steam coals		15-20
Anthracite	75-95	
Steam coals		8-15
Anthracite		8 (and lower)
Graphite, etc.		

*Chief Producers in the World :*

U. S. A., United Kingdom ; Germany ;

U. S. S. R. ; Belgium ; Czechoslovakia ; etc.

*Principal Indian Provinces and States :*

BIHAR : Jharia, Bokaro, Raniganj, Giridih ; etc. ;  
 BENGAL : Raniganj (Burdwan) ;  
 CENTRAL PROVINCES : Chhindwara (Pench Valley). ;  
 HYDERABAD : Sasti, Singareni, Tandur ;  
 ASSAM : Lakhimpur ;  
 ORISSA : Talcher ;  
 CENTRAL INDIA : Sohagpur, Umaria.

*Chief Buyers of Indian Produce :*

Burma ; Ceylon ; Hongkong ; etc.

*Utilization of Indian Coal :*

	Per cent.
Railways ...	... 32'0
Iron Industry (including Engineering Workshops)	... 21'0
Cotton mills ...	... 7'5
Jute mills ...	... 3'5
Bunker coal ...	... 5'5
Brick kilns, potteries, cement works, etc. ...	... 3'2
Inland Steamers ...	... 3'0
Paper mills ...	... '9
Admiralty & Royal Indian Marine	'7
Port Trusts ...	... '8
Tea Gardens ...	... 1'0
Collieries & Wastage	... 10'0
Other forms of industrial and domestic concern	... 10'9

*Uses :*

Tar : black "paint"; road preparations (pitch); dyes; pharmaceutical chemicals; flavours and perfumes; motor spirit; explosives; cleansing solvents; dyes (indigo); sachharine; insecticides and disinfectants; naphthalene, carbolic acid, Lysol, timber preservative; creosote oil; photographic chemicals; diesel oil; lubricating oil; refrigeration (ammonia gas); fertilizers; smelling salts; baking powder; etc.

Fuel : Crude gas; Coke.

*Vernacular names :*

Koyla, koyela, koelo, kolsa, kari, baggu, iddallin, misu-e, midu-ye, simai-karri, sima-baggu, etc.

**COBALT**

*World Production : 3,500 tons*

*Chief Producers in the World :*

Canada. (French Morocco; Burma; etc.)

*Principal Indian Provinces and States :*

Rajputna; Nepal.

*Uses :*

Alloy : In the manufacture of special steels for cutting tools, etc., the cobalt tungsten carbides; in electroplating and thermocouples; in ceramic (oxide), glass, earthenware and enamel industries as pigment (oxide and other compounds).

**COCHINEAL***(Coccus cacti)*

[Dye]

*Chief Producers in the World :*

America ; Central Asia.

*Principal Indian Provinces and States :*

South India ; Rajputana.

*Uses :*

Red dye for wool, silk, cotton ; colouring material for drugs and confectionery ; artists' pigment, etc.

*Vernacular names :*

Kirmdana, kirmaz, kiranda, kirm, etc.

**COCONUT***(Cocos nucifera)**[Copra and fibre]**Total EXPORTS (Copra) in the World market :*

2,000,000 tons

*Chief Producers in the World :*

Ceylon ; East Indies ; Philippines ; Malay ; Andaman-s ; India ; etc.

*Principal Indian Provinces and States :*

Madras ; Cochin ; Travancore ; Bengal ; etc.

*Uses :*

KERNEL : food (sweet-meat), curry, etc.

CAKE : Cattle food ; "milk", manure.

COPRA : OIL : Toilet ; food ; candle ; (marine) soap ; "Vegetable ghee" ; illuminant ; lubricant ; etc.

COIR : Twine ; rope ; matting ; mattresses ; door tread ; stuffing material ; cushions ; etc.

SHELL : Charcoal for gas masks ; buttons ; smoking bowls ; toys ; covers ; etc.

GREEN COCONUT : (Milk of coconut) drink ; (interior pulp) : food and curry.

JUICE : Toddy and gur (jaggery).

LEAVES, FLOWER, ROOT : Medicine.

*Vernacular names :*

Náriyal, nárel, nárikel, maar, nariil, narelá, mád, máda, tenna, tengá, tennan-chedi, nari kadam, kobbari, tayoga, ten kaya, gujju-narekadam, then-pinna, etc.

## COFFEE

*(Coffea arabica)*

[Beverage]

*World Production :*                50,000,000 cwts

*Indian Production :*                2,000,000 cwts

*Indian Acreage :*                185,000 acres

*Chief Producers in the World :*

Brazil ; Colombia ; Netherland Indies ; Salvador ; Venezuela ; etc.

*Principal Indian Provinces and States :*

Coorg ; Madras ; Mysore ; Travancore ; Cochin ; etc.

*Prominent Districts in the Provinces :*

Western Ghats ; Nilgiris, Wynnaad (MADRAS) ; Hasan, Kadur (MYSORE) ; etc.

*Chief Buyers of Indian Produce :*

U. K. ; France ; Norway ; etc.

*Uses :*

Beverage ; (Plastic—experimental stage).

*Vernacular names :*

Kawa, bun, kapi, kava, kapi-kottai, kapi-vittulu, kappi kura, kapi-bija, etc.

**COIR**

(See "COCONUT")

**COPPER**

[Mineral]

<i>World Production</i>	2,300,000 tons
<i>Indian Production</i>	5,500 tons

*Chief Producers in the World :*

U. S. A.; Chile; Canada; North Rhodesia,  
Congo; U. S. S. R.; etc.

*Principal Indian Provinces and States :*

BIHAR : Singhbhum ;  
MYSORE : Chitaldrug.

*Uses :*

Electrical industries (wires, cables, conductors ; generators ; etc.) ; coins ; alloys (brass, bronze, gun-metal) ; utensils and wares ; corrosion resisting parts ; castings : bushings, bearings, etc. ; vessels and tubing in breweries, locomotives, etc. ; ornaments and ornamental work ; industrial compounds ; etc.

*Vernacular names :*

Támá, tamba, támra, trambu, shenbu régí, tam-ramu, shenba, nila-túsya, etc.

**CORIANDER***(Coriandrum sativum)**[Essential Oil seed]**Chief Producers in the World :*

India ; U.S.S.R. ; Hungary ; Holland ; Morocco ;  
etc.

*Principal Indian Provinces and States :*

United Provinces ; Bombay ; (Punjab).

*Uses :*

SEEDS : In confectionery; condiment; as flavouring agent ; medicine ;

LEAVES : Vegetable.

*Vernacular names :*

Dhania, kothamira, danyalu, kotamalli, kotimari,  
khotbir, etc.

**CORUNDUM**[*Mineral*]*World Production* 16,000 tons*Indian Production* 50 cwts*Chief Producers in the World :*

South Africa ; U. S. A. ; Canada ; India ; Madagascar, etc.

*Principal Indian Provinces and States :*

Madras (Salem) Mysore ; Kashmir (Soomjam, Padar Dist.).

*Occurrence in India :*

MYSORE ; ASSAM (Khasi and Jaintia Hills) ; MADRAS (Coimbatore, Anantapur, South Kanara, Salem, Trichinopoly) ; REWA STATE (Pipra) ; CENTRAL PROVINCES (Bhandara) ; HYDERABAD (Mahbubnagar, Gulbarga, Nalgonda).

*Uses :*

Abrasive.

**COTTON***(Gossypium)*[*Fibre*]*World Production : 36,000,000 bales**Indian Production      5,900,000 bales  
                              (400 lbs. each)**Indian Acreage :      23,000,000 acres**Chief Producers in the World :*

U. S. A. ; India ; China ; U. S. S. R. ; Egypt ;  
Brazil ; etc.

*Principal Indian Provinces and States :*

PROVINCES : Punjab ; Central Provinces and Berar ; Bombay ; Madras ; etc.

STATES : Hyderabad ; Bombay States ; Central India States ; etc.

*Prominent Districts in the Provinces :*

Akola (C. P. and BERAR) ; Ahmedabad (BOMBAY) ;  
Montgomery (PUNJAB) ; Bellary (MADRAS) ; etc.

*Chief Buyers of Indian Produce :*

Japan ; U. K., China ; Germany ; etc.

*Uses :*

FIBRE : Yarn ; textiles ; thread ; rope ; tape ;  
canvas ; bandage ; bags ; mantle ; belting ; para-  
chutes ; tyres ; straps and strappings ; celluloid

goods ; paper ; explosives (nitro-cellulose) ; packing ; upholstery ; pads ; gaskets ; garden hose gears ; etc. ; auto-stops ; insulators ; cellophane ; collodion : lacquers, plastics, rayon, artificial leather ; etc., etc.

SEED : See "Cotton Seed."

*Vernacular names :*

Deo-kapas, numa, rui, manua, radhia, semparuthi, patti, karpas.

### COTTON SEED

[*Oil seed*]

*World Production :* 14,000,000 tons

*Indian Production :* 2,600,000 tons

*Chief Producers in the World :*

U. S. A. ; India ; China ; Egypt ; U. S. S. R. ; etc.

*Principal Indian Provinces and States :*

Punjab ; Central Provinces and Berar ; Bombay States ; Madras : etc.

*Uses :*

Edible oil ; adulterant in olive oil ; ingredient of stearine ; cottolene, butterine ; illuminant (in mines) ; in the manufacture of soap, candle, etc. ; mordant in dyeing ; in steel tempering ; in fish canning ; etc.

See "COTTON."

**CUMIN**( *Cuminum cyminum* ) [ *Oil seed* ]*Principal Indian Provinces and States :*

United Provinces ; Punjab.

*Chief Buyers of Indian Produce :*

Ceylon ; Straits Settlements.

*Uses :*

SEED : Condiment ; in confectionery.

OIL : Cuminol, cuminaldehyde, etc.

*Vernacular names :*

Zira, ziya, jiraka, gire, ajaji shiragam, jiringe, jirakam, etc.

**CUTCH (White)**( *Acacia catechu* )*Occurrence :* [ *Tan and Dye* ]

Occurs in forests almost all over India : (Kashmir ; United Provinces ; Central India ; Bihar ; Madras ; Bengal. Burma).

*Uses :*

KATHA (extract) : Dye ; as masticatory ; in medicine.

TIMBER : Posts, rice pestles, handles, combs, furniture, etc.

*Vernacular names :*

Khoira, khoir, káderi, shemi, kágli, cachu, sandra, karan-galli, baga, khoiru, etc.

**CYPERUS TEGETUM**

[Matting]

*Chief Producers in the World :*

Abyssinia ; Egypt ; India.

*Occurrence in India :*Lower Bengal, (throughout the plains), esp.  
Midnapur, Madras ; Assam.*Uses :*

Mats ; thatching ; fan-parts.

(Finds employment to women who split the sedges  
and make them ready for weaving).*Vernacular names :*

. Welta, korai, mandari, yerkuti, madurkati, etc.

**DAMMAR***(Canarium resiniferum)*

[Resin]

*Occurrence in India :*

Assam (Khasia, Garo hills).

*Uses :*Incense ; "suitable for the preparation of a  
hard drying varnish, such as is required for  
enamel paints."*Vernacular names :*

Dhuna, dhua, tekreng, etc.

**DAMMAR (Black)***(Canarium strictum)*

[Resin]

*Chief Producers in the World :*

Malay ; East Indies ; Thailand ; Cochin China.

*Occurrence in India :*Southern India, esp. Madras (Tinnevelly, Kanara)  
etc. : Coorg ; Mysore ; Cochin ; Travancore.*Uses :*GUM : Incense ; paints and varnish ; nitrocellulose  
lacquers ; varnishing of paper (dammars in general).TIMBER : Veneers and panels ; match boxes and  
sticks ; etc,*Vernacular names :*Kálá dammar, dhup, gúgul, karapu-kongiliam,  
karapu dainmar, nalla-rojan, thelli etc.

**DIVI-DIVI***(Caesalpinia coriaria)*

[Tanning]

*Chief Producers in the World :*

Venezuela ; Jamaica ; New Granada ; Brazil ;  
Mexico ; etc.

*Occurrence in India :*

Western Presidency (Dharwar, Kanara, Bijapur,  
Khandesh, Belgaum) ; Mysore ; Coorg.

*Uses :*

PODS : for tanning (competitor of Indian myrobalans in the U. S. A.).

*Vernacular names :*

Libi-dibi ; shumák ; vilayati-aldekayi, etc.

**FELDSPAR**

[Mineral]

*World Production ; 550,000 tons**Chief Producers in the World :*

U. S. A. ; Manchuria ; U. K. ; Sweden ; Czechoslovakia ; Norway ; etc.

*Principal Indian States :*

Rajputana ; Mysore ;

(Occurs in other provinces of India)

*Uses :*

Abrasive (small quantity) ; in porcelain and glass industries.

**FENNEL**( *Foeniculum vulgare* )

[Essential Oil seed]

*Chief Producers in the World :*

Malta ; India.

*Principal Indian Provinces :*

United Provinces ; Bengal ; (Bombay).

*Chief Buyers of Indian Produce :*

Ceylon ; U. S. A.

*Uses :*

Condiment ; essential oil ; anethol ; anise camphor.

*Vernacular names :*

Saunf, bari saunf, mauri, pan mouri, sohikire, peddajila-kura ; madhurika.

**FENUGREEK***(Trigonella Fænum-græcum)*

[Essentail Oil seed]

*Principal Indian Provinces and States :*

Kashmir ; Punjab ; Bombay ; etc.

*Chief Buyers of Indian Produce :*

U. K. ; Ceylon.

*Uses :*

Condiment ; essential oil, medicine ; dyeing. '(The extract is used with other aromatic substances in making an artificial maple flavouring').

*Vernacular names :*

Methi, muthi, methun, vendayam, ventayam, mentulu, menti kūra, ménthyá, etc.

**FIR***(Abies pindrow)**Occurrence in India :*

[Timber]

From Afghanistan to Nepal, in the outer Himalayas ; Kashmir ; Punjab (Garhwal).

*Uses :*

Suitable for packing cases ; crates, shingles, floor boards ; paper pulp ; water troughs ; etc.

*Vernacular names :*

Rewar, rewari, rai, tos, morinda, ragha, ransla, badar, tung, drewar, etc.

**FISH (Sea Fishery)**

[Food]

*Chief Producers in the world :*

Japan ; U. S. A. ; Korea ; Norway ; U. K., Germany ; Canada ; France ; Alaska ; Netherlands ; Portugal ; Sweden ; etc.

*Indian Marine Fisheries :*

Coastal areas of : Sind ; Gujrat ; Konkan ; North and South Kanara ; Malabar ; the Gulf of Manar ; the Coromandel coast ; the Telegu area ; the Deltaic area.

*Indian River or Lake Fisheries :*

The Gangetic system of rivers ; the Indus system of rivers.

*Uses :*

**MEAT** : Edible ; cooked, salted, dried, smoked, pickled, canned, etc. **Manure** (*Indian Production : 25,000 tons*) : guano from entire fish : residue after extraction of oil.

**FISH MEAL** : Food for poultry and cattle.

**FINS** : Isinglass, glue.

**BONES AND SCALES** : (Fish) glue ; ornamental models.

**OILS** : See "Oils—Animal".

**SKINS :** Abrasives (crude) ; covering of sword handles, scabbards ; covering of boxes ; etc.

*Vernacular names :*

Matsya, mách, machli, etc.

### FLAX and LINSEED FIBRE

(*Linum usitatissimum*)

[*Fibre*]

(In India true flax is not cultivated ; the substitute is linseed fibre which plant is grown for the seed).

*World Production (Flax) : 890,000 tons.*

*Chief Producers in the World :*

U. S. S. R. ; Poland ; Lithuania ; Latvia ; Estonia  
Belgium (best quality) ; North East Ireland ; etc.

*Uses :*

Yarn, twine and rope ; canvas ; carpets ; linoleum ; fishing nets ; paper manufacture ; insulating material ; etc.

(See "Linseed").

**FLUORITE (Fluorspar)****[Mineral]***World Production : 400,000 tons**Chief Producers in the World :*

U. S. A., Germany ; U. K., U. S. S. R., France ;  
etc.

*Principal Indian States :*

Khairagarh ; Nandgaon.

*Uses :*

In enamel and glass industries ; in metallurgy  
(as flux) ; in the manufacture of calcium carbide,  
carbon electrodes ; binder for abrasives ; pigment ;  
etc.

**GAB***(Diospyros embryopteris)*[*Dye*]*Occurs all over India and Burma.**Uses :*

**PULP OF FRUIT :** Dyeing of fishing nets and lines with an infusion of the unripe fruits ; "it is also used as a tar in caulking the seams of fishing boats." Medicine.

*Vernacular names :*

Gáb, makur kendi, tendu, gusvakendhu, kendu, timbori, kusi, tumbika, pani-chika, tumbilik-kay tumil, tinduki, tumika, tubiki, tinduka, sindika, etc.

**GARLIC***(Allium sativum)*[*Vegetable*]*Occurrence :* All over India.*Uses :*

Food ; flavouring of curry, etc. ; medicine.

*Vernacular names :*

Lasun, rasun, lasan, naharu, lasunas, vallai-púndu, vellulli tella-gadda, etc.

**GINGER***(Zingiber officinale)*[*Spices*]*Chief Producers in the World :*

China ; India ; Japan ; East Indies ; Jamaica ;  
 Fiji ; Queensland ; Sierra Leone ; etc.

*Principal Indian Provinces and States :*

UNITED PROVINCES (Kumaon) ; MADRAS (Malabar,  
 S. Kanara) ; BENGAL (Rangpur) ; BOMBAY (Surat,  
 Thana, Kaira) ; PUNJAB ; etc.

*Buyers of Indian Produce :*

Aden ; Arabia ; United Kingdom ; Germany ;  
 Sudan ; etc.

*Uses :*

Food : pickled ; condiment ; medicine ; oil  
 (essential). Manufacture of liqueurs.

*Vernacular names :*

Adrak, sonth, adá, adu, inji, shukku, allam, basi-  
 sunthi, chukka, etc.

**GOLD**[*Mineral*]

*World Production :* 1,260,000 kilograms  
                           40,509,000 troy ounces

*Indian Production :*      9,000 kilograms  
                           289,350 troy ounces

*Chief Producers in the World :*

Union of South Africa ; Canada ; U. S. A. ; Philippines ; Gold Coast ; Mexico ; Rhodesia ; Australia ; Colombia ; Chille ; New Guinea ; etc.

*Principal Indian Provinces and States :*

MYSORE (Kolar) ;

Bihar, Punjab, United Provinces (negligible).

*Chief Importers of Indian Gold :*

U. K., U. S. A., Netherlands, France.

*Chief Suppliers of Gold to India :*

U. K., Arabia ; Ceylon ; Baherin Is., etc.

*Uses :*

Coin (currency) ; adornment of buildings ; art products ; ornaments ; jewellery ; leaf ; wire (zari and other products) ; kinkhabs or gold brocades etc., ; medicine ; photography ; etc.

*Vernacular names :*

Swarna, subarna, soná, pwon, ponnu, bungarum, bungaru, mas, kanchana, shwal, tibr, zahab, tillá, zir, etc.

**GRAM****(Chick Pea or Bengal Gram)***(Cicer arietinum)**[Pulses]**Indian Production : 3,351,000 tons**Indian Acreage : 13,886,000 acres.**Chief Producers in the World :*

Southern Europe ; Spain ; Northern Africa.

*Principal Indian Provinces and States :*

United Provinces ; Punjab ; Bihar ; Central Provinces and Berar ; Bombay.

*Prominent Districts in the Provinces :*

Hamirpuri, Budaon, Saharanpur, Cawnpore (U. P.) ; Hissar, Ferozepore, Ambala, Multan (PUNJAB) ; Shahabad, Gaya, Patna (BIHAR) ; Hosangabad, Chindwara (C. P.) ; N. Sind Frontier, Nasik, Ahmadnagar (BOMBAY) ; Murshidabad, Nadia, Pabna (BENGAL) ; Kurnool (MADRAS) ; Kamrup (ASSAM) ; Bannu (N.W.F.P.) ; etc.

*Chief Buyers of Indian Produce :*

France ; Straits Settlements ; Ceylon.

*Uses :*

**SEED :** Food : eaten raw, parched, powdered, cooked, soaked, etc. ; sweetmeat ; diet ; fodder.

**PLANT AND LEAVES :** edible when green ; cattle food ; medicine ; etc.

*Vernacular names :*

Chana, bút, chano, harbara, kadolai, harimandhakam, chanaka, cholá, bút kalai.

**GRAM (Horse Gram)**

(*Delichos biflorus*)

[Pulses]

*Principal Indian Provinces and States :*

Madras ; Bombay ; Bihar.

*Prominent Districts in the Provinces :*

Bellary, Anantapur, Karnool (MADRAS) ;

Ahmadnagar, Satara, Poona (BOMBAY) ;

Shahabad (BIHAR).

*Uses :*

**SEED :** Food ; cattle food.

**PLANT :** Fodder.

*Vernacular names :*

Kulthi, kurthi-kalai, kalath, khulti, kalatha, kulat, gahat, horec, barát, roiong, gagli, kúdkí, kollú, wulawallí, kollu, hurali, etc.

**Other Forms :** Cow Pea (*Vigna Catjang*) ;

Green (*Phaseolus radiatus*).

## GRAPES

*(Vitis vinifera)*

[Fruit]

*World Production : 29,000,000 tons*

*Indian Production : 14,000 tons*

*Indian Acreage : 4,200 acres*

### *Chief Producers in the World :*

Italy ; Spain ; France ; Algeria ; Turkey ;  
 U. S. S. R. ; Greece ; Hungary ; U. S. A.  
 (California) ; etc.

### *Principal Indian Provinces and States :*

Baluchistan ; Bombay ; N. W. F. Province ;  
 Madras ; Sind ; Mysore.

### *Chief Districts in the Provinces and States :*

Quetta-Pishin (BALUCHISTAN) ; Nasik (BOMBAY) ;  
 Peshawar (N. W. F. P.) ;  
 Madura, Salem, Anantapur (MADRAS) ;  
 Karachi, Sukkur (SIND) ; Bangalore (MYSORE).

### *Uses :*

**FRUIT :** Wine ; Food ; Raisins (in curries, *pulao*, *chutneys*) ; in medicinal preparations ; in cakes and sweetmeats.

**SEED : OIL :** Illuminant, lubricant, food, soap making, substitute for castor oil, oleo-margarine (refined oil) ; etc.

*Vernacular Names :*

Angúr, dák̄h, buri, tanaur, newala, mámre, gandeli, láning, kwar, kodi-mum-dirrip-pazbam, drakshá-phal, draksha-pondū, sabisi.

**RAISINS :** Kismis, manakka, zirishk, mitha, kurk uzum, kisumisuchettu, zabib, etc.

**GRAPHITE**

[*Mineral*]

*World Production : 150,000 tons*

*Indian Production : 500 tons.*

*Chief Producers in the World :*

Ceylon ; Korea ; Madagascar ; Canada ; Austria ; Germany ; Mexico ; etc.

*Principal Indian Provinces and States :*

Eastern States Agency (Patna State) ; Central Provinces ; Mysore (Kolar) ; Travancore ; Ajmer-Merwara ; etc.

*Uses :*

Faces for moulds and foundry facings ; in the manufacture of refractory crucibles, pencils, electrodes paints ; lubrication ; stone or grate polish ; electrotyping ; printing ink ; pigment ; etc.

## GROUNDNUTS

*(Arachis hypogaea)*

[Oil seed]

*World Production*    8,600,000 tons

*Indian Production*    3,700,000 tons

*Indian Acreage*       8,800,000 acres

### *Chief Producers in the World :*

India ; China ; French West Africa ; U.S.A. ; etc.

### *Principal Indian Provinces and States :*

Madras ; Bombay ; Hyderabad.

### *Prominent Districts in the Provinces :*

South Arcot (MADRAS) ; South Khandesh (BOMBAY) ; Buldana (CENTRAL PROVINCES and BERAR).

### *Chief Buyers of Indian Produce :*

Italy ; Germany ; U. K. ; France ; etc.

### *Uses :*

SEED : Eaten raw or fried.

OIL : Margarine ; "textile" soap manufacture ; illuminant ; lubricant ; adulterant in salad oil ; mordant in dyeing ; fish canning ; etc.

CAKE : Food (biscuits, etc.)

### *Vernacular names :*

Mat-kalai, chiner-bádám, mumphali, mungphali, bhóya-chená, bhui-chane, verk-kadalai, nilak-kadalai, verushanaga-káya, verk-kálá, etc.

**GUMHAR**

(*Gmelina arborea*)

[*Timber* ]

*Occurrence in India :*

Bengal ; Assam ; (Orissa ; Bombay) ; Central Provinces ; Madras ; Coorg ; Travancore ; Mysore. Burma.

*Uses :*

General construction ; furniture panelling ; boat building ; camp furniture ; drums ; musical instruments ; etc.

*Vernacular names :*

Gamari, gumbar, gambari, shiwan, shivani, kumher, sewan, kussamar, gumar tek, summadi, kumbalam, kumalamaram, kumulu, kumbil, kumala ; etc.

**GURJAN***(Dipterocarpus turbinatus)*

[Timber]

*Occurrence in India :*

Assam ; Bengal ; Burma ; Andamans.

*Uses :*

Constructional wood : house building ; railway sleepers ; racks and furniture ; planking and flooring ; ceiling boards ; etc.

*Vernacular names :*

Gurjan, tiliya gurjun, hollong, callene, kanyini, etc.

**GYPSUM**

[Mineral]

*World Production : 10,000,000 tons**Chief Producers in the World :*

U. S. A. ; Germany ; France ; U. K., Canada ; Spain ; Italy ; etc.

*Principal Indian Provinces and States :*

Punjab ; MADRAS (Trichinopoly) ; Jodhpur ; etc.

*Uses :*

Plaster of Paris ; portland cement ; in paints ; as a flux ; in the manufacture of calcium sulphate ; etc.

**HALDU***(Adina cordifolia)*

[Timber]

*Occurrence in India :*

United Provinces (Gonda and Bahraich) ; Bengal ; Assam ; Bihar ; Orissa ; Central Provinces ; Madras ; Bombay.

*Uses :*

Bobbins ; furniture ; brushbacks ; floorings ; roof boards, panelling ; etc. "Other uses are for canoes, dugouts, packing cases, cigar boxes, sieve frames, snuff boxes, fretsaw work, combs, yokes, drums and shingles."

*Vernacular names :*

Haldū, bonglong, tarachapa, phurkhona, roghu, petpuria, da-kom, kalamb, heddi, kaddam, hardu, karam, kaim, kurmi, kem, manjakadambe, bandaru, kamada, rudrakadapu, tekoe, holonda, etc.

**HEMP (Deccan)***(Hibiscus cannabinus)*[*Fibre*]*Occurrence in India :*

Bihar ; Bombay ; Central Provinces ; Madras ;  
(North-West Frontier Province ; Punjab.)

*Uses :*

Yarn, ropes, cordage ; sackcloth, coarse canvas ;  
fishing nets ; paper ; etc.

*Vernacular names :*

Mestápat, pát san, dare kudrum, ambáre, kanuriya, sankokla, pulimanji, pulichi, gongurá, gaynara, holada, nali, etc.

**(Indian) HEMP***(Cannabis sativa)*[*Fibre*]*Occurrence in India :*

Whole of Northern India ; at the foot hills of the Himalayas.

*Uses :*

**FIBRE** : Twine and rope ; canvas ; tarpaulins, sail cloth ; mats ; etc.

**FLOWERS, ETC.** : Narcotics ganja, siddhi or bhang, charas.

**SEEDS : OIL** : Narcotic.

*Vernacular names :*

Gangé-ká-pér, kinnab, gulu, bhángácha-jhada, ganja-chedi, korkkarmuli, kalpam, ganjari-chettu, bangitaku, bhangi-gida, vijaya.

**(Manila or Abaca) HEMP***(Musa textilis)*[*Fibre*]*Chief Producers in the World :*Philippines (*Annual production 200,000 tons*).*Occurrence in India :*Travancore ; Madras ; Malabar Coast ; Bengal  
(Chittagong) ; Assam ; etc.*Uses :*Cordage (exceptionally strong), marine cables,  
binder twine, riggings ; paper ; papier maché ;  
hats ; etc.**(Sisal) HEMP***(Agave sisalana)*[*Fibre*]*Occurrence in India :*"Agaves flourish in dry parts of the country where  
few fibre-yielding fibres succeed so well."

Bihar ; Madras ; Deccan ; Mysore ; etc.

*Uses :*

Fibres for ropes, etc. ; making of fancy articles.

## (Sunn) HEMP

*(Crotalaria juncea)*

[Fibre]

*Chief Producers in the World :*

U. S. S. R., Belgium ; Ireland ; Latvia ; Estonia ; Lithuania ; etc.

*Principal Indian Provinces and States :*

Bombay ; Central Provinces ; Madras ; Hyderabad.

*Prominent Districts in the Provinces :*

Godavari (MADRAS).

*Chief Buyers of Indian Produce :*

Belgium ; U. K. ; France ; etc.

*Uses :*

Yarn and rope ; textile, canvas ; fishing nets ; paper manufacture ; etc.

*Vernacular names :*

San, sanai, ausá, suila, san tag, sini, janappa, januma, janapa, etc.

**HENNA***(Lawsonia alba)*

[Dye]

*Occurrence :*

Egypt ; Arabia ; Persia ; common all over India as a hedge plant. Wild in Baluchistan and the Coromandel Coast.

*Uses :*

LEAVES, ETC. : dyeing of palms, hair, eye-brows and finger nails ; "Henna is a very fast dye and is used chiefly for fabrics and leather." (Hill).

TIMBER : tool handles ; tent pegs, etc.

*Vernacular names :*

Mehedi, mehndi, hena, manghati, panwar, mari-thondi, marutonri, goranta, iveni, etc.

**HIDES and SKINS***[Leather]**World Production :*

Hides : 100,000,000 pieces

Skins : 200,000,000 pieces

*Indian Production :*

Hides : 26,000,000 pieces

Skins : 38,000,000 pieces

*Chief Producers in the World :*Hides : India ; Argentina ; U.S.A., U.S.S.R.,  
U. K. ; Brazil ; etc.Skins : China ; India ; U. K., Australia ;  
New Zealand ; etc.*Principal Indian Provinces and States :*

United Provinces ; Punjab ; Madras ; Bengal.

*Chief Buyers of Indian Produce :*

U. S. A. ; Germany ; U. K. ; France ; etc.

*Uses :*Leather goods : shoes, gloves, suit cases, etc. ;  
saddlery ; straps ; belts ; beltings ; upholstery ;  
washers ; scabbard ; sheets and table cloths ; etc. ;  
*pakhal, mashak, doles* ; gelatine ; glue ; etc.*Vernacular names :*

Charma, chám, chamra, etc.

## HONEY

*Indian Production : 100,000 lbs.*

"Bees exist plentifully here and there all over India and Burma, in a wild and semi-domesticated condition, and supplies of both honey and wax are plentiful and of fair quality."

### *Principal Indian Sources of Supply :*

BENGAL : (Sunderbans) ;

ASSAM : (Khasia Hills) ;

UNITED PROVINCES : (Eastern Doon Forests) ;

CENTRAL PROVINCES : (Chadgarh, Ratgarh) ;

PUNJAB : (Bashar, Chamba, Hazara, etc.) ;

BOMBAY : (Satpura mountains) ;

MADRAS : (Coimbatore, Godavari, Kistna, Karnool, Pachamalai Hills), etc.

### *Uses :*

Food ; substitute for sugar, jaggery etc. ; preservative of fruits (and dead bodies) ; medicine.

### *Vernacular names :*

Madhu, madh, mau, shahad, sahit, saht, polu, ten, jenu, piya-ye, makaranda, etc.

**HORNS**[*Horns*]*Chief Producers in the World :*

India ; U. S. S. R., China ; etc.

*Principal Indian Provinces and States :*

United Provinces ; Punjab ; Madras ; Bengal ; etc.

*Chief Buyers of Indian Produce :*

Netherlands ; U. K. ; Germany.

*Uses :*Buttons ; toys ; handles ; decorative articles  
manure ; glue, gelatine ; hornmeal ; etc.*Vernacular names :*

Sing, kombu, kommu, etc.

**ILMENITE**[*Mineral*]*Chief Producers in the World :*

Canada ; New Zealand ; Norway ; Malay Peninsula ; India.

*Principal Indian State :*

Travancore.

*Chief Buyer of Indian Produce :*

United States of America.

*Uses :*

Source of titanium : paint ; as alloy in steel industry ; filaments of electric lamps ; refractory vessels ; etc.

**INDIGO***(Indigofera tinctoria)*

[Dye]

*Indian Production : 11,100 cwts (of dye)**Indian Acreage : 65,800 acres.**Chief Producers in the World :*

India ; Java ; Natal.

*Principal Indian Provinces and States :*

Madras ; Bihar ; United Provinces ; Punjab ; etc.

*Prominent Districts in the Provinces :*

South Arcot, Karnool, Cuddapah (MADRAS) ;

Darbhanga, Champaran (BIHAR) ;

Aligarh, Bulandshar, Meerut (UNITED PROVINCES) ;

Muzaffargarh, Multan (PUNJAB) ; etc.

*Uses :*

Dye.

*Vernacular names :*

Nil, jil, nila, nilam, guli, gali, tuli, kala, dolá, tuttha, ranjani, etc.

**IRON**

[Mineral]

*World Production :*      120,000,000 tons\*

*Indian Production :*      2,000,000 tons

*Chief Producers in the World :*

U. S. A. ; U. S. S. R. ; France ; Sweden ; U. K. ;  
Germany ; Luxembourg ; etc.

*Principal Indian Provinces and States :*

BIHAR : Singhbhum, Palamau ;

ORISSA : Keonjhar, Mayurbhanj ;

mysore : Baba Budan Hills.

*Chief Buyers of Indian Produce :*

Japan ; U. K. ; Burma ; U. S. A. ; etc.

*Uses :*

In engineering and building construction ; machinery ; apparatus ; transport services ; carrying containers ; armaments ; sheets, wires, nails, bars, bolts and nuts ; expanded metal ; abrasives ; etc. ; etc. In paints as pigments. Medicine.

*Vernacular names :*

Louha, loha, lohah, lokhanda, irumbu, inumu, kabina, irumba, etc.

Kheri (steel) ; giri (bloom) ; khit (slag).

\*Metal content of iron ore.

**IVORY**[*Ivory*]

*Chief Producers in the World :*

Africa ; Ceylon ; Burma ; Siam.

*Principal Indian Provinces and States :*

Assam ; the Western Ghats ; Mysore.

*Chief Buyers of Indian Produce :*

United Kingdom ; Burma.

*Uses :*

Ivory goods (thrones, chairs, bangles, combs, dice, chessmen, boxes, handles ; etc., etc.) ; ivory inlaid articles. Bones and teeth : as inferior substitute for ivory.

*Vernacular names :*

Dwirada, rada, hasti danta, etc.

## JACK-FRUIT TREE

*(Atrocarpus integrifolia)*

[Fruit and Timber]

### *Occurrence in India :*

Bengal ; Assam ; and other warmer parts of India.  
In wild state in the Eastern Ghats, etc.

### *Uses :*

**TIMBER** : General carpentry, panelling, furniture (for high polish), etc. Indigenous dye.

**FRUIT** : (or fruitescence, i.e., growing from an aggregation or assemblage of flowers) : eaten ripe or unripe (cooked).

**SEEDS** : Eaten baked or parched, rich in starch.

**BARK** : Cordage ; for caulking boats.

### *Vernacular names :*

Kanthal, kantal, kathal, panasa, panas, phanas, pilá, pilápazham, panasa-pandu, veru-panasa, halsu, etc.

**JARUL**

(*Lægerstræmia flos-reginæ*)

[*Timber*]

*Occurrence in India :*

Assam ; Bengal ; Madras (West Coast) ; Bombay ;  
(Travancore) ; Burma.

*Uses :*

Building purposes ; door and window frames ;  
plankings ; scantlings, etc. ; boat and wagon  
building ; boot lasts ; etc.

*Vernacular names :*

Pyinma, ajhan, jarul, bondara, taman, gara, sekre,  
kadali, pu maruthu, mani maruthu, etc.

**JUTE**  
*(Corchorus)*

[Fibre]

<i>World Production :</i>	9,800,000 bales*
<i>Indian Production :</i>	9,740,000 ,,
<i>Indian Acreage</i>	3,200,000 acres

*Chief Producer in the World :*

India.

*Principal Indian Provinces and States :*

Bengal ; (Bihar ; Assam ; Nepal).

*Prominent Districts in the Provinces :*

Mymensingh (BENGAL) ; Nowgong (ASSAM) ;

Purnea (BIHAR).

*Chief Buyers of Indian Produce :*

U. S. A., U. K., Germany ; France ; Italy ; etc.

*Uses :*

FIBRE : twist, rope, hessian, sacking, bags ; paper manufacture ; road making ; packing ; etc.

STICKS : Fuel ; fencing (for pan vine) ; thatch.

LEAVES : Pot herb.

*Vernacular names :*

Pát, patta, singin janascha, kostha, peratti-kirai, punaku cheddy, parinta, perinta kurá.

---

\*of 400 lbs each. (World Production for 1940-41 about 6,000,000 bales. The sudden decline is due to restriction on acreage by the Government).

**KADAM***(Anthocephalus cadamba)*

[Timber]

*Occurrence in India :*

Nepal ; Bengal (Darjeeling) ; Assam ; Bihar ; Orissa ; Madras ; Coorg ; Mysore ; Travancore.

*Uses :*

Boarding, packing case, tea-box wood ; spools ; match making ; splints ; etc.

*Vernacular names :*

Raghu, karam, bol-kadam, nhyu, kadwal, vella-cadama, kadambe, rudruk shamba, atta vanji, etc.

**KAPOK (Silk Cotton)***(Bombax malabricum)**[Floss and Timber]**Chief Producers in the World :*

East Indies ; India ; Burma.

*Principal Indian Provinces and States :*

Almost all parts of India, especially Bengal (North) ; BIHAR (Sonthal Perganas) ; ASSAM (Brahmaputra valley) ; UNITED PROVINCES (Ramnagar, Haldwani, Lansdowne, Siwalik, Kheri) ; BOMBAY (Panch Mahals, Kanara forests) ; MADRAS (West Coast, Godaveri and Ganjam Divisions) ; CENTRAL PROVINCES (Chanda, Raipur, Balaghat).

Coorg ; Cochin ; Travancore.

*Buyers of Indian Produce :*

(Kapok or silk cotton) : United Kingdom ; Netherlands ; etc.

*Uses :*

**COTTON** : Pillows and mattresses, upholstery ; stuffing, packing material, filling for life preservers, life cushions, etc. ; paper material.

**TIMBER** : Match-boxes and sticks ; packing boxes (tea and rubber boxes) ; ceiling board ; plywood ; shingles ; toys ; splints ; etc.

**SEED** : Oil : semi-drying oil ; oleo-margarine ; soap making ; illuminant ; etc.

*Vernacular names :*

Semul, semal, sembal, pagun simuri, bouro, saur, saer, savara, simlo, samar, mundla-búraga-chettú, pula, etc.

*Kapok (*Ceiba petandra*)*

This species originally confined to the American tropics is now found in Asia and Africa as well.

*Chief Producers :* Java ; Philippines ; Ceylon.

The fibres have a very low specific gravity and are impervious to water.

### **KHAS-KHAS**

(*Vetiveria zizanioides* or  
*Andropogon muricatus*)

[*Matting*]

*Occurs almost in every part of India :*

Especially in Bombay and the Punjab.

*Uses :*

Mats, fans, ornamental works ; tatties or screens (wet) used as protection against hot winds and high temperature. (ROOTS : vetiver oil : perfume ; medicine).

*Vernacular names :*

Khus, bena, paanni, balé-ká-gháns, sirom, tin, valo, lávanchá, etc.

**KOKKO***(Albizia lebbek)*

[Timber]

*Chief Producers in the World :*

India ; Andamans ; Burma.

*Principal Indian Provinces and States :*Bengal ; Assam ; Bombay ; Madras ; (also Punjab,  
United Provinces ; Central Provinces).*Uses :*

In building and furniture making ; interior decoration and panelling ; ploughs, oil presses, cart parts : wheels, naves, spokes : etc., ; suitable for racket handles ; internal wood-work in railway carriage ; plywood manufacture ; etc.

*Vernacular names :*

Siris, khirich, hirib, chinchula, harreri, samkesar, kinbi, dirasana, vagei, vaga, tinia, etc.

## KYANITE

*Chief Producers in the World :*

U. S. A., India ; etc.

*Principal Indian State :*

Kharaswan (Lapsa Buru, the largest known deposit in the world).

*Uses :*

In the manufacture of porcelain of high quality ; of refractory bricks (in furnaces for glass manufacture) ; etc.

## (Indian) LABURNAM

*(Cassia Fistula)*

*[Tanning Bark]*

*Occurrence in India :*

The tree grows all over India, Burma, Ceylon, ( in South India and at random in Bengal) ; bears yellow flowers and very long pods.

*Uses :*

BARK : Dye and tan.

TIMBER : House and bridge posts, stocks and shafts of carts, etc.

PULP of fruit and root bark : medicine.

*Vernacular names :*

Sondal, sundali, amaltás, alash, sunaru, sandari, sunari, báhavá, konraih-káy, kone, reylu, rela-rálá, subarnaka, rájataru, etc.

**LAC***(Tachardia lacca)*

[Resin]

*World Production : 1,600,000 mds.**Indian Production : 1,200,000 mds.**Chief Producers in the World :*

India ; Straits Settlements ; Siam ; Java ; Ceylon ;  
Indo-China.

*Principal Indian Provinces and States :*

Chota Nagpur ; Bengal ; Central Provinces ;  
United Provinces.

*Prominent Districts in the Provinces :*

Ranchi, Palamau ; Maubhum ; Singhbhum (BIHAR) ;  
Feudatory States of ORISSA ;  
North-eastern districts (of the CENTRAL PROVINCES) ;  
Bankura, Birbhum, Murshidabad, Maldah (BENGAL) ; etc.

*Chief Buyers of Indian Produce :*

U. S. A. ; Japan ; Germany ; France ; etc.

*Uses :*

Gramophone records ; lac and lacquer wares ;  
mouldings of ornaments ; paints and varnishes ;  
electrical appliances (insulating material) ; manu-

facture of sealing wax ; stiffening material in hat industry ; in leather dressing ; etc.

Dye.

*Vernacular names :*

Laksha, lákh, gálá, komburruki, kommolaka, etc.

### LAC TREE (Kosumba)

(*Schleichera trijuga*)

[*Timber*]

*Occurrence in India :*

Bombay ; Orissa ; United Provinces ; (throughout the dry forests of India).

*Uses :*

TIMBER : In oil and sugar mills ; "hubs of wheels, mortars, bearings and tool handles. It is also used in mines as a pit prop and for gallery structures".  
—Trotter.

*Vernacular names :*

Kusumb, kosum, koon, kohan, kusamo, rusam, puvan, pava, puva, paka, pusku, may, roatonga, gausam, gosum, kusam, sagdi, chendala, gyo, etc.

**LAUREL***(Terminalia tomentosa)*

[Timber]

*Occurrence in India :*

Almost everywhere in India : Bengal ; Bihar ; United Provinces ; Bombay ; Madras, ; Central Provinces ; etc.

Coorg ; Hyderabad ; Mysore ; Travancore.

*Uses :*

Household construction ; carts ; agricultural implements ; tool handles ; planks and boards ; electrical casing ; etc.

*Vernacular names :*

Amari, piasal, usan. sadri, saj, sadora, ain, athna, hatana, maddi, tani, karra marda, karu-maruthu, sain, asan, sahaju, karkaya. etc.

**LEMON GRASS***(Cymbopogon citratus)*

[Essential oil]

*Occurrence :*

India ; Ceylon.

*Principal Indian Provinces and States :*

(Southern India) ; Travancore ; Malabar ; Cochin State ; etc.

*Uses :*

The oil is used in artificial perfumes and scenting oils ; extensively used for cooking and flavouring in confectionery and toilet ; (also for obtaining "ionone, from which synthetic violet is made.")

*Vernacular names :*

Gandha-bena, gandha-trina, hirvacha, lilicha, vashanup-pulla, kurpura-pulla, nimma-gaddi, chippa-gaddi, bhústrina, etc.

**LENTIL**

(*Lens esculenta*)

[*Pulses*]

*Chief Producers in the World :*

France ; Germany ; South America ; Egypt ;  
China ; India.

*Principal Indian Provinces and States :*

Central Provinces ; Madras ; United Provinces ;  
Bombay ; (almost all parts of India).

*Uses :*

Food and diet ; young pods eaten raw ; fodder  
(plants).

*Vernacular names :*

Masur, misurpurpur, etc.

**LIMESTONE**

[Mineral]

*World Production : 700,000,000 tons**Indian Production : 4,000,000 tons**Principal Indian Provinces and States :*

CENTRAL PROVINCES : Katni, Satna ;

ASSAM : Sylhet ;

BIHAR : Rhotasghar ;

Rewa ; Eastern States Agency ; Rajputana ; United Provinces ; Punjab ; etc.

*Uses :*

Building material ; including cement ; disinfectant (chloride of lime or bleaching powder) ; white washing ; in calico printing, dyeing, glass and tanning industries ; in sugar manufacture ; iron smelting ; flux in metallurgy.

In pan chewing ; for medicinal purposes ; (rolum) adhesive or cement in conjunction with flour gluten or other materials. Fertiliser.

*Vernacular names :*

Chunam, chunaka-pathar, chunaka patnhal, etc.

**LINSEED***(Linum usitatissimum)*

[Oil seed]

*World Production : 3,400,000 tons**Indian Production : 450,000 tons**Indian Acreage 3,600,000 acres**Chief Producers in the World :*

Argentina ; U. S. S. R. ; India ; U. S. A., etc.

*Principal Indian Provinces and States :*United Provinces ; Central Provinces & Berar ;  
Bombay States ; Bihar ; Hyderabad ; Bengal ; etc.*Prominent Districts in the Provinces :*Jalaon (U.P.) ; Drug (C.P.) ; Champaran (BIHAR) ;  
Nadia (BENGAL).*Chief Buyers of Indian Produce :*United Kingdom ; U. S. A., Germany ; France ;  
etc.*Uses :***SEED** : Oil : Drying oil (in paints and varnishes) ;  
soft soap ; printing ink ; oil cloth and linoleum  
manu-facture ; patent leather ; rubber substitute ;  
etc.

Medicine (poultices). Edible (eaten fried in ghee).

**CAKE** : Cattle food.

*Vernacular names :*

Alsi, tisi, masini, chikna, pesu, bijri, alásí, javosa,  
alshi-virai, atásí, ullú súlú.

### MADAR

(*Calotropis gigantea*)

[*Floss*]

*Chief Producers in the World :*

China ; Ceylon ; Malay ; Singapore ; Persia ; etc.

*Principal Indian Provinces and States :*

Rajputana ; Sind ; Bengal ; Assam ; (almost every part of India).

*Uses :*

(Silk) COTTON : Floss.

BARK : Fibre : paper material, twine-rope (very suitable for use in water) ; fishing nets, fishing lines, etc.. Tan and dye ; guttapercha (from SAP).

LEAVES in particular : medicine.

*Vernacular names :*

Madar, ák, árk, ákan, ákanda, atauna, akra, rui, akado, yercum, erukkam, filledu, jilleru, yekka, mandara, etc.

**MADDER***(Rubia cordifolia)*

[Dye]

*Chief Producers in the World :*

Italy ; Levant ; Greece ; Asia Minor ; Caucasus.

*Occurrence in India :*

"Throughout the hilly districts of India from the North West Himalayas eastward and southward to Ceylon."

*Uses :*

Dyeing : ("Turkey red" colour).

*Vernacular names :*

Manjit, manjistha, majathi, kúkarphali, tiúrú, madar, manjitti, shevelli, támrvalli, tige.

**MAGNESITE**[*Mineral*]

*World Production*      1,275,000 tons

*Indian Production*      30,000 tons

*Chief Producers in the World :*

U. S. S. R. ; Austria ; China ; United States of America ; Greece ; Czechoslovakia ; Yugoslavia ; Canada ; Manchukuo ; etc.

*Principal Indian Provinces and States :*

Madras (Salem) ; Mysore. (Also in Idar State).

*Chief Buyers of Indian Produce :*

United Kingdom ; Australia.

*Uses :*

Building and refractory material ; in the manufacture of flooring cement, of magnesium chloride ; magnesium bisulphite (used in paper making) ; etc. For magnesium metal.

MAGNESIUM : Incendiary bombs ; (metal and alloys chiefly aluminium) in automobile and aircraft industries.

**MAIZE (Indian Corn)**  
*(Zea mays)*

[Foodgrain]

*World Production :* 125,000,000 tons

*Indian Production :* 2,200,000 tons

*Indian Acreage :* 6,400,000 acres

*Chief Producers in the World :*

U. S. A. ; Argentina ; China ; Rumania ; etc.

*Principal Indian Provinces and States :*

United Provinces ; Bihar ; Punjab ; North-West Frontier Province ; etc. Hyderabad.

*Prominent Districts in the Provinces :*

Gonda (UNITED PROVINCES) ; Muzaffarpore (BIHAR) ; Hazara (N. W. F. P.)

*Uses :*

SEED : Food ; patent foods (Maizena, Maizeka, Hominy, etc.) ; porridge ; starch ; starch products ; synthetic rubber ; etc.

OIL : Lighting ; lubrication ; leather dressing ; soap making ; etc.

STEMS, LEAVES, SPATHES : Fodder ; paper manufacture ; etc.

*Vernacular names :*

Bhuttá, makka, makai, bara juár, makki, makkai, makká sholam, mokkajonna, makka zonnalu, etc.

**MANGANESE***[Mineral]*

*World Production*      4,500,000 tons

*Indian Production*      900,000 tons

*Chief Producers in the World :*

U. S. S. R., India ; Gold Coast ; South Africa ;  
Brazil ; Germany ; Egypt ; etc.

*Principal Indian Provinces and States :*

CENTRAL PROVINCES : Balaghat, Bhandara,  
Nagpur, etc.

MADRAS : Sandur State, Vizagapatam ;

EASTERN STATES AGENCY : Keonjhar ;

BOMBAY : Panch Mahals ;

BIHAR : Singhbhum, etc.

*Uses :*

Manufacture of ferro-manganese ; "addition to the blast furnace charge in the manufacture of pig iron" ; (manganese) steel ; alloys ; catalytic agent ; in glass and porcelain industry ; etc.

*Vernacular names :*

Kolsa-ka-pathar, ingani, missi siyá, nijni, jugni, iddali-kalu, etc.

**MANGO***(Mangifera indica)**[Fruit and Timber]*

Occurrs in India Malay, Polynesia, Africa and tropical America including Florida and California.

*Occurrence in India :*

Throughout India.

*Uses :*

**TIMBER** : Panelling ; planking ; crates and packing boxes ; carts and cooperage ; etc.

**FRUITS** : Eaten raw, ripe, in jams and pickles, curries, etc. *Amsath* from pulp.

**STONE** : Kernel (food during scarcity).

*Vernacular names :*

Ám, ámb, amra, mawashi, mawashi, maá, mangas, mam-marum, elamávi, mámadi, mamidi, makan-damu, mava, etc.

**MANGROVE***(Ceriops roxburghiana)*[*Tanning bark*]

Principally a Bengal product, the trees growing in the swamps of the Sunderbans. (Chittagong to Tenasserim).

"The greatest economic role which the plants of this family perform is the soil building and soil binding qualities of various species of the tribe Rhizophoræ. These offer a bulwark along the coasts against the inroads of the ocean and create zones of vegetation free from wave action, thus encouraging the deposition of silt and the building up of terrain which is eventually occupied by more valuable trees."—Pearson and Brown.

**BARK** : Tan ; dye

**TIMBER** : Fencing, fuel and good charcoal ; knees of boats.

*Vernacular names :*

Garan, goran, kurrari, kiri, chauri, madá, tengah, kabaiing, etc.

**MANGROVE***(Rhizophora mucronata)*[*Tanning bark*]

*Chief Producing Area* : Sunderbans (Bengal) ; East and West Coast ; "and the tidal creeks of India, Burma and the Andamans."

*Chief Producers in the World* :

Australia ; East Africa ; Malay ; (East Indies ; Central America).

*Uses* :

BARK : Dye and tan.

*Vernacular names* :

Khamo, bhora, bhara, rai, kunro, upu-poma, adavi ponna, byu, bakan, etc.

**MICA***[Mineral]**World Production : 650,000 cwt.**Indian Production : 175,000 cwt.**Chief Producers in the World :*

India ; Canada ; U. S. A. ; Brazil ; East Africa ;  
U. S. S. R., etc.

*Principal Indian Provinces and States :*

BIHAR : Hazaribagh, Gaya, Monghyr ;

MADRAS : Nellore ; (Nilgiris, Salem).

Travancore ; Rajputana ; Ajmer Merwara.

*Chief Buyers of Indian Produce :*

U. S. A. ; U. K. ; Japan ; Germany ; France.

*Uses :*

Electrical purposes (coverings of dynamos), manufacture of condenser of magnetos and wireless apparatus, etc. ; sound boxes of gramophones ; mirrors in delicate physical instruments ; coverings for pictures ; chimneys for stoves etc. ; micanite ; in the manufacture of silver paints and in lubrication (with grease). Fertilizer ; etc.

*Vernacular names :*

Abhra, abrak, abhrak, apparacum, kokabálarz, etc.

**MILK**

[Food]

*World Production : 6,000,000,000 mds.*

*Indian Production : 65,000,000 mds.*

*Chief Producers in the World :*

U. S. A. ; Germany ; U. S. S. R. ; India ; France ; Poland ; U. K., Denmark ; Netherlands ; Czechoslovakia ; Italy ; etc.

*Principal Indian Provinces :*

Punjab ; U. P. ; Bihar ; Madras ; etc.

*Uses :*

Milk ; milk products : butter, ghee, cream, milk powder, etc. ; casein ; milk wool ; condensed milk ; sugar of milk ; etc.

*Vernacular names :*

Dugdha : (Milk products) : dahi, dadhi, takra, ghol, chhana, navanita, ghrita, ghikhoa, makhan, etc.

Ghi : *Indian Production : 800,000 tons.*

*Chief Producing Centres :*

United Provinces ; Bengal ; Rajputana ; Central India ; Punjab.

Butter : *World Production : 4,500,000 tons.*

**(Common) MILLET***(Panicum miliaceum)*

[Foodgrain]

*Chief Producers in the World :*

U. S. S. R., China ; Japan ; India ; (Southern Europe).

*Principal Indian Provinces and States :*

North-West Frontier Province ; Punjab ; (United Provinces ; Bihar).

*Uses :*

**SEED** : Food ; fodder

**PLANTS** : Fodder.

*Vernacular names :*

Chena, chin, china, chinna, phikai, rali, chehna, chinwa, sirwa, kuri, anne, salan, chinu, wadi, sawa, vari, sava, worga, varagalu, bilibaragu, vrihib-heda, anu, etc.

**(Finger) MILLET***(Eleusine coracana)**[Foodgrain]**Indian Acreage : 7,000,000 acres**Indian Yield : 12,500,000 tons**Chief Producers in the World :*

Malaya ; North Africa ; India ; etc.

*Principal Indian Provinces and States :*Mysore ; Madras ; Bihar ; United Provinces ;  
Punjab.*Prominent Districts in the Provinces :*Mysore, Tumkur (MYSORE) ; Salem, Coimbatore  
(MADRAS) ; Bhagalpur, Hazaribagh (BIHAR) ;  
Garhwal, Kumaon (U. P.), Simla Hills, Kangra  
(PUNJAB).*Uses :*Food ; flour (cakes, puddings) ; fermented beverage ;  
birdseed ; etc.*Vernacular names :*Rági, mandud, makra, mandal, nangli, kayur,  
kelvaragu, tamidelu, ragulu, etc.

**(Indian Great) MILLET or  
GUINEA CORN**  
*(Sorghum vulgare)*

*[Foodgrain]*

*Indian Acreage : 35,000,000 acres*  
*Indian Yield : 7,000,000 tons*

*Chief Producers in the World :*

U.S.A. (for green fodder) ; Northern Africa ; South Western Asia ; India ; China.

*Principal Indian Provinces and States :*

Hyderabad ; Bombay ; Madras ; Central Provinces ; Berar ; United Provinces.

*Uses :*

Food ; forage.

*Vernacular names :*

Juar, joar, joari, jondla, kurbi, phag, thuthera, bajra-jhopanwa, junri, jondla, karbi, cholam, talla, jonna, tella-janular.

## (Poorman's) MILLET

( *Panicum Crus-galli*)\*

[Foodgrain]

A valuable forage and food crop of *India* and *the East Indies*. "An annual, abundant throughout the plains, ascending to moderate elevations on the Himalayas. In parts of the *Punjab* it is cultivated for its grain."

Favourite food for labourers ; also "used by Hindu women on fast days."

*Vernacular names :*

Shámá, shamula, same jhungara, mandira, chamlu, banti, sanwa, etc.

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\**P. frumentaceum* and *P. colonum* are of slightly different varieties.

**(Spiked) MILLET**  
**or**  
**BULRUSH or CUMBOO MILLET**  
*(Pennisetum typhoideum)*

[Foodgrain]

*Indian Acreage :*      17,000,000 acres

*Indian Production :*      3,000,000 tons

*Chief Producers in the World :*

India ; Egypt ; Africa.

*Principal Indian Provinces and States :*

Madras ; Bombay (States) ; United Provinces ;  
 Punjab ; Bombay ; etc.

*Uses :*

Food ; bread and cake ; birdseed.

*Vernacular names :*

Bajra, bajri, lahra, lendha kambu, gantelu, sajjalu,  
 mattari, etc.

**MONAZITE***[Mineral]*

*Chief Producers in the World :*

India ; Brazil ; Ceylon ; U. S. A., etc.

*Principal Indian Provinces and States :*

Travancore.

*Prominent Districts in the Provinces :*

MADRAS (Tinevelly, Vizagapatam) ; BIHAR (Gaya).  
MYSORE (Bangalore) ;

*Chief Buyers of Indian Produce :*

U. S. A. ; United Kingdom ; Japan.

*Uses :*

(Thoria) Incandescent gas mantles manufacture.

**MOWA or MAHUA***(Bassia latifolia)*

[Oil seed]

*Principal Indian Provinces and States :*

Chota-Nagpur ; Central Provinces ; Western Ghats ;  
Hyderabad.

*Chief Buyers of Indian Produce :*

Aden.

*Uses :*

**SEED** : Oil : adulterant of ghee ; edible ; illuminant ; in the manufacture of soap and candle ; etc.

**FLOWERS** : Edible ; source of intoxicant ; power alcohol ; etc.

**CAKE** : Manure ; (unfit as cattle food).

*Vernacular names :*

Mowa, mahua, mahul, moha, mahurá, mahuda, mowda, ránácha-móhácha-jhada, illupi, elupa, kat illipi, ippi, ippa, yeppa, adavi-ippe-chettu, etc.

**MULBERRY (Tut)***(Morus alba)*

[Timber]

*Occurrence in India :*

Punjab (Changa Manga Plantation)

*Uses :***TIMBER** : Sports goods (badminton rackets, hockey sticks, cricket stumps, etc.) ; tool handles ; picking arms ; spokes, poles, shafts and other parts of carriages and carts ; etc.**FRUIT** : Edible.**ROOTS** : Yellow dye.**LEAVES** : For feeding silk worms ; fodder.*Vernacular names :*

Tut, tul, tula, chinni, satur, uppu, mute, etc.

**MUNJ**

(*Saccharum exaltatum*)

[*Fibre*]

Occurs almost in all parts of India especially in the Punjab.

*Uses :*

Thatching ; paper manufacture ; chairs, baskets ; etc. "Strong ropes and strings are made from the sheathing leaves of the culms.....Munj rope is used in rigging boats, for the bottom of cots and chairs and in the manufacture of mats. This grass is a good paper material....."

*Vernacular names :*

See "Sara" (*Saccharum procerum*).

**MUSTARD and RAPE***(Brassica campestris or sinapis)*

[Oil seed]

*World Production : 3,700,000 tons**Indian Production : 1,100,000 tons**Indian Acreage : 6,200,000 acres**Chief Producers in the World :*

China ; India ; Japan ; Western Russia ; Eastern England ; Holland ; U.S.A. (California) ; etc.

*Principal Indian Provinces and States :*

United Provinces ; Bengal ; Bihar ; Punjab ; etc.

*Prominent Districts in the Provinces :*

Bahraich (U. P.) ; Mymensingh (BENGAL) ; Lyallpur (PUNJAB) ; Purnea (BIHAR) ; etc.

*Chief Buyers of Indian Produce :*

United Kingdom ; Italy ; Belgium ; etc.

*Uses :*

**SEEDS** : For culinary purposes ; plaster, counter irritant ; etc.

**OIL** : Edible ; toilet ; illuminant ; lubricant ; in steel tempering ; canning ; as preservative ; medicine ; etc.

**CAKE** : Manure ; cattle food ; washing material ; etc.

*Vernacular names :*

Sarisha, sarson, rai, jariya, sarsu, sherasa, karuppu kadugu, nalla-ávalú, etc.

**MYROBALAN (Black)***(Terminalia chebula)*[*Tanning*]*Chief Producers in the World :*India (almost a monopoly) ;  
(Burma, Ceylon)*Principal Indian Provinces and States :*Central Provinces ; Bihar (Sonthal Perganas) ;  
Madras ; Bombay ; (Bengal).*Chief Buyers of Indian Produce :*

U. S. A. ; U. K. ; Germany ; etc.

*Uses :***FRUIT** : Tannin ; medicinal purposes ; dyeing and tanning ; "as mordant in the dyeing of cotton and for the weighting of black-silk."**BARK** ; Dyeing, etc.**TIMBER** : Posts and beams ; cart-frames, axles, shafts, etc.*Vernacular names :*

Haritaki, bal hár, kále-hár, herro, silim-kung, harira, harra, hirdi, halrá, harlá, hardá, hirada, kaduk-kay-pinji, pinda, karakkaya, abhaya, etc.

**MYROBALAN (Beleric)***(Terminalia belerica)*

[Dye]

*Occurrence :*

In the forests of India and Burma.

*Uses :*

Dyeing and tanning ; medicine.

"When used alone they (*T. chebula* and *T. belerica*) yield a spongy leather of a light colour, but in combination they are more satisfactory. They are used with calf, goat and sheep skins and for sole and harness leather."—(Hill).

*Vernacular names :*

Baherá, bhairah, sagoná bharla, hullúch, bauri, thara, bahadha, babra, behada, bherdha, yelá, behedan, tani, thani, kattu, elupay, tondi, thana, etc.

**MYROBALAN (Emblie)***(Phyllanthus emblica)*

[Dye]

*Occurrence :*

Almost throughout India and Burma.

*Uses :*

BARK : LEAVES : FRUIT : Dyeing and tanning.

FRUIT : Medicine ; pickles and conserves ; hair perfume (T. N. Mukharji).

TIMBER : Cheap building construction, good charcoal and fuel.

*Vernacular names :*

Amlaki, áonla, áungra, anola, amlá, amulati, gondhona ohalu, sohmyrlain, avalkati, helli-kai nelli, userekki, osirka, usri, etc.

**NIGER SEED***(Guizotia abyssynica)*

[Oil seed]

*Chief Producers in the World :*

India ; Germany ; West Indies.

*Principal Indian Provinces and States :*

Choto Nagpur ; Central Provinces ; Madras.

*Chief Buyers of Indian Produce :*

Netherlands ; U. K. ; U. S. A. ; France ; etc.

*Uses :*

Adulterant in mustard oil ; varnish and paints ; illuminant.

*Vernacular names :*

Surguja, kálá til, rám til, valesulu, vulisi, etc.

**NUX-VOMICA***(Strychnos nux-vomica)*

[Drug]

*Chief Producers in the World :*

Ceylon ; Cochin China ; India ; Australia ; Burma.

*Occurrence in India :*U. P. ; Bengal ; C. P. ; Orissa ; Bombay ;  
Travancore.*Buyers of Indian Produce :*

Canada ; United Kingdom ; United States of America ; etc.

*Uses :*

SEEDS : Source of strychnine and brucine.

LEAVES : medicine.

*English name :*

Snake-wood ; Strychnine Tree.

*Vernacular names :*Kuchlá, kuchila, kajra, kedra, mushti, nirmal,  
kasaraka, kanjiram, kabaung, yetti, etc.

**OATS***(Avena sativa)**[Food grain]*

*World Production : 76,000,000 tons*

*Chief Producers in the World :*

U.S.S.R. ; U.S.A. ; Germany ; France ; Canada ;  
Poland ; United Kingdom ; Denmark ; Sweden ;  
etc.

*Principal Indian Provinces and States :*

PUNJAB (Delhi, Hissar) ; UNITED PROVINCES  
(Meerut) ; Bombay ; North-Western Frontier  
Provinces.

*Uses :*

Food, cattle food.

*Vernacular names :*

Jai, wilayatijan, javi, etc.

**OCHRO (Lady's Finger)***(Hibiscus esculentus)*

[Fibre]

Occurs in most warm tropics and sub-tropics.

Cultivated all over India for fruits and capsules ;  
as a garden crop.

*Uses :*

**FRUIT** : Eaten raw or cooked ; dried or canned.

**STEM** : Fibre : twine, rope, sacking ; paper making  
etc.

*Vernacular names :*

Dhenros, dheras, ramtarui, bendeki, tindisa, youn-  
padi-si, vendaik-kay, etc.

**OIL (Fish)**

[Oil]

*Indian Production :*              10,000 tons

*Chief Centre of Supply :*

Madras : West Coast ; Canara.

*Uses :*

Nutrition ; jute batching ; leather dressing ; lubri-  
cation ; paints ; soap making ; illuminant ; "baths  
in tempering steel."

**ONION***(Allium cepa)*

[Vegetable]

Occurs both in the temperate and sometimes in tropical climates. Sandy soil in cool moist regions is the most suitable for cultivation.

*Occurrence in India :*

Almost all over India.

*Chief Buyers of Indian Produce*

Ceylon ; Burma ; Straits Settlements ; Malay.

*Uses :*

Food ; flavouring of curry, medicine, etc.

*Vernacular names :*

Piyaz, piyaj, palandu, dungari, kanda, vella-vengá-yam, irulli, nirulli, vulli-gaddalu, etc.

**OPIUM**(Juice of *Papaver somniferum*)

[Drug]

*Chief Producers in the World :*

India ; (For poppy seed oil : certain parts of Europe and Africa) ; Burma. (China).

*Principal Indian Provinces and States :*

United Provinces ; (Punjab).

*Uses :*

DRUG : Narcotic, soporific. see 'Poppy Seed'.

*Vernacular names :*

Ahiphena, afim, appo, aphu, (khaskhas), abini, aphina, abheni, afium.

**ORANGE (Mandarin)***(Citrus nobilis)*

[Food]

*World Production : 6,270,000 tons**Indian Production : 363,000 tons**Chief Producers in the World :*

U. S. A. ; Brazil ; Spain ; Japan ; Malta ; Sicily ; India ; Palestine ; Mexico ; Egypt ; Union of S. Africa ; etc.

*Principal Provinces and States :*

Central Provinces ; Assam ; Bengal ; Punjab ; Bombay ; Madras ; Coorg ; Hyderabad ; etc.

*Prominent Districts in the Provinces :*

CENTRAL PROVINCES : Nagpur, Bhandara, Wardha, Chhindwara, Amraoti, etc.

ASSAM : Khasi & Jainti Hills, Sylhet, Cachar, Kamrup.

BENGAL : Darjeeling.

PUNJAB : Hoshiarpur, Lahore, Gurdaspur, Lyallpur.

BOMBAY : Ahmednagar, Poona, East Khandesh.

**MADRAS :** Vizagapatam, Malabar, Madura, Nilgiris.

**COORG :** Mercara, Murnad, Gonicoppa.

**SIKKIM :** Teesta Valley.

*Uses :*

**FRUIT :** Edible.

**FLOWERS :** (Neroli) oil for perfumery.

**RIND :** Masticatory ; oil, medicine.

*Vernacular names :*

Kamalá, kamalá tenga, sangtárū, sangtárā ladu, surángi (kamali), nárangi, keonla, kaunla kodágu, kitchli, kithalay, puli, shor, sitowli, gangoli, etc.

**PALMYRA PALM***(Borassus flabellifer)*

[Timber]

Occurs almost everywhere in India, especially in Bengal ; East Indies.

*Uses :*

**JUICE** : sugar, *tari*.

**LEAF** : Fibres, machine brushes (leaf stalk) ; fans, hats, mats, umbrella, thatching, fuel, etc.

**TRUNK** : Posts, rafters, country boats, water pipes, channels, *denki* rests, walking sticks, clubs, etc.

**TRUNK-TOP** : (Soft & middle portion) food.

**FRUIT** : Food (green and ripe) ; water (delicious drink and medicine).

**KERNEL** : Food, curry etc.

*Vernacular names :*

Tál, tala, tar, tári, tág, talat mág, tali-chettu, panai-maram, pampai, panam, pana, etc.

**PEA (Garden)***(Pisum sativum)*

[Pulses]

*Chief Producers in the World :*

Canada ; United States of America ; India.

*Principal Provinces and States in India :*

Almost all parts of India ; (Extensively cultivated in Northern India ; Bengal ; U. P. ; Punjab).

*Uses :*PULSES : Eaten whole green or dried ; split into dál ; ground into *besam* ; fodder (plants, husks).*Vernacular names :*

Bara-matar, matar, karai sunti, kalon, batana, gol matar, vátána, pattanie, vella, patani, gundu-sani-ghelu, patanlu, sen, mattar, khandu, etc.

**(Pigeon) PEA***(Cajanus indicus)*[*Pulses*]*Occurrence in India :*

Extensively cultivated in Bihar and North-Western Frontier Province ; other parts of India.

*Uses :*

PEA : Food (curry, powder, sweet cakes) ; medicine.

STALKS : Fuel ; roofing, fencing ; basket.

*Vernacular names :*

Arhar, lahar, tuvar, thar, tur, turá, thovaray, kandalu.

**PEPPER (Black)***(Piper nigrum)*

[Spices]

*Chief Producers in the World :*

Malay Archipelago ; Netherland Indies ; India.

*Principal Indian Provinces and States :*

MADRAS : (Malabar, Cochin, Travancore).

BENGAL : (Jessore) ;

ASSAM : (Sylhet).

BOMBAY : (Kanara, Karwar) ;

*Chief Buyers of Indian Produce :*

United Kingdom ; Canada ; Italy ; Ceylon ; etc.

*Vernacular names :*Gulmirch, kálimirch, habush, miri vellajung,  
murichung, martz, dáru, garm, choea, milágu,  
miryála, tigo, menasu, etc.

**PETROLEUM***[Mineral]**World Production :      300,000,000 tons**Indian Production :      325,000 tons**Chief Producers in the World :*

U. S. A. ; U.S.S.R., Venezuela ; Mexico ; Roumania ; Iran ; East Indies ; Iraq ; Argentina ; Colombia ; Trinidad ; Peru ; Burma ; etc.

*Principal Indian Provinces and States :*

Assam ; Punjab.

*Uses :*

Crude oil ; (benzene) ; motor spirit ; kerosene ; lubricating oils ; heavy oils ; vaseline ; etc.

*Vernacular names :*

Mitti-ka-tel, matiyá-tel, minak tanah, man-yenney, manti-tayilam, manti-núne, etc.

**PINE (Long-leaved)***(Pinus : longifolia)*

[Resin]

*Occurrence in India :*

N. W. F. Province ; U. P. ; Kashmir ; etc., (*Pinus Khasya* : Assam.)

*Chief Buyers of Indian Produce :*

(Turpentine) : America ; Java ; etc.,

*Uses :*

**ROSIN** : In soap-making ; in sizing paper and cloth ; in the manufacture of linoleum ; oil cloth ; sealing wax ; inks ; lubricating compounds ; paints and varnishes ; dressing for bows of violins ; etc., for soldering ; dressing for machine belts.

**OIL** : (Turpentine) : paints and varnishes ; for dissolving caoutchouc, fats, etc. ; in medicine.

*Vernacular names :*

Salla, sala, saral, chir, dhup, (kolan, sapin, mash-tar, gula, thansa, etc. (oleo-resin-gandha biroza).

**PINEAPPLE***(Ananas sativa)**[Fruit and Fibre]**Chief Producers in the World :*

Philippine ; Formosa ; China ; etc.

*Principal Indian Provinces and States :*

Sylhet ; (Bengal ; Burma ; S. India ; foot of the Himalayas).

*Uses :*

FRUITS : Food, jam, etc.

LEAVES : Fibre ; pina cloth and other strong fabrics.

*Vernacular names :*

Anáñas, anáshap pazam, anása-pandu, kaitachakka, etc.

### POPPY SEED

*(Papaver somniferum)*

[*Edible seed*]

*Chief Producers in the World :*

France ; Germany ; Bavaria ; Mediterranean  
Coastal Countries ; India ; etc.

*Principal Indian Provinces :*

United Provinces ; Punjab ; etc.

*Chief Buyers of Indian Produce :*

Burma ; Straits Settlements ; etc.

*Uses :*

SEED : OIL : Edible oil ; in painter's material ;  
illuminant ; etc.

SEEDS : edible.

*Vernacular names :*

Post, posto, khas-khas, doda, khuskhus, gosha-gasha-tol, casa-casa, etc.

See "Opium".

**POTATO***(Solanum tuberosum)*

[Food]

*World Production : 218,500,000 tons**Indian Production : 1,786,000 tons**Indian Acreage : 448,700 acres**Chief Producers in the World :*

U. S. S. R. ; Germany ; Poland ; France ; U.S.A. ;  
 Czechoslovakia ; U. K. ; Italy ; Eire ; etc.

*Principal Indian Provinces and States :*

United Provinces ; Bihar ; Bengal ; Assam ;  
 (Bombay ; Madras ; Punjab ; Mysore).

*Prominent Districts in the Provinces :*

UNITED PROVINCES : Farrukhabad, Jaunpur,  
 Meerut, Moradabad, Naini Tal, Dehra Dun.

BIHAR : Patna, Gaya, Darbhanga.

BENGAL : Rangpur, Bogra, Burdwan, Hooghly,  
 Birbhum, Mymensingh, Dacca.

ASSAM : Darrang, Silchar, Kamrup, Goalpara,  
 Sylhet, Nowgong, Khasi & Jainti Hills.

BOMBAY : Poona, Satara, Nasik.

MADRAS : Coonoor, Ootacamund, Nilgiris.

PUNJAB : Lahore, Jullundur, Ambala, Simla,  
Kangra, Rawalpindi.

MYSORE : Bangalore.

*Uses :*

Food ; stock-feed ; source of starch, alcohol ; etc.

*Vernacular names :*

Alu, bilati álu, batata, wallarai, kilángu, utalay,  
gudda, etc.

### RHEA GRASS

(*Boehmeria nivea*)

[Fibre]

*Chief Producers in the World :*

China ; Japan ; Malaya ; U. S. A. ; etc.

*Principal Indian Provinces and States :*

Assam ; Bengal.

*Uses :*

"Sacking, sail-cloth, belting, table cloths, sheeting,  
shirting, dress cloths, laces ; thread string, nets,  
cordage, ropes, fishing lines and paper."

*Vernacular names :*

Kánkurah, kiah, risa, rheá, pooah, etc.

**(Rough) RICE**  
*(Oryza sativa)*

[*Food grain*]

*World Production : 131,670,000 tons*

*Indian Production : 45,900,000 tons\**

*Indian Acreage : 79,960,000 acres\**

*Chief Producers in the World :*

China ; India ; Japan ; Indo-China ; Dutch East Indies ; Korea ; Siam ; etc.

*Principal Indian Provinces and States :*

Bengal ; Madras ; Orissa ; Bihar ; Assam ; etc.

*Prominent Districts in the Provinces :*

Mymensingh, Backarganj (BENGAL) ; Vizagapatam, Tanjore (MADRAS) ; Cuttack, Puri (ORISSA) ; Ranchi (BIHAR) ; Sylhet, Kamrup (ASSAM).

*Chief Buyers of Indian Produce :*

Ceylon ; Arabia ; Union of South Africa ; etc.

*Uses :*

Food ; starch (starch products : sizing material ; dextrose, maltose, paste) ; beer or pachwai ; face powder ; smokeless powder ; etc.

*Vernacular names :*

Dhanya, dhan, chával, tai, shálian, dágár, tandula, arishi, nelli, biyam, urlú, etc.

\* For 1948-44.

**ROSEWOOD**

(*Dalbergia sissoo* and other species)

[Timber]

*Occurrence in India :*

Foothills of Nepal ; Bengal (Duars) ; United Provinces ; Punjab ; Assam ; (Bombay).

*Uses :*

Furniture ; "gun-carriage wheels, wagon parts;" flooring, furniture, panelling, domestic construction ; boats, ply boards, etc.

*Vernacular names :*

Sissoo, shisham, sisam, sisu, tali, tahli, shewa, yette, nukku-kattai, sissu-karra biridi, etc.

**RUBBER (Caoutchouc)***(Ficus elastica)*

[Rubber]

*World Production : 1,200,000 tons**Indian Production : 16,000 tons**Indian Acreage : 138,000 acres**Chief Producers in the World :**Malay ; East Indies ; Ceylon ; Sarawak ; India ;  
etc.**Principal Indian Provinces and States :**Madras ; Coorg ; etc.**Travancore ; Mysore.**Chief Buyers of Indian Produce :**U. K. ; U. S. A. ; Germany ; etc.**Uses :**TYRES ; rubber manufactures ; vulcanite ;  
ebonite ; (anti-corrosive) lining ; threads ; dipped  
(in rubber) goods ; electro-plated (rubber deposited)  
goods ; sponge ; water-proofing ; etc. ; etc.**Vernacular names :**Bar, attah, bar kagiri ranket, lesu, kyet paung,  
nyaung yok, nyaung, bawdi, etc.*

**RUSA GRASS***(Cymbopogon martini)*[*Essential oil*]*Occurrence :*

Central Provinces ; United Provinces ; Bombay ;  
Hyderabad ; etc.

*Uses :*

Attars ; (chief use is for the adulteration of attar  
of roses) ; for obtaining gereniol ; perfumery.

*Vernacular names :*

Rusa, rosa, rhaunsa, rohisha, rauns, gandhabena,  
mirchigand, etc.

**SAFFLOWER***(Carthamus tinctorius)*

[Dye]

*Chief Producers in the World :*

Egypt ; India ; (Southern) France ; Spain ;  
 Germany ; Italy ; Hungary ; Persia ; China ; etc.

*Principal Indian Provinces and States :*

Bengal ; Central Provinces ; Madras ; Punjab ;  
 Bombay (for seed) ; etc.

*Uses :*

**FLOWER** : Dye (for fabrics, rouge and sweetmeats).  
**SEED** : Oil : soap and varnish manufacture ; culi-  
 nary uses, adulterant of ghi ; illuminant ; "for  
 greasing well-ropes, leather, etc." Food for poultry  
 (seed). Medicine.

*Vernacular names :*

Kusum, kusumbha, kajrah, kusám, kurtam, barre,  
 kardai, kurdi, karahi, khoinbo, sendugram, sen-  
 durkun, agnisikha, kushumbá-vittulu, etc.

**SAL***(Shorea Robusta)*{*Timber*}*Occurrence :*

Foot of the Himalayas ; Sonthal Perganas ; Chota Nagpur ; C. P. ; Orissa ; North Bengal Hills.

*Uses :*

**TIMBER** : Beams, rafters, piles, sleepers, planking, railing, etc.

**BARK** : Dye and tan.

*Vernacular names :*

sál, makái, sálwa, sákhú, sarjun, salwa-soringhi, rinjal, kandar, ral, kungiliyam, gúgal, guggilamu, kabbu, etc.

**SALAI***(Boswellia serrata)*

[Timber]

*Occurrence :*

Bihar ; Central India ; Madras ; Bombay ; United Provinces ; etc.

*Uses :*

**TIMBER** : Packing cases ; boxes ; cooperage (*keto* or *ketko*) ; paper pulp ; etc.

**GUM** : Incense, turpentine ; for sizing and also as a thickening agent in cloth printing ; etc.

*Vernacular names :*

Salai, salhe, selga, kundur, salpe, luban, salga, anduku, salga, guggula, salaphali, dhúp, kungli, kundrikam-morada, parangi-shambi-rani, anduga pisunu, andu, vellá kundirukkam, salasi-miryasa.

**SALT***(Sodium Chloride)**World Production : 44,500,000 tons**Indian Production : (rock salt) 1,600,000 tons**Chief Producers in the World :*

United States of America ; U. S. S. R. ; China ;  
 Germany ; United Kingdom ; France ; India ;  
 Italy ; Spain ; Poland ; Manchukuo ; Japan ; etc.

*Principal Indian Provinces and States :*

Punjab ; Bombay ; Madras ; North Western  
 Frontier Province ; Sind ; Rajputana ; Aden.

*Prominent Districts in the Provinces (Rock Salt) :*

Salt Range, Mandi (PUNJAB) ; Kohat Hills  
 (N. W. F. P.) ; Madras and Bombay Coasts.

*Uses :*

FOOD : (preparation of curry etc.) ; manure ; pre-  
 servation of fish (curing) ; source of heavy chemi-  
 cals (bleaching powder, caustic soda, sal ammoniac,  
 soda ash), sodium salts, etc. ; ceramics glazes ; in  
 lowering temperature ; etc., etc.,

*Fernacular names :*

Nun. nimak, lavan, mitha, uppu, mitha, midha,  
 etc.,

**SALTPETRE***(Potassium nitrate)*

[Mineral]

*Indian Production : 8,700 tons (refined)**Chief Producers in the World :**Chile ; U.S.A. ; India ; Egypt ; Hungary ; Persia ;  
etc.**Principal Indian Provinces and States :**Bihar ; Punjab ; United Provinces (Farrukhabad).**Chief Buyers of Indian Produce :**Mauritius and Dependencies ; United Kingdom ;  
Ceylon ; etc.**Uses :**Manure ; gun powder ; manufacture of acid, glass,  
enamel ; dyeing (in combination with animal  
dyes) ; for pickling meat. Medicine.**Vernacular names :**Shora, shura, suriakhar, potti-luppu, veti-uppa,  
sanddwa, yanzin, soraka, etc.*

**SANDAL WOOD***(Santalum album)*[*Timber & Oil*]*Chief Producers in the World :*East Indies ; India ; Australia (*Fusamus spicatus*).*Principal Indian Provinces and States :*

MYSORE ; Madras ; Coorg ; C. P. ; Bombay.

*Chief Buyer of Indian Produce :*

United States of America.

*Uses :*

WOOD : Carving ; ornamental boxes, fans, partition, etc. ; incense ; paste (for fragrance and in religious observances). Medicine.

OIL : Perfumery, soap making ; medicine ; for scenting inferior woods.

SAWDUST : Oil : scenting clothes, cupboards, stuffing pin-cushions, etc.

*Vernacular names :*

Chandan, sandal, srikhana, gandhácha-koda, shan danak kattai, gandhapu chekka, gandha, sukhad, etc.

**SANDAL WOOD (Red)***(Petrocarpus santalinus)*

[Dye]

*Occurrence in India :*

South India ; (Cuddapah, North Arcot, and Karnal districts).

*Uses :*

WOOD : House posts ; plough poles, agricultural implements. Medicine,

WOOD DYE : Colouring agent in pharmacy ; in dyeing leather and wood.

*Vernacular names :*

Rakta-chandan, undum, tilaparani, ranjana, ratanjli, seyapu chandanum, kuchandanam, erragandhapu chekka, honné, agaru, etc.

**SARA**

(*Saccharum procerum*)

*Occurrence :*

"Common in the plains."

*Uses :*

REEDS : in matting, thatching, and for making chairs. "The flower is used to stuff pillows and may be used as a paper material."

*Vernacular names :*

Sara, sarkanda, sarkara, ramsar, sar, ser, munj (*Saccharum exaltum*), ikar, pata, war, palwa kanda, darga, gundra, ponika, etc.

**SENNA***(Cassia angustifolia)*[ *Drug* ]*Chief Producers in the World :*

Egypt ; Arabia ; India ; etc.

*Occurrence in India :*Madras (Tinnevelly, Madura, Trichinopoly) ;  
Bombay.*Buyers of Indian Produce :*

United Kingdom ; Germany ; United States of America ; etc.

*Vernacular names :*Sonámukhi, sanna-mukki, senámukhi, nilavirai,  
etc.

**SESAMUM**  
*(Sesamum indicum)*

[Oil seed]

*World Production :*      1,550,000 tons

*Indian Production :*      450,000 tons

*Indian Acreage :*      4,200,000 acres

*Chief Producers in the World :*

China ; India ; Burma ; Turkey ; Anglo-Egyptian  
Sudan ; etc.

*Principal Indian Provinces and States :*

United Provinces ; Madras ; Central Provinces ;  
Bombay States ; Hyderabad ; Bengal ; etc.

*Prominent Districts in the Provinces :*

Hamirpur (U. P.) ; Vizagapatam (MADRAS) ;  
Mymensingh (BENGAL) ; etc.

*Chief Buyers of Indian Produce :*

Burma ; Ceylon ; Arabia ; etc.

*Uses :*

SEED : Food ; sweetmeats, in Hindu religious  
observances, etc.

OIL : Edible ; toilet ; illuminant ; lubricant ;  
adulterant in olive oil ; in the manufacture of  
soap, margarine, etc. ; in medicine.

*Vernacular names :*

Til, tir, tilmi, rasi, khasa, tili, kunjad, yellu  
cheddie, nuvvulu, ellu, polla nuvvulu, yallu, etc.

**SILK**

(*Bombyx mori*, *Antheraea paphia* ; etc.)

[*Fibre*]

*World Production* : 133,000,000 lbs

*Indian Production* : 2,600,000 lbs

*Chief Producers in the World* :

Japan ; China ; Italy ; Korea ; U. S. S. R. ; etc.

*Principal Indian Provinces and States* :

Mysore ; Bengal ; Assam ; Kashmir ; etc.

*Uses* :

Textile ; waterproof fabric ; nets ; parachute ; hats ; ribbons ; type-writer tapes ; covering of electric wires ; etc. ; etc.

*Vernacular names* :

Resham.

**SILVER***[Mineral]**World Production : 8,500 tons**Indian Production : 24,642 ozs**Chief Producers in the World :*

Mexico ; U. S. A. ; Canada ; Peru ; Australia ;  
 Japan ; Bolivia ; Germany ; Burma ; Argentina ;  
 etc.

*Principal Indian Provinces and States :*

Mysore.

*Uses :*

Coin ; ornaments and utensils ; conductor of heat  
 and electricity ; in photography and silvering  
 mirrors (nitrate) ; silver plating (cyanide) ; etc.

*Vernacular names :*

Raupya, rajat, chandi, rupā.

**SOLA (Pith)***(Æschynomene Aspera)*[*Pith*]*Chief Producer in the World :*

India.

*Principal Indian Provinces :*

Bengal ; Assam : (Sylhet).

*Prominent Districts in Bengal :*

24-Pergs ; Burdwan ; (Nadia) ; Hooghly ; Khulna ; Jessoré.

*Uses :*

Fisherman's floats ; hats ; life-belts ; toys and decoration ; substitute for sponges and corks (and of surgical lint for widening sinuses, etc).

*Vernacular names :*Sola, shola, kuhila, atunete, takke, nirjiluzá, bend.  
etc.

**SOYA BEANS***(Glycine soja)*

[Food]

*World Production : 12,500,000 tons**Chief Producers in the World :*

Manchukuo ; China ; U.S.A. ; Japan ; Netherland Indies.

*Principal Indian Provinces and States :*

N.-W. F. P. ; Sind ; Nepal ; Bombay ; (Madras).

*Uses :*

BEANS : Food.

(Semi-drying) OIL : salad oil ; edible ; candles ; soap, varnish, printing ink manufacture ; plastics ; synthetic rubber ; etc.

**SUGAR***(Saccharum officinarum)*

*World Production :* Cane 18,000,000 tons  
 Beet 10,300,000 tons

*Indian Production :* Cane 3,419,000 tons

*Indian acreage :* 4,600,000 acres

*Chief Producers in the World :\**

India ; Cuba ; Java ; Formosa ; Brazil ; Philippine ;  
 Hawaii ; Puerto Rico ; Australia ; U. S. A., etc.,

*Principal Indian Provinces and States :*

United Provinces ; Bihar ; Bengal ; Punjab ; etc.

*Prominent Districts in the Provinces :*

Gorakhpur, Meerut, Muzaffarpur (U. P.), Cham-  
 paran, Saran, Darbhanga (BIHAR) ; Mymensingh,  
 Dinajpur (BENGAL) ; Jhang, Gurdaspur (PUNJAB).

*Uses :*

Food ; spirit ; in the preparation of preserved  
 food ; sweets ; medicine ; spirits, power alcohol.

*Vernacular names :*

aku, ganna, shakar, surkh, khand, serdi, us, gol,  
 usa, karumbu, cheruku, charki, pottikanapu,

\* In terms of gur turned into sugar (including jaggery sugar).

**SULPHUR & PYRITES****[Mineral]***World Production (Pyrites) : 10,000,000 tons**World Production (Sulphur) : 3,000,000 tons**Chief Producers in the World :*

**PYRITES** : Spain ; Norway ; Italy ; Portugal ;  
Japan ; U.S.A. ; Cyprus ; Canada ; etc.

**SULPHUR** : U. S. A., Sicily ; Japan ; Chile ; etc.

*Occurrence in India :*

**BIHAR** : Shahabad ;

**U. P.** : Kumaon Hills ;

**PUNJAB** : Solon (Simla Hills) ;

**BALUCHISTAN** : Kohi Sultan (Sulphur).

*Uses :*

**SULPHUR** : In the manufacture of acids and chemicals ; vulcanisation of rubber ; as bleaching agent and insecticide ; in fireworks, matches, gun powder ; preparing pulp for paper ; fertilisers ; impregnation of wood, textiles, etc.,

*Vernacular names :*

Gandhak, gundhak, kibrit, ánwásár, gandhakam,  
etc.

**SUNDRI***(Heritiera fomes)*

[Timber]

*Occurrence :*

Bengal (Sunderbans : Khulna Bagerhat forests) ;  
 [Burma : Arakan.]

*Uses :*

Boat building ; (boat oars, spars, masts, etc.) ;  
 general constructional work ; tool handle ; "suitable for pulley blocks, tent pegs, pitprops, etc."

*Vernacular names :*

Sundri, sunder, ye-kanazo, razo, etc.

**TALLOW***(Beef, mutton or goat fat)**Uses :*

Adulterant ; soap, candle making ; lubricant ; illuminant.

*Chief Buyers of Indian Produce :*

Maskat Territory ; Baherin Island ; Straits Settlements ; etc.

**TEA***(Camellia thea)**[Beverage]*

*World Production :* 1,380,000,000 lbs

*Indian Production :* 450,000,000 lbs

*Indian Acreage :* 835,000 acres

*Chief Producers in the World :*

India ; China ; Ceylon ; East Indies ; etc.

*Principal Indian Provinces and States :*

Assam ; Bengal ; Madras ; Travancore.

*Prominent Districts in the Provinces :*

Lakhimpur (ASSAM) ; Jalpaiguri (BENGAL) ;

Nilgiris (MADRAS) ; etc.,

*Chief Buyers of Indian Produce :*

U. K. ; Canada ; Iran ; etc.

*Uses :*

Beverage ; caffeine manufacture.

*Vernacular names :*

chá, chai, etc.

**TEAK (Sagun)***(Tectona grandis)*{*Timber*}*Occurrence in India :*

Madras ; Bombay ; Central Provinces ; Orissa ;  
Bengal ; Coorg.

[Burma.]

*Uses :*

"In ship and boat building, for furniture, mill work, piles, railway cars, flooring and green-houses" ; doors and windows ; etc.

*Vernacular names :*

Ságún, sákhú, chingjagú, ság sigwan, khaka, tek, teka, loberu, tekku, tekkumaram, pedda taku, tekú-mánu.

**TITANIUM**

(See "Ilmenite")

## TOBACCO

*(Nicotiana plumbaginifolia)*

*World Production :* 3,000,000 tons

*Indian Production :* 478,000 tons

*Indian Acreage* 1,300,000 acres.

*Chief Producers in the World :*

U.S.A. ; China ; India ; U.S.S.R. ; etc.

*Principal Indian Provinces and States :*

Bengal ; Madras ; U.P. ; Hyderabad ; Baroda ;  
etc.

*Prominent Districts in the Provinces :*

Rungpur (BENGAL) ; Guntur (MADRAS) ; Furakka-  
bad (U.P.) ; etc.

*Chief Buyers of Indian Produce :*

U.K. ; Burma ; Aden ; etc.

*Uses :*

Stimulating smoke : cigar, cigarette, biri, chilam,  
etc. ; snuff. Insecticide ; etc.

*Vernacular names :*

Támák, támáku, támbakhu, pagáku, dhumra-  
patramu, hagesappu.

**TOON***(Cedrela toona, etc.)*

[Timber]

*Occurrence in India :*

Bihar ; Central Provinces ; Assam ; Bengal ;  
 (Common in North India) ; Bombay ; Madras ;  
 Mysore ; etc.

*Uses :*

Furniture ; carriage roofs ; doors and windows ;  
 general construction ; cigar boxes ; toys ; etc.

"The flowers yield a beautiful red or yellow dye  
 which is used in dyeing cotton."

*Vernacular names :*

Tun, tuni, lim, mahánim, lud, mahalimbu, chuti-  
 sirin, der, dori, poma, jia, deodari, kuruk, kudaka,  
 tunu-marum, mali, wunjuli, nandi-chettu, kempu,  
 gandagheri, etc.

**TUNG***(Aleurites ; Aleurites montana)*

[Vernish oil]

*Chief Producers in the World :*

China ; U.S.A. (Florida) ; Burma ; India.

*Principal Indian Provinces and States :*

Assam ; Nepal ; Sikkim ; Bihar ; (Bengal).

*Uses :*

Varnish industry (quick-drying varnish) ; lacquering ; paints ; linoleum, leather dressings ; "water proof priming for cement" ; boat-coating.

**TURMERIC***(Curcuma longa)*[*Dye*]*Chief Producers in the World :*

India ; China ; Dutch East Indies.

*Principal Indian Provinces and States :*

Bengal ; U. P. ; Bombay ; Mysore ; etc.

*Chief Buyers of Indian Produce :*

U. K. ; Ceylon ; Arabia ; etc.

*Uses :*

Dye ; condiment or curry powder ; chemical indicator (for acids or alkalies). Medicine.

*Vernacular names :*Haldi, halud, halja, haridra, manjal, pasupu.  
halede.

## WATTLE

*(Acacia dealbata)*

*Chief Producers in the World :*

South Africa ; Ceylon.

“Wattle bark yields a solid, very firm and faintly pink leather, much used for soles.”

Indian commercial acacias are A. Arabica, A. Catechu and A. Senegal and are chiefly used as tans, dye auxiliaries and medicines.

## WAX

See “Honey”

The sources of supply of Wax are the same as that of honey :

*Uses :*

Illuminant ; in brass, gold and copper foundry ; in shoe making (used by the shoe-makers) ; in etching metals with acids ; for sealing acid-containers ; etc.

*Vernacular names :*

Mom, sinh, mena, min, mazhukin, mainam, lelin, madhujam, siktha, etc.

## WHEAT

*(Triticum vulgare)*

*World Production : 141,075,000 tons*

*Indian Production : 10,850,000 tons*

*Indian Acreage : 35,015,000 acres*

*Chief Producers in the World :*

U.S.S.R. ; China ; U.S.A. ; India ; France) ;  
Argentina ; etc.

*Principal Indian Provinces and States :*

Punjab ; United Provinces ; Central Provinces and  
Berar ; Bihar ; etc.

STATES : Punjab ; Rajputana ; Central India ;  
Gwalior ; etc.

*Prominent Districts in the Provinces :*

Ferozepur (PUNJAB) ; Gorakhpur (UNITED  
PROVINCES) ; Sagaur (C.P. and BERAR).

*Chief Buyers of Indian Produce :*

United Kingdom ; Germany ; etc.

*Uses :*

Food ; patent food (Macaroni, Vermicelli, 'Force') ;  
starch (products) ; etc.

*Vernacular names :*

Géhum, kunak, gam, kanak, gih, gádumai,  
godumbay-arisi, gádumulu, godhuma, etc.

**WOOL***[Fibre]**World Production : 4,000,000,000 lbs**Indian Production : 90,000,000 lbs**Chief Producers in the World :*

Australia ; U.S.A., Argentina ; etc.

*Principal Indian Provinces and States :*

Punjab ; N.-W. F. P., United Provinces ; Central Provinces ; etc.

*Chief Buyers of Indian Produce :*

U. K. ; U. S. A. ; Belgium ; etc.

*Uses :*

Woollen manufactures ; wool grease (lanolin ; manure).

*Vernacular names :*

Pasm.

## **Land & Forest\***

### **LAND REVENUE**

**of the Central and each Provincial Government  
of British India**

**1939-40**

<i>Government</i>	<i>Rs.</i>
Central	16,10,719
Coorg	4,03,706
Madras	5,16,86,962
Bombay	3,43,19,978
Bengal	3,86,09,683 <sup>1</sup>
United Provinces	5,87,96,051
Punjab	2,34,20,167 <sup>2</sup>
Bihar	1,31,27,559
C. P. & Berar	2,64,04,402
Assam	1,36,89,640
N.-W. F. P.	18,58,983 <sup>3</sup>
Orissa	47,62,068
Sind	36,84,978

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\*See p. 2 for respective area in the Provinces.

<sup>1</sup>. (1942-43)…Rs. 3,61,29,000 ; <sup>2</sup>. (1942-43)…Rs. 3,33,88,000.

<sup>3</sup>. (1942-43)…Rs. 20,37,000.

**FOREST REVENUE**

**of the Central and each Provincial Government  
of British India**

1939-40

<i>Government</i>	<i>Rs.</i>
Central	16,48,794
Coorg	3,26,566
Madras	14,83,260
Bombay	38,61,205
Bengal	23, 98,085
United Provinces	52,65,266
Punjab	25,39,365
Bihar	8,36,148
C. P. & Berar	50,43.781
Assam	17,45,411
N.-W. F. P.	5,22,024
Orissa	6,53,016
Sind	7,76,348

**FOREST PRODUCE**  
**by**  
**Provinces**  
**(1939-40)**

	<i>Timber and Fuel</i> <i>Cu. ft. in 000</i>	<i>Minor Produce</i> <i>Rs.</i>
Madras	21,294	12,92,806
Bombay	54,147	28,45,705
Bengal	27,426	4,85,685
United Provinces	62,521	19,48,607
Punjab	35,550	20,74,745
Bihar	6,180	2,83,295
Orissa	7,184	3,18,649
C. P. & Berar	45,512	18,60,221
Assam	14,547	5,97,166
N.-W. F. P.	3,655	90,437
Ajmer-Merwara	388	17,647
Coorg	904	38,218
Sind	10,434	1,11,694

**AREA (in acres) of  
Each DISTRICT in the Provinces**

**AJMER-MERWARA.**

DISTRICT	ACRES
Ajmer	794,564
Kekri	572,001
Merwara	404,356
<i>Total</i>	1,707,921

**ASSAM**

DISTRICT	ACRES
Balipara Frontier Tract (plains only)	640,000
Cachar	2,471,680
Darrang	1,818,680
Garo Hills	2,017,280
Goalpara	2,550,400
Kamrup	2,460,160
Khasi & Jaintia Hills	3,932,800
Lakhimpur	2,709,760
Lushai Hills	5,178,880
Naga Hills	2,747,520
Nowgong	2,493,440
Saidiya Frontier Tract	2,048,000
Sibsagar	3,283,840
Sylhet	3,505,920
State (Manipur)	5,516,800
<i>Total</i>	43,375,360

## BENGAL

DISTRICT	ACRES
Bakarganj	2,240,840
Bankura	1,680,320
Birbhum	1,094,928
Bogra	882,082
Burdwan	1,700,334
Chittagong	1,644,800
Chittagong Hill Tracts	3,204,627
Dacca	1,707,240
Darjeeling	775,680
Dinajpur	2,530,398
Faridpur	1,507,968
Hooghly	768,135
Howrah	333,901
Jalpaiguri	1,876,490
Jessore	1,857,536
Khulna	3,000,871
Malda	1,270,998
Midnapore	3,235,200
Murshidabad	1,319,664
Mymensingh	4,033,920
Nadia	1,781,529
Noakhali	971,520
Pabna	1,163,520
Rajshahi	1,669,293

(Contd.)

BENGAL (*Concl'd.*)

DISTRICT	ACRES
Rangpur	2,237,440
Tippera	1,660,948
24-Parganas	3,107,840
*States	3,477,760
<i>Total</i>	49,258,022

Cooch Behar and Tippera States.

## BIHAR

DISTRICT	ACRES
Bhagalpur	2,661,814
Champaran	2,263,194
Darbhanga	2,143,046
Gaya	3,038,650
Hazaribagh	4,171,020
Manbhum	2,620,800
Monghyr	2,501,450
Muzaffarpur	1,934,304
Palamau	3,138,560
Patna	1,359,634
Purnea	3,145,015
Ranchi	4,538,428
Sonthal Parganas	3,508,644
Saran	1,712,586
Shahabad	2,780,108
Singhbhum	2,497,468
<i>Total</i>	44,314,721

## BOMBAY

DISTRICT	ACRES.
Ahmedabad	2,465,694
Ahmednagar	4,242,462
Belgaum	2,937,751
Bijapur	3,653,528
Bombay Suburban	91,016
Broach & Panch Mahals	1,968,532
Dharwar	2,949,908
East Khandesh	2,908,695
Kaira	1,083,456
Kanara	2,527,059
Kolaba	1,385,635
Nasik	3,771,640
Poona	3,427,658
Ratnagiri	2,564,322
Satara	3,134,335
Sholapur	2,924,117
Surat	1,058,197
Thana	2,197,061
West Khandesh	3,480,859
<i>Total</i>	48,721,925

## CENTRAL PROVINCES &amp; BERAR

DISTRICT	ACRES
Akola	2,618,880
Amraoti	3,017,600
Balaghat	2,312,960
Betul	2,486,400
Bhandara	2,291,200
Bilaspur	4,767,360
Buldana	2,408,320
Chanda	5,898,880
Chhindwara	5,077,120
Drug	3,091,200
Hosangabad	3,651,200
Jubbulpore	2,508,160
Mandla	3,290,240
Nagpur	2,455,040
Nimar	2,705,920
Raipur	5,191,040
Saugor	4,322,560
Wardha	1,558,400
Yeotmal	3,352,320
<i>Total</i>	63,004,800

## MADRAS

DISTRICT	ACRES
Anantapur	4,314,470
Bellary	3,656,338
Chingleput	1,965,560
Chittoor	3,778,865
Coimbatore	4,535,073
Cuddapah	3,788,102
East Godavari	3,980,698
Guntur	3,684,960
Kistna	2,269,786
Kurnool	4,854,452
Madras	18,685
Madura	3,061,218
Malabar	3,595,785
Nellore	5,087,200
Nilgiris	628,537
North Arcot	2,982,383
Ramnad	3,094,026
Salem	4,517,107
South Arcot	2,693,024
South Kanara	2,573,509
Tanjore	2,385,018
Tinnevelly	2,788,727
Trichinopoly	2,825,870
Vizagapatam	5,218,193
West Godavari	1,511,021
<i>Total</i>	79,808,607

## NORTH-WEST FRONTIER PROVINCE

DISTRICT	ACRES
Bannu	1,070,093
Dera Ismail Khan	2,174,047
Hazara	1,775,018
Kohat	1,670,208
Kurram	54,110
Mardan	689,072
North Waziristan	26,714
Peshawar	978,320
<i>Total</i>	8,437,582

## ORISSA

DISTRICT	ACRES
Balasore	1,334,400
Cuttack	2,915,756
Ganjam	4,925,490
Koraput	6,392,530
Puri	1,599,360
Sambalpur	3,415,040
<i>Total</i>	20,582,576

## PUNJAB

DISTRICT	ACRES
Ambala	1,202,560
Amritsar	1,006,080
Attock	2,633,600
Dera Ghazi Khan	3,473,920
Ferozepore	2,615,680
Gujranwala	1,476,480
Gujrat	1,438,720
Gurdaspur	1,181,440
Gurgaon	1,436,160
Hissar	3,337,600
Hoshiarpur	1,392,000
Jhang	2,203,520
Jhelum	1,774,720
Jullundur	846,720
Kangra	6,309,120
Karnal	2,000,000
Lahore	1,672,960
Ludhiana	895,360
Lyallpur	2,001,920
Mianwali	3,481,600
Montgomery	2,831,360
Multan	3,726,720
Muzaffargarh	3,589,760
Rawalpindi	1,294,720
Rohtak	1,580,800

(Contd.)

PUNJAB (*Concl'd.*)

DISTRICT	ACRES
Shahpur	3,064,960
Sheikhpura	1,473,280
Sialkot	1,008,640
Simla	51,200
*States	3,386,880
<i>Total</i>	61,001,600

\*The Ambala Division States and the Simla Hill States.

## SIND

DISTRICT	ACRES
Dadu	4,117,816
Hyderabad	2,841,865
Karachi	5,437,685
Larkana	1,590,287
Nawabshah	2,489,856
Sukkur	3,615,705
Thar Parkar	8,732,312
Upper Sind Frontier	1,353,960
<i>Total</i>	30,179,486

## UNITED PROVINCES

DISTRICT	ACRES
Agra	1,191,040
Aligarh	1,192,960
Allahabad	1,790,720
Almora	3,411,800
Azamgarh	1,418,880
Bahraich	1,658,810
Ballia	809,600
Banda	1,864,320
Bara Banki	1,102,080
Bareilly	1,018,240
Basti	1,806,080
Benares	698,880
Bijnor	1,191,680
Budaun	1,273,600
Bulandshar	1,207,040
Cawnpore	1,518,080
Dehra Dun	769,280
Etah	1,102,080
Etawah	1,068,160
Farrukhabad	1,050,880
Fatehpur	1,037,440
Fyzabad	1,094,400
Garhwal	3,596,800
Ghazipur	837,120
Gonda	1,809,280

(Contd.)

UNITED PROVINCES (*Concl.*)

DISTRICT	ACRES
Gorakhpur	2,879,360
Hamirpur	1,563,520
Hardoi	1,484,800
Jalaun	1,018,240
Jaunpur	995,200
Jahnsi	2,327,680
Kheri	1,902,080
Lucknow	624,640
Mainpuri	1,074,560
Meerut	1,485,440
Mirzapur	2,766,080
Moradabad	1,464,320
Muttra	926,080
Muzaffarnagar	1,077,760
Naini Tal	1,678,720
Partabgarh	932,480
Pilibhit	865,920
Rae Bareli	1,129,600
Saharanpur	1,379,200
Shahjahanpur	1,126,400
Sitapur	1,412,480
Sultanpur	1,087,360
Unao	1,127,680
*States	4,150,000
<i>Total</i>	67,848,920

\*Rampur, Tehri and Benares.

## **Livestock**

### **Number of CATTLE (Bull, Bullocks, Cows and Calves) and BUFFALOES in each Province of British India**

	<i>Cattle</i>	<i>Buffaloes</i>
Ajmer-Merwara	148,082	50,107
Assam	5,951,219	544,002
Bengal	22,623,367	1,076,236
Bihar	12,564,259	2,891,708
Bombay	7,248,611	2,485,048
C.P. & Berar	11,139,545	2,139,315
Coorg	114,506	28,745
Delhi	91,087	51,736
Madras	15,997,095	6,122,307
N. -W. F. P.	761,692	271,061
Orissa	4,483,218	380,079
Punjab	9,252,562	6,161,895
Sind	1,782,733	593,303
U. P.	23,177,336	9,292,216
	<hr/> <hr/>	<hr/> <hr/>
	115,335.319	32,087,711

**Number of  
CATTLE and BUFFALOES  
in each Indian State or Group of States**  
*(as far as reported)*

	<i>Cattle</i>	<i>Buffaloes</i>
Baroda	765,838	662,023
Bombay States	2,567,384	1,086,752
Central I. States	6,355,890	1,486,401
Eastern States	6,714,582	909,100
Gwalior	2,891,964	924,624
Hyderabad	9,527,382	3,032,421
Kashmir	2,266,280	658,488
Madras States	1,388,696	185,303
Mysore	4,034,809	882,123
Punjab States	3,252,728	1,178,909
Rajputana States	6,745,976	2,086,102
U. P. States	621,078	252,776
<hr/>	<hr/>	<hr/>
Total	47,082,608	13,345,022

**Total number  
of  
SHEEP and GOATS  
in each Province of British India**

	<i>Sheep</i>	<i>Goats</i>
Ajmer-Merwara	215,034	164,731
Assam	38,900	1,116,904
Bengal	601,805	6,545,949
Bihar	1,024,173	4,408,461
Bombay	2,097,486	2,854,697
C.P. and Berar	423,187	1,852,622
Coorg	— 203	3,327
Delhi	12,828	37,377
Madras	14,407,271	7,967,894
N. W. F. P.	379,900	453,207
Orissa	269,927	600,248
Punjab	5,328,310	3,500,180
Sind	653,965	1,306,695
United Provinces	2,008,750	7,932,997
<i>Total</i>	<hr/> <i>27,521,739</i>	<hr/> <i>38,745,289</i>

**Total Number  
of  
SHEEP and GOATS  
in each State or Group of States in India**

	<i>Sheep</i>	<i>Goats</i>
Baroda	159,794	349,652
Bombay States	1,075,682	1,251,883
Central I. States	371,019	1,305,059
Eastern States	420,279	1,909,212
Gwalior	221,492	621,316
Hyderabad	6,000,293	3,572,586
Kashmir	2,015,995	1,474,381
Madras States	619,430	246,265
Mysore	3,056,813	1,724,810
Punjab States	1,882,489	1,765,722
Rajputana States	3,939,047	5,107,938
U. P. States	161,692	178,110
<i>Total</i>	<i>19,924,025</i>	<i>19,505,934</i>

**Total****LIVESTOCK**

[CATTLE, BUFFALOES, SHEEP, GOATS, HORSES and  
PONIES, MULES, DONKEYS, CAMELS and PIGS]

**in each Province of British India**

<i>Province</i>	<i>Nos.</i>
Ajmer	590,033
Assam	7,846,659
Bengal	31,085,701
Bihar	21,586,309
Bombay	14,937,454
C. P. and Berar	15,848,781
Coorg	172,319
Delhi	211,886
Madras	45,536,580
N.-W. F. P.	2,012,173
Orissa	5,740,247
Punjab	25,566,543
Sind	4,673,579
United Provinces	43,289,010
	219,097,265

**Total  
LIVESTOCK**

[CATTLE, BUFFALOES, SHEEP, GOATS, HORSES and  
PONIES, MULES, DONKEYS, CAMELS and PIGS]  
**in each State or Group of States in India**

<i>State</i>	<i>Nos.</i>
Baroda	1,987,686
Bombay States	6,109,547
Central India States	9,717,923
Eastern States	10,325,996
Gwalior	4,758,146
Hyderabad	22,544,279
Kashmir	6,555,495
Madras States	2,474,462
Mysore	9,817,811
Punjab States	8,359,784
Rajputana States	18,574,623
United Provinces States	1,234,997
<i>Total</i>	<hr/> <i>102,460,749</i>

**Number of  
POULTRY**

[FOWLS and DUCKS]

in each Province of British India

	<i>Fowls</i>	<i>Ducks</i>
Ajmer-Merwara	14,376	1,261
Assam	(a)	(a)
Bengal	25,931,999	5,055,661
Bihar	(a) *	(a)
Bombay	4,865,057	30,501
C. P. & Berar	3,626,157	40,909
Coorg	128,020	1,178
Delhi	12,597	774
Madras	16,799,271	351,034
N.-W. F. P.	521,895	8,176
Orissa	(a)	(a)
Punjab	2,880,126	41,066
Sind	813 763	841
United Provinces	(a)	(a)

(a) Not available.

**Number of  
PLOUGHES and TRACTORS  
in each States or Group of States in India**

	<i>Ploughs</i>		Tractors
	Wooden	Iron	
Baroda	210,666	2,468	57
Bombay States	485,994	17,648	671
Central I. States	848,626	1,009	15
Eastern States	1,445,031	2,544	1,445
Gwalior	404,824	1,700	47
Hyderabad	1,261,193	66,624	24
Kashmir	451,334	1,522	69
Madras States	304,990	2,260	2
Mysore	841,188	31,282	54
Punjab States	636,379	3,987	64
Rajputana States	1,124,491	4,012	25
U. P. States	158,952	168	12
<i>Total</i>	<i>8,173,668</i>	<i>135,215</i>	<i>2,565</i>

# Carts & Sugarcane Crushers

Number of  
**CARTS and SUGARCANE CRUSHERS**  
 in each Province in British India

	Carts	Sugarcane Crushers	
		worked by Power	worked by Bullocks
Ajmer Merwara	13,993	1	76
Assam	72,395	7	8,257
Bengal	821,914	128	17,670
Bihar	545,248	2,951	40,075
Bombay	703,960	654	10,128
C.P. and Berar	1,166,505	68	5,687
Coorg	1,402	3	2
Delhi	7,812	5	195
Madras	1,241,424	556	23,496
N. W. F. P.	5,585	5	6,623
Orissa	180,847	—	—
Punjab	329,320	101	113,411
Sind	99,742	46	523
United Provinces	1,093,864	686	288,503
<i>Total</i>	<i>6,284,011</i>	<i>5,211</i>	<i>514,646</i>

**Number of  
PLOUGHES and TRACTORS  
in each States or Group of States in India**

	<i>Ploughs</i>		<i>Tractors</i>
	<i>Wooden</i>	<i>Iron</i>	
Baroda	210,666	2,468	57
Bombay States	485,994	17,648	671
Central I. States	848,626	1,009	15
Eastern States	1,445,031	2,544	1,445
Gwalior	404,824	1,700	47
Hyderabad	1,261,193	66,624	24
Kashmir	451,334	1,522	69
Madras States	304,990	2,260	2
Mysore	841,188	31,282	54
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Rajputana States	1,124,491	4,012	25
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<i>Total</i>	<u>8,173,668</u>	<u>135,215</u>	<u>2,565</u>

## Carts & Sugarcane Crushers

### Number of CARTS and SUGARCANE CRUSHERS in each Province in British India

	Carts	Sugarcane Crushers	
		worked by Power	worked by Bullocks
Ajmer Merwara	13,993	1	76
Assam	72,395	7	8,257
Bengal	821,914	128	17,670
Bihar	545,248	2,951	40,075
Bombay	703,960	654	10,128
C.P. and Berar	1,166,505	68	5,687
Coorg	1,402	3	2
Delhi	7,812	5	195
Madras	1,241,424	556	23,496
N. W. F. P.	5,585	5	6,623
Orissa	180,847	—	—
Punjab	329,320	101	113,411
Sind	99,742	46	523
United Provinces	1,093,864	686	288,503
<i>Total</i>	6,284,011	5,211	514,646

**Number of  
CARTS and SUGARCANE CRUSHERS  
in each State or Group or States in India**

	<i>Carts</i>	<i>Sugarcane Crushers</i>	
		<i>worked by Power</i>	<i>worked by Bullocks</i>
Baroda	100,189	38	234
Bombay States	226,321	319	2,946
Central India States	301,815	34	2,893
Eastern States	310,185	55	6,724
Gwalior	160,223	27	2,973
Hyderabad	561,417	408	6,759
Kashmir	3,223	1	2,349
Madras States	33,766	64	1,169
Mysore	260,809	152	6,687
Punjab States	122,566	18	12,101
Rajputana States	320,486	61	7,025
U. P. States	21,881	3	7,631
<i>Total</i>	<hr/> <i>2,422,881</i>	<hr/> <i>1,180</i>	<hr/> <i>59,491</i>

# **Trade & Commerce**

## **PORTS**

### **VALUE OF**

### **TOTAL IMPORTS and EXPORTS OF MERCHANDISE and TREASURE**

*(Exclusive of Government Stores and Treasure)*

**at each Port in British India**

**(1939-40)**

### **BENGAL**

	<b>Import 000-Rs.</b>	<b>Export 000-Rs.</b>
Calcutta (Chief Port)	53,05,09	106,72,03
Chittagong	4,40,44	7,90,04
<i>Total</i>	<hr/> <i>57,45,53</i>	<hr/> <i>114,62,07</i>

### **ORISSA**

Gopalpur	44	26
Puri	—	—
<i>Total</i>	<hr/> 44	<hr/> 26

[Chandbali]<sup>1</sup>

<sup>1</sup> Also used as a port.

## BOMBAY

Bombay (Chief Port)	70,56,79	76,67,21
Bankot	58	-
Belapur	-	5
Broach	30	6,65
Dabhol	3,01	-
Dharsana	14	-
Dodamarg	1,64	-
Jaitapur	5,36	-
Jambusar	-	-
Honavar	1,09	-
Karanja	2	-
Karwar	1,25	-
Malwan	9,59	3,22
Maroli	-	3
Ratnagiri	5,01	-
Revdanda	-	-
Sanikatta	54	-
Shiroda	-	-
Surat	7	5
Vengurla	6,18	73
[Janjira] <sup>1</sup>		
<i>Total</i>	70,91,64	76,77.96

<sup>1</sup> Also used as a port.

## SIND

Karachi (Chief

Port) 15,66,29 19,79,03

## MADRAS

	Import 000-Rs.	Export 000-Rs.
Fort St. George (Chief Port)	14,70,07	15,71,17
Baruva	-	2
Calingapatam	20	18,27
Bimlipatam	-	41,18
Vizagapatam	23,14	1,91,72
Coconada	94,54	1,37,78
Masulipatam	46	1,32,32
Cuddalore	32,53	1,47,43
Porto Novo	4,09	1,38
Tirumulavassal	8	1,38
Tranquebar	-	-
Negapatam	20,39	96,22
Topputurai	2	-
Adirampatnam	33	7.15
Karikal	-	1,67
Ammapatnam	-	-
Tondi	1,72	-

## MADRAS (Contd)

	Import 000-Rs.	Export 000-Rs.
Pamban	—	3
Dhanuskodi	28,04	2,54,50
Kilakari	—	—
Tuticorin	3,09,25	2,48,74
Kayalpatnam	—	—
Kulasekharapatnam	5	9
Cochin	5,40,24	7,36,15
Ponnani	13,52	40
Calicut	1,36,92	1,97,06
Badagara	16,63	6
Tellicherry	23,93	12,96
Cannanore	19,15	31
Mangalore	15,98	88,20
Malpe	5	51
Coondapoor	10	7
<i>Total</i>	<hr/> <i>27,51,44</i>	<hr/> <i>38,91,84</i>

**PORTS****in the Indian States or in Territories  
under Foreign Possession**

**ALLEPPEY** (in Travancore).

**BEDI BANDAR** (in the State of Nawanagar).

**BHAVNAGAR** (in the State of Bhavnagar).

**DIU** (on the island of Diu, a Portuguese possession in India).

**MAHE** (a French Settlement).

**MARMUGAO** (in Portuguese India)

**OKHA** (situated on a detached portion of the Baroda State).

**PONDICHERRY** (in French possession).

**PORBANDAR** (in the State of Porbandar, Kathiawar).

**NAVALAKHI** (in the State of Morbi).

**KANDLA** (in Cutch).

## INLAND TRADE OF INDIA

*Figures in 000 mds.*

	1938-39	1939-40	1940-41	1941-42
Cotton, raw	19,538	20,712	20,914	20,607
Cotton piecegoods	11,077	11,294	12,771	11,444
Grain, pulse and flour	131,272	143,366	130,187	135,004
Hides and skin, raw	2,679	3,383	2,983	3,637
Jute, raw	31,497	32,767	28,078	25,954
Gunny bags and cloth	5,218	5,484	5,859	7,011
Oilseeds	50,063	43,777	39,369	43,544
Sugar (including gur, rab, etc.)	38,076	28,950	38,866	39,080

[“The figures in the above table do not give a complete idea of internal trade as the list of articles for which these figures are shown is by no means exhaustive. Moreover, these figures relate only to trade between the 22 blocks into which India has been divided for the purposes of the Inland (Rail and River-borne) trade statistics and do not give any idea regarding the traffic within each block”—Review of the Trade of India].

## EXPORTS

[**VALUE OF ARTICLES DISTRIBUTED UNDER DIFFERENT HEADS OF MERCHANDISE EXPORTED DURING 1938-39 and 1942-43].<sup>1</sup>**

*(Articles of the value of Rs. 25 lakhs or less have been omitted).*

	1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
I Food, Drink and Tobacco--		
Fish (excluding canned fish)	69,29	78,29
Fruits and Vegetables	2,26,86	1,97,04
Grain, Pulse and Flour	7,74,12	6,95,49
Provisions and Oilman's Stores	59,32	59,85
Spices ... ...	78,66	1,93,85
Sugar ... ...	24,17	1,07,97
Tea ... ...	23,29,05	31,60,64
Tobacco ... ...	2,75,63	1,49,10
Others ... ...	...	...
<i>Total</i>	<hr/> <i>39,13,92</i>	<hr/> <i>46,95,28</i>

<sup>1</sup> 1938-39 represents normal external trade of India and 1942-43, shows the changes during the war.

		1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<b>II</b>	<i>Raw Materials and Produce and articles mainly un- manufactured—</i>		
Coal	...	1,32,06	35,54
Other non-metallic mining			
	products	1,20,75	2,80,32
Gums, Resins and Lac	.	1,50,10	3,23,51
Hides, Skins	...	3,84,67	3,32,12
Metallic ores and scrap iron			
	or steel	1,97,23	2,32,50
Oils : Vegetable, Mineral and			
	Animal	1,03,37	1,36,83
Oilcakes	...	3,01,20	61,49
Rubber, raw or crude		71,58	6,26
Seeds ( <i>including</i> nuts for oils)		15,09,22	10,56,49
Cotton, raw and waste		24,66,65	5,29,99
Jute	...	13,39,67	9,01,33
Wool	...	2,98,68	1,20,13
Other textile materials		72,98	52,27
Miscellaneous	...	...	...
		<hr/> <i>Total</i>	<hr/> 42,82,51
		73,29,17	

	1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
--	-------------------------------	-------------------------------

*III Articles wholly or mainly  
manufactured—*

Apparel	34,31	54,99
Chemicals, Drugs & Medicines	44,05	58,37
Cutlery, Hardware, etc.	42,37	26,73
Dyes and Colours ...	72,11	36,05
Hides and Skins, tanned or dressed and Leather	5,27,58	4,81,53
Metals : Iron and Steel and manufactures	3,02,37	1,44,79
Cotton Yarns and manufacture	7,11,79	46,10,16
Jute ... ...	26,26,11	36,38,07
Miscellaneous ...	...	...
<i>Total</i>	<i>47,61,32</i>	<i>95,21,75</i>
<i>IV Living Animals</i>	<i>8,23</i>	<i>15,49</i>
<i>V Postal Articles</i>	<i>2,66,53</i>	<i>2,38,02</i>
<i>Grand Total</i>	<i>1,62,79,16</i>	<i>1,87,60,11</i>

## IMPORTS

[**VALUE OF ARTICLES DISTRIBUTED UNDER DIFFERENT HEADS OF MERCHANDISE IMPORTED DURING 1938-39 and 1942-43.]**

*(Articles of the value of Rs.125 lakhs or less have been omitted).*

	1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<b>I Food Drink and Tobacco—</b>		
Fruits and Vegetables	1,34,43	1,11,64
Grain, Pulse and Flour	13,76,46	30,85
Liquors ... ...	1,66,46	1,18,97
Provisions & Oilman's Stores	2,48,41	70,44
Spices ... ...	2,63,43	1,51,39
Sugar ... ...	45,58	1,87
Tea ... ...	15,74	51,74
Other Food and Drink	38,42	80,73
Tobacco ... ...	1,04,55	1,33,19
<i>Total</i>	<hr/> 24,00,55	<hr/> 7,61,71

	1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<b>II Raw Materials and Produce and articles mainly manu- factured—</b>		
Non-metallic mining products		
and the like	1,75,25	1,89,35
Gums, Resins and Lac	37,89	27,48
Oils—Vegetable, Mineral and		
Animal	15,62,41	27,78,12
Paper-making materials	27,39	2,75
Seeds ( <i>including</i> ) nuts for oils	70,93	2,27,07
Tallow, Stearine and Wax	36,23	36,57
Cotton, raw and waste	8,50,92	15,42,48
Silk, raw and Cocoons	62,17	1,73
Wool, raw ...	62,11	2,96,50
Wood and Timber ...	2,58,06	16,24
Miscellaneous ...	<hr/>	<hr/>
<i>Total</i>	38,11,46	51,94,84

		1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<b>III</b>	<i>Articles wholly or mainly manufactured—</i>		
Apparel	...	62,95	—
Arms and Ammunitions		50,17	37,60
Chemicals, Drugs and Medicines		5,62,05	6,39,09
Cutlery, Hardware, etc.		5,81,48	3,25,32
Dyes and Colours	...	4,05,92	5,42,45
Electrical Goods and Apparatus		3,31,29	1,63,20
Furniture, Cabinetware, etc.		44,58	—
Glassware and Earthenware		1,64,76	36,37
Hides and Skins, tanned or dressed and Leather		53,20	41,77
Machinery of all kinds		19,72,48	10,52,60
Iron and Steel and Manufactures thereof		6,65,62	2,77,15
Other metals and products		4,15,72	3,29,15
Paper, Pasteboard and Stationary		3,89,97	2,15,67
Rubber manufactures		1,40,57	—
Vehicles ( <i>excluding Locomotives for Railways</i> )		6,69,20	5,71,83
Cotton yarns and manufactures		14,15,27	1,36,71
Silk	„ „	1,31,98	—
Woollen	„ „	2,19,78	82,68
Other yarn and textile fabrics		3,50,75	55,48
Miscellaneous	„	6,45,89	3,99,38
		<i>Total</i>	92,79,42
<b>IV</b>	<i>Living animals</i>	30.72	—
<b>V</b>	<i>Postal Articles</i>	2,07,75	1,36,47
		<i>Grand Total</i>	1,52,32,58
			1,10,44,83

**EXPORTS by Countries**

[**VALUE OF INDIAN MERCHANDISE EXPORTED  
TO EACH FOREIGN COUNTRY IN  
1938-39 and 1942-43]**

		1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<i>British Empire :</i>			
United Kingdom	...	55,51,13	57,34,26
Palestine	...	...	1,97,27
Aden and Dependencies		92,74	4,12,47
Ceylon	...	5,09,11	14,45,48
Burma	...	10,03,36	33
Straits Settlements	...	2,03,97	...
Hongkong	...	78,27	...
Nigeria	...	...	2,41,32
Union of S. Africa	...	1,49,22	10,49,38
Tanganyika Territory		...	2,12,43
Mauritius & Dependencies		88,45	1,17,20
Anglo-Egyptian Sudan		...	2,60,56
Zanzibar and Pemba		7,76	31,59
Kenya Colony	...	45,88	3,51,55
Canada	...	2,18,86	3,78,00
Br. W. India Islands		23,53	74,81
Australia	...	2,97,30	16,12,70
New Zealand	...	43,18	1,69,86
Other Br. Possessions		2,29,50	3,56,70
<i>Total</i>		<hr/> 85,37,27	<hr/> 125,85,91

		1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<i>Foreign Countries :</i>			
Union of Socialist Sov. Republics	37,71		86,10
Sweden	...      ...	56,65	14,72
Norway	...      ...	55,39	...
Germany	...      ...	8,55,49	...
Netherlands	...      ...	4,41,17	...
Belgium	...      ...	4,44,62	...
France	...      ...	6,19,18	...
Spain	...      ...	22,49	...
Switzerland	...      ...	3,37	2,14
Italy	...      ...	2,62,00	...
Czechoslovakia	...      ...	1,42,11	...
Turkey, European	...      ...	18,09	1,26,76
Turkey, Asiatic	...      ...	21,21	30,00
Syria	...      ...	...	2,19,65
Arabia	...      ...	1,02,66	5,21,65
Iraq	...      ...	50,59	7,93,45
Iran	...      ...	78,37	4,25,70
Sumatra	...      ...	5,96	...
Borneo and Java	...      ...	76,58	...
Thailand	...      ...	69,64	...
French Indo-China	...      ...	68,24	...
China	...      ...	2,47,00	3,3'
Japan	...      ...	14,59,02	...

		1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<i>Foreign Countries—(Contd.)</i>			
Egypt	...	... 1,22,50	3,67,24
Portuguese East Africa		67,49	56,78
Italian East Africa	...	4,06	94,15
United States of America		13,88,00	27,79,34
West Indies	...	78,43	1,46,76
South America	...	3,96,58	4,20,18
Other Foreign Countries		5,34,37	1,83,08
<i>Total</i>		77,41,90	61,74,20
<i>Grand Total</i>		1,62,79,16	1,87,60,11

**IMPORTS by Countries**

[**VALUE OF MERCHANDISE, IMPORTED INTO INDIA  
FROM EACH PRINCIPAL FOREIGN COUNTRY  
DURING 1938-39 and 1942-43]**

		1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<i>British Empire</i>			
United Kingdom	...	46,78,91	29,53,43
Aden & Dependencies		24,19	56,40
Baherin Island	...	...	4,01,98
Ceylon	...	1,17,52	4,37,63
Burma	...	24,34,91	1,45,94
Straits Settlements	...	4,13,06	23,95
Borneo (British)	...	38,77	4,23
Hongkong	...	35,03	14,20
Union of S. Africa	...	34,75	2,24,98
Tanganyika Territory		...	1,42,51
Anglo-Egyptian Sudan		...	3,09,55
Mauritius and Dependencies		4,40	47
Zanzibar and Pemba		23,76	92,03
Kenya Colony	...	4,89,17	3,87,35
Canada	...	90,76	5,53,54
Australia	...	2,41,28	3,34,25
New Zealand	...	16,48	26,87
Other Br. Possessions		2,42,76	22,55
<i>Total</i>		<hr/> 88,55,74	<hr/> 61,31,87

	1938-39 Rs. (thousands)	1942-43 Rs. (thousands)
<i>Foreign Countries</i>		
U.S.S.R.	20,04	...
Sweden	1,36,14	14,54
Norway	51,63	...
Germany	12,92,73	...
Netherlands	1,42,85	...
Belgium	2,91,90	...
France	1,40,14	...
Spain	11,21	...
Switzerland	1,60,13	1,05,16
Italy	2,68,51	...
Austria	47,18	...
Hungary	27,72	...
Czechoslovakia	1,03,24	...
Arabia	26,97	32,90
Iraq	46,00	22,84
Iran	3,48,84	17,80,87
Java	51,08	12,78
Borneo (Dutch)	68,38	24
Thailand	9,42	17
China	1,73,46	6,61
Japan	15,41,34	2,84
Egypt	2,18,89	8,11,79
Portuguese E. Africa	34,25	1,06,87
United States of America	9,77,83	19,00,68
Other Foreign Countries	1,84,93	1,14,66
<i>Total</i>	<hr/> 63,73,84	<hr/> 49,12,96
<i>Grand Total</i>	<hr/> 1,52,32,58	<hr/> 1,10,44,83

## **Industries**

### **CEMENT**

<i>Number of Factories</i>	...	14
<i>Production : 1942-43</i>	...	2,200,000 tons
<i>Import : 1941-42</i>	...	Rs. 5,91,000
<i>Import (maximum) :</i>		
1920-21	...	{ Tons 130,721 (Rs. 1,39,43,450
<i>Export : 1940-41</i>	...	Tons 100,000
<i>Revenue Duty : 1942-43</i>		Rs. 64,000

### **CHEMICALS (Heavy)**

<i>Number of Factories (large) :</i>	57
<i>Production :</i>	Rs. 3,00,00,000
[ Sulphuric Acid	... 30,000 tons
Caustic Soda	... 4,500 ..
Soda ash	... 56,000 ..
Chlorine	... 2,600 ..
Coal Tar	... 80,000 ..
Ammonium Sulphate	20,000 ..
Etc.	... ... ]
<i>Import : 1942-43</i>	Rs. 4,68,60,538

### COAL TAR BY-PRODUCTS

<i>Recovery Plants</i>	...	3
<i>Import (Coal Tar Dyes) :</i>		
1941-42	...	{ lbs. 11,700,000 Rs. 5,77,17,000 <i>(Maximum value)</i>
1937-38	...	{ lbs. 20,888,345 <i>(Maximum quantity)</i> Rs. 3,42,75,636
<i>Revenue Duty :</i>		
Realised in 1942-43		Rs. 32,29,000

### COPPER

<i>Number of Factory<sup>1</sup></i>	...	1
<i>Production 1939</i>	...	6,500 tons
<i>Import 1938-39 : Copper</i>		{ Cwts. 168,685 Rs. 61,41,100
Brass		{ Cwts. 315,461 Rs. 1,05,66,000
<i>Import (maximum) :</i>		
Copper : 1913-14	...	{ Cwts. 746,870 Rs. 4,12,00,000
Brass : 1920-21	...	{ Cwts. 561,564 Rs. 4,31,00,000
<i>Import :</i>		
Electrical Wires and Cables <i>(Mainly composed of Copper)</i>		
1939-40	...	Rs. 1,14,35,403

<sup>1</sup> Factory for extraction of metal from Ore.

## COTTON

*Number of Mills : 1942-43* ... 401

*Production : 1941-42*

Woven goods	...	4,493,613,208 yds.
Yarn	...	1,557,177,579 lbs.

*Import : 1942-43*

Yarn	...	Rs. 16,31,628
Manufactures	...	Rs. 85,30,239

*Import (maximum) :*

Woven goods : 1920-21	...	Rs. 88,54,17,000
Yarn	,,	Rs. 13,57,83,000

*Export :*

1942-43	...	Rs. 46,10,15,590
<i>(Maximum)</i>		
(woven goods)	...	yds. 818,000.000

*Excise Duty : In force* ... 1897-1926

*Revenue Duty :*

Realised on Yarns and Textile Fabrics and others  
in 1942-43 ... Rs. 33,36,000

*Protective Duty :*

Imposed by the Cotton Industry (Protection)  
Act, 1930

*Protective Duty :*

Realised in 1942-43 on Cotton,

Yarn and Thread	...	Rs. 3,40,000
Cotton Fabrics of British Manufacture	...	Rs. 12,16,000
Cotton Fabrics not of British Manufacture	...	Rs. 3,26,000

**ELECTRICAL ENERGY**

Number of Factories ... 96

[including Hydro-electric Power Plants 14]<sup>1</sup>

Total Electric Energy generated :

1942-43 ... 2,659,410,000 units<sup>2</sup>

**ENAMELLED IRONWARE**

*Number of Factories* ... 5

*Production* ... Rs. 1,00,00,000

*Import : 1941-42* ... Rs. 5,11,000

*Import (maximum) : 1928-29* ... Rs. 42,17,000

<sup>1</sup> There are ten other projects at different stages of execution. The total hydro-electric power resources of India are 27 million kw., of which only half a million have been developed.

<sup>2</sup> "The units of electric energy generated by and sold by the Public Works Department and Military Stations have not been taken into account."

**GLASS**

<i>Number of Factories (very large)</i>	41
<i>Production : 1942-43</i>	Rs. 4,50,00,000
<i>Import : 1942-43</i>	Rs. 25,630,700
<i>Import (maximum) :</i>	
1919-20	Rs. 3,38,00,000
<i>Export : 1940-41</i>	Rs. 2,54,570
<i>Export (maximum) :</i>	
1938-39	Rs. 2,79,725

**HOSIERY**

<i>Number of Mills (large)</i>	250
<i>Production</i>	Rs. 3,00,00,000
<i>Import : 1940-41</i>	Rs. 17,82,000
<i>Protective Duty :</i>	
Imposed in May 1934	
Realised : 1942-43	Rs. 24,000

**IRON AND STEEL**

<i>Number of Factories<sup>1</sup></i>	4
<i>Production : 1939-40 :</i>	
Pig	1,838,000 tons
Steel ingots	1,070,000 "
Finished Steel	1,066,000 "

<sup>1</sup> Factories for extraction of metal from ore, fabrication of steel, etc.

(Iron & Steel—Contd.)

*Import : 1938-39 :*

Iron	...	Rs.	6,21,640	Tons	3,731
Steel	...	Rs.	78,63,703	"	44,885
Iron or Steel		Rs.	5,82,73,893	"	223,607

In 1942-43 :

Iron and Steel and Manufactures thereof  
Rs. 2,77,15,460

*Import (maximum) :*

Steel : 1920-21	...	{ Tons 185,253 Rs. 6,15,17,000
Iron : 1920-21	...	{ Tons 30,685 Rs. 95,68,000
Iron and Steel : 1920-21		{ Tons. 495,772 Rs. 24,18,52,000

*Export : 1942-43* ... Rs. 1,44,78,794

*Export (maximum) :*

1940-41 ... Rs. 5,04,98,115

*Protective Duty :*

Imposed by The Steel Industry Protection Act,  
1924.

Realised in : 1942-43 : Rs. 16,30,000

*Bounty :*

Commenced from September 30, 1924

Discontinued in 1927.

(*Iron & Steel—Concl.*)

*Excise Duty :*

The Iron and Steel Duties Act, 1924

*Excise Duty :*

Realised on Steel Ingots : 1942-43    Rs. 60,00,000

*Revenue Duty :*

Realised in 1942-43    ...    Rs. 40,77,000

**Allied Industries (Iron & Steel)**

TINPLATE    ...    1

[Protective Duty imposed by the Steel Industries (Protection) Act, 1924].

GALVANISED SHEETS    ...    1

[Protective Duty—Steel Industry Protection Act, 1927].

CAST IRON PIPES    ...    2

[Protective Duty—Iron and Steel Duties Act, 1934]

WIRE & WIRE NAILS    ...    2

[Protective Duty was imposed for the second time by the Wire and Wire Nails Industry (Protection) Act, 1932. Duty that provided protection for the first time was withdrawn in 1928].

**JUTE**

<i>Number of Mills</i>	...	107
<i>Production : 1942-43</i>	...	1,042,300 tons
<i>Export : 1942-43</i>	...	{Tons 621,253 (Rs. 36,38,06,701}
<i>Export (maximum) :</i>		
1925-26     ( <i>value</i> )	Rs. 58,83,98,000	
	Cloth yds. 1,461,381,000	
	Bags nos. 425,100,000	
1929-30 ( <i>quantity</i> )	Cloth yds. 1,650,525,000	
	Bags nos. 522,300,000	
	Value Rs. 51,92,68,000	
<i>Export Duty : 1942-43</i>		
Manufactures	...	Rs. 1,81,73,000
(Raw	...	Rs. 58,13,000)
<b>Jute Presses</b>	...	114

**LEATHER & HIDE**

<i>Number of Factories (large)</i>	54
<i>Shoe Factories (large)</i>	20
<i>Production :</i>	Rs. 10,00,00,000
[Army boots : 1943	... 4,000,000 pairs]
<i>Import : (1938-39)</i>	
Leather	... Rs. 53,19,900
Belting (of leather)	... Rs. 22,92,800
Boots (of leather)	... Rs. 11,24,400

(*Leather & Hide—Contd.*)

*Import (maximum) : (1920-21)*

Leather and manufactures	Rs. 1,08,12,000 <sup>1</sup>
Boots and shoes	Rs. 1,05,83,000 <sup>2</sup>

*Export : (1942-43)*

Hides, tanned and dressed	Rs. 2,63,84,350
Skins, tanned and dressed	Rs. 1,88,23,950

*Export (maximum) :*

1919-20	Rs. 12,71,48,300
---------	------------------

<sup>1</sup> Excluding "Belting" of leather.

<sup>2</sup> Mostly of leather or with leather uppers.

## MATCH

*Number of Factories (very large) ... 16*

[*Total Number ... 150*]

*Production : 1941-42 ... 16,059,000 gross boxes*

*Import : 1941-42 ... { 683,000 gross boxes  
Rs. 22,61,000*

*Import (maximum) :*

1917-18	... { Gross 17,226,856 Rs. 2,34,84,000
---------	---

*Protective Duty : Imposed in 1928*

Realised in 1942-43 ... Rs. 10,000

*Excise Duty : Imposed in 1934*

Realised in 1942-43 ... Rs. 3,37,84,000

**PAINTS & COLOURS**

<i>Number of Factories</i>	...	13
<i>Production : 1942-43</i>	...	Rs. 1,000,000 cwts.
<i>Import : 1942-43</i>	...	Rs. 64,70,370
<i>Import (maximum) :</i>		
1919-20	...	Rs. 1,95,22,000

**PAPER**

<i>Number of Factories</i>	...	14
<i>Production :</i>		
1942-43	...	100,000 tons
<i>Imports : 1942-43</i>	...	Rs. 2,15,67,000
<i>Import (maximum) :</i>		
1920-21	...	{Tons ( <i>not available</i> ) Rs. 7,30,34,000}
<i>Export : 1942-43</i>	...	Rs. 5,47,386
<i>Protective Duty :</i>		
Imposed by Bamboo Paper Industry Protection Act, 1925.		
Realised in 1942-43 on		
Paper & Stationery	...	Rs. 5,54,000
Wood Pulp	...	Rs. 68,000

RUBBER

<i>Number of Factories (large)</i>	27
<i>Production</i>	... Rs. 3,00,00,000
<i>Import : 1942-43</i>	... Rs. 18,52,145
<i>Import (maximum) :</i>	
1929-30	... Rs. 3,30,13,517
<i>Export (maximum) :</i>	
1940-41	... Rs. 4,17,795
<i>Revenue Duty :</i>	
Realised on Pneumatic Rubber Tyres and Tubes in 1942-43	... Rs. 2,23,000

SOAP

<i>Number of Factories (large)</i>	120
<i>Production</i>	... Rs. 4,00,00,000
<i>Import : 1941-42</i>	... { Cwt. 27,000 Rs. 20,88,000
<i>Import (maximum) :</i>	
1913-14	... { Cwt. 448,000 Rs. 1,67,00,000

**SUGAR**

*Number of Factories : 1942-43 :*      150

*Production : (1942-43)*

Sugar	...	10,70,000	tons
[Cane crushed]	...	1,13,30,000	" ]

<i>Import : 1941-42</i>	...	Tons 49,000
	...	{Rs. 1,07,34,000}

*Import (maximum) :*

1920-21	...	Rs. 27,50,00,000
---------	-----	------------------

<i>Export : 1941-42</i>	...	Tons 19,000
	...	{Rs. 31,78,000}

*Export (maximum quantity) :*

1937-38	...	Tons 93,463
	...	{Rs. 13,41,822}

*Productive Duty :*

Imposed on April 18, 1932

Realised in 1942-43      ...      Rs. 56,00,000

*Excise Duty :*

Imposed in 1934-35

Realised in 1942-43      ...      Rs. 4,83,41,000

**STARCH**

*Number of Factories*      ...      4

*Production*      ...      20,000 tons

<i>Import<sup>1</sup> : 1938-39</i>	...	Cwts. 765,082
	...	{Rs. 48,03,583}

---

<sup>1</sup> Includes Starch, Dextrine and Farina.

## TOBACCO

*Number of Factories : (large)*

Cigarette	...	35
Bidi	...	150

*Production : 1942-43* ... Rs. 4,00,00,000

*Import : 1942-43 (Cigarettes)* ... Rs. 30,25,108

*Import (maximum) : 1927-28*

Raw & manufactures	...	Rs. 2,91,32,000
(Cigarettes		Rs. 2,39,96,000)

*Export : 1942-43* ... Rs. 1,49,10,000

*Export (maximum) :*

1940-41	...	Rs. 2,87,64,561
---------	-----	-----------------

*Excise Duty :*

Imposed in 1942-43 and the budget estimate for 1942-43 is Rs. 10,00,000.

*Revenue Duty :*

Realised in 1942-43	...	Rs. 2,36,43,000
---------------------	-----	-----------------

**WOOL**

<i>Number of Mills (large)</i>	...	31
Production	...	Rs. 4,50,00,000
<i>Import : 1941-42</i>	...	Rs. 1,92,80,000
<i>Import (maximum) :</i>		
1927-28	...	Rs. 4,91,87,000
<sup>1</sup> <i>Export : 1942-43</i>	...	Rs. 54,46,181
<i>Export (maximum) :</i>		
1924-25 (manufactures)	...	Rs. 1,14,29,000

\* Wool manufactures.

# Man-Power

1941

[All figures in Thousands]

	Persons 1941	Literates
<i>India</i>	<b>388,800</b>	<b>47,322.7</b>
<b>PROVINCES</b>	<b>295,827</b>	<b>37,016.2</b>
1. Madras	49,342	6,420.9
2. Bombay	20,858	4,067.8
3. Bengal	60,314	9,720.4
4. United Provinces	55,021	4,653.3
(a) Agra	40,906	3,731.8
(b) Oudh	14,114	921.5
5. Punjab	28,419	3,665.7
6. Bihar	36,340	3,339.7
(a) Bihar	28,824	2,685.8
(b) Chota Nagpur	7,516	653.9
7. Central Provinces and Berar	16,822	1,909.7
(a) Central Provinces	13,220	1,352.8
(b) Berar	3,602	556.9
8. Assam	10,205	1,174.3

## (Provinces—Contd.)

9.	North-West Frontier Province	3,038	233.9
10.	Orissa	8,729	948.2
11.	Sind	4,537	473.8
12.	Ajmer-Merwara	584	79.0
13.	Andaman and Nicobar Islands	34	6.9
	(a) Andaman Islands	21	..
	(b) Nicobar Islands	13	..
14.	Baluchistan	502	52.3
15.	Coorg	169	34.6
16.	Delhi	917	235.7
<i>States and Agencies</i>		<b>92,973</b>	<b>10,306.5</b>
17.	Assam States	725	57.4
18.	Baluchistan States	356	8.1
19.	Baroda State	2,855	656.8
20.	Bengal States	2,142	127.5
21.	Central India Agency	7,502	525.4
22.	Chattisgarh States	4,054	157.6
23.	Cochin State	1,423	504.1
24.	Deccan (and Kolhapur) States	2,786	364.5
25.	Gujerat States	1,457	119.2
26.	Gwalior State	3,992	296.8
27.	Hyderabad State	16,184	1,111.2

28.	Kashmir State (including Feudatories)	4,021	264'2
	(a) Kashmir	3,945	263'0
	(b) Forntier Illaqaas in Gilgit	76	1'2
29.	Madras States. Pudukota, Banganapalle & Sandur	499	66'1
30.	Mysore State	7,329	896'4
31.	North-West Frontier Provinces (Agencies and Tribal areas)	2,378	19'2
32.	Orissa States	3,025	268'9
33.	Punjab States	5,459	334'8
34.	Punjab Hill States	1,094	80'8
35.	Rajputana Agency	13,670	772'5
36.	Sikkim State	122	5'9
37.	Travancore State	6,070	2,894'4
38.	United Provinces States (Rampur and Benares)	928	57.6
39.	Western India States Agency	4,901	717'2

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## ADDENDUM

### SHIPPING

#### I. *Tonnage engaged in Coastal Trade of India, Burma and Ceylon before the war—*

	<i>Gross Tons</i>	<i>Share in Coastal Trade</i>
Indian	1,35,000	20 per cent.
British	4,40,000	80 per cent.

#### II. *Carriage of Trade by National Ships—*

<i>United Kingdom</i>		<i>India</i>
92'8%	Inter-Empire Trade	Nil
47'5%	Foreign Trade of the Empire	Nil
12'0%	Trade between foreign countries	Nil
93'1%	Coastal Trade	25.6%

#### III. *Volume of Trade compared with volume of Tonnage—*

<i>United Kingdom</i>		<i>India</i>
£1,354,000,000	Annual Maritime Trade	£241,000,000
5½	Proportion of Trade	1
G.T.		G. T.
17,891,000	Gross Tonnage of Shipping	1,35,000
135	Proportion of Tonnage	1