

CENSUS OF INDIA, 1971

SERIES 16

ORISSA

Part-IX

CENSUS ATLAS

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of the Indian Administrative Service
Director of Census Operations, Orissa

CENSUS OF INDIA, 1971

SERIES—16

ORISSA

PART-IX

FOREWORD

It was in 1961 for the first time in the history of Indian census that a Census of India atlas series was brought out on various census themes as also non-census statistics for India and a number of states and union territories. These atlases received wide recognition. During 1973-74, the Indian Census Centenary Atlas was brought out by the Office of the Registrar General, India. The 1961 atlas was exhibited at the International Geographical Congress (1968) in New Delhi. A folio of the 1961 atlas comprising ten selected maps was distributed among the 1,500 delegates to the congress. The centenary atlas was exhibited at the United Nations world population conference (1974) in Bucharest.

Maps from the tahsil to the national level appear in most 1971 census table volumes, reports and publications. As part of the 1971 census taking, jurisdictional maps (basic census map documents) and urban land use schematic maps were prepared to enrich the district census handbooks, the town directories and other census publications. The jurisdictional maps at taluka/district levels were combined in a volume known as Administrative Atlas for each state with additional demographic information and published for six states. Others are likely to come out in course of time. These are the latest subject maps with reference to the 1971 census. This upholds the tradition of the census office of producing the largest number of latest maps in the country.

The tabulation plan of the 1971 census aimed at presenting information based on various types of census data. The 1971 census of India atlas series projects census data in thematic maps. The 1971 atlas programme has been planned in a way that helps comparability with the 1961 data in areas like growth and density of population, sex, religion and literacy. The atlas series, which forms part IX in the census publication series will provide correlation of census data with non-census statistics and help in the analysis and evaluation of socio-economic problems at different administrative levels.

Planning of census atlases began along with pre-census preparations in 1969-70. A national conference was organised in April 1970 in the Office of the Registrar General in which scholars like Prof. G. S. Gosal, Prof. V. L. S. P. Rao, Prof. Mansoor Alam, Dr. M. P. Thakore, Dr. L. S. Bhatt and Mr. H. M. Jones participated. It discussed the themes and techiniques for the maps to be included in 1971 atlas. This scheme was sent to a large number of universities and institutions and valuable suggestions were received from Prof. O. H. K. Spate, Prof. John E. Brush, Prof. John W. Dickay, Prof. R. M. Prothero and Prof. B. J. Garner. The scheme was then examined at conferences of directors of census operations at Courtallam (1970) and at Pahalgam (1972).

The atlas series has been planned in such a way that a complete demographic profile for different administrative units in the country is available from the maps appearing in the atlases of states and union territories and in the national volume. Generally,

atlases of states and union territories include eight maps which give the geographical personality of the region, followed by population, sex and age, urbanisation, migration, agriculture, census industrial categories, electricity, transport and communications, trade and commerce and services. There are also maps devoted to scheduled castes and tribes, religion, education, housing and health.

There has been a slight deviation in the all-India volume to reduce the bulk of the atlas by combining themes on the maps. Certain insets are added to provide more information on the subject. Diagrams, graphs and tables based on quantitative measurements of themes help in interpretations of each plate.

In the present all-India atlas, 80 plates are included in four sections. Eleven plates show administrative boundaries and physical aspects. In the section on demographic structure and trends, 35 plates cover distribution of population, density and growth, sex and age and urbanisation. The economic aspects based on census industrial categories are shown in 13 plates. The socio-cultural aspects accounting for 20 plates relate to scheduled castes and tribes, religion and education. A plate on the physio-geographical regions of India has been included to enable the users to co-ordinate variables in terms of such regions.

This atlas programme has been executed under the direction of Dr. B. K. Roy, Assistant Registrar General (Map). When Dr. Roy went on an U. N. assignment for two years, the work was carried on by the Map division in Delhi under the supervision of Dr. R. R. Tripathy, now Map Officer. I congratulate all the members of Map division in our Delhi office and the members of map units in the offices of directors of census operations of states/union territories on their excellent team work and their dedication which contributed to the success of this venture.

R. B. CHARI

Registrar General, India
&
Ex-Officio Census Commissioner, India

New Delhi
Gandhi Jayanti
2 October 1977

PREFACE

The Census Atlas of 1971 presents a pictorial analysis of the demographic, economic and social aspects of the State of Orissa. The Atlas attempts to project both census and non-census statistics in thematic maps against geographic background of the State. In 1961, the Census Atlas series was brought out for the first time which was widely aclaimed. We were encouraged by the warm response and tried to improve upon the pictorial representation in the 1971 Census Atlas.

The planning of the project of 1971 Atlas has been so carefully done that it helps depicting comprehensive demographic data and other related statistics pertaining to land utilisation, irrigation, transport, communication, education, health and industries etc. existing in the State. Further, the study of the maps is facilitated by reference to explanatory notes preceding each map of this Census Atlas Volume.

As many as 103 maps of this Atlas volume are based on data obtained through the Census and the rest 29 maps are drawn to present the data obtained from different departments of the State and Central Government. A small team of officials of this directorate contacted the departments concerned and collected the requisite data for presentation in the volume. The Atlas Volume contains 132 maps which has been divided into 14 sections. The table of contents given in this volume shows that the maps have been arranged under related subjects in a particular sequence. Eight plates show orientation and physical condition while four plates relate to demographic structure and trend. The largest section includes 37 maps on industrial series. The data on sex and age structure have been presented in several maps. A large number of maps on agriculture, migration and urbanisation have been included in the Atlas. The data on Scheduled Caste and Scheduled Tribe have been depicted on four maps. In addition data on education, housing, health, fertility and religion are effectively presented in this volume.

While drawing these maps adequate measures have been taken to ensure coverage of maximum printing space. In a tew cases two or four maps have been given in smaller size in one single page especially for the sake of convenience in comparison of data.

The title panels as given in this volume show the subjects mapped. The legends are designed to explain the symbols and shadings adopted for these maps. The contexts of these maps are elucidated by reference to the explanatory notes which immediately precede them.

A good many Administrative Offices of both the State and Central Government have made generous contribution for the success of this venture. Many other departments and institutions like the State Electricity Board and the departmental establishments of the State Government relating to Engineering, Mining, Factories, Soil Conservation, Health, Public Instruction, Industries and Agriculture have made valuable contribution in providing the data required for the Atlas. We are grateful for their co-operation and assistance.

I wish to express my gratefulness to Shri R. B. Chari, the ex-Registrar General, India who evinced keen interest in chalking out the overall plan of this project and drawal of detailed instructions at the initial stage for preparation of these maps. I also wish to express my heartfelt thanks to Dr. B. K. Roy, Assistant Registrar General, India, New Delhi for his effective scrutiny

and technical guidance for preparation of all the maps and notes of interpretation as presented in this volume. I owe a special debt of gratitude to my senior colleagues, Shri B. Mohanty, ex-Deputy Director of Census (Mechanical Tabulation) and Shri S. K. Swain, Assistant Director of Census (Tech.) for the immense care they have taken at all stages of the work for bringing out this volume.

Finally, I wish to place on record my appreciation for the sincere and hard work done by the staff of map branch of this directorate. I am thankful to Shri P. K. Rout, Investigator, Shri C. R. Mohanty, Sr. Technical Assistant, Shri J. P. Rout, Cartographer, Shri A. C. Panda, Sr. Draftsman, Shri M. N. Das, Draftsman, Shri P. C. Swain, Draftsman, Shri A. S. Rao, Draftsman, Shri Sindhu Mulia, Draftsman, Shri A. K. Jena, Draftsman, Shri D. N. Pradhan, H. P. M. O., Shri G. Mahapatra, H. P. M. O. and Shri A. K. Mishra, Printing Inspector for the sincere and hard work in bringing out this volume.

I am grateful to Shri S. P. Mishra, Director of Printing, Stationery and Publication, Orissa for the excellent printing of this volume.

B. C. DAS

Deputy Director of Census, Orissa

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(All the Census Publications of this State will bear Series No.16)

Part I	..	General Report on the Census, subdivided into three Sub-parts, viz.,
Part I-A	..	First part of the General Report covering distribution, growth and density of population, sex ratio, Rural and Urban differentials, broad literacy rates, population of Scheduled Castes and Scheduled Tribes, broad economic categories, etc.
Part I-B	..	The second part covering detailed analysis of the demographic, social, cultural and migration patterns
Part I-C	..	Subsidiary Tables
Part II	..	Census Tables on Population subdivided into :
Part II-A	.	General Population Tables
Part II-A Supplement	..	General Population Tables (Standard Urban Areas)
Part II-B	..	Economic Tables
Part II-C(i)	..	Tables showing distribution of population by Mother-tongue and Religion, Scheduled Castes and Scheduled Tribes.
Part II-C(ii)	..	Other Social and Cultural Tables and Fertility Tables
Part II-D	..	Migration Tables
Part III	..	Establishment Report and Tables
Part IV	..	Housing Report and Tables
Part V	..	Special Tables and Ethnographic notes on Scheduled Castes and Scheduled Tribes
Part VI	..	Town Directory, Survey Reports on Towns and Villages, subdivided into
Part VI-A	..	Town Directory
Part VI-B	..	Special Survey Reports on selected Towns
Part VI-C	..	Survey Reports on selected Villages
Part VII	..	Special Report on Graduates and Technical Personnel (All India Publication)
Part VIII	..	Administration Report (for official use only) subdivided into :
Part VIII-A	..	Administration Report—Enumeration
Part VIII-B	..	Administration Report—Tabulation
Part IX	..	Census Atlas (*The Present Volume*)
Part IX-A	..	Administrative Atlas
Part X	..	District Census Handbook (a State Government Publication) subdivided into :
Part X-A	.	Town and Village Directory
Part X-B	..	Town and Villagewise Primary Census Abstract
Part X-C	..	Analytical Report and Administration statements and District Census Tables. . . . (*for 13 districts*)
MISCELLANEOUS	..	Special studies and other Reports and Tables (will be published as special paper as and when they are ready)
		A PORTRAIT OF POPULATION, ORISSA, 1971 (A Popular version)
		Pocket Book of Population Statistics.

MAP No. 1


POSITION OF ORISSA
IN
INDIA
100 50 0 100 200 300 MILES
KILOMETRES 100 50 0 100 200 300 400 500
AFGHANISTAN
PAKISTAN
CHINA
TIBET
NEPAL
SIKKIM
GANGTOK
BHUTAN
ARUNACHAL PRADESH
JAMMU AND KASHMIR
SRINAGAR
HIMACHAL PRADESH
CHANDIGARH
SIMLA
PUNJAB
HARYANA
DELHI
JAIPUR
RAJASTHAN
UTTAR PRADESH
LUCKNOW
PATNA
BIHAR
ASSAM
NAGALAND
KOHIMA
SHILLONG
MEGHALAYA
IMPHAL
MANIPUR
BANGLADESH
AGARTALA
TRIPURA
MIZORAM
GUJARAT
AHMADABAD
BHOPAL
MADHYA PRADESH
WEST BENGAL
CALCUTTA
BURMA
ORISSA
BHUBANESWAR
DAMAN
DIU (G.D&D)
(D&N.H)
SILVASSA
MAHARASHTRA
BOMBAY
BAY OF BENGAL
ARABIAN SEA
HYDERABAD
ANDHRA PRADESH
GOA (G.D&D) PANJIM
KARNATAKA
BANGALORE
MADRAS
PONDICHERRY
KARAIKAL (P)
MAHE (P)
KERALA
TAMILNADU
KAVARATTI
LACCADIVE MINICOY AND AMINDIVI ISLANDS
TRIVANDRUM
SRI LANKA
PORT BLAIR
ANDAMAN AND NICOBAR ISLANDS
International Boundary
State Boundary
State Capital
Orissa
Other States
T ... TRIPURA
P ... PONDICHERRY
G D & D ... GOA DAMAN & DIU
D & N H ... DADRA & NAGAR HAVELI
Drawn in the Office of the Director of Census Operations Orissa, based upon Survey of India map with the permission of the Surveyor General of India.
INDIAN OCEAN
East of Greenwich 72

MAP No. I

POSITION OF ORISSA IN INDIA, 1971

This map aims at presenting the geographical location of Orissa in India and the boundaries of all states along with the name and location of their respective capitals. The state Orissa is earmarked by coloured shading.

The state of Orissa is situated between 81°-24′ and 87°-29′ East longitude and 17°-48′ and 22°-34′ North latitude. It lies in the East cost of India and is bounded in the north by Bihar, in the west by Madhya Pradesh, in the south by Andhra Pradesh and in the north-east by West Bengal. The state has got 482 Kilometres of coast-line. This state extends over an area of 155,782 Sq. Kms. or 4·74 per cent of the total area of India. It takes the tenth position among all states of the country.

At the sunrise of the 1 April 1971, the state of Orissa had a population of 21,944,615 of which 11,041,083 are males and 10,903,532 are females. Orissa contributes 4·00 per cent of the population of the country. It occupies eleventh position in the list of most populated states of India.

MAP No. 2

ADMINISTRATIVE DIVISIONS, 1971

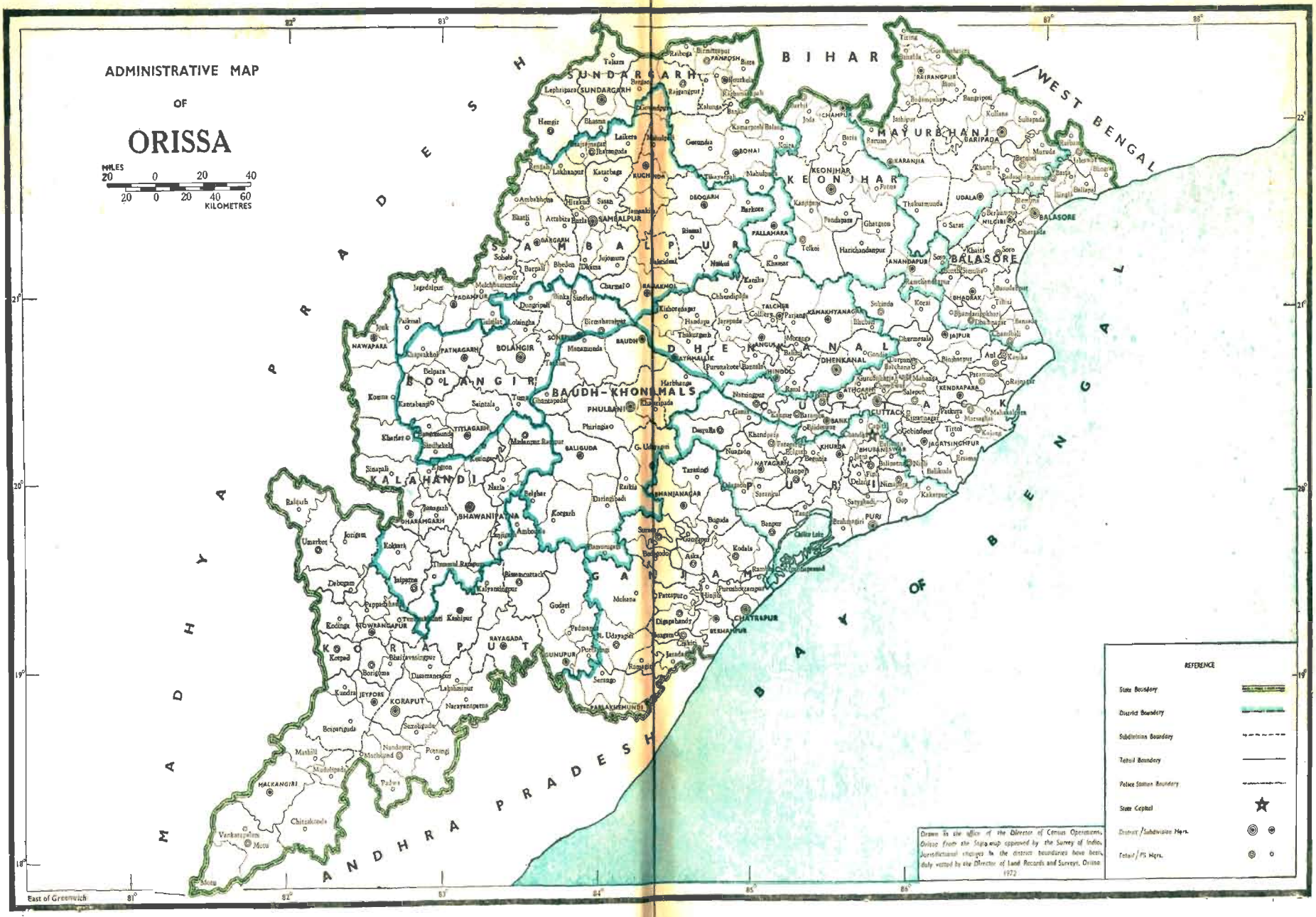
This map presents the administrative set up of the state of Orissa. The water surface of this map is shown in blue colour alongwith the state boundaries in green and district boundaries in blue colour. The boundaries of subdivisions, tahsils and police stations and the location of state capital, headquarters of districts, subdivisions, tahsils and police stations are shown as per the legend given in the map.

For administrative purpose the state of Orissa is divided into thirteen districts, fifty six subdivisions, one hundred and three tahsils and three hundred and one police stations.

The names of the districts, area in Sq. Kilometres, population, density of population, number of villages and towns are indicated as follows :

State / District		Area in Sq. Kms.	Population	Population per Sq. Km.	No. of villages.	No. of Towns
1		2	3	4	5	6
Orissa	..	155,782	21,944,615	141	51,639	81
Sambalpur	..	17,570	1,844,898	105	3,691	11
Sundargarh	..	9,675	1,030,758	107	1 7(	
Keonjhar	..	8,240	955,514	116	.,(V.2	4
Mayurbhanj	..	10,412	1,434,200	138	3,982	2
Balasore	..	6,394	1,830,504	286	4,376	4
Cuttack	..	11,211	3,827,678	341	6,627	8
Dhenkanal	..	10,826	1,293,914	120	3,157	4
Baudh-Khondmals	..	11,070	621,675	56	4,635	2
Balangir	..	8,903	1,263,657	142	2,752	6
Kalahandi	..	11,835	1,163,869	98	2,837	5
Koraput	..	26,960	2,043,281	76	6,124	10
Ganjam	..	12,527	2,293,808	183	4,757	15
Puri	..	10,159	2,340,859	230	4,907	5

MAP No. 2


ADMINISTRATIVE MAP
OF
ORISSA
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
BOLANGIR
BAUDH-KHONDMALS
KALAHANDI
KORAPUT
GANJAM
DHENKANAL
CUTTACK
PURI
BALASORE
MAYURBHANJ
KEONJHAR
SAMBALPUR
BHANJANAGAR
BHAWANIPATNA
CHATRAPUR
BERHAMPUR
PARLAKHEMUNDI
RAYAGADA
JEYPORE
KORAPUT
MALKANGIRI
NAWAPARA
BOLANGIR
PATNAGARH
TITLAGARH
PHULBANI
BALIGUDA
DHENKANAL
CUTTACK
KHURDA
BHUBANESWAR
PURI
BALASORE
JAJPUR
KENDRAPARA
JAGATSINGHPUR
KEONJHAR
BARIPADA
UDALA
BHADRAK
REFERENCE
State Boundary
District Boundary
Subdivision Boundary
Tehsil Boundary
Police Station Boundary
State Capital
District / Subdivision Hqrs.
Tehsil / PS Hqrs.
Drawn in the office of the Director of Census Operations, Orissa from the Sketch map approved by the Survey of India. Jurisdictional changes in the district boundaries have been duly vetted by the Director of Land Records and Surveys, Orissa 1972
East of Greenwich

MAP No. 3

CHANGES IN ADMINISTRATIVE BOUNDARIES, 1961—71

This map aims at presenting the changes in the administrative boundaries of Orissa during the last decade, 1961—71.

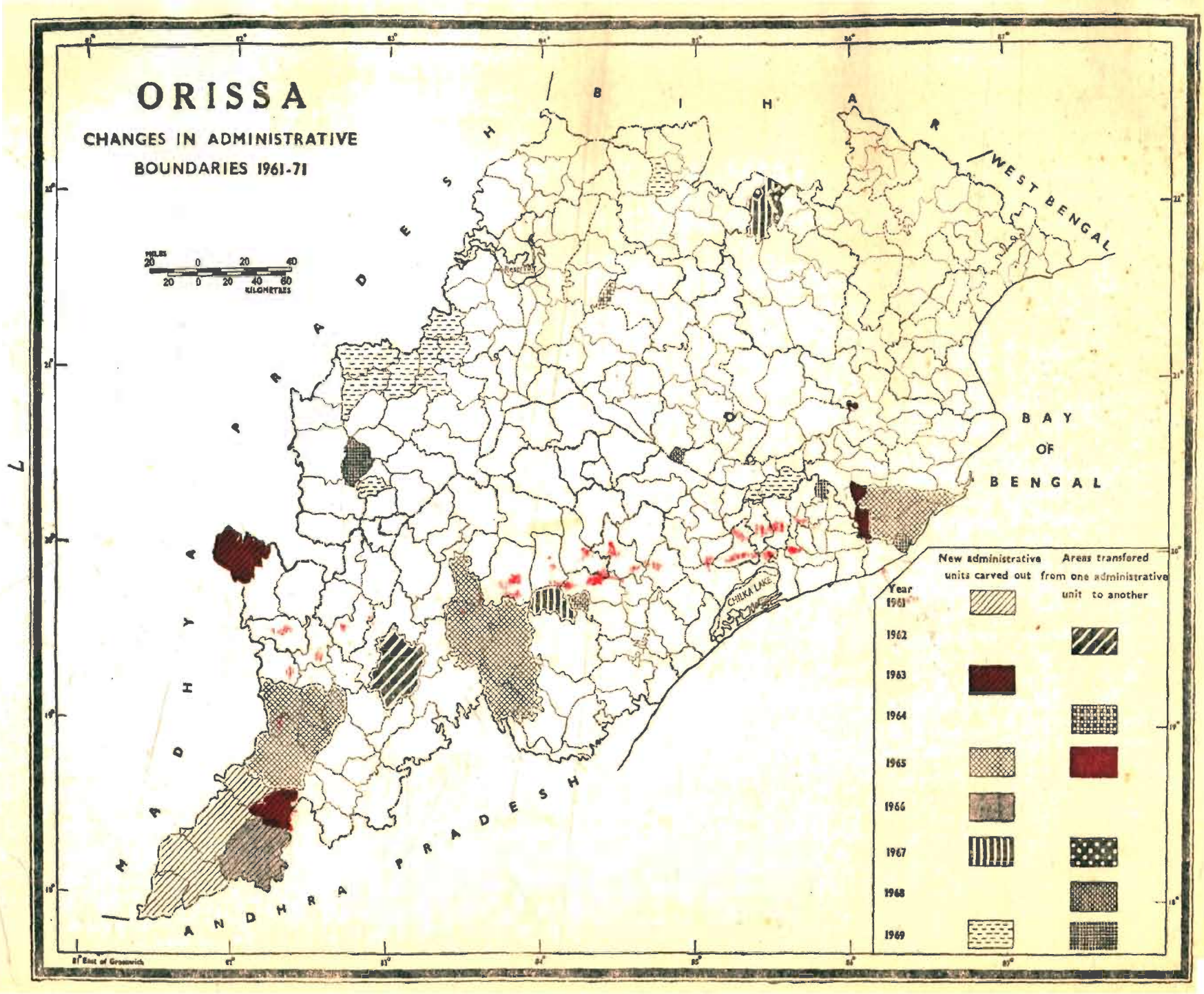
The map of Orissa has been drawn initially according to its present jurisdiction of its districts, subdivisions, tahsils and police stations. The new administrative units which are curved out as well as the areas transferred from one administrative unit to the other, are shown with different shadings for each unit as per the index.

There has been practically no change in the state boundary during this decade. The area of the state is 155,782 Sq. Km. in 1971 as against the area of 155,845 Sq. Km. recorded in 1961. This small difference is attributed to computational errors.

The changes occurring in the boundaries of administrative units during 1961—71 are indicated as follows :

Year	New administrative area created	Transferred from one administrative unit to another
1	2	3
1961	Formation of Malkangiri subdivision in Koraput district	
1962	..	Kashipur Tahsil / police station has been transferred from Kalahandi to Koraput district
1963	Formation of Raigarh P.-S. and Mudulipara P.-S. in Koraput district	..
1964	..	Part of Riamal P. S. under Kuchinda subdivision has been transferred to Deogarh subdivision of Sambalpur district
1965	Formation of Jagatsinghpur subdivision in Cuttack district and Gunupur and Jeypore subdivisions in Koraput district	1. Two villages of Gondia P. S. in Dhenkanal district have been transferred to Dharmasala P. S. in Cuttack district 2. Seventy seven villages of Gobindpur P. S. have been transferred to Jagatsinghpur P. S. in Cuttack district 3. One hundred and nine villages of Jagatsinghpur P. S. have been transferred to Gobindpur P. S. in Cuttack district
1966	Formation of Chitrakonda P. S. in Koraput district	..
1967	1. Formation of Joda P. S. in Keonjhar district 2. Formation of Bamunigam P. S. in Baudh-Khondmals district	1. Transfer of three villages of Barbil P. S. to Joda P. S. in Keonjhar district 2. Transfer of two villages of Angul P.-S to Balimi P. S. in Dhenkanal district 3. Transfer of ninety eight villages of Chamakpur P. S. to Champua P. S. in Keonjhar district 4. Transfer of one village of Sadar P. S. to Rasol P. S. in Dhenkanal district
1968	..	1. Transfer of thirty five villages of Gania P. S. of Puri district to Narsingpur P. S. of Cuttack district 2. Transfer of forty eight villages of Mohana P. S. to Bodogodo P. S. of Ganjam district
1969	1. Formation of Padampur subdivision in Sambalpur district 2. Formation of Banki subdivision in Cuttack district 3. Formation of Kalunga P. S. in Sundargarh district 4. Formation of Bongomunda P. S. in Bolangir district	1. Transfer of twenty eight villages of Sadar P. S. of Cuttack district to Capital P. S. of Puri district 2. Transfer of seventy two villages of Turekela P. S. to Kantabanji P. S. in Balangir district 3. Transfer of thirty one villages of Kakatpur P. S. of Puri district to Balikuda P. S. of Cuttack district

MAP No. 3


ORISSA
CHANGES IN ADMINISTRATIVE
BOUNDARIES 1961-71
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY
OF
BENGAL
CHILKA LAKE
MILES
KILOMETRES
New administrative units carved out
Areas transfered from one administrative unit to another
Year
1961
1962
1963
1964
1965
1966
1967
1968
1969

MAP No. 4

RELIEF AND DRAINAGE

This map depicts the physiographic details of Orissa. Altitude of the soil above and below sea-level is shown by contour lines and bathymetric lines respectively at suitable intervals. The intervening spaces between contours are shaded with red, brown, yellow and green colours to show the different altitudes in descending order and the spaces between bathymetric lines are screened by different grades of blue colour from deep to light for indicating the depth of various magnitudes below sea-level as indicated in the index of the map. The important rivers are also shown in blue.

There are seven intervening spaces between contour lines passing through the points of 75, 150, 300, 600, 900 and 1350 metres above sea-level and four intervening spaces between bathymetric lines going through the points of 100, 500 and 1000 metres below the sea-level.

A part of Ramagiri police station of Ganjam district is elevated by more than 1350 metres from sea-level. The second range of elevation from 900 metres to 1350 metres embraces the areas of Umarkot P. S., Kashipur P. S., Dasamantapur P. S., Koraput P. S., Machkund P. S. and Mudulipara P. S. of Koraput district, Raikia P. S. and Daringibadi P. S. of Baudh-Khondmals district, Bonai P. S. and Mahulpada P. S. of Sundargarh district and Jashipur P. S., Bangriposi P. S., Baripada P. S., Karanjia P. S. and Thakurmunda P. S. of Mayurbhanj district.

Some portions of Mayurbhanj, Keonjhar, Sundargarh, Sambalpur, Baudh-Khondmals, Kalahandi, Koraput and Ganjam districts are exhibited in the third range of elevation (600 to 900 metres).

The central range of elevation (from 300 metres to 600 metres) is shown in yellow colour which covers major portion of Keonjhar, Mayurbhanj and Sundargarh districts in the Northern high lands and Kalahandi, Baudh-Khondmals and Koraput districts of Southern high lands of Orissa. Valuable forest growths and natural resources of Orissa are found in this part.

Maximum areas of Sambalpur, Bolangir, Kalahandi and Sundargarh districts constitute the range of elevation from 150 metres to 300 metres. The area of this range comprises the largest part of the central river basin. The next range of elevation (from 75 metres to 150 metres) comprises the major portion of Dhenkanal and Ganjam districts.

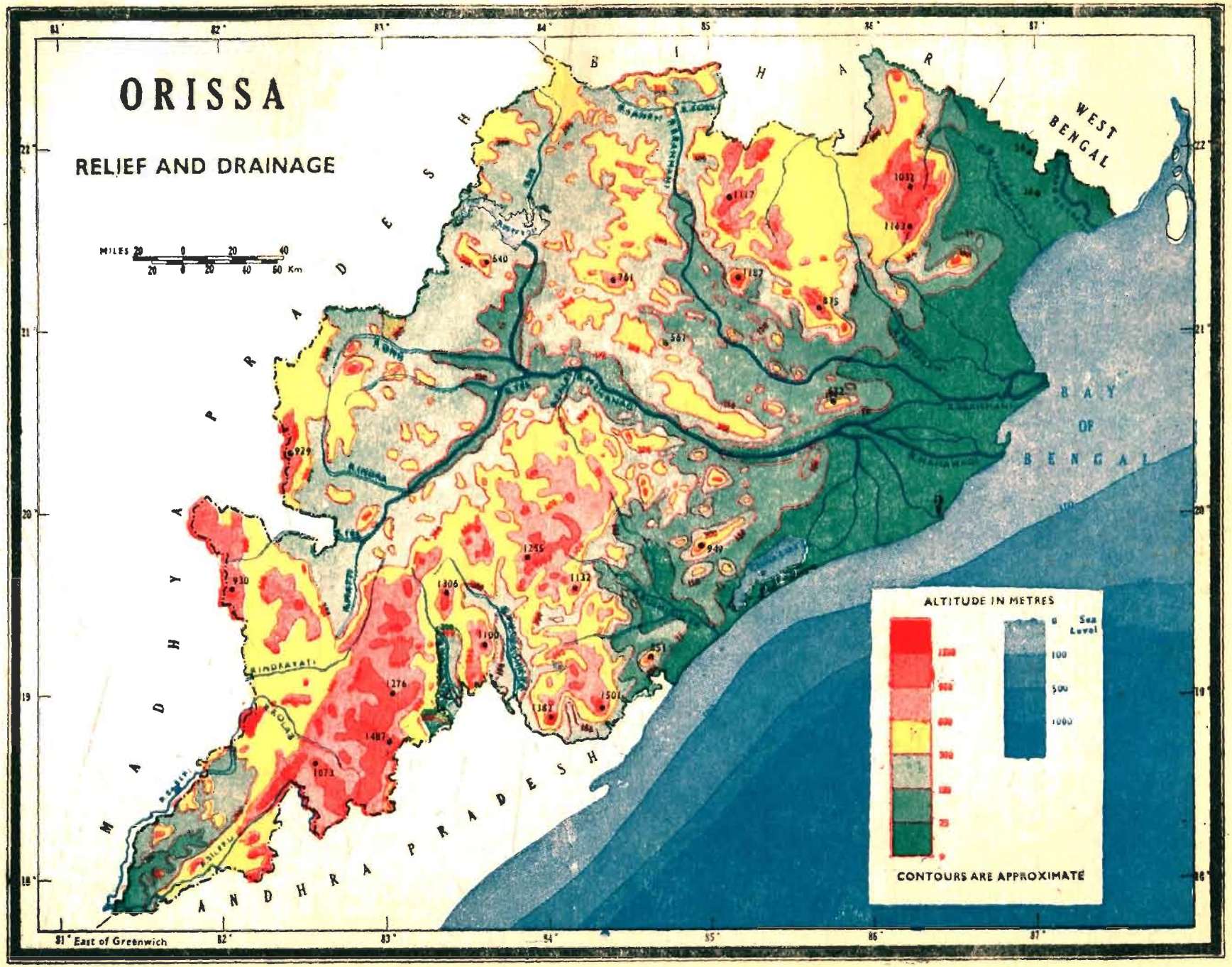
The plain areas of the state as found in the districts of Cuttack, Balasore and Puri are presented in the lowest range of elevation (0 to 75 metres).

The important rivers like the Mahanadi, the Brahmani, the Baitarani and the Budhabalang etc. make these coastal districts of Orissa fertile and populous. The areas of these districts are also water-shaded by many sluggish and brackish stream affected by tidal waters from the sea.

The Mahanadi is the largest river of the state with a total length of 857·69 Kilometres. It drains a basin of 1,320,900 Sq. Kms. and discharges during the highest flood 1·6 million cusecs of water.

Paradip port of the state has become one of the prosperous sea port in India. The Chilka lake of the state is the widest lagoon of India.

MAP No. 4


ORISSA
RELIEF AND DRAINAGE
MILES 20 0 20 40
20 0 20 40 60 Km
BIHAR
WEST BENGAL
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
ALTITUDE IN METRES
0 Sea Level
100
500
1000
CONTOURS ARE APPROXIMATE
81° East of Greenwich
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
1032
1117
1163
1187
875
640
761
567
929
930
1255
1132
1306
1100
1276
1487
1073
1382
1501
851
949

MAP No. 5

NORMAL MONTHLY AND ANNUAL RAINFALL

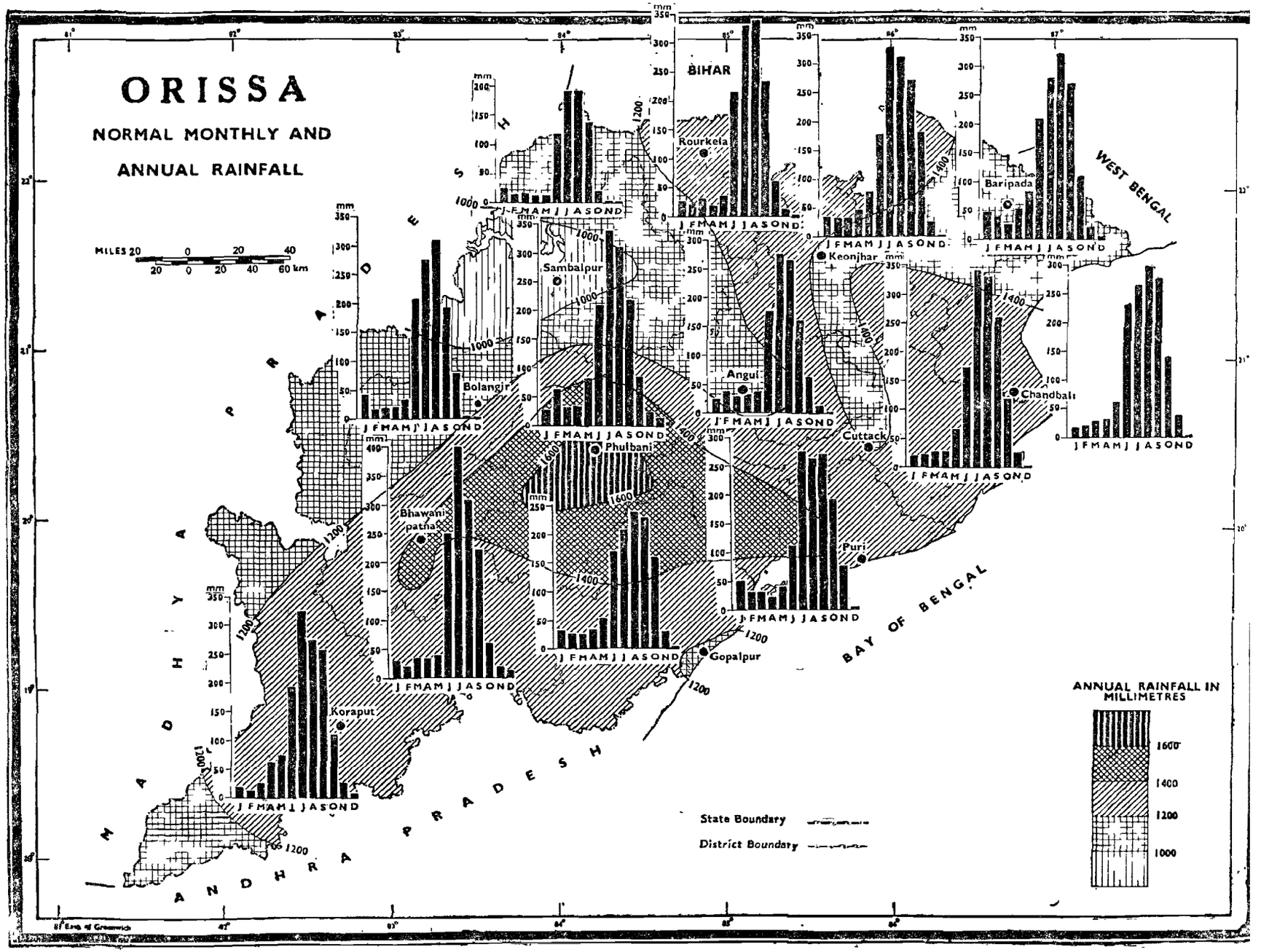
This map shows the distribution of normal monthly and annual rainfall of Orissa in millimetres.

The normal annual rainfall data in millimetres are plotted for all the meteorological stations covering the entire state. The isohyetal lines are interpolated at suitable intervals. The space between the two isohyetal lines are hatched to indicate the high to low annual-normal rainfall. Rainfall bars are drawn, showing monthly distribution of rainfall at some of the selected meteorological stations of the state.

This map reveals that the highest range of annual rainfall (i. e., above 1;600 mm.) is found in the district of Baudh-Khondmals. The next range 1,400 mm. covers the districts of Kalahandi, Bolangir, Ganjam and Puri. The lowest range of annual rainfall is observed in the district of Sambalpur.

The rainfall bar showing the monthly rainfall in some of the selected meteorological stations of the state depicts the highest monthly rain during the month of June, July, August and September. The meteorological station at Bhawanipatna in the district of Kalahandi records the highest monthly rainfall during the month of July.

The state is at a convenient point of convergence of monsoon currents of Bay of Bengal and Arabian sea. Most of the districts receive rainfall from the Bay of Bengal, branch of South-West monsoon, but the Eastern ghat regions receive the bulk of rainfall from the Arabian Sea branch, which reaches this part after passing over the Indian peninsula. The coastal districts lie on the Track of Stroms which frequently cross the inland from the Bay of Bengal during the period of South-West monsoon and move in North-Westerly direction. A few squalls of North-East monsoon appear over the Eastern Hills during this period. The normal annual rainfall in the state is 1,482·2 mm.


ORISSA
NORMAL MONTHLY AND
ANNUAL RAINFALL
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Rourkela
Baripada
Keonjhar
Sambalpur
Bolangir
Angul
Chandbali
Cuttack
Phulbani
Bhawanipatna
Puri
Gopalpur
Koraput
J F M A M J J A S O N D
mm
State Boundary
District Boundary
ANNUAL RAINFALL IN MILLIMETRES
1600
1400
1200
1000

MAP No. 6

NORMAL MONTHLY AND ANNUAL TEMPERATURE

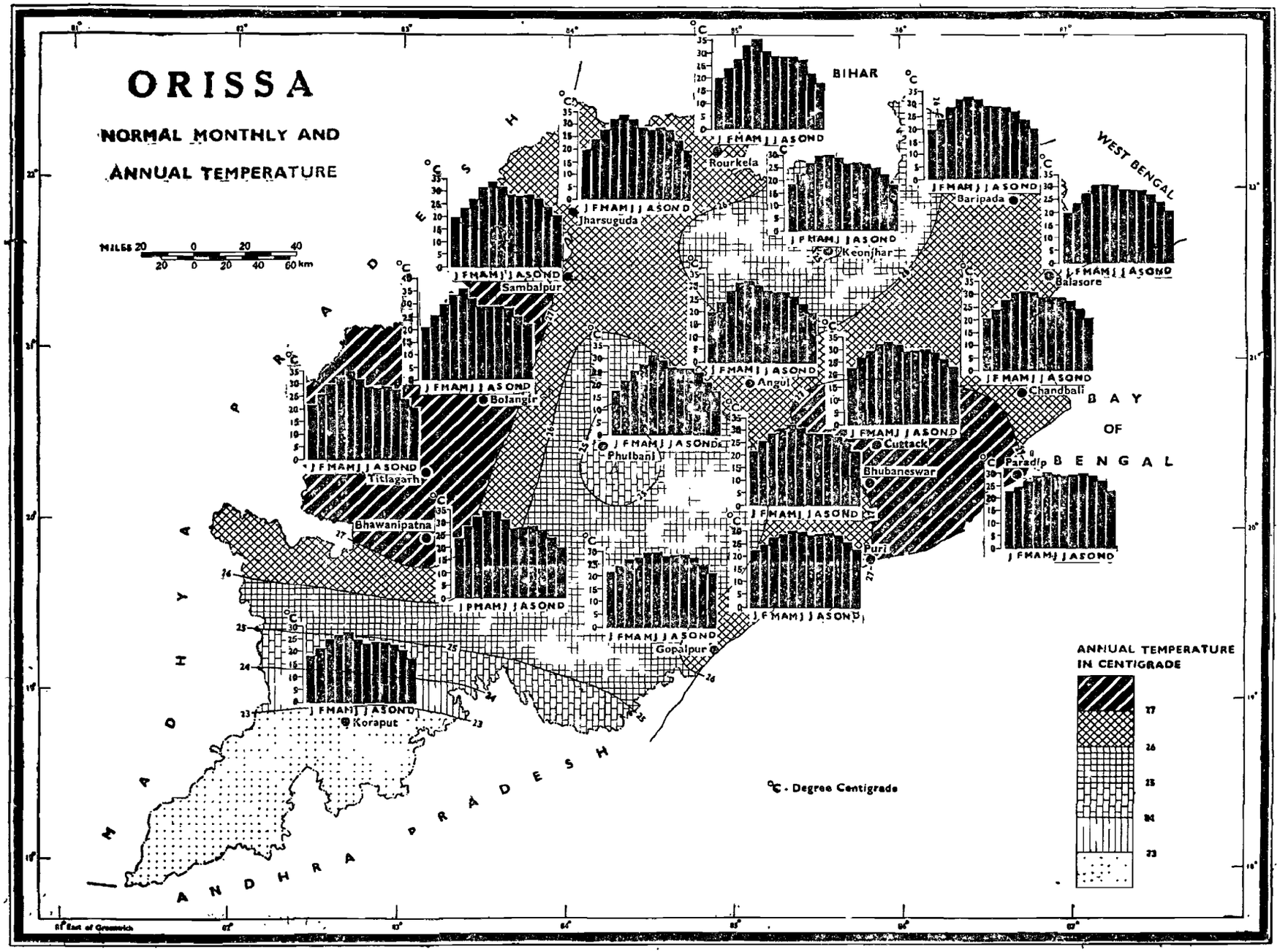
This map displays the normal monthly and annual temperature of the state of Orissa in centigrades.

The mean annual temperature of all the meteorological stations are plotted on the map in centigrades. Then the isothermal lines are drawn at suitable intervals. The spaces between the isothermal lines are shaded by different hatchings indicating high to low temperature as depicted in the legend.

A few meteorological stations are selected in which bars showing normal monthly temperature ar exhibited.

The maximum annual average temperature is felt in the district of Cuttack (28·0°C), followed by Bolangir (27·9°C), Kalahandi (27·9°C), and Puri (27·0°C). But the same is very low in the district of Koraput (22·6°C) only.

For the month of May, the temperature is felt maximum in all the districts of Orissa. The districts of Sambalpur, Sundargarh, Bolangir, Kalahandi remain in the month of May under the temperature of 35°C. But the people of other districts, viz., Cuttack, Puri, Baudh-Khondmals, Mayurbhanj, Dhenkanal and Balasore feel the temperature from 30°C to 32°C. Whereas other three districts, namely, Keonjhar, Ganjam and Koraput remain below the temperature of 30°C.


ORISSA
NORMAL MONTHLY AND
ANNUAL TEMPERATURE
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Rourkela
Jharsuguda
Sambalpur
Bolangir
Titlagarh
Bhawanipatna
Koraput
Keonjhar
Baripada
Balasore
Angul
Phulbani
Chandbali
Cuttack
Bhubaneswar
Paradip
Puri
Gopalpur
J F M A M J J A S O N D
°C - Degree Centigrade
ANNUAL TEMPERATURE
IN CENTIGRADE
27
26
25
24
23

MAP No. 7

SOILS

The map is drawn to show the different type of Soils in Orissa.

Soils are depicted by different shade of hatchings as detailed in the index.

The Soils of Orissa are broadly classified into eight groups as follows :

1. Red Loamy
2. Red Sandy
3. Laterite
4. Red and Yellow
5. Mixed Red and Black
6. Coastal Alluvium
7. Coastal Sand
8. Deltaic Alluvium

Red Soils—The common form of Red Soil is a sandy clay, coloured by iron oxide with the green manuring and application of fertilisers. These soils can be profitably managed for cultivation of fruits, vegetable and other cash crop. The main crop grown in the soil is paddy. Red sandy type of soils are found in the districts of Sambalpur, Sundargarh, Bolangir, Kalahandi, Koraput and Ganjam. The Red loamy type of soils are found in the districts of Koraput, Ganjam, Puri, Cuttack, Balasore, Keonjhar, Dhenkanal, Baudh-Khondmals and Kalahandi.

Laterite—This type of Soil can broadly be divided into high level and low level laterites. The high level laterite is of pale colour, gritty and sallow and it is poor in nutritive substances. The low level laterite is of finer texture and darker in colour. This type of soil is found in the districts of Koraput, Ganjam, Puri, Cuttack, Balasore, Mayurbhanj, Sundargarh and Sambalpur.

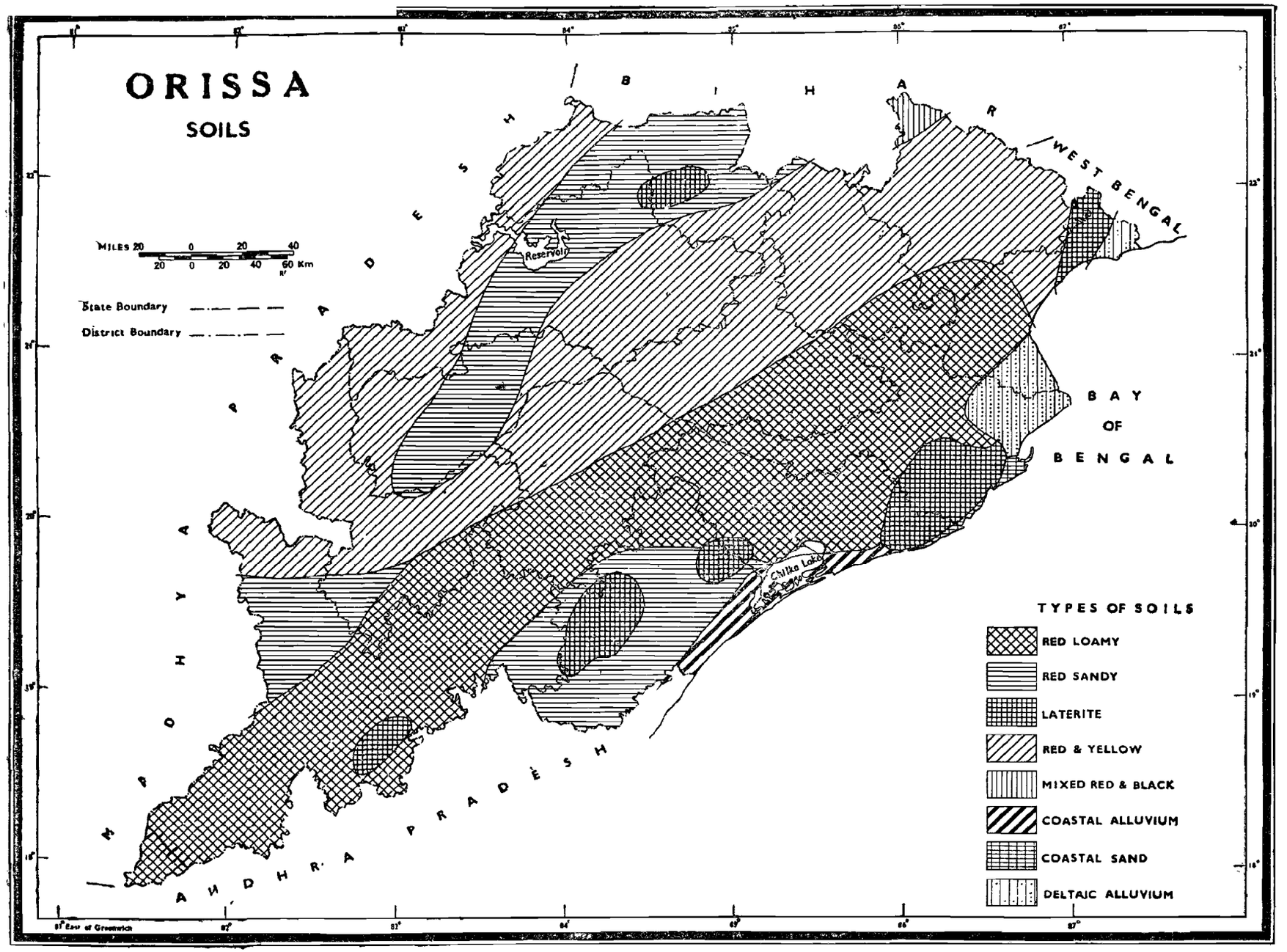
Red and Yellow—This type of soils are seen in some of the areas of the districts of Koraput, Kalahandi, Baudh-Khondmals, Bolangir, Sambalpur, Sundargarh, Keonjhar and Dhenkanal. The soils are hetrogeneous in texture. According to the topography the texture, colour and characteristics of the soils depend.

Mixed Red and Black—This type of soils are found in the districts of Sambalpur and Bolangir. Red soils occur in the higher elevation whereas the black soils having a lower topographical situation.

Coastal Alluvium and Sand—All along the coast line starting from North Balasore upto the south of Chilka in Puri district, a narrow belt of saline soil with narshy patches exist. It consists of fine sand and soft clay with a saline admixture. It can hardly grow any crop other than coconut because of its salinity. Coastal sand is only found in the district of Cuttack.

Deltaic Alluvium—The coastal districts of the state namely Balasore, Cuttack, Puri and Ganjam have rich in deltaic alluvium soil with large content of clay. The northern most districts have sandy loam in the alluvium while the rest of the zone has stiff clay. The zone has some of the richest agricultual lands in the state.

MAP No. 7


ORISSA
SOILS
MILES 20 0 20 40
20 0 20 40 60 Km
State Boundary
District Boundary
Reservoir
Chilka Lake
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
TYPES OF SOILS
RED LOAMY
RED SANDY
LATERITE
RED & YELLOW
MIXED RED & BLACK
COASTAL ALLUVIUM
COASTAL SAND
DELTAIC ALLUVIUM

MAP No. 8

FORESTS

This map depicts the forest regions in Orissa.

With the help of the state forest department, the forest regions of the state are demarcated on the map and the regions are shaded with various depth of green colour according to the intensity or the types of forests as detailed in the index.

Circles proportionate to the persons engaged in forest-based industries are drawn in each district. The sectors inside each circle show the different type of workers engaged in various type of forest-based industries such as (*i*) Wood cutting and Lumbering, (*ii*) Saw Mills, (*iii*) Match Industries, (*iv*) Lac collection, (*v*) Paper and Pulp.

The forest in Orissa can be broadly classified under five types namely :

1. Tropical dry deciduous Forest
2. Tropical moist deciduous Forest
3. Littorial and swamp (Mangrove) Forest
4. Tropical dry evergreen Forest
5. Tropical semi evergreen Forest

Tropical dry deciduous —These type of forests are seen in patches in the districts of Sambalpur, Sundargarh, Mayurbhanj, Balasore, Cuttack, Dhenkanal, Baudh-Khondmals, Balangir, Kalahandi and Puri.

Tropical moist deciduous —These forests are found in the districts of Keonjhar, Mayurbhanj, Baudh-Khondmals, Kalahandi, Koraput and Ganjam.

Littorial and swamp Forest (Mangrove) —This type of forests is only found in the district of Cuttack on its sea coast.

Tropical dry evergreen —This type of forests is very rarely found, but Puri is the only district, where a small patch of this type forest is being observed.

Tropical semi evergreen —There are only two small patches of this type of forests found in Mayurbhanj district.

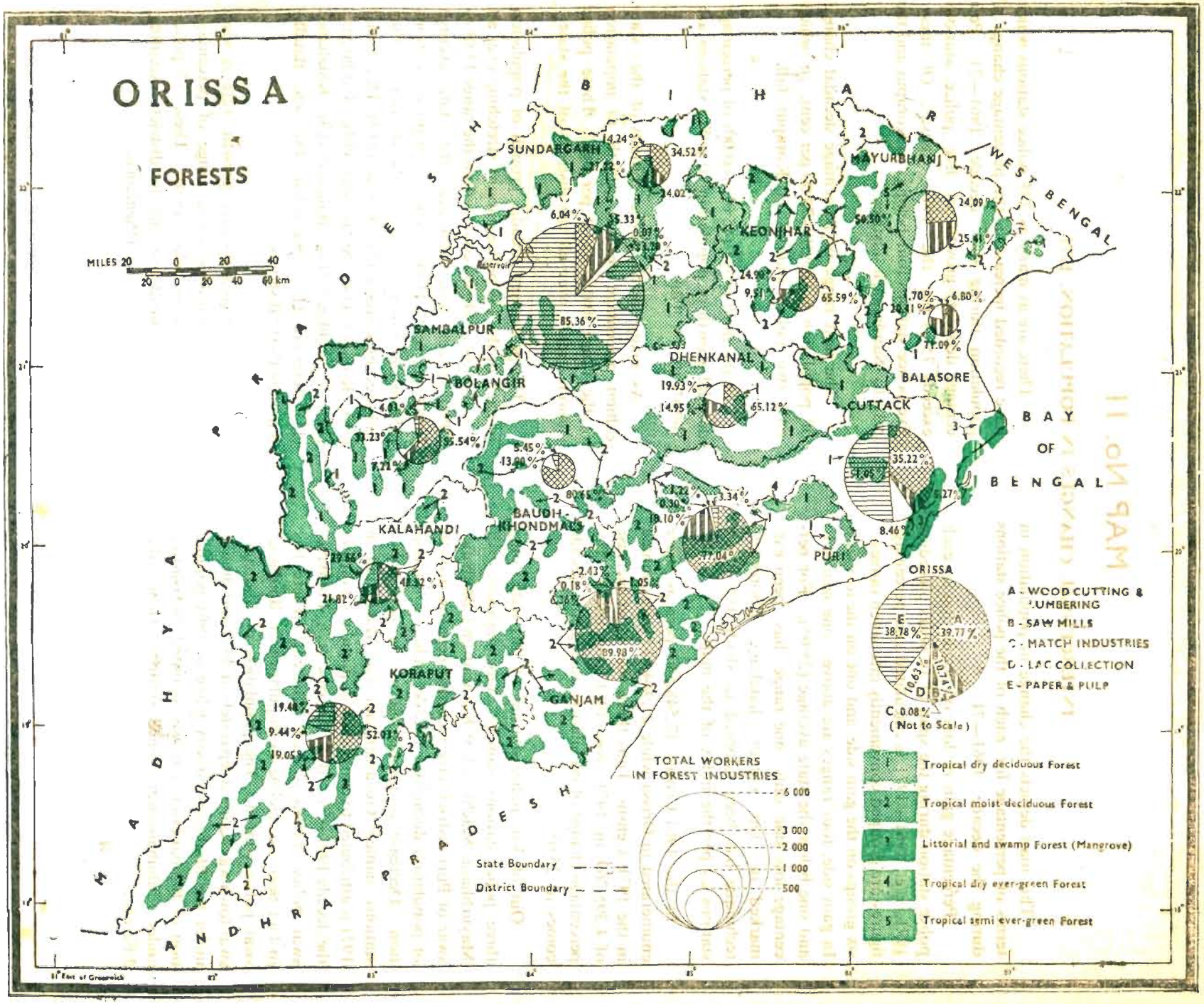
More than 50 per cent of total workers in forest industries are engaged in wood cutting and lumbering in the districts of Ganjam, Puri, Baudh-Khondmals, Dhenkanal, Keonjhar, Balangir and Koraput. Ganjam leads all the districts where the percentage is as high as 89·98.

All the districts except Baudh-Khondmals where the workers in fotest industriss are engaged in saw mills. Balasore is the only district in which 71·09 per cent of its total workers of forest industries are engaged in saw mills.

There are only three districts namely Sambalpur, Puri and Ganjam in which Match industries are found with a few workers.

In lac collection, Mayurbhanj, Cuttack, Sundargarh, Balangir, Kalahandi, Koraput, Baudh-Khondmals and Dhenkanal engage the workers in forest-based industries but Mayurbhanj district takes the lead employing more than 50 per cent of its total forest industry workers.

Sambalpur and Cuttack employ 85·36 per cent and 51·05 per cent of total workers of forest-based industries respectively in paper and pulp industries.


ORISSA
FORESTS
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
MAYURBHANJ
KEONJHAR
SAMBALPUR
BOLANGIR
DHENKANAL
BALASORE
CUTTACK
KALAHANDI
BAUDH-KHONDMALS
PURI
KORAPUT
GANJAM
ORISSA
A - WOOD CUTTING & LUMBERING
B - SAW MILLS
C - MATCH INDUSTRIES
D - LAC COLLECTION
E - PAPER & PULP
C 0.08%
(Not to Scale)
TOTAL WORKERS IN FOREST INDUSTRIES
6 000
3 000
2 000
1 000
500
State Boundary
District Boundary
1 Tropical dry deciduous Forest
2 Tropical moist deciduous Forest
3 Littorial and swamp Forest (Mangrove)
4 Tropical dry ever-green Forest
5 Tropical semi ever-green Forest

MAP No. 9

DISTRIBUTION OF POPULATION, 1971

This map shows the distribution of rural and urban population of Orissa for 1971.

The rural population has been shown by black dots, each representing 5,000 persons and urban population by spheres with light red colour. Each sphere is porportionate to the size class of urban units (towns) as classified by the 1971 Census.

The definition and concept of a town as adopted in 1971 Census are indicated as follows :

(*a*) All places with a Municipality, Corporation or Cantonment or Notified Town Area.

(*b*) All other places which satisfied the following criteria :

(*i*) A minimum population of 5,000 ;

(*ii*) At least 75 per cent of the male working population is non-agricultural ;

(*iii*) A density of population of at least 400 per square kilometre (i. e. 1,000 per square mile).

The Director of Census Operations of each state/union territory was, however, given some discretion in some marginal cases to include in consultation with the State Government some places that had other distinct urban characteristics and to exclude the undeserving ones.

Further a new feature "Urban Agglomeration" has been adopted for the first time in the 1971 Census. There are certain core cities or towns around which University campus, Railway Colonies, Port areas or Military Camps, etc., have come up and considered as outgrowth of a town or a city because those are just outside the statutory limits of a Corporation, Municipality or N. A. C. It may not be realistic to treat those outgrowths as rural units. In the interest of Demographic and Socio-economic aspects these outgrowths are taken as agglomerated area of a town or a city and considered under the urban unit for all purposes. The different criteria in which Urban Agglomeration has been considered are as follows :

(*i*) A city with continuous outgrowth ;

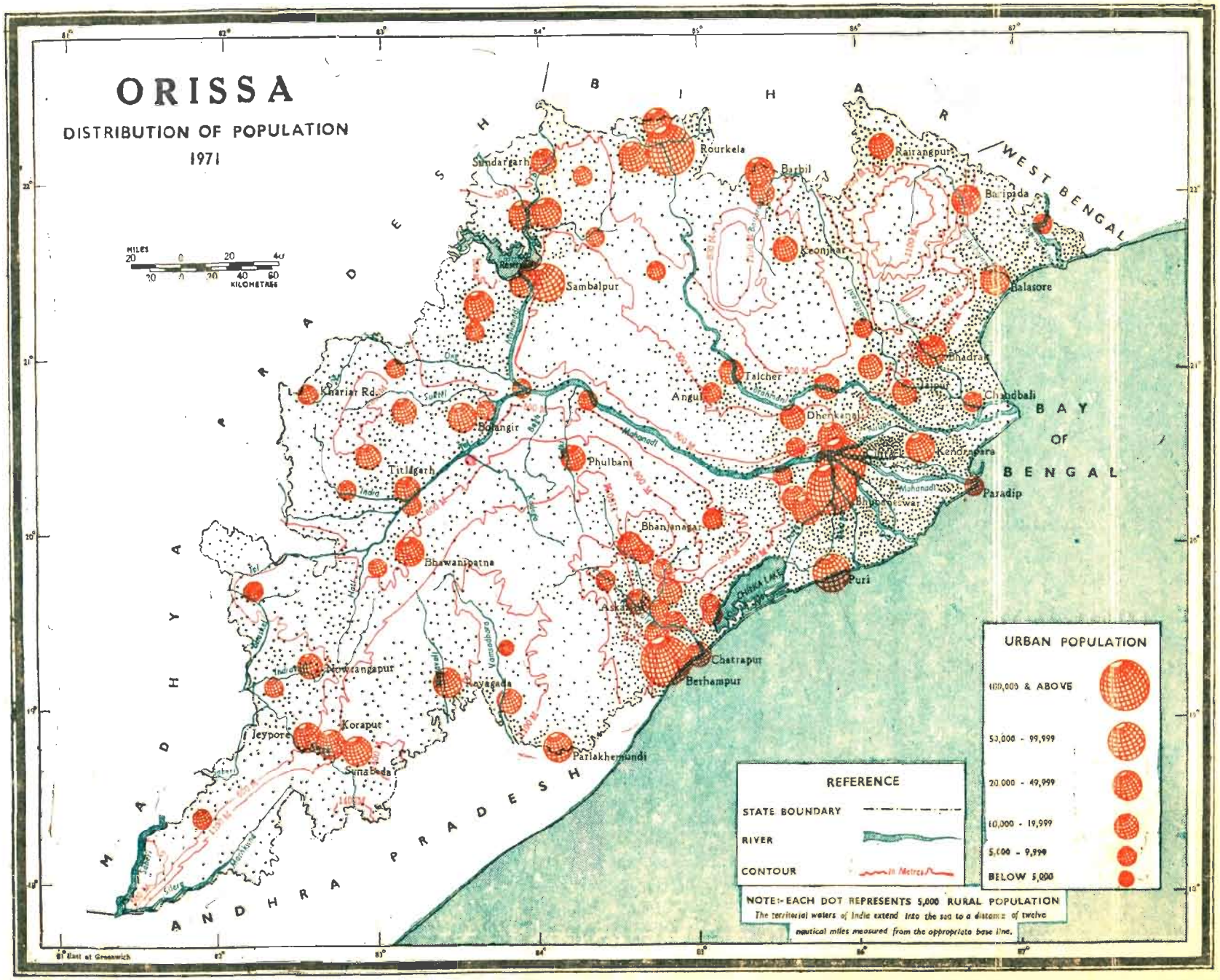
(*ii*) One town with similar outgrowth or two or more adjoining towns with these outgrowth as in (*i*), and

(*iii*) A city and one or more adjoining towns with their outgrowths all of which formed a continuous spread.

The rural population, as recorded in the 1971 Census is 20,099,220 or 91·59 per cent of the total population (21,944,615) of Orissa.

In as many as 81 towns of Orissa 1,845,395 persons are registered as urban population. They constitute 8·41 per cent of the total population of Orissa.

This map reveals the lop-sided distribution of rural population. The majority of population inhabit the coastal districts of the state and along the main river valley and coastal plains. Further it may be seen that in industrial areas of the state many urban units have come up. Most of the urban units are situated along the banks of the rivers like the Subarnarekha, the Budhabalang, the Salandi, the Baitarani, the Brahmani, the Mahanadi, the Rushikulya, the Vamsadhara, the Nagavali, the Kolab, the Indravati, the Bhaskel and the Tel, the Indra, the Suktel, the Ong and the Ib.


ORISSA
DISTRIBUTION OF POPULATION
1971
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Rourkela
Sundargarh
Barbil
Rairangpur
Baripada
Keonjhar
Sambalpur
Balasore
Bhadrak
Talcher
Angul
Chandbali
Dhenkanal
Cuttack
Kendrapara
Paradip
Bhubaneshwar
Khariar Rd.
Bolangir
Titlagarh
Phulbani
Bhanjanagar
Bhawanipatna
Puri
Chatrapur
Berhampur
Nowrangapur
Jeypore
Koraput
Parlakhemundi
URBAN POPULATION
100,000 & ABOVE
50,000 - 99,999
20,000 - 49,999
10,000 - 19,999
5,000 - 9,999
BELOW 5,000
REFERENCE
STATE BOUNDARY
RIVER
CONTOUR
NOTE:- EACH DOT REPRESENTS 5,000 RURAL POPULATION
The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

MAP No. 10

DENSITY OF POPULATION, 1971

This map depicts the variation in concentration of population per Sq. Km. in each police station of the state in 1971.

Total population of each police station is divided by its total area (in Sq. Km.) to obtain the density figure of each police station. Density figures for 301 police stations of the state are grouped into nine suitable ranges—six above, one nearer to and two below the state average (141). Choropleth technique has been followed in shading the police stations as per the index of the map.

The total population of Orissa is 21,944,615 and its area is 155,782 Sq. Kms. as per the 1971 Census. Thus the average density of population of Orissa is 141 as against the national average of 177. It is revealed from the map that the density of population is unevenly distributed throughout the state.

High density areas are seen mainly in the coastal belt of the state. Nine police stations, five in Cuttack district, two in Ganjam and one each in Balasore and Sambalpur districts come under the highest range of density (501 and above per Sq. Km.).

As many as eight police stations come under the next range of density (401—500 per Sq. Km.). Six of these police stations belong to Cuttack district. While, of the rest two one each belongs to Balasore and Puri districts

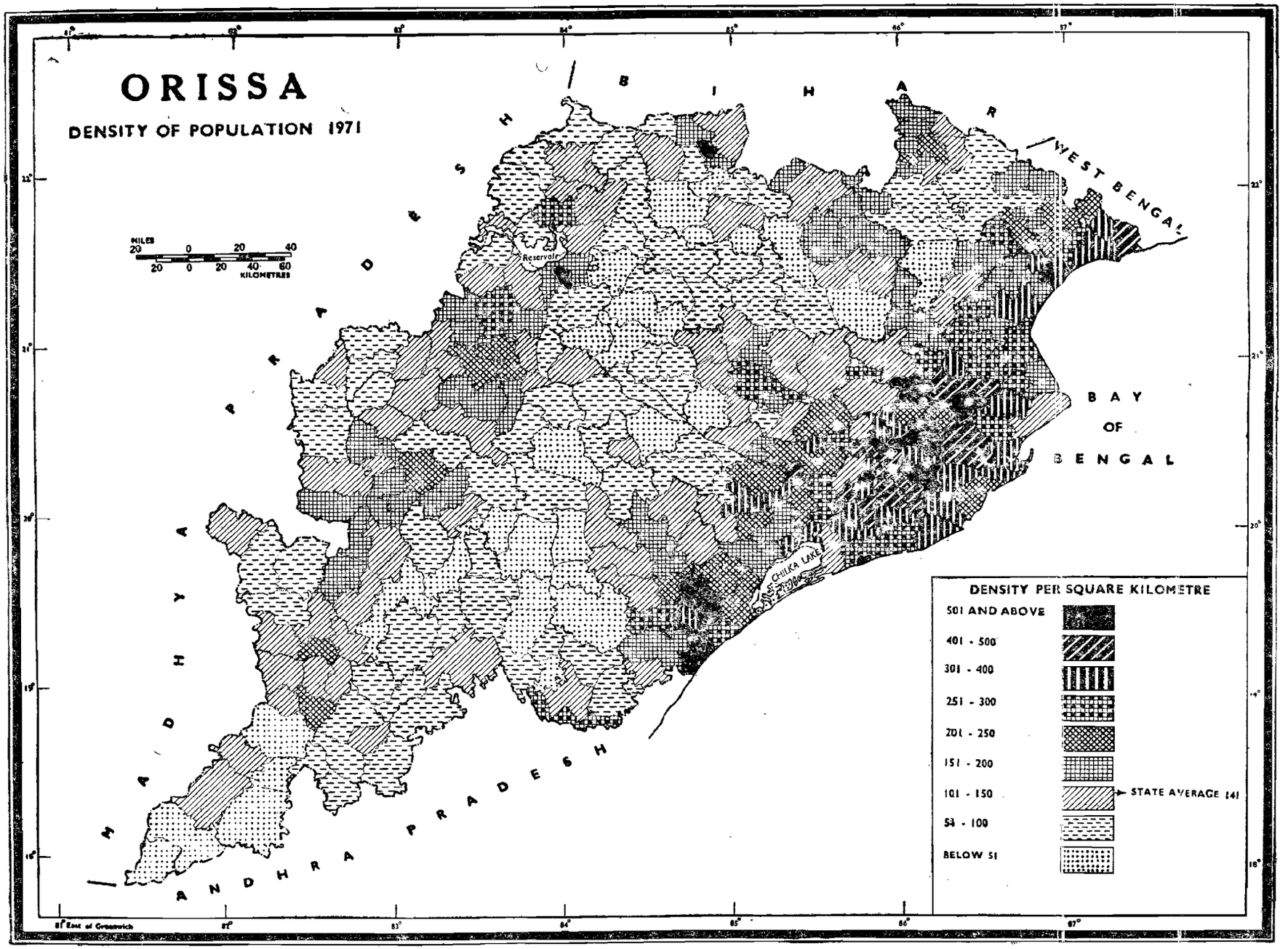
There are as many as 18 police stations in the third range of density (301—400 per Sq. Km.). Eight police stations of this category belong to Cuttack district while Balasore and Puri districts respectively record six and three police stations. The district of Ganjam also claims one police station in this range. All these police stations are located in the coastal belt of the state.

Other three ranges of density (251—300, 201—250 and 151—200 per Sq. Km.) embrace as many as 102 police stations which also lie mostly in the coastal districts of the state.

In the seventh range of population density (101—150 per Sq. Km.) 67 police stations are hatched and distributed among all the districts excepting Balasore. Maximum number of police stations (12) in this range belong to the district of Koraput while the minimum number of police stations (2) are recorded in the district of Baudh-Khondmals. The state average (141 per Sq. Km.) also falls in this range of density.

The next below this range of population density (51—100) embraces the largest number (69) of police stations. This range spreads to all the districts excepting the districts of Balasore and Cuttack of the coastal region of Orissa. The maximum number of police stations (17) belonging to this range are found in Koraput district followed by Sambalpur district with 13 number of police stations whereas the minimum number of police stations (2) are located in each of the districts of Keonjhar and Ganjam.

As many as 28 police stations come under the lowest range of density (51 persons per Sq. Km.). These police stations are unevenly distributed among the districts of Koraput, Baudh-Khondmals, Sambalpur, Sundargarh, Keonjhar and Mayurbhanj.


ORISSA
DENSITY OF POPULATION 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Reservoir
CHILKA LAKE
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
DENSITY PER SQUARE KILOMETRE
501 AND ABOVE
401 - 500
301 - 400
251 - 300
201 - 250
151 - 200
101 - 150
STATE AVERAGE 141
51 - 100
BELOW 51
81° East of Greenwich

MAP No. 11

INTERCENSAL CHANGES IN POPULATION, 1971

This map depicts the change in population in terms of percentage for each of the police stations during the decade, 1961—71.

Percentage gain or loss of population in each police station during the span of 10 years preceding 1971, i. e., 1961—1971 is calculated and percentage figures are grouped conveniently into seven ranges—six groups on the gain side and one on the loss side. In gain side, four ranges are above , one nearer to and one below the state average (25·05). For percentage loss side only one range has been earmarked in red colour hatching. Choropleth technique has been adopted to shade the police stations as per the index of the map.

In the 1961 Census 17,548,846 persons were enumerated in Orissa while 21,944,615 were counted in the 1971 Census. Thus there was a net increase of 4,395,769 in 1971 over 1961 population. The percentage change of population during the decade comes to 25·05.

Out of 301 police stations of this state, only three police stations namely, Gorumahisani of Mayurbhanj, Machkund of Koraput and Bhubaneswar of Puri district have recorded negative growth of population during the decade under consideration. Decrease in population in the two police stations, namely Gorumahisani and Machkund in 1971 is attributed to emigration of population during the decade 1961—71. But the case with Bhubaneswar police station is quite different. There has in fact been no decline in population in Bhubaneswar police station. The population of Bhubaneswar town was counted separately in 1971 and shown under the Bhubaneswar city while in 1961 population of Bhubaneswar city was counted and shown under Bhubaneswar police station. Hence the difference.

There are as many as 298 police stations which have recorded increase in the percentage change of population during the decade, 1961—71. Percentage decadal growth of five police stations exceeds 75 as per the 1971 Census. Of these, five police stations four belong to Koraput and the rest to Sundargarh district.

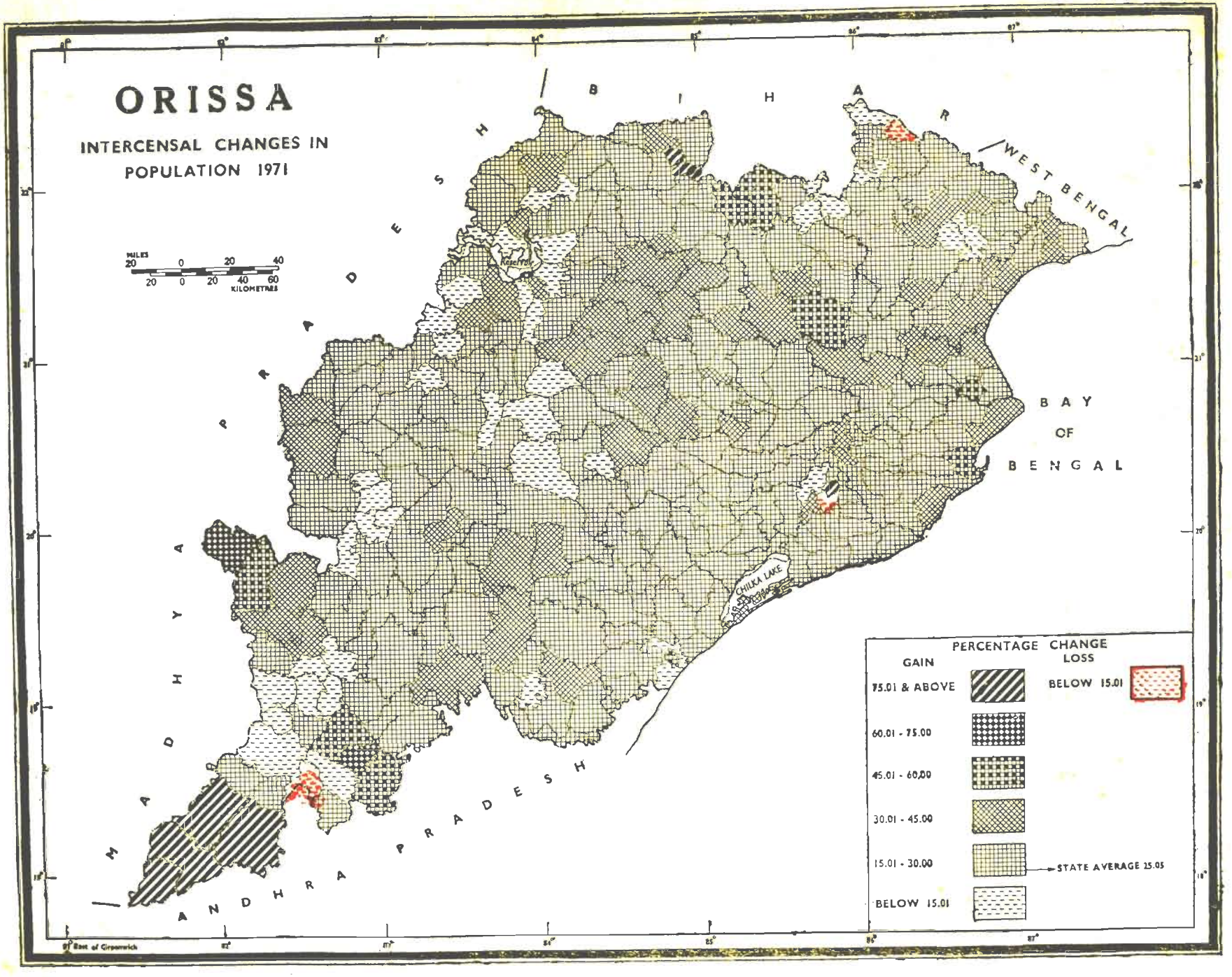
The next range of percentage decadal change of population is 60·01—75·00 per cent, in which only two police stations of Koraput fall.

In the third range (45·01—60·00) of percentage decadal growth of population 10 police stations are shown in the map.

As many as 55 police stations of the state exhibit percentage decadal growth of population in the range 30·01—45·00 per cent. These police stations stretch over all the districts of the state.

The percentage decadal growth of population of each of the 189 police stations stretching over all the districts of Orissa come within the range 15·01—30·00 per cent which embraces the state average (25·05 per cent). Highest number of police stations (25) in this range belongs to the district of Puri followed by Cuttack (24), Ganjam (19), Dhenkanal (16), Koraput (14), Sambalpur (14), Sundargarh (13), Mayurbhanj (13), Balangir (13), Kalahandi (11), Balasore (11), Keonjhar (8) and Baudh-Khondmals (8) districts.

The lowest and positive growth rate is seen in 37 police stations where range of percentage decadal growth is below 15·01. These 37 police stations are spread over all the districts excepting Balasore, Cuttack and Dhenkanal.


ORISSA
INTERCENSAL CHANGES IN POPULATION 1971
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Rourkela
CHILKA LAKE
PERCENTAGE CHANGE
GAIN
LOSS
75.01 & ABOVE
60.01 - 75.00
45.01 - 60.00
30.01 - 45.00
15.01 - 30.00
BELOW 15.01
BELOW 15.01
STATE AVERAGE 25.05

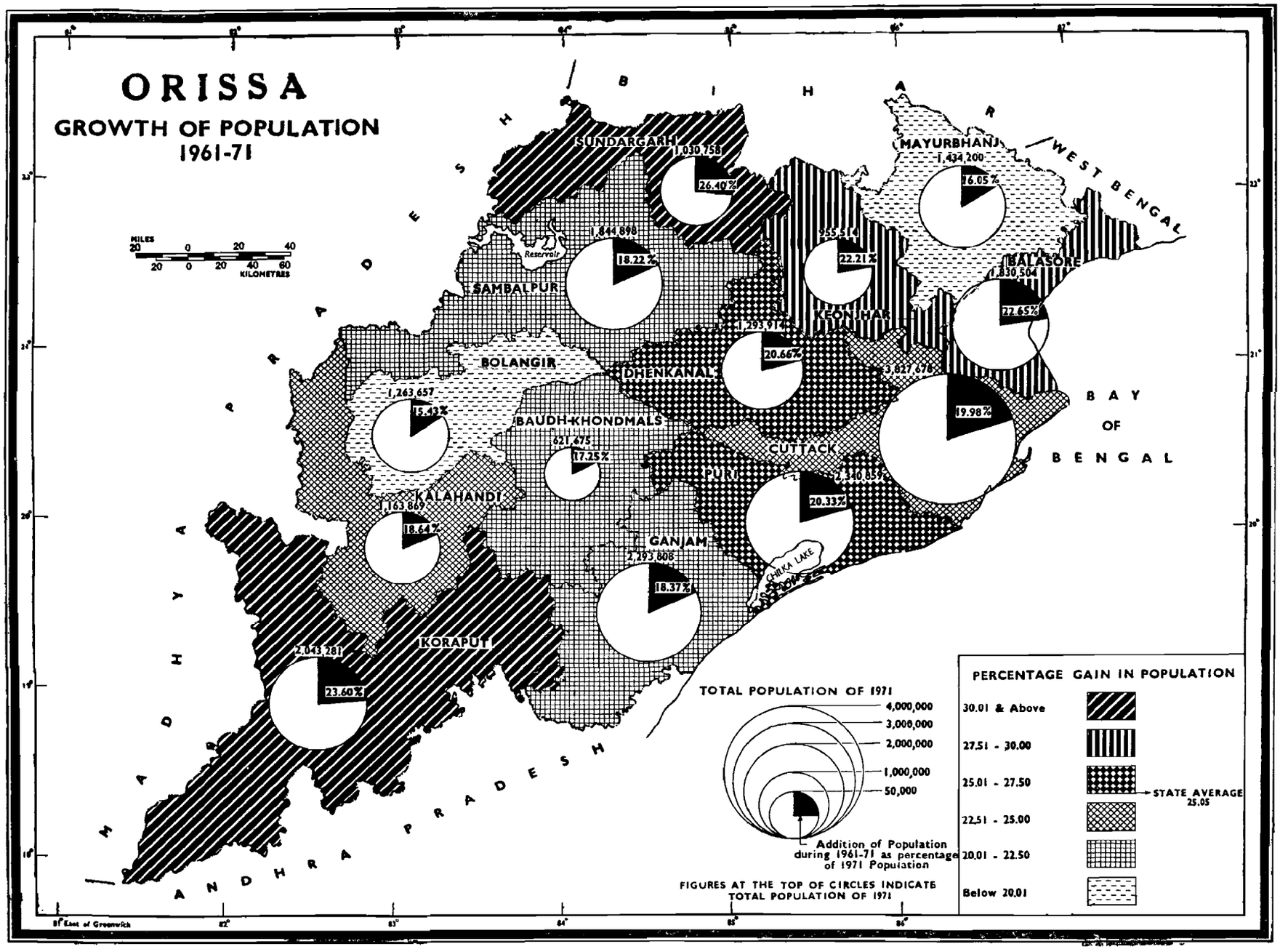
MAP No. 12

GROWTH OF POPULATION, 1961—71

This map depicts the percentage of intercensal (1961—71) variation of population to 1961 and to 1971 population separately for each district.

A circle is drawn proportionate to the total population as per the 1971 Census for each of the districts. The absolute figures of the 1971 population are also written at the top of the circles. The population figures of the 1961 Census are subtracted from that of the 1971 Census to obtain the figures of intercensal variations. The percentage value of these variation figures to total population of 1971 Census is calculated for each district and the sector proportionate to this percentage value of intercensal variations is shaded in black in corresponding circle of the concerned district. The percentage value is also indicated inside the sector of the circle. Further the percentage value of intercensal variation figures to total population of 1961 (not 1971) is calculated for each district. These figures of all districts are grouped conveniently into six groups—two above, one nearer to and three below the state average (25·05). The area outside the circle in each district is shaded adopting the choropleth technique as per the legend of the map.

At the time of 1961 Census 17,548,846 persons are counted. Again after the span of 10 years the total population enumerated in the 1971 Census is 21,944,615. Intercensal variation during the decade 1961—71 is 4,395,769 which makes 25·05 per cent to the total population of 1961 and 20·03 per cent to the total population of 1971. No negative growth has been shown in any of the districts of this state by the method of either of the calculation. This map reveals that two districts fall in each of the ranges 30·01 and above, 27·51—30·00, 25·01—27·50, 22·51—25·00 and below 20·01. Only the lowest but one range (20·01—22·50) has been hatched concerning three districts, namely, Sambalpur, Baudh-Khondmals and Ganjam. The highest percentage of growth is noticed in the district of Sundargarh during the decade 1961—71 due to influx of people mainly for the instalation of Steel factory at Rourkela. Bolangir district records the lowest percentage growth of population during the decade 1961—71.


ORISSA
GROWTH OF POPULATION
1961-71
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
1,030,758
26.40%
MAYURBHANJ
1,434,200
16.05%
SAMBALPUR
1,844,898
18.22%
955,514
22.21%
BALASORE
1,830,504
27.65%
KEONJHAR
1,293,914
20.66%
BOLANGIR
DHENKANAL
1,263,657
15.43%
3,827,678
19.98%
BAUDH-KHONDMALS
621,475
17.25%
CUTTACK
PURI
2,340,854
20.33%
KALAHANDI
1,163,869
18.64%
GANJAM
2,293,808
18.37%
CHILKA LAKE
KORAPUT
2,043,281
23.60%
MILES
KILOMETRES
TOTAL POPULATION OF 1971
4,000,000
3,000,000
2,000,000
1,000,000
50,000
Addition of Population during 1961-71 as percentage of 1971 Population
FIGURES AT THE TOP OF CIRCLES INDICATE TOTAL POPULATION OF 1971
PERCENTAGE GAIN IN POPULATION
30.01 & Above
27.51 - 30.00
25.01 - 27.50
STATE AVERAGE 25.05
22.51 - 25.00
20.01 - 22.50
Below 20.01
81° East of Greenwich

MAP No. 13

FERTILITY DIFFERENTIALS, 1971

(Child-woman ratio)

This map presents the ratio of children in age group 0—4 to women in age group 15—44 in each district of the state.

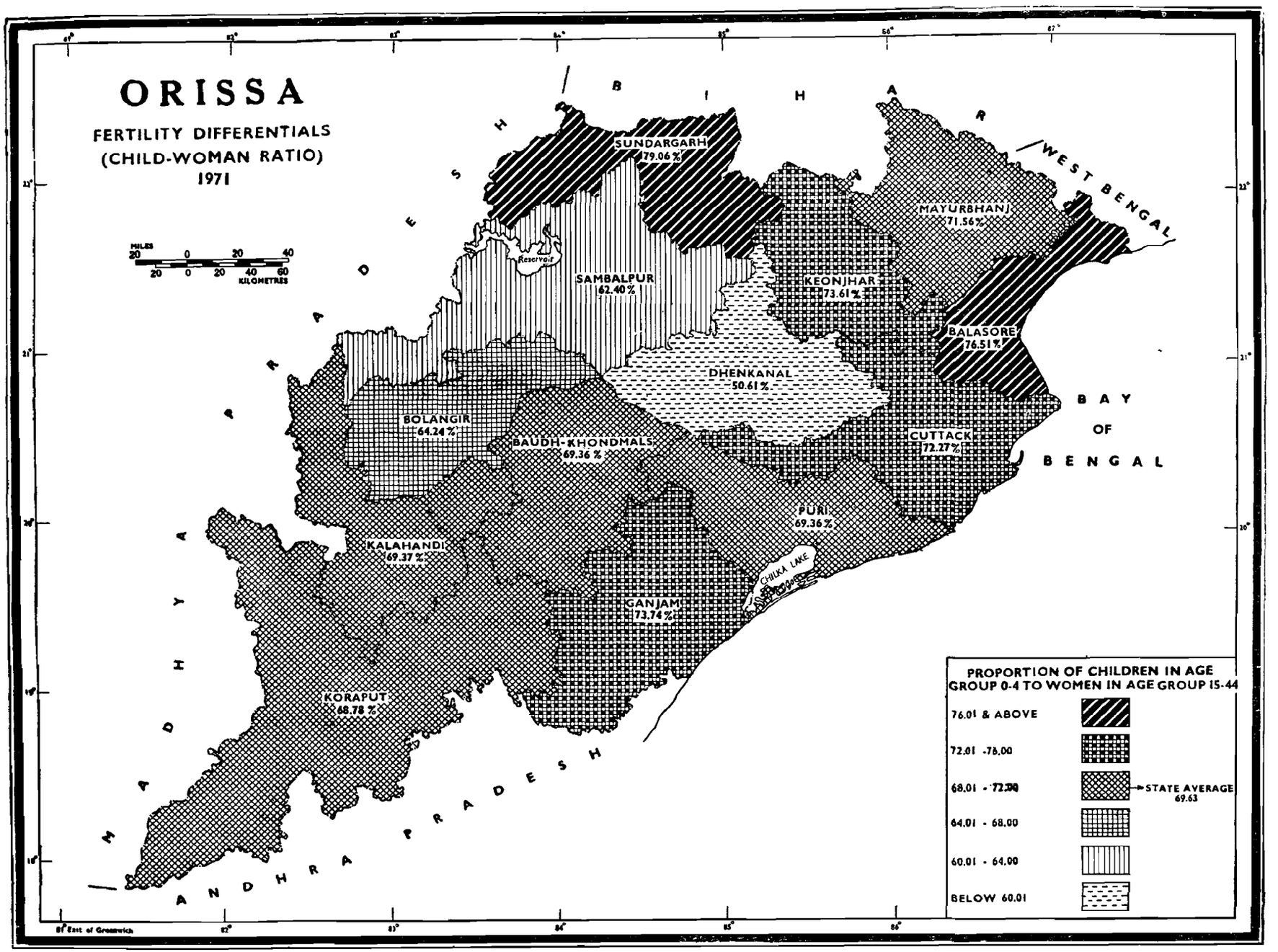
Unadjusted data of children in age group 0—4 and that of women in age group 15—44 are taken from the appendix of C-IV table compiled in the 1971 Census for calculating child-woman ratio. The ratio of number of children in age group 0—4 per 100 of women in age group 15—44 is calculated for each of the districts of the state. These ratio figures are suitably grouped in six ranges—two above, one nearer to and three below the state average (69·63). Each district is shaded using the choropleth technique as per the legend of the map which provides some indication of the differentials in fertility among the districts of the state.

There are as many as 3,125,546 children in the age group 0—4 and 4,488,683 women in age group 15—44 as per the 1971 Census. The ratio of these children to 100 of these women in the state is 69·63.

A glance at the map reveals that Balasore and Sundargarh districts of the state have the highest fertility range (76·01) and above followed by the districts of Keonjhar, Cuttack and Ganjam in the second range (72·01—76·00).

There are five districts, namely, Mayurbhanj, Puri, Baudh-Khondmals, Kalahandi and Koraput in which similar trend of fertility is observed. The state average is also shown in this range (68·01—72·00).

Each of the remaining three districts, viz., Bolangir, Sambalpur and Dhenkanal has been shown in different fertility ranges from high to low order.


ORISSA
FERTILITY DIFFERENTIALS
(CHILD-WOMAN RATIO)
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
Reservoir
SUNDARGARH
79.06 %
SAMBALPUR
62.40 %
KEONJHAR
73.61 %
MAYURBHANJ
71.56 %
BALASORE
76.51 %
DHENKANAL
50.61 %
BOLANGIR
64.24 %
BAUDH-KHONDMALS
69.36 %
CUTTACK
72.27 %
PURI
69.36 %
KALAHANDI
69.37 %
CHILKA LAKE
GANJAM
73.74 %
KORAPUT
68.78 %
BIHAR
WEST BENGAL
ORISSA
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
PROPORTION OF CHILDREN IN AGE GROUP 0-4 TO WOMEN IN AGE GROUP 15-44
76.01 & ABOVE
72.01 - 76.00
68.01 - 72.00
64.01 - 68.00
60.01 - 64.00
BELOW 60.01
STATE AVERAGE 69.63
86° East of Greenwich

MAP No. 14

SEX RATIO, 1971

This map exhibits the disparity in sex ratios (number of females per 1000 males) in different police stations of the state.

Sex ratios thus obtained police station-wise have been arranged in six suitable ranges, viz, above 1100, 1051—1100, 1000—1050, 951—999, 901—950 and below 901 and hatched by the choropleth method. The ranges of the sex ratio of 1000 and above have been shown in red.

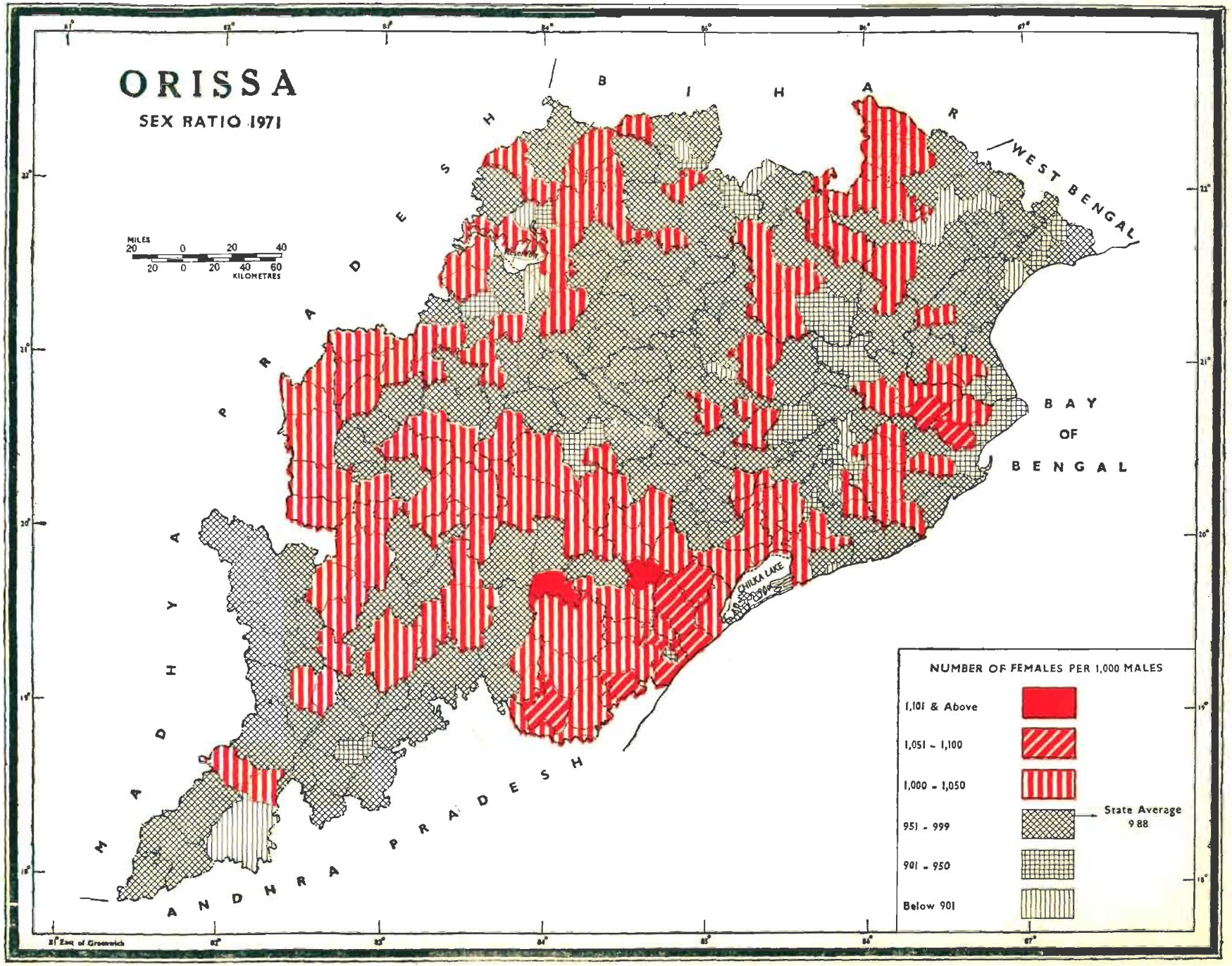
Sex ratios of population recorded for police stations namely Baripada (898), Balasore (895), Sambalpur Sadar (882), Brajrajnagar (878), Colliery (873), Puri (860), Hirakud (859), Burla (853), Barbil (845), Chitrakonda (803), Chowdwar (792), Cuttack City (774), Rourkela City (748) and Bhubaneswar City (724) have fallen under the lowest range. These police stations are predominantly influenced by urban growth. Male workers have been attracted towards these developed areas for their economic pursuits out-numbering the females. Inversely highest sex ratios are recorded in respect of police stations of Gangapur (1145) in Ganjam district and Bamunigam (1103) in Baudh-Khondmals district which are mostly rural and undeveloped. Majority of the police stations come under the ranges of 1000—1050 and 951—999.

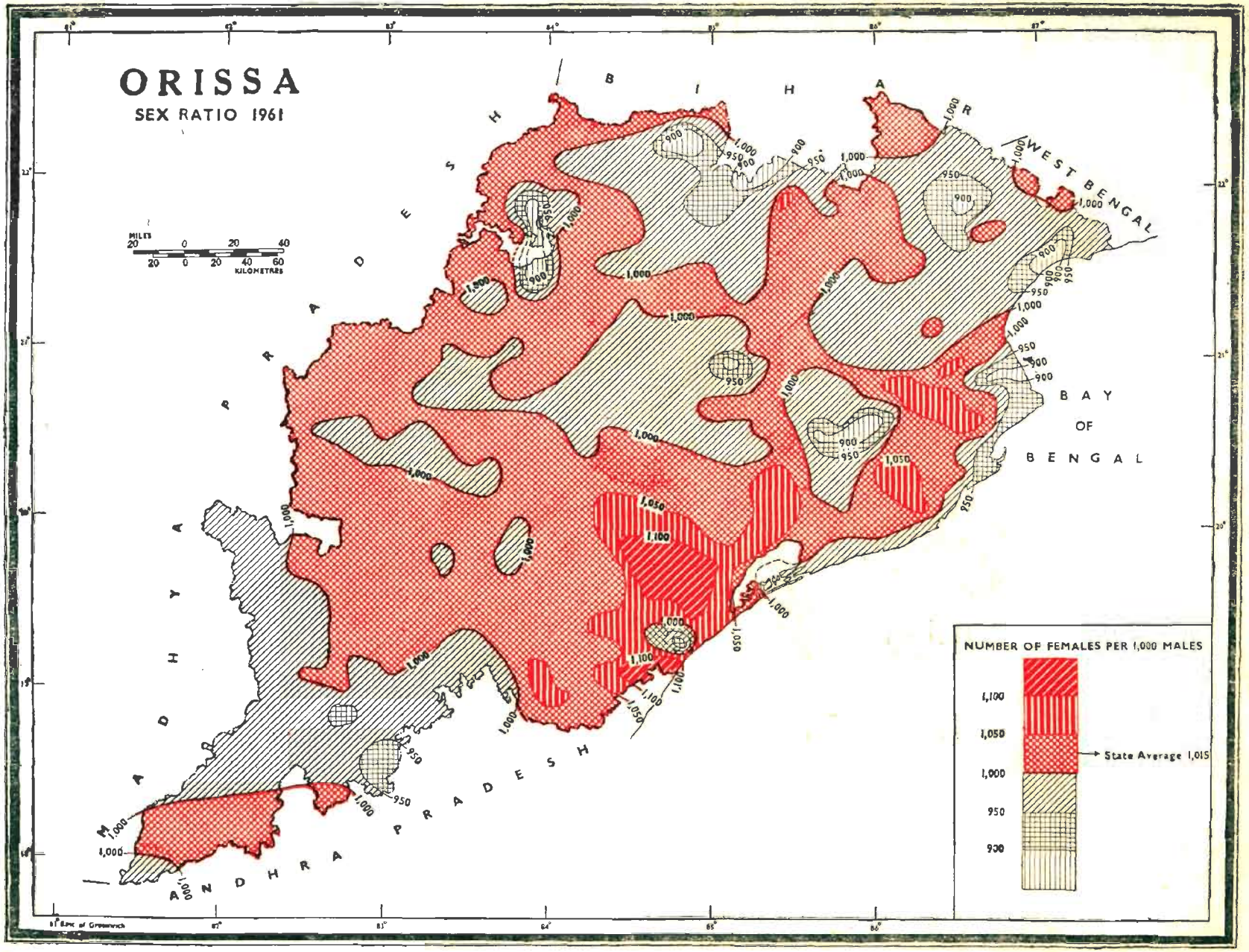
The state average is 988 as against national sex ratio 930. The following table indicates the number of police stations in each district arranged in different ranges of sex ratio.

State / District	Above 1100	1051—1100	1000—1050	951—999	901—950	Below 901
1	2	3	4	5	6	7
Orissa ..	**2**	**8**	**116**	**148**	**18**	**14**
1. Sambalpur ..	..	..	17	13	2	4
2. Sundargarh ..	..	..	6	11	2	1
3. Keonjhar ..	..	..	5	7	1	1
4. Mayurbhanj ..	..	..	9	11	..	1
5. Balasore ..	..	..	3	14	4	1
6. Cuttack ..	..	2	11	14	3	2
7. Dhenkanal ..	..	..	4	17	1	1
8. Baudh-Khondmals ..	1	..	7	5	1	..
9. Bolangir ..	..	..	5	12	..	..
10. Kalahandi ..	..	..	13	3	..	..
11. Koraput ..	..	..	11	25	1	1
12. Ganjam ..	1	6	13	1	1	..
13. Puri ..	..	..	12	15	2	2

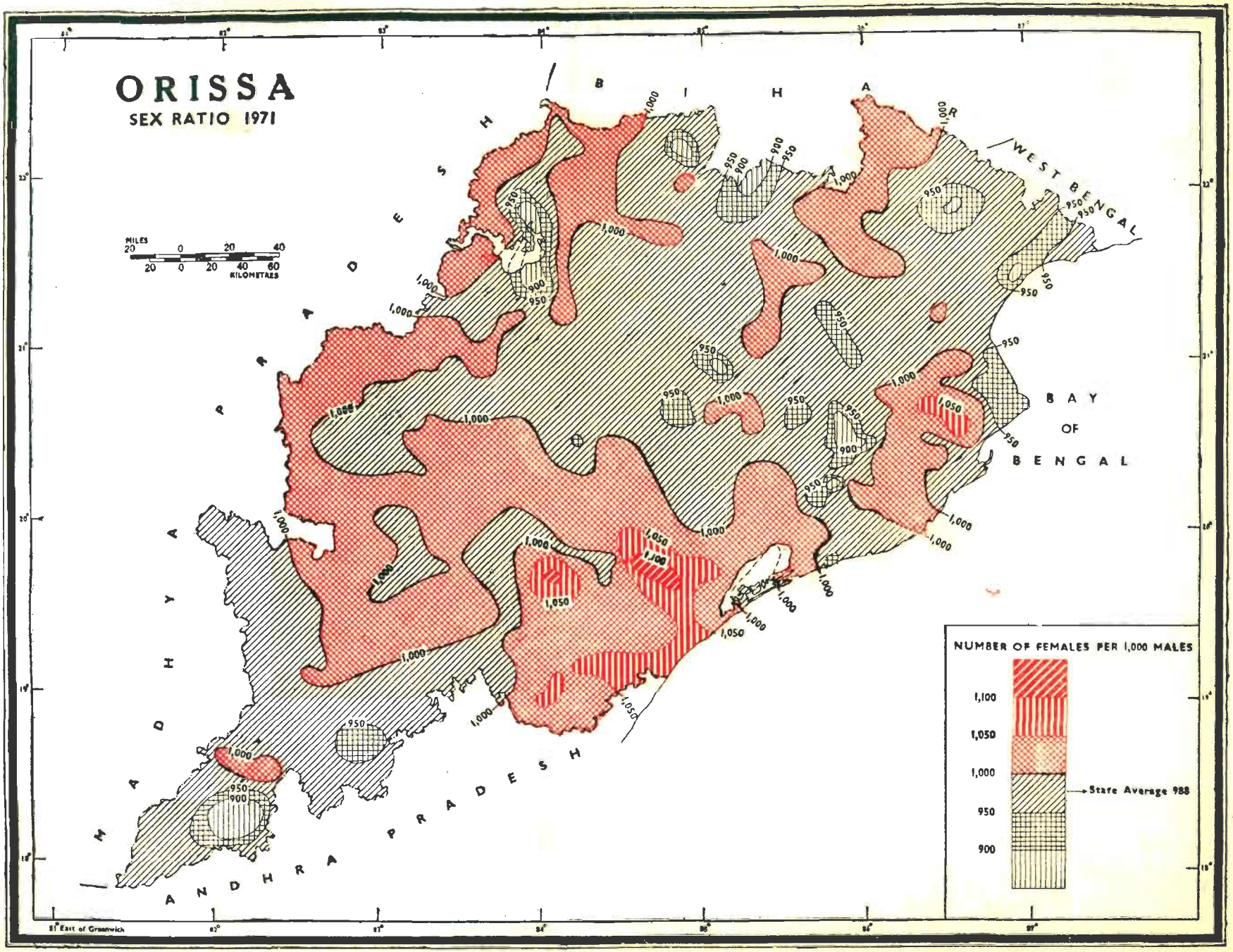
N. B—1.—There are five urban areas, namely, Cuttack city, Rourkela city, Berhampur city, Bhubaneswar city and Puri town constituting eight town police stations besides 301 police stations of the State.

2.—In some of the fly leaf notes of this volume these five urban areas have also been treated as five urban police stations for the sake of convenience of presentation of data although they actually constitute eight town police stations.


ORISSA
SEX RATIO 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
CHILKA LAKE
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
NUMBER OF FEMALES PER 1,000 MALES
1,101 & Above
1,051 - 1,100
1,000 - 1,050
951 - 999
901 - 950
Below 901
State Average
988


ORISSA
SEX RATIO 1961
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
MILES
KILOMETRES
NUMBER OF FEMALES PER 1,000 MALES
1,100
1,050
1,000
950
900
State Average 1,015

MAP No. 15


ORISSA
SEX RATIO 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
NUMBER OF FEMALES PER 1,000 MALES
1,100
1,050
1,000
950
900
State Average 988
81° East of Greenwich

MAP No. 15

CHANGING PATTERN OF SEX RATIO, 1961—71

Two maps on sex ratio for 1961 and 1971 are drawn separately for exhibiting the changing pattern of sex ratios in the state.

Number of females per 1000 males is calculated for each of the police stations of the state. Isopleths are drawn joining the areas of similar sex ratios in six grades—three above and three below the equality line (i. e., 1000 females per 1000 males). The intervening spaces between two isopleths are shaded according to gradations over the legend from high to low values. Female deficient areas are hatched in black and other areas in red.

During the decade there has been a slight decline in the sex ratio from 1001 in 1961 to 988 in 1971.

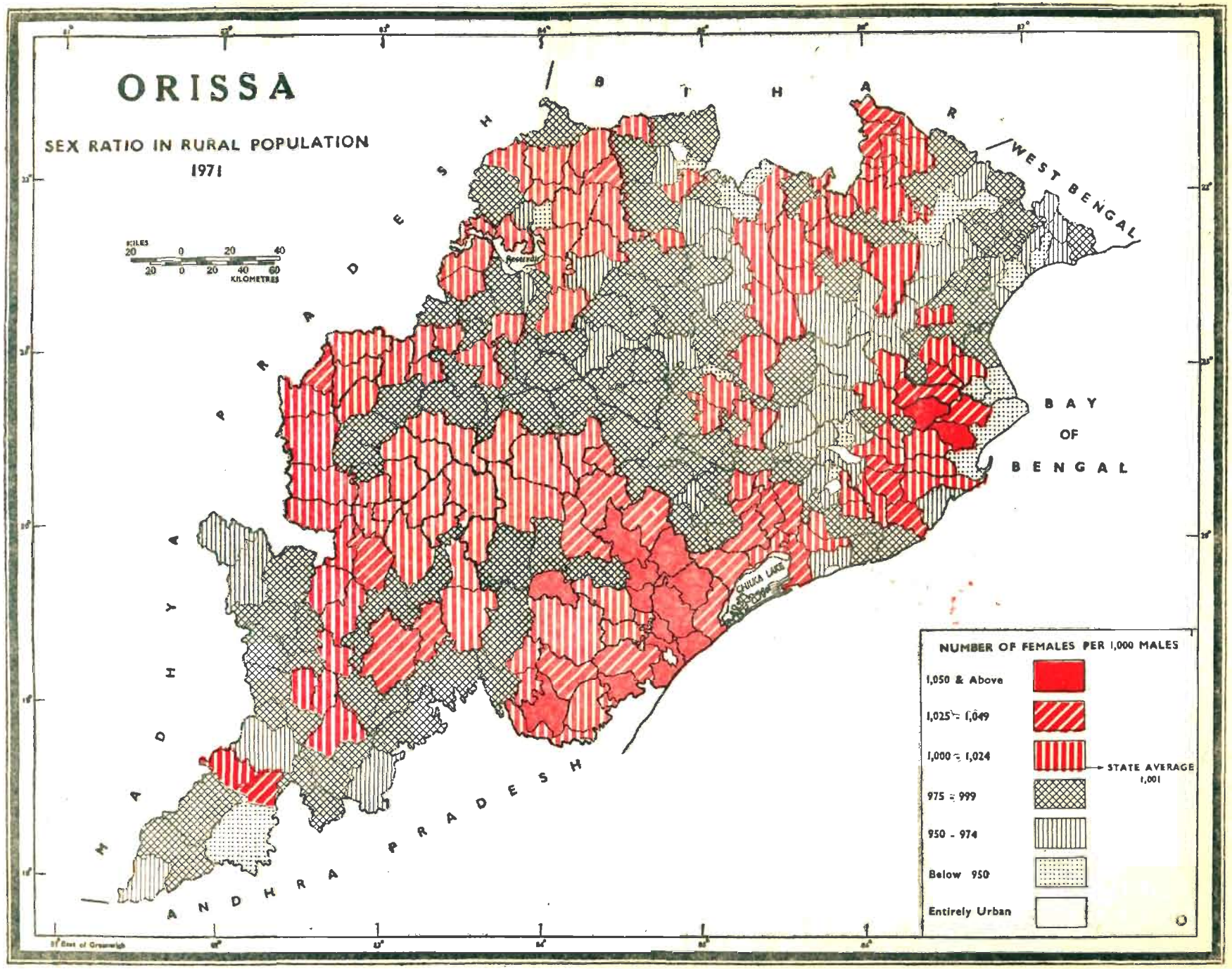
The higher sex ratio (exceeding 1100) is noticed in six police stations of the state (all in Ganjam district) while in 1971 only two police stations of the state one in Ganjam and the other in Baudh-Khondmals district came under the same range.

Turning to the region with a high female bias, it is noticed that there were 22 police stations with a sex ratio of 1051 to 1100 in 1961 of which eight police stations belonged to Ganjam district alone as against eight police stations recorded in 1971 under this range of which Ganjam district claims six.

The third range (1000—1050) comprises 133 police stations in 1961 as against 116 police stations recorded in 1971.

The female deficient pockets of the state comprised 137 police stations in 1961, while in 1971 this number has increased to 180. In 1961, the most female deficient pocket of the state was located in police station of Rourkela (537) followed by Cuttack city (722). But as per the 1971 Census the lowest sex ratio is exhibited by the urban police station of Bhubaneswar (724) followed by Rourkela city (748).

MAP No. 16


ORISSA
SEX RATIO IN RURAL POPULATION
1971
KILES 20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
CHILIKA LAKE
NUMBER OF FEMALES PER 1,000 MALES
1,050 & Above
1,025 - 1,049
1,000 - 1,024
STATE AVERAGE 1,001
975 - 999
950 - 974
Below 950
Entirely Urban

MAP No. 16

SEX RATIO IN RURAL POPULATION, 1971

This map presents police stationwise sex ratios in the population of rural areas as per the 1971 Census.

The sex ratio is calculated in respect of rural part of each police station and grouped into six convenient ranges, viz., 1050 and above, 1025—1049, 1000—1024, 975—999, 950—974 and below 950. The areas of police stations have been hatched using choropleth technique as shown in the index. Female deficient pockets are hatched in black while other regions are shown in red shades.

There are 301 police stations in the state. The average number of females stands at 1001 per every 1000 males in the rural population of the state. The sex ratio of the rural areas of the state is 1001 as against 988 for all areas. On the whole there is a surplus female population at the rate of one for every 1000 males living in rural areas of the state.

Turning to the districts, it is found that Gangapur police station of Ganjam district records the highest sex ratio (1145) while Chitrakonda police station in Koraput district has the lowest (803). Some of the police stations fall within the middle ranges, 1000—1024 and 975—999.

Ganjam, as a district has the highest number of females per 1000 males, as it alone embraces 11 out of 14 police stations in the range 1050 and above. The lowest range (below 950) comprises 16 police stations, 4 of which belong to Balasore, 3 to Cuttack, 2 each to Sambalpur and Sundargarh districts and one each to Keonjhar, Mayurbhanj, Dhenkanal, Koraput and Puri districts.

MAP No. 17

CHANGE IN RURAL SEX RATIO, 1961—71

Two maps on sex ratio for 1961 and 1971 are presented side by side facing each other to show the changing pattern of sex ratios in rural areas of the state during the decade 1961—71.

Females per 1000 males are calculated for rural areas of each police station. The figures of sex ratios thus obtained are plotted at the centre of each police station. Five isopleth lines are interpolated through the points of similar sex ratios—three above and two below the equality line (1000) in both the maps. Areas in between the isopleth lines above the equality line are shaded with different grades of hatchings in red colour and below the line in black colour in accordance with the ranges of sex ratio from high to low values as shown in the index of both the maps.

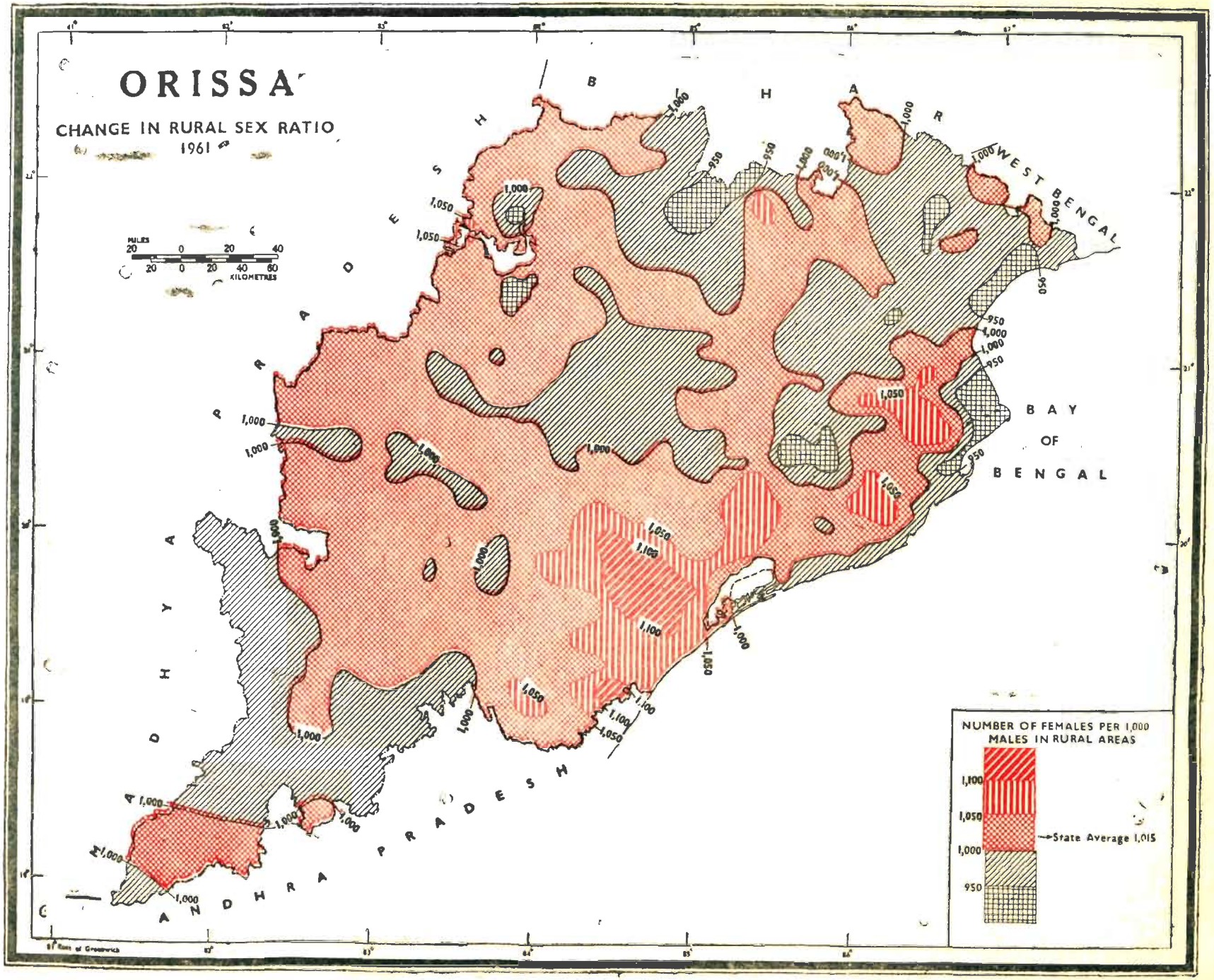
Sex ratio in rural areas of Orissa was 1015 (Females per 1000 males) in the 1961 Census which declined to 1001 in the 1971 Census. Highly female biased areas in 1961 were observed in seven police stations of Ganjam district, viz., Gangapur (1256), Aska (1160), Purushottampur (1154), Bhanjanagar (1130), Jarada (1125), Kodala (1123) and Buguda (1101). By the 1971 Census the sex ratios of all these police stations except Gangapur P. S. (1145) declined to the next below range (1050—1100).

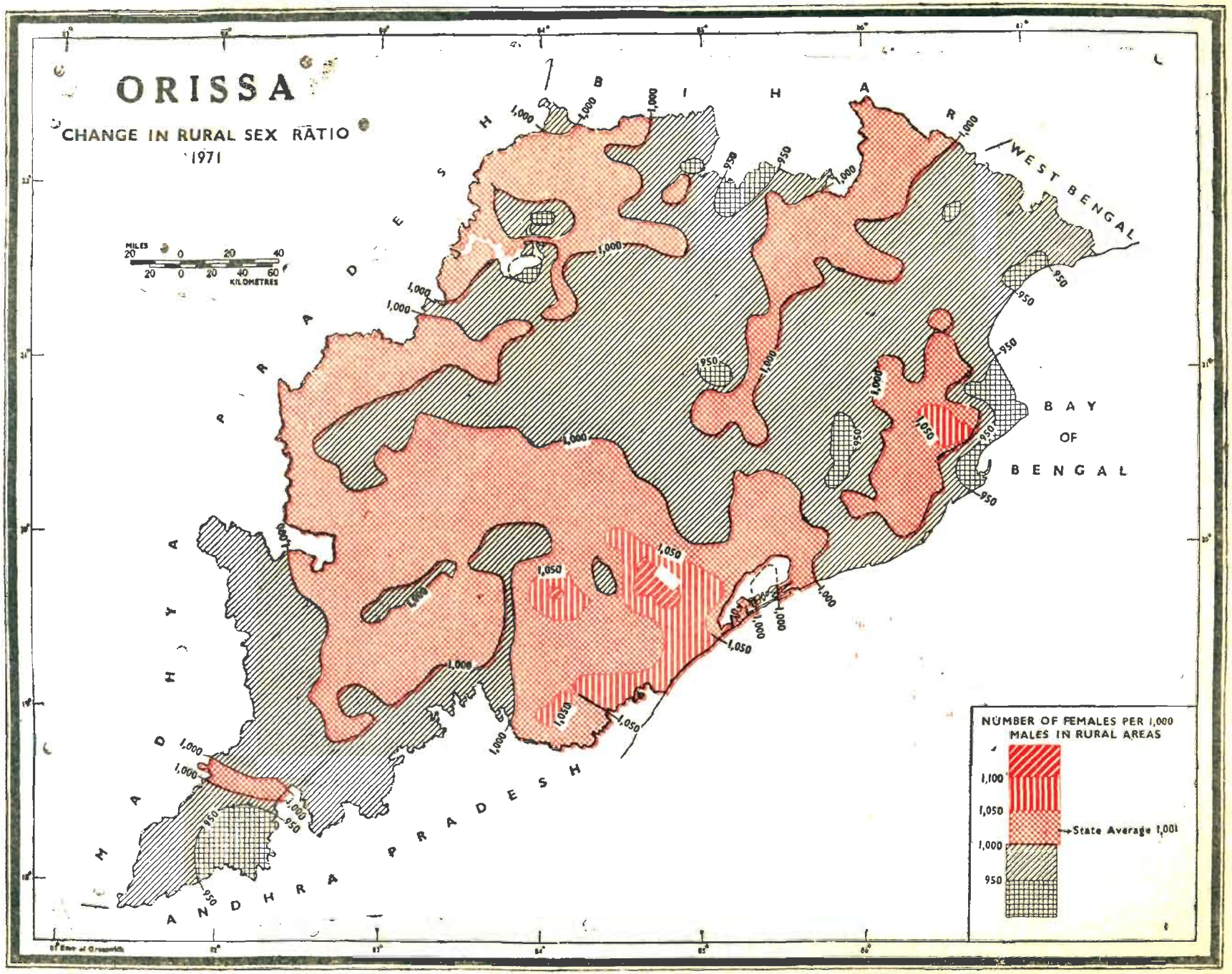
In the medium female biased range (1050—1100) only 26 police stations of Orissa—eight each in Cuttack and Ganjam, six in Puri and one each in Koraput, Balasore, Keonjhar and Sambalpur districts were in the 1961 Census. But by the 1971 Census only 12 police stations (10 in Ganjam and two in Cuttack district) are exhibited in this range.

The low range of female bias is 1000—1050 in which the maximum number (145) of police stations were in the 1961 Census which has been reduced to 124 police stations in the 1971 Census. This range corresponded the state average (1015) in 1961 and (1001) in 1971.

There are as many as 97 police stations comprise low male bias region in 1961 Census whereas in 1971 Census the maximum number (149) of police stations fall in this region in which sex ratio varies from 950 to 999.

The higher male bias region comprised 19 police stations in 1961 and 14 in 1971 in which sex ratio is below 950.


ORISSA
CHANGE IN RURAL SEX RATIO
1961
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
NUMBER OF FEMALES PER 1,000 MALES IN RURAL AREAS
1,100
1,050
1,000
950
State Average 1,015


ORISSA
CHANGE IN RURAL SEX RATIO
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
NUMBER OF FEMALES PER 1,000 MALES IN RURAL AREAS
1,100
1,050
1,000
950
State Average 1,001

MAP No. 18

SEX RATIO IN URBAN POPULATION, 1971

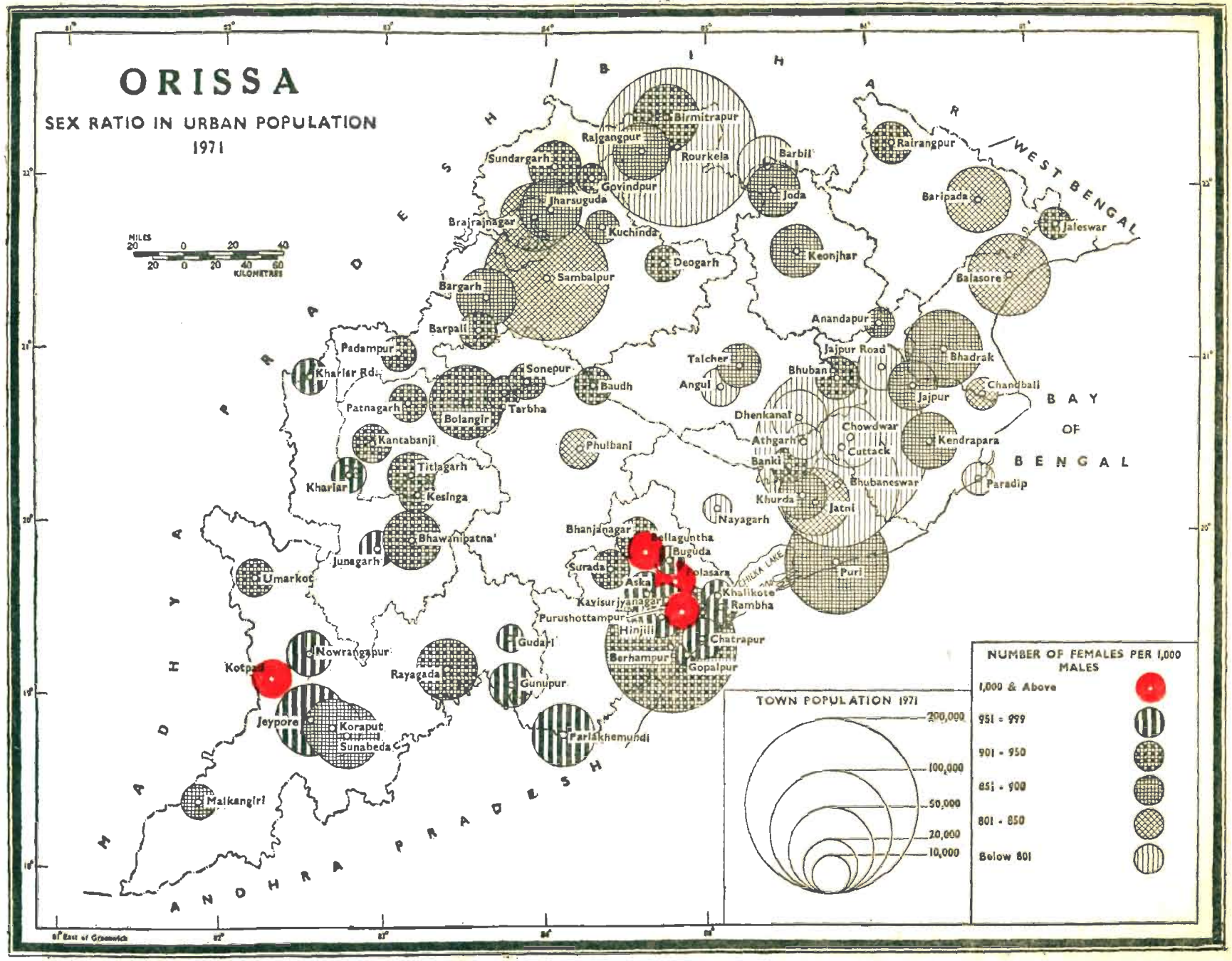
This map resents the disparity in sex ratios (females per 1000 males) of the different urban units of Orissa in 1971.

Sex ratios of urban units have been computed. Circles of different radii representing the size of population of urban units have been drawn and these are hatched as per the legends given in the map for sex ratio. Circles representing the female deficient areas are shown in black and other units in red indicating female biased locations.

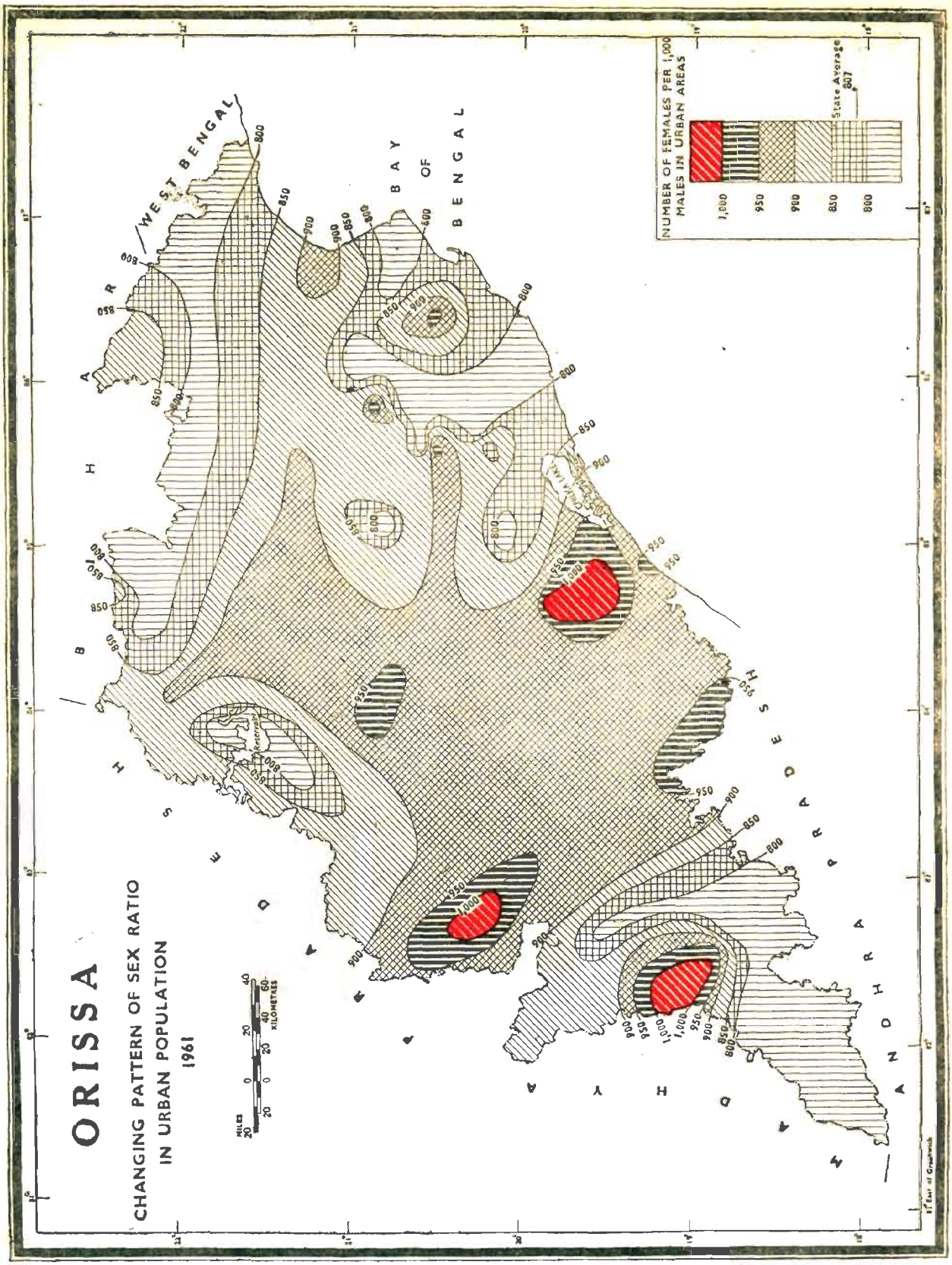
There are 78 urban units in Orissa accounting for a population of 1,845,395. The female deficient centres are located in all the urban units except the four, namely, Kotpad (1029) in Koraput district; Bellaguntha (1044), Polasara (1038) and Purushottampur (1014) towns of Ganjam district.

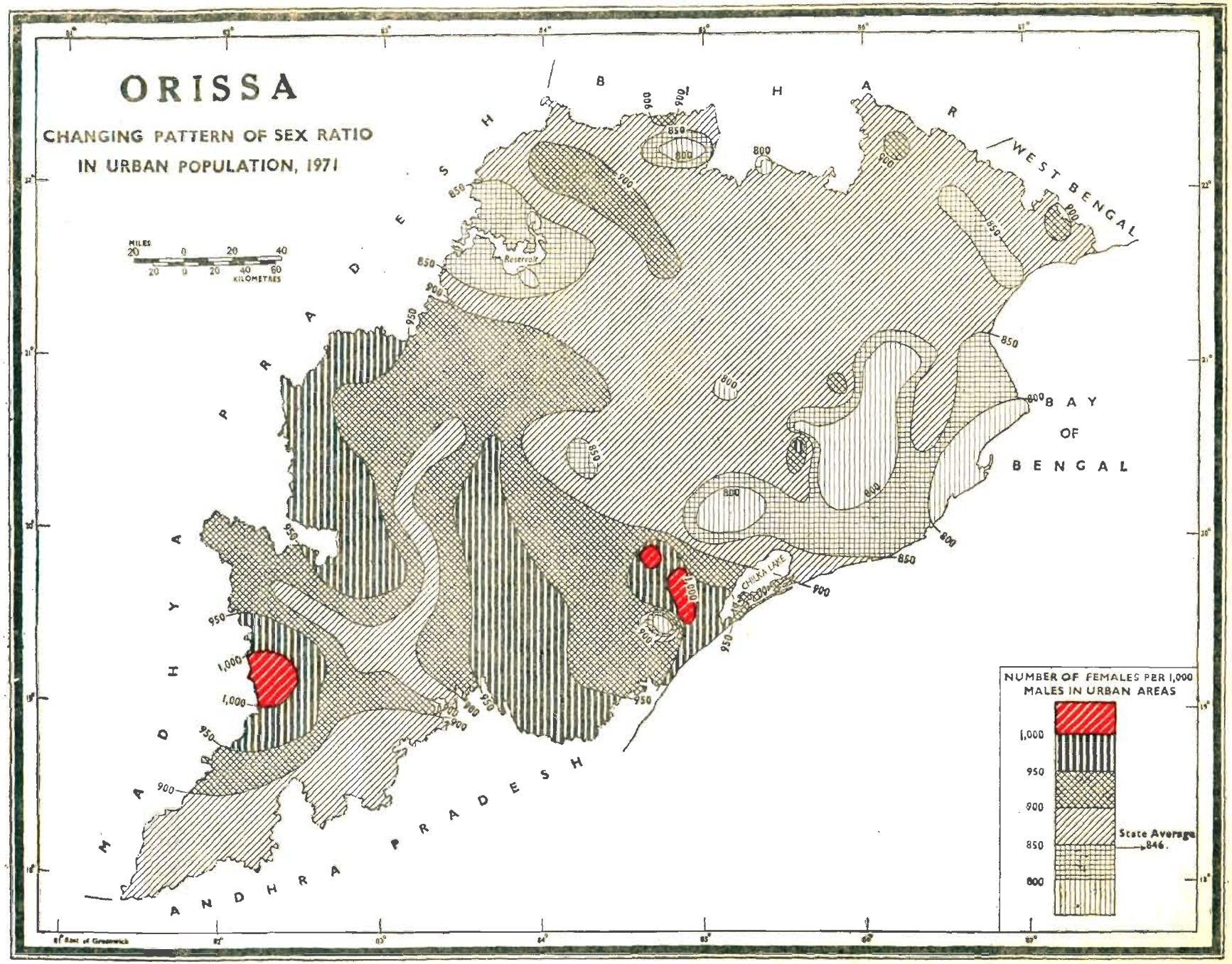
The Bellaguntha town in Ganjam district presents the highest sex ratio (1044) in urban areas of the state in 1971 while the lowest sex ratio (464) is noticed in port town of Paradip of Cuttack district.

The state average of females for every 1000 males in urban areas is 845 in 1971 as against the national average 858.


ORISSA
SEX RATIO IN URBAN POPULATION
1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
MILES
KILOMETRES
Birmitrapur
Rajgangpur
Rourkela
Sundargarh
Barbil
Rairangpur
Govindpur
Jharsuguda
Joda
Baripada
Jaleswar
Brajrajnagar
Kuchinda
Deogarh
Keonjhar
Sambalpur
Bargarh
Balasore
Barpali
Anandapur
Padampur
Jajpur Road
Bhadrak
Kharlar Rd.
Sonepur
Talcher
Bhuban
Baudh
Angul
Chandbali
Patnagarh
Bolangir
Tarbha
Jajpur
Dhenkanal
Chowdwar
Kantabanji
Phulbani
Athgarh
Cuttack
Kendrapara
Titlagarh
Banki
Kharlar
Bhubaneswar
Paradip
Kesinga
Khurda
Jatni
Nayagarh
Bhanjanagar
Bhawanipatna
Bellaguntha
Junagarh
Buguda
Surada
Puri
Umarkot
Aska
Khalikote
Kavisuryanagar
Rambha
Purushottampur
Hinjili
Chatrapur
Nowrangapur
Gudari
Berhampur
Gopalpur
Kotpad
Rayagada
Gunupur
Jeypore
Koraput
Sunabeda
Parlakhemundi
Malkangiri
CHILKA LAKE
TOWN POPULATION 1971
200,000
100,000
50,000
20,000
10,000
NUMBER OF FEMALES PER 1,000 MALES
1,000 & Above
951 - 999
901 - 950
851 - 900
801 - 850
Below 801

MAP No. 19


ORISSA
CHANGING PATTERN OF SEX RATIO
IN URBAN POPULATION
1961
NUMBER OF FEMALES PER 1,000 MALES IN URBAN AREAS
1,000
950
900
850
800
State Average 807
WEST BENGAL
BAY OF BENGAL
BIHAR
MADHYA PRADESH
ANDHRA PRADESH
MILES
KILOMETRES


ORISSA
CHANGING PATTERN OF SEX RATIO
IN URBAN POPULATION, 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Reservoir
CHILKA LAKE
NUMBER OF FEMALES PER 1,000 MALES IN URBAN AREAS
1,000
950
900
850
800
State Average 846.

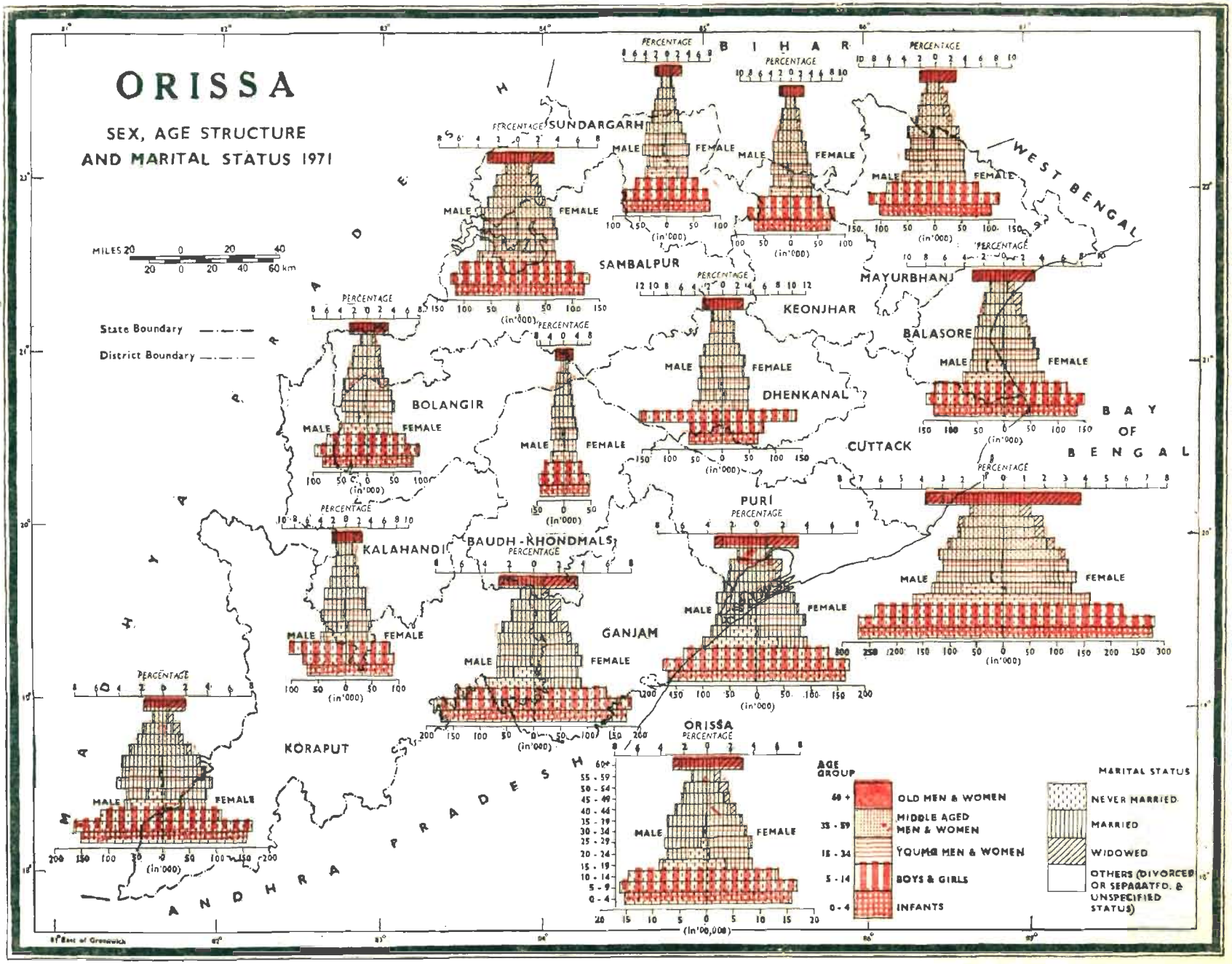
MAP No. 19

CHANGING PATTERN OF SEX RATIO IN URBAN POPULATION, 1961—71

Two maps showing the pattern of sex ratios during 1961 and 1971 in urban areas of the state have been drawn separately. The number of females per 1000 males during 1961 is shown in the first map, while the corresponding picture as obtained in 1971 is presented in the second map.

For drawing of these maps isopleth technique as explained in Map No. 15 has been adopted.

There were 62 towns with 1,109,650 urban population in 1961 as against 81 towns with 1,845,395 population in 1971. The state average of females for every 1000 males in urban areas was 807 in 1961 while it is 845 in 1971. Sex ratios of the urban population have been grouped into 6 convenient ranges for both the censuses, 1961 and 1971. Female surplus regions were located in 5 towns (three in Ganjam and one in each of Koraput and Kalahandi districts) in 1961 whereas in 1971 4 towns (three in Ganjam and one in Koraput) are recorded to have females in excess of males. In 1961, there were as many as 19 towns with sex ratios below and 43 towns above the State average. But as per the 1971 Census, 19 towns come below the state average, while 62 towns are found in ranges above it. In the lowest range, 12 towns are recorded for the 1971 Census as against 19 towns in the 1961 Census. It may be relevant to mention that towns namely, Burla (Sambalpur district), Rourkela (Sundargarh district), Barbil (Keonjhar district), Chowdwar, Cuttack and Jajpur Road (Cuttack district), Dhenkanal and Angul (Dhenkanal district), Bhubaneswar and Nayagarh (Puri district) continued to be female deficient regions for both the censuses.


ORISSA
SEX, AGE STRUCTURE
AND MARITAL STATUS 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
BAY OF BENGAL
ANDHRA PRADESH
SUNDARGARH
SAMBALPUR
KEONJHAR
MAYURBHANJ
BALASORE
BOLANGIR
DHENKANAL
CUTTACK
PURI
KALAHANDI
BAUDH-KHONDMALS
GANJAM
KORAPUT
ORISSA
PERCENTAGE
MALE
FEMALE
(in'000)
(in'00,000)
AGE GROUP
60 + OLD MEN & WOMEN
33 - 59 MIDDLE AGED MEN & WOMEN
15 - 34 YOUNG MEN & WOMEN
5 - 14 BOYS & GIRLS
0 - 4 INFANTS
MARITAL STATUS
NEVER MARRIED
MARRIED
WIDOWED
OTHERS (DIVORCED OR SEPARATED & UNSPECIFIED STATUS)

MAP No. 20

SEX, AGE STRUCTURE AND MARITAL STATUS, 1971

This map illustrates the sex and age structure along with marital status of males and females for the state and districts.

Age pyramids are drawn for the state and districts with horizontal bars proportionate to the male and female population in age groups 0—4, 5—9, 10—14, 15—19, 20—24, 25 - 29, 30—34, 35—39, 40—44, 45—49, 50—54, 55—59, and 60+. Male bars are on the left and female bars on the right side of the vertical line of the pyramids. The scales are given both in percentage and absolute figures respectively at the top and bottom of the pyramids. Male and female population are grouped into five categories, viz., infants (0—4 age), boys and girls (5—14 age), young men and women (15—34 age), middle-aged men and women (35—59 age) and old men and women (age 60+).

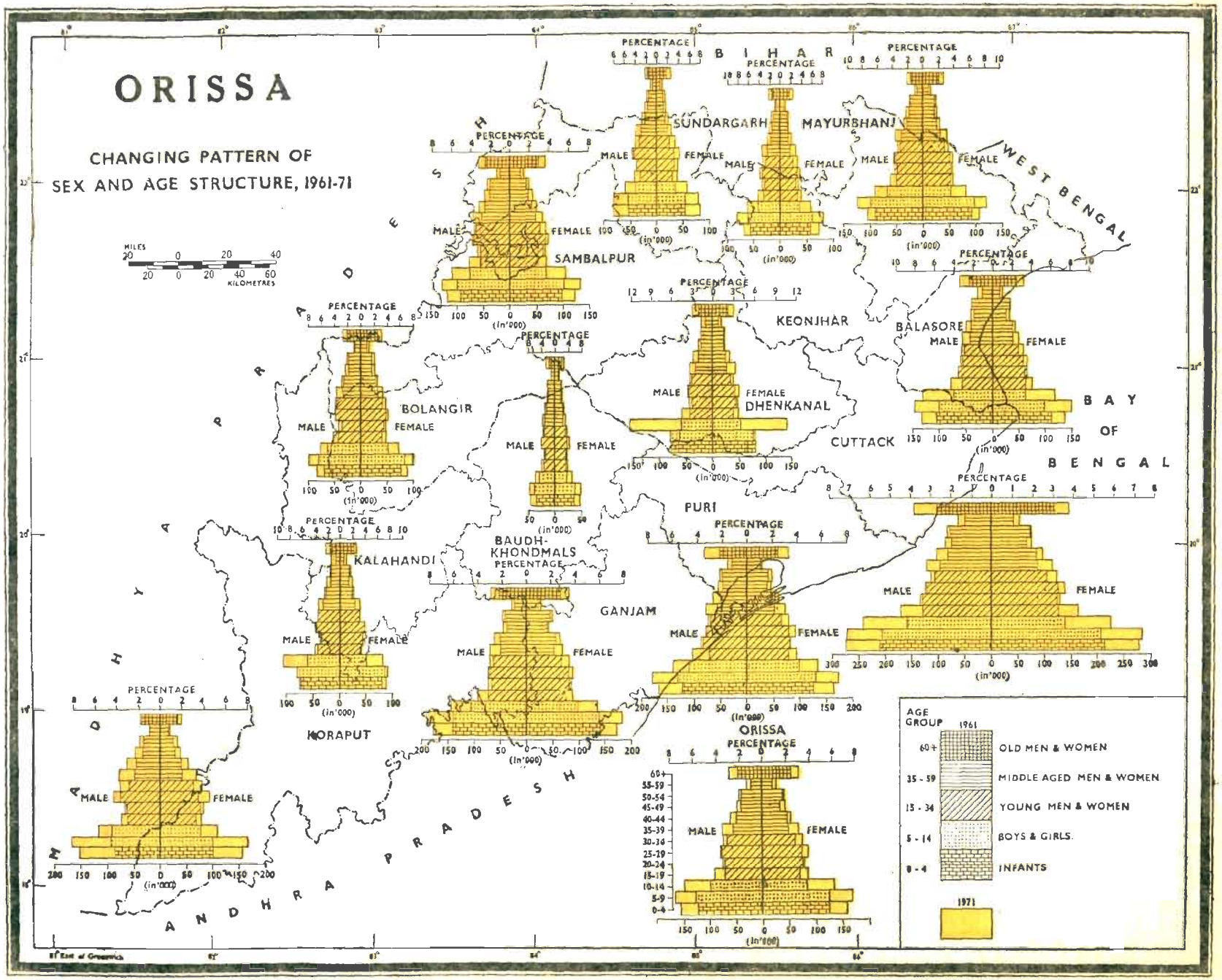
The horizontal bars of these pyramids representing five categories are hatched in red as shown in the legend. Each of the bars is further subdivided according to the proportion of population with different marital status, viz., never married, married, widowed and others (divorced or separated and unspecified status) and each of the divisions of each horizontal bar is hatched in black as per the legend.

A common feature in the age structure is the broad foundation constituted by the section of children at the age groups 0—4 & 5—9 and boys and girls in age group 10—14. The subsequent age groups up to 55—59 generally show a tapering pattern, which is natural on account of gradual depletion by deaths. The top bar representing the persons in the age group 60+ is comparatively larger as it covers wide age interval.

As regards the marital status, it becomes evident that the population in the age group 0—4 & 5—9 are never married. Persons in the higher age groups are mostly married. The widows constitute a very small percentage and they are generally seen in old age groups. Persons with divorced or separated and unspecified marital status are very few in number.

The following table shows the percentage distribution of males and females among different age groups of the state and districts.

State/District	All ages		0—4		5—14		15—34		35—59		60+		Age not stated	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Orissa ..	**50·31**	**49·69**	**7·01**	**7·23**	**14·26**	**13·85**	**14·47**	**14·89**	**11·66**	**10·59**	**2·90**	**3·12**	**0·01**	**0·01**
Sambalpur ..	50·59	49·41	6·45	6·55	12·87	12·74	14·97	14·80	13·07	11·75	3·22	3·55	0·01	0·02
Sundargarh ..	51·50	48·50	8·00	8·12	13·77	13·21	16·00	15·41	11·54	9·15	2·18	2·60	0·01	0·01
Keonjhar ..	50·58	49·42	7·12	7·74	14·92	14·50	15·23	15·00	11·10	9·58	2·20	2·59	0·01	0·01
Mayurbhanj ..	50·34	49·66	7·32	7·41	14·84	14·27	14·69	15·16	11·35	10·08	2·14	2·74	N	N
Balasore ..	50·72	49·28	7·23	7·53	15·14	14·67	13·87	14·30	11·20	9·56	3·27	3·22	0·01	N
Cuttack ..	50·34	49·66	7·14	7·28	13·47	13·28	14·11	14·45	11·82	10·88	3·80	3·77	N	N
Dhenkanal ..	50·57	49·43	4·90	5·15	16·78	16·77	14·56	14·10	11·41	10·42	2·91	2·99	0·01	N
Baudh-Khondmals ..	49·90	50·10	7·25	7·43	13·49	13·40	14·45	15·29	12·17	11·20	2·53	2·77	0·01	0·01
Bolangir ..	50·17	49·83	6·56	6·94	13·91	13·44	15·02	15·21	11·92	11·14	2·74	3·09	0·02	0·01
Kalahandi ..	49·74	50·26	6·30	7·65	16·08	14·94	14·44	14·73	10·73	10·22	2·18	2·71	0·01	0·01
Koraput ..	50·50	49·50	7·49	7·65	14·00	13·44	15·00	16·19	12·21	10·24	1·79	1·97	0·01	0·01
Ganjam ..	48·96	51·04	7·66	7·56	14·55	13·96	13·16	14·88	10·63	11·10	2·95	3·53	0·01	0·01
Puri ..	50·57	49·43	7·08	7·08	13·59	13·23	14·55	14·77	11·95	11·00	3·39	3·34	0·01	0·01


ORISSA
CHANGING PATTERN OF
SEX AND AGE STRUCTURE, 1961-71
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
MAYURBHANJ
SAMBALPUR
KEONJHAR
BALASORE
BOLANGIR
DHENKANAL
CUTTACK
PURI
KALAHANDI
BAUDH-KHONDMALS
GANJAM
KORAPUT
ORISSA
PERCENTAGE
MALE
FEMALE
(in'000)
AGE GROUP
1961
60+ OLD MEN & WOMEN
35 - 59 MIDDLE AGED MEN & WOMEN
15 - 34 YOUNG MEN & WOMEN
5 - 14 BOYS & GIRLS.
0 - 4 INFANTS
1971

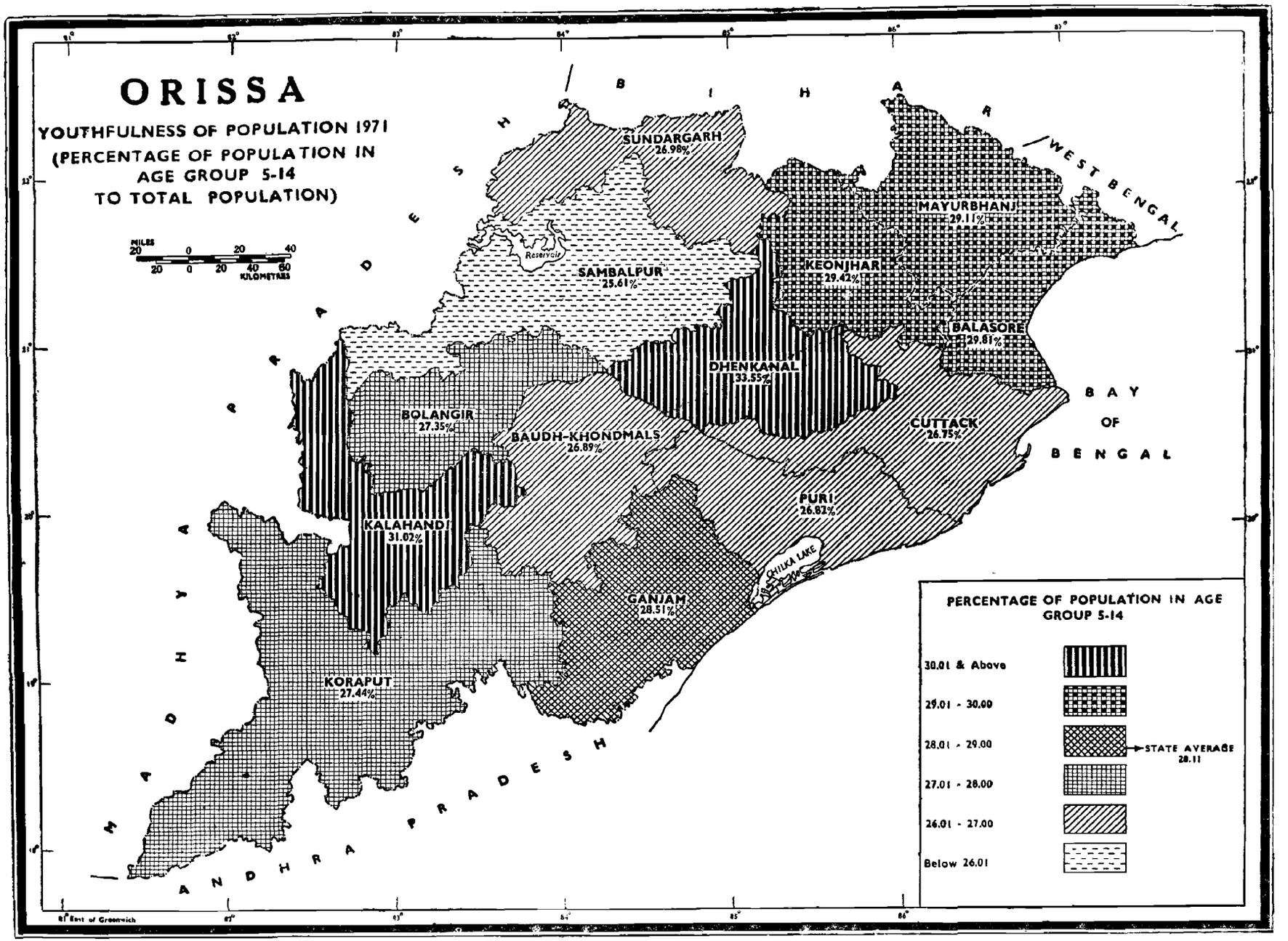
MAP No. 21

CHANGING PATTERN OF SEX AND AGE STRUCTURE, 1961—71

This map exhibits the change in sex and age structure of male and female population of the state and districts during the decade, 1961—71.

Two age pyramids for 1971 and 1961 for each district of the state are drawn with the same technique as for Map No. 20. Pyramids representing the position as obtained at the 1971 Census have been coloured (lemon colour). The pyramids for 1961 have been superimposed over the coloured pyramids of the 1971 Census. The age groups 60+, 35—59, 15—34, 5—14 and 0—4 as represented in the 1961 pyramids are hatched as per legend given in the index. Data for the population for whom age is not stated are not considered.

The broad base of a pyramid is built up by the section of children belonging to the age group 0—4 and of boys and girls in age group 5—9 and 10—14. Age groups above 10—14 and up to 55—59 usually follow a tapering pattern with slight deviations due to depletion by deaths for both the censuses. The top bar representing the age group 60+ is comparatively larger as this age group covers wide age interval for both the censuses. Infants (0—4), boys and girls (5—14), young men and women (15—34), middle-aged men and women (35—59) and old men and women (60+) constitute respectively 4 to 9, 11 to 17, 13 to 17, 9 to 14 and 1 to 4 per cent of the the total population of different districts as per the 1971 Census as against 5 to 8, 11 to 15, 14 to 20, 9 to 13 and 1 to 4 percentages recorded in the 1961 Census.


ORISSA
YOUTHFULNESS OF POPULATION 1971
(PERCENTAGE OF POPULATION IN AGE GROUP 5-14 TO TOTAL POPULATION)
MILES
KILOMETERS
Reservoir
SUNDARGARH 26.98%
SAMBALPUR 25.61%
MAYURBHANJ 29.11%
KEONJHAR 29.42%
BALASORE 29.81%
DHENKANAL 33.55%
BOLANGIR 27.35%
BAUDH-KHONDMALS 26.89%
CUTTACK 26.75%
PURI 26.82%
KALAHANDI 31.02%
GANJAM 28.51%
KORAPUT 27.44%
CHILKA LAKE
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
PERCENTAGE OF POPULATION IN AGE GROUP 5-14
30.01 & Above
29.01 - 30.00
28.01 - 29.00
STATE AVERAGE 28.11
27.01 - 28.00
26.01 - 27.00
Below 26.01
East of Greenwich

MAP No. 22

YOUTHFULNESS OF POPULATION, 1971

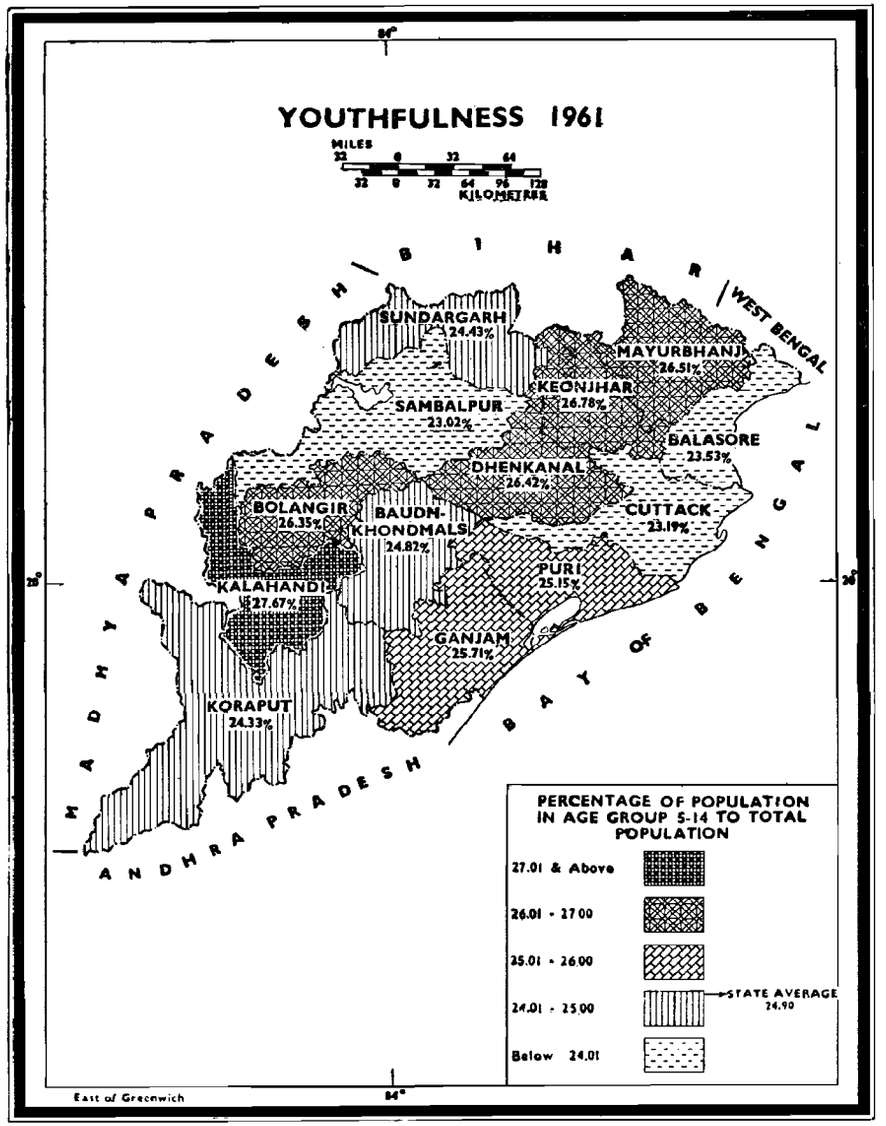
This map depicts the youthfulness of the population in Orissa as revealed by the 1971 Census.

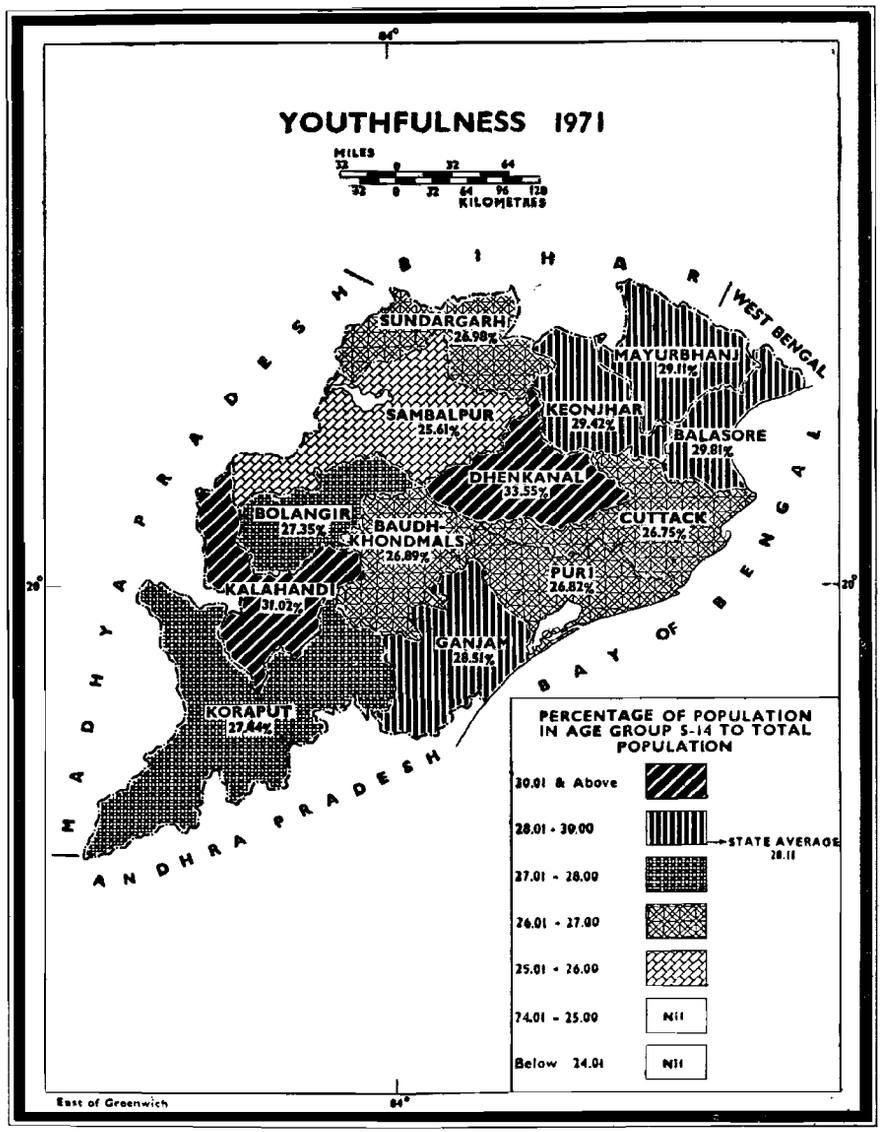
Youthfulness of population of each district is measured by the proportion of population in age group 5—14 (boys and girls) to the total population and the percentage figures thus obtained have been calculated for the state and districts and are grouped into six ranges—two above, one nearer to and three below the state average. Choropleth technique has been used for this map and the districts are shaded as per the grades of hatching indicated in the index.

There are as many as 6,169,018 boys and girls in the age group 5—14 and they constitute 28·11 per cent of the total population (21,944,615) of the state as recorded at the 1971 Census. All the districts lie within 25 and 34 per cent which shows that more than one-fourth of the total population of Orissa are very young. This feature indicates that there shall be increasing pressure of employable population on the economic resources of the state in the near future.

Dhenkanal district records the highest percentage, i. e., 33·55 followed by Kalahandi district (31·02). The lowest percentage (25·61) is seen in Sambalpur district. Six districts are above the state average, while the remaining seven districts show below the state average. The number of boys and girls is not very unevenly distributed among different districts as the percentage figures vary between 25 and 34.

ORISSA
CHANGING PATTERN OF YOUTHFULNESS 1961 - 71





MAP No. 23

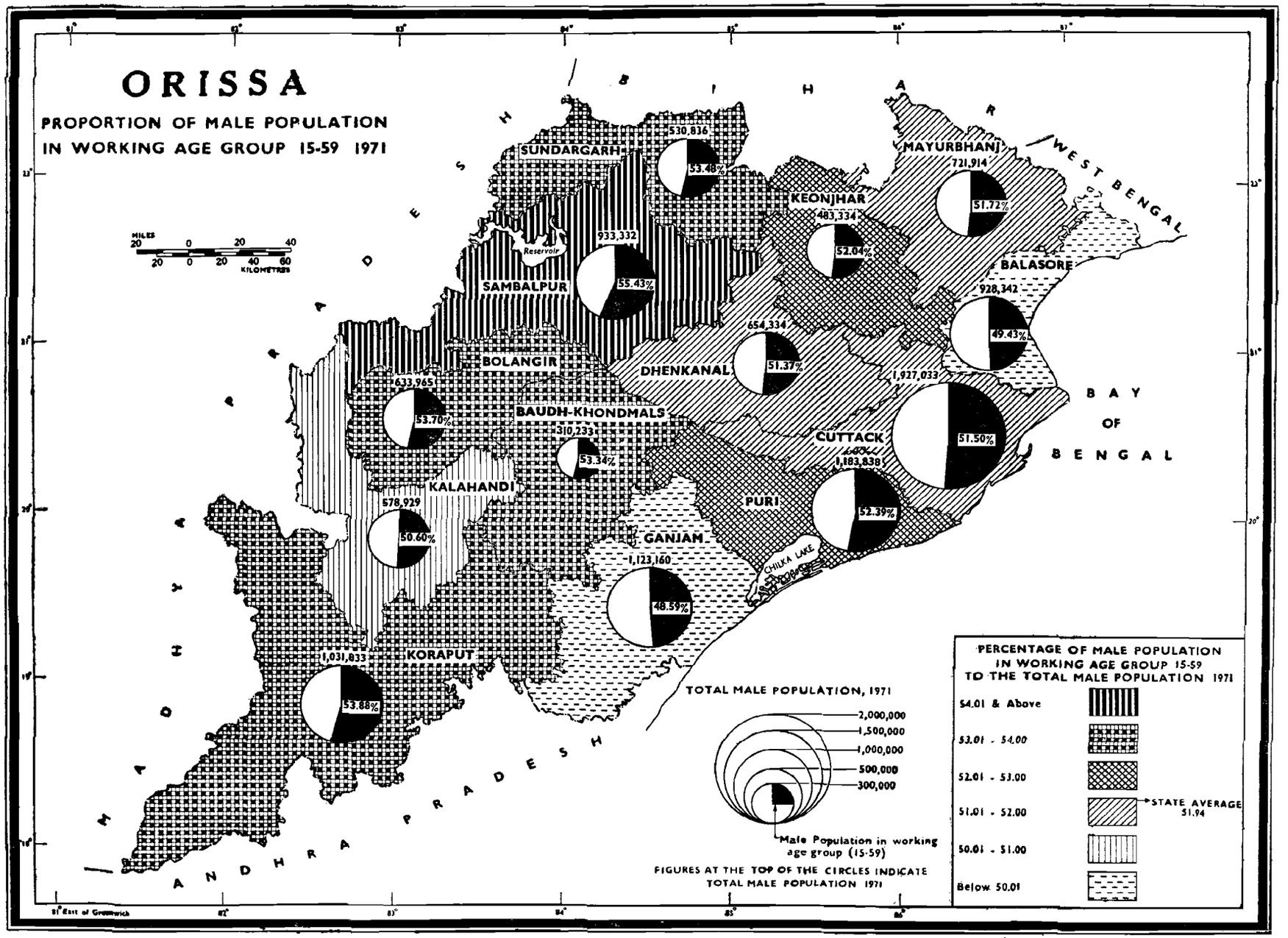
CHANGING PATTERN OF YOUTHFULNESS, 1961—71

These maps intend to present the change in youthfulness of population of the districts and state during the decade (1961—71).

Two maps have been prepared for the 1961 and 1971 censuses on youthfulness of population at district level. The technique adopted is same as for Map No. 22. The grades of hatching are indicated at the bottom of each map and districts are hatched accordingly. The boys and girls in the age group 5—14 constitute 28·11 per cent of the total population of the state in 1971 as against 24·90 in 1961.

Kalahandi district had the highest percentage (27·67) of youthful population in 1961 but it has been replaced by Dhenkanal district with 33·55 per cent in 1971. However, Kalahandi district occupies the second position in 1971. In 1961 percentages of youthful population of the districts varied between 23·02 and 27·67 as against the percentages of 25·61 and 33·55 in 1971. The district of Sambalpur has occupied the lowest place for both the censuses.

Sl. No.	State/District		Youths (a)—1971 (b)—1961	Percentage on 1961 population	Percentage on 1971 population
1	2		3	4	5
1	**Orissa**	(*a*)	**6,169,018**		
		(*b*)	**4,369,236**	**24·90**	**28·11**
2	Sambalpur	(*a*)	472,387		
		(*b*)	347,306	23·02	25·61
3	Sundargarh	(*a*)	278,122		
		(*b*)	185,365	24·43	26·98
4	Keonjhar	(*a*)	281,152		
		(*b*)	199,039	26·78	29·42
5	Mayurbhanj	(*a*)	417,433		
		(*b*)	319,233	26·51	29·11
6	Balasore	(*a*)	545,726		
		(*b*)	333,107	23·53	29·81
7	Cuttack	(*a*)	1,023,848		
		(*b*)	709,761	23·19	26·75
8	Dhenkanal	(*a*)	434,064		
		(*b*)	271,863	26·42	33·55
9	Baudh-Khondmals	(*a*)	167,180		
		(*b*)	127,667	24·82	26·89
10	Bolangir	(*a*)	345,571		
		(*b*)	281,552	26·35	27·35
11	Kalahandi	(*a*)	361,039		
		(*b*)	279,328	27·67	31·02
12	Koraput	(*a*)	560,679		
		(*b*)	364,501	24·33	27·44
13	Ganjam	(*a*)	653,941		
		(*b*)	481,397	25·71	28·51
14	Puri	(*a*)	627,876		
		(*b*)	469,117	25·15	26·82


ORISSA
PROPORTION OF MALE POPULATION
IN WORKING AGE GROUP 15-59 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
530,836
53.48%
MAYURBHANJ
721,914
51.72%
KEONJHAR
483,334
52.04%
SAMBALPUR
933,332
55.43%
Reservoir
BALASORE
928,342
49.43%
DHENKANAL
654,334
51.37%
BOLANGIR
633,965
53.70%
CUTTACK
1,927,033
51.50%
BAUDH-KHONDMALS
310,233
53.34%
PURI
1,183,838
52.39%
KALAHANDI
578,929
50.60%
GANJAM
1,123,160
48.59%
CHILKA LAKE
KORAPUT
1,031,833
53.88%
MILES
KILOMETRES
TOTAL MALE POPULATION, 1971
2,000,000
1,500,000
1,000,000
500,000
300,000
Male Population in working age group (15-59)
FIGURES AT THE TOP OF THE CIRCLES INDICATE TOTAL MALE POPULATION 1971
PERCENTAGE OF MALE POPULATION IN WORKING AGE GROUP 15-59 TO THE TOTAL MALE POPULATION 1971
54.01 & Above
53.01 - 54.00
52.01 - 53.00
51.01 - 52.00
50.01 - 51.00
Below 50.01
STATE AVERAGE 51.94
81° East of Greenwich

MAP No. 24

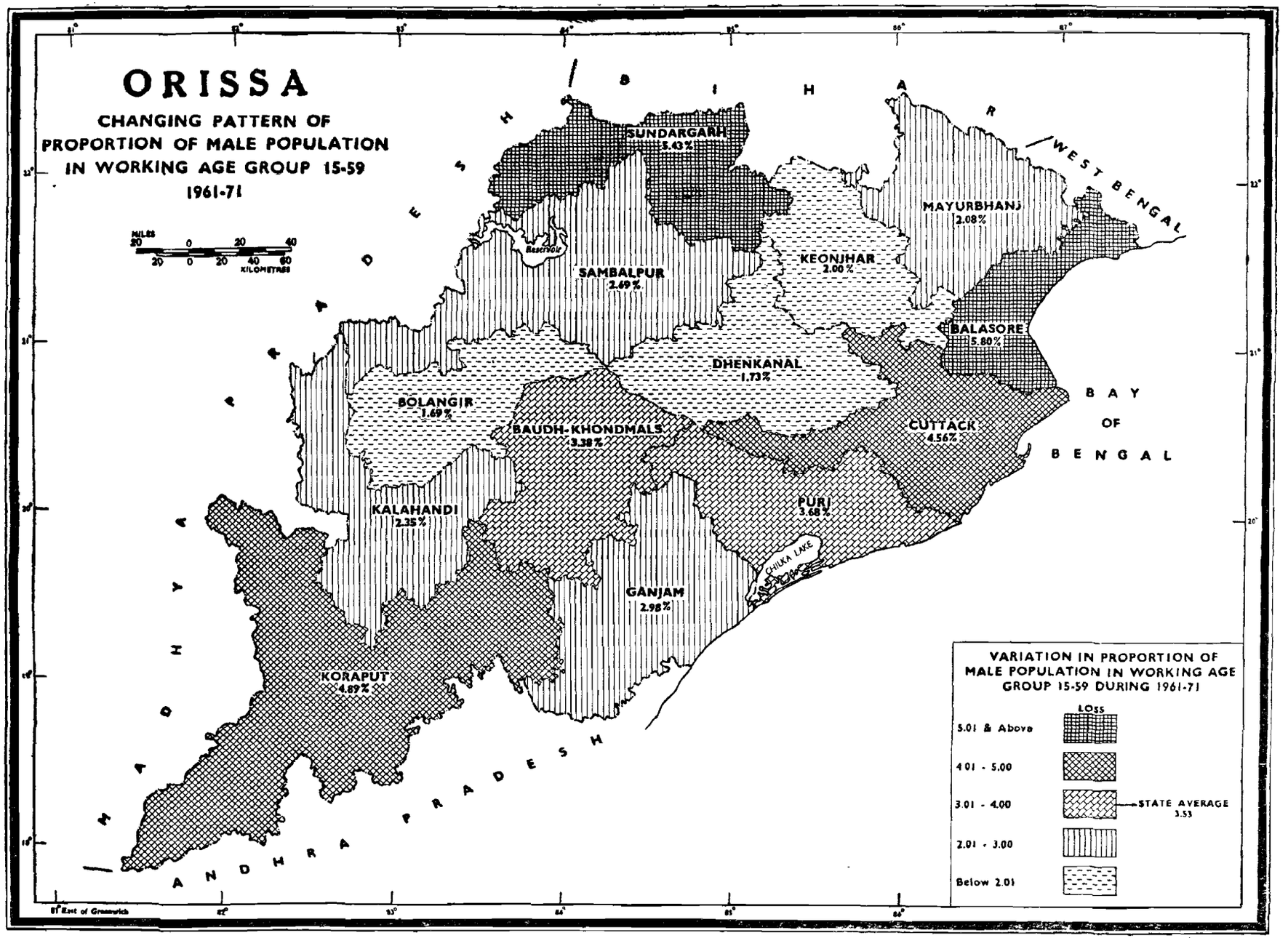
PROPORTION OF MALE POPULATION IN WORKING AGE GROUP 15—59, 1971

This map presents the proportion of males in the age group 15—59 to the total male population of the state and districts in 1971.

The percentage figures of male population of working age group 15—59 to total male population of each district have been worked out and arranged in six suitable ranges as indicated in the map by different grades of hatching. All the districts are hatched as per these six ranges using choropleth technique. The total male population of each district is shown by proportionate circles and the black shaded sectors inside these circles show the proportion of male population in the working age group 15—59. The total male population figure of each districts is given at the top of the circle concerned. The percentage of males in the age group 15—59 to the total male population is indicated in the shaded sector of the circle of each district.

The proportion of males in working age group indicates approximately how much employable male population is available in each of the districts of the state. In the state as a whole the proportion of male population of working age group to total male population is only 51·94 per cent. There are seven districts which have recorded percentages above it, while six districts have percentages lower than the state average. The highest proportion 55·43 is recorded for Sambalpur district whereas the lowest proportion is found in Ganjam district (48·59).

Sl. No.	State / District	Percentage of male population in age 15—59 to total male population, 1971
1	2	3
1	**Orissa** ..	**51·94**
2	Sambalpur ..	55·43
3	Sundargarh ..	53·48
4	Keonjhar ..	52·04
5	Mayurbhanj ..	51·72
6	Balasore ..	49·43
7	Cuttack ..	51·50
8	Dhenkanal ..	51·37
9	Baudh-Khondmals ..	53·34
10	Bolangir ..	53·70
11	Kalahandi ..	50·60
12	Koraput ..	53·88
13	Ganjam ..	48·59
14	Puri ..	52·39


ORISSA
CHANGING PATTERN OF
PROPORTION OF MALE POPULATION
IN WORKING AGE GROUP 15-59
1961-71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 5.43%
SAMBALPUR 2.69%
KEONJHAR 2.00%
MAYURBHANJ 2.08%
BALASORE 5.80%
DHENKANAL 1.73%
BOLANGIR 1.69%
BAUDH-KHONDMALS 3.38%
CUTTACK 4.56%
KALAHANDI 2.35%
PURI 3.68%
GANJAM 2.98%
KORAPUT 4.89%
CHILKA LAKE
VARIATION IN PROPORTION OF
MALE POPULATION IN WORKING AGE
GROUP 15-59 DURING 1961-71
LOSS
5.01 & Above
4.01 - 5.00
3.01 - 4.00
STATE AVERAGE 3.53
2.01 - 3.00
Below 2.01

MAP No. 25

CHANGING PATTERN OF PROPORTION OF MALE POPULATION IN WORKING AGE GROUP 15—59, 1961—71

This map presents the decadal change of proportion of male population in the working age group 15—59 to the total male population in each district of the state during the decade 1961—71.

The percentage change is measured as follows:

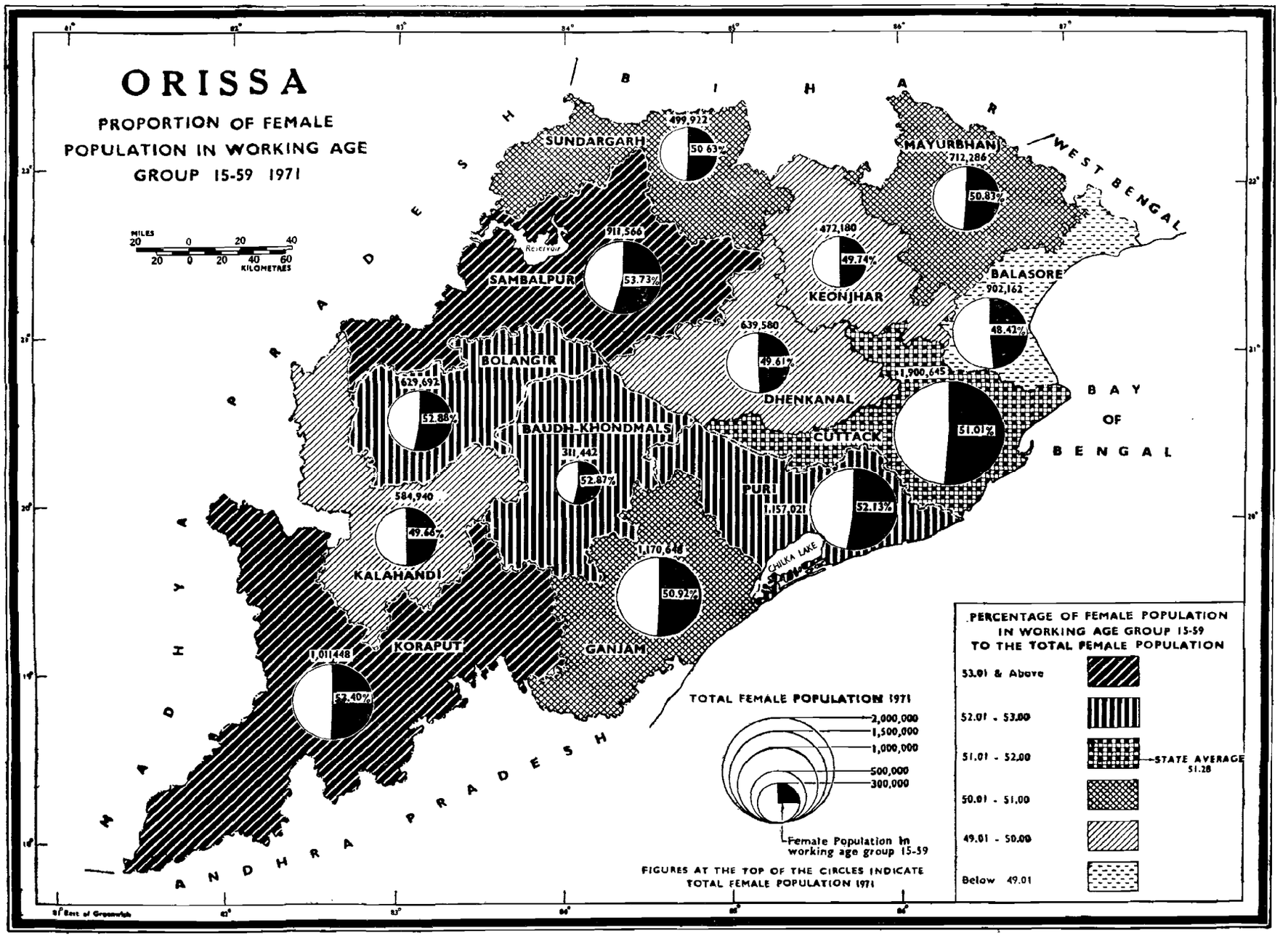
$$\text{Percentage change} = \left(\frac{B}{A} - \frac{B_1}{A_1}\right) \times 100$$

where A and A_1 respectively stand for total male population in 1971 and 1961, while B and B_1 respectively represent the total male population in working age group 15—59 for 1971 and 1961. The figures thus obtained are again grouped into five ranges and shown above and below the state average (—3·53 per cent). Districts falling under each range are hatched as per the grades of hatching shown in the index using choropleth method.

The proportion of males in the working age group 15—59 to the total male population has decreased in 1971 for the state and districts. The decrease in the state's proportion comes to 3·53. Balasore district (5·80) records the maximum decrease being followed by the district of Sundargarh (5·43). The lowest decrease is visible in Bolangir district (1·69).

The percentage of males in the age group 15—59 to the total male population comes to 51·94 in 1971 as against 55·47 recorded in 1961. Sundargarh district (58·91) recorded the highest percentage in 1961 while in 1971 Sambalpur district (55·43) registers the highest percentage. Lowest percentage has been recorded in Ganjam district (51·57 & 48·59) in both the censuses of 1961 and 1971. As many as nine districts came in the highest range of percentage (54·01 and above) in 1961 as against one district in 1971.

State/District	Percentage of male population of age group 15—59 to total male population		Change during 1961—71
	1961	1971	
1	2	3	4
Orissa ..	**55·47**	**51·94**	**—3·53**
Sambalpur ..	58·12	55·43	—2·69
Sundargarh ..	58·91	53·48	—5·43
Keonjhar ..	54·04	52·04	—2·00
Mayurbhanj ..	53·80	51·72	—2·08
Balasore ..	55·23	49·43	—5·80
Cuttack ..	56·06	51·50	—4·56
Dhenkanal ..	53·37	51·37	—2·00
Baudh-Khondmals ..	56·72	53·34	—3·38
Bolangir ..	55·39	53·70	—1·69
Kalahandi ..	52·95	50·60	—2·35
Koraput ..	58·77	53·88	—4·89
Ganjam ..	51·57	48·59	—2·98
Puri .	56·07	52·39	—3·68


ORISSA
PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15-59 1971
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 499,922 50.63%
SAMBALPUR 918,566 53.73%
Reservoir
MAYURBHANJ 712,286 50.83%
KEONJHAR 472,180 49.74%
BALASORE 902,162 48.42%
BOLANGIR 639,580 49.61%
DHENKANAL 1,900,645 51.01%
629,692 52.88%
BAUDH-KHONDMALS 311,442 52.87%
CUTTACK
PURI 1,157,021 52.13%
584,940 49.64%
KALAHANDI
1,170,648 50.92%
CHILKA LAKE
1,011,448 52.40%
KORAPUT
GANJAM
TOTAL FEMALE POPULATION 1971
2,000,000
1,500,000
1,000,000
500,000
300,000
Female Population in working age group 15-59
FIGURES AT THE TOP OF THE CIRCLES INDICATE TOTAL FEMALE POPULATION 1971
PERCENTAGE OF FEMALE POPULATION IN WORKING AGE GROUP 15-59 TO THE TOTAL FEMALE POPULATION
53.01 & Above
52.01 - 53.00
51.01 - 52.00
STATE AVERAGE 51.28
50.01 - 51.00
49.01 - 50.00
Below 49.01

MAP No. 26

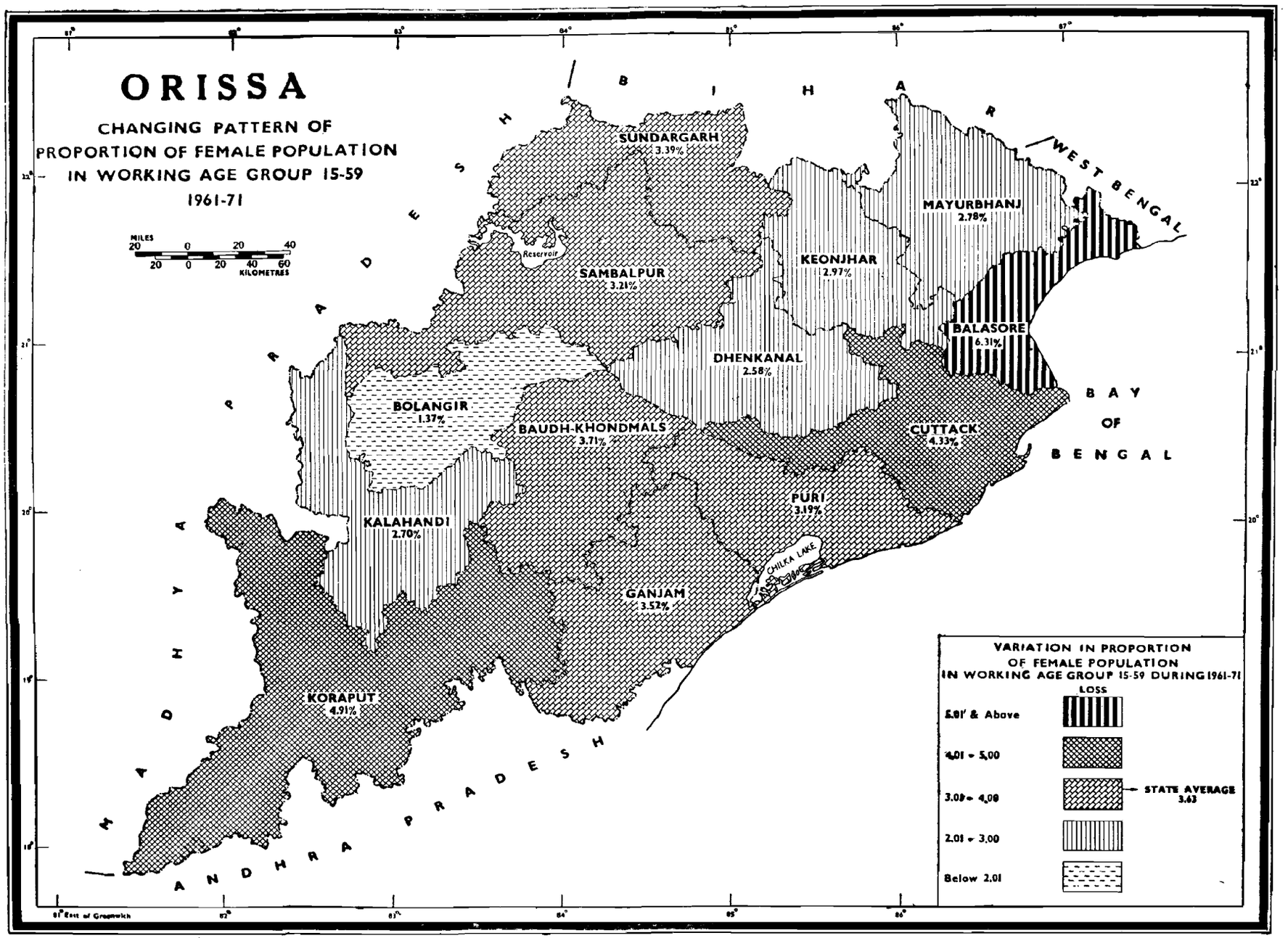
PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15—59, 1971

This map shows the proportion of females in age group 15—59 to total female population of the state and districts.

The percentage figures of females in age group 15—59 to total female population are worked out for each district. These percentage figures are grouped into six ranges. Six grades of hatching have been used and the districts have been hatched as shown in the legend. For each district circle proportionate to its total female population has been drawn and in each circle a sector is cut off and shaded proportionate to female population of age group 15—59. Figures above the circles show the total female population of the districts concerned.

Proportion of females (5,590,878) in working age group 15—59 to total female population (10,903,532) of the state is 51·28. Five districts register percentages above the state average. The districts of Sambalpur (53·73) and Balasore (48·42) respectively record the highest and the lowest proportions. Balasore district is also grouped under the lowest range with regard to the proportion of male population in the working age 15—59.

State/District		Percentage of female population in age group 15—59 to total female population
1		2
1 **Orissa**	..	**51·28**
2 Sambalpur	..	53·73
3 Sundargarh	..	50·63
4 Keonjhar	..	49·74
5 Mayurbhanj	..	50·83
6 Balasore	..	48·42
7 Cuttack	..	51·01
8 Dhenkanal	..	49·61
9 Baudh-Khondmals	..	52·87
10 Bolangir	..	52·88
11 Kalahandi	..	49·66
12 Koraput	..	53·40
13 Ganjam	..	50·92
14 Puri	..	52·13


ORISSA
CHANGING PATTERN OF
PROPORTION OF FEMALE POPULATION
IN WORKING AGE GROUP 15-59
1961-71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
3.39%
SAMBALPUR
3.21%
Reservoir
KEONJHAR
2.97%
MAYURBHANJ
2.78%
BALASORE
6.31%
DHENKANAL
2.58%
BOLANGIR
1.37%
BAUDH-KHONDMALS
3.71%
CUTTACK
4.33%
PURI
3.19%
KALAHANDI
2.70%
CHILKA LAKE
GANJAM
3.52%
KORAPUT
4.91%
VARIATION IN PROPORTION
OF FEMALE POPULATION
IN WORKING AGE GROUP 15-59 DURING 1961-71
LOSS
5.01' & Above
4.01 - 5.00
3.01 - 4.00
STATE AVERAGE
3.63
2.01 - 3.00
Below 2.01
81° East of Greenwich

MAP No. 27

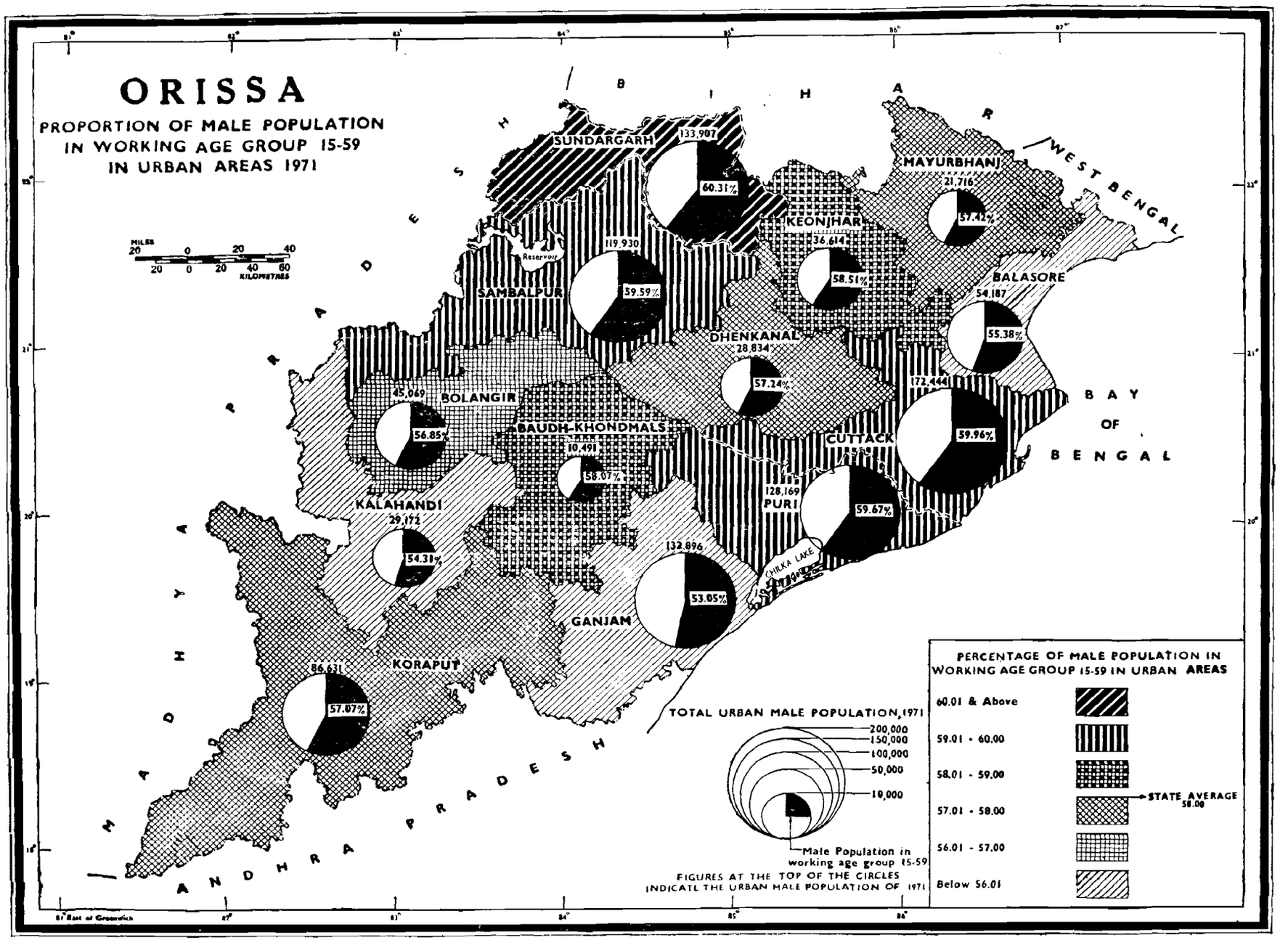
CHANGING PATTERN OF PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15—59, 1961—71

This map depicts the change in proportion of females in age 15—59 to total female population during the decade (1961—71) for the state and districts.

Percentage change $= \left(\frac{B}{A} - \frac{B_1}{A_1} \right) \times 100$ where A & A_1 respectively stands for total female population in 1971 and 1961 and B and B_1 respectively represents the female population in working age group 15—59 in 1971 and 1961. The variation figures thus obtained are grouped into five convenient ranges and all the districts are hatched as per the grades of hatching as shown in the index.

The proportion of females in working age 15—59 to total female population has considerably decreased in the districts and the state as a whole. The decrease in the state's proportion during the decade is 3·63. Maximum decrease is visible in the district of Balasore (6·31) while Bolangir district (1·37) records the minimum decrease during this period.

State/District		Percentage of female population of age group 15—59 to total female population		Change during 1961—71
		1961	1971	
1		2	3	4
Orissa	..	**54·91**	**51·28**	**—3·63**
Sambalpur	..	56·94	53·73	—3·21
Sundargarh	..	54·02	50·63	—3·39
Keonjhar	..	52·71	49·74	—2·97
Mayurbhanj	..	53·61	50·83	—2·78
Balasore	..	54·73	48·42	—6·31
Cuttack	..	55·34	51·01	—4·33
Dhenkanal	..	52·19	49·61	—2·58
Baudh-Khondmals	..	56·58	52·87	—3·71
Bolangir	..	54·25	52·88	—1·37
Kalahandi	..	52·36	49·66	—2·70
Koraput	..	58·31	53·40	—4·91
Ganjam	..	54·44	50·92	—3·52
Puri	..	55·32	52·13	—3·19


ORISSA
PROPORTION OF MALE POPULATION
IN WORKING AGE GROUP 15-59
IN URBAN AREAS 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
133,907
60.31%
MAYURBHANJ
21,716
57.42%
KEONJHAR
36,614
58.51%
SAMBALPUR
119,930
59.59%
Reservoir
BALASORE
54,187
55.38%
DHENKANAL
28,834
57.24%
BOLANGIR
45,069
56.85%
BAUDH-KHONDMALS
10,491
58.07%
CUTTACK
172,444
59.96%
PURI
128,169
59.67%
KALAHANDI
29,172
54.31%
CHILKA LAKE
GANJAM
132,896
53.05%
KORAPUT
86,631
57.07%
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
TOTAL URBAN MALE POPULATION, 1971
200,000
150,000
100,000
50,000
10,000
Male Population in working age group 15-59
FIGURES AT THE TOP OF THE CIRCLES INDICATE THE URBAN MALE POPULATION OF 1971
PERCENTAGE OF MALE POPULATION IN WORKING AGE GROUP 15-59 IN URBAN AREAS
60.01 & Above
59.01 - 60.00
58.01 - 59.00
57.01 - 58.00
56.01 - 57.00
Below 56.01
STATE AVERAGE 58.00

MAP No. 28

PROPORTION OF MALE POPULATION IN WORKING AGE GROUP 15—59 IN URBAN AREAS, 1971

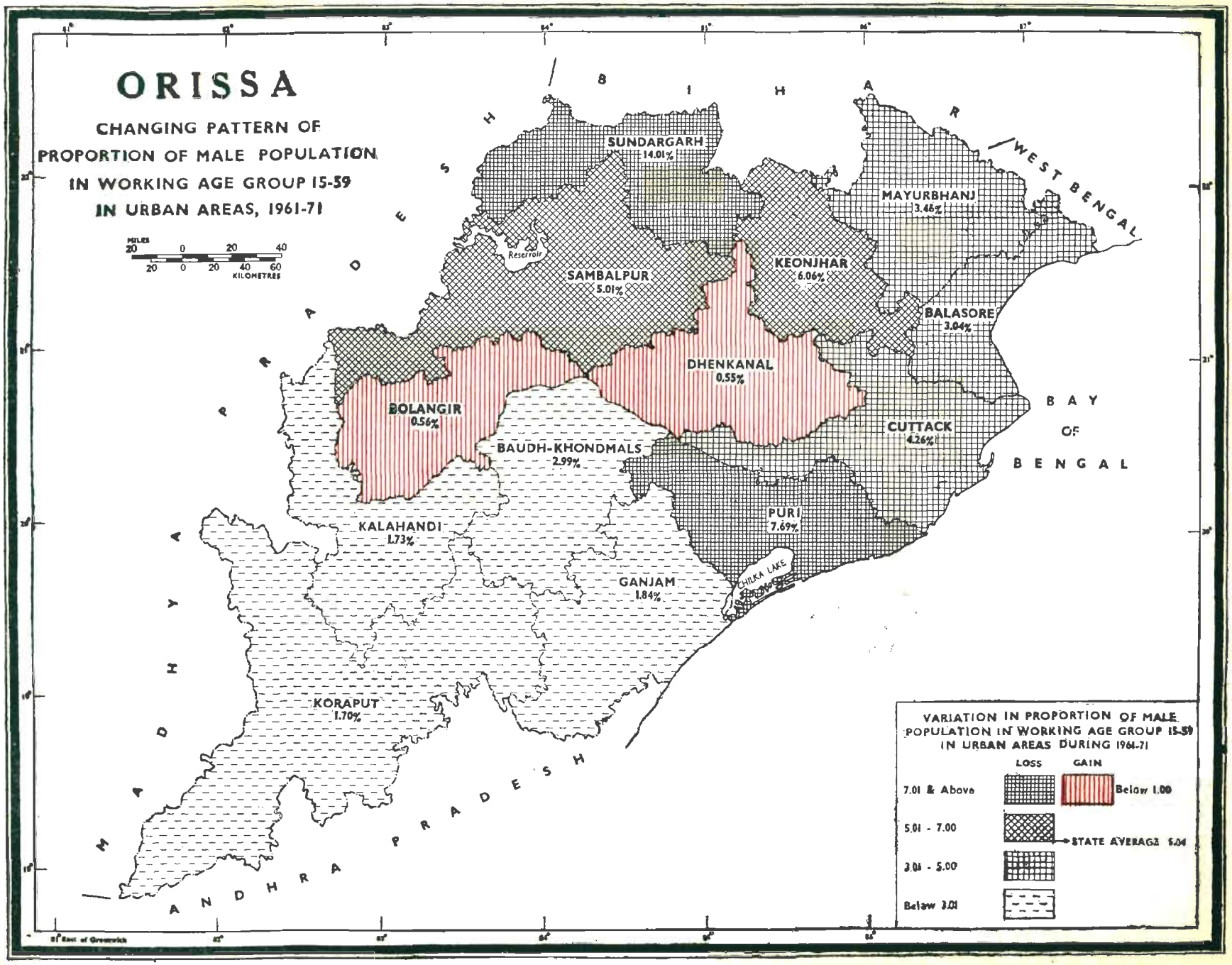
This map depicts the proportion of male population in age group 15—59 to total male population in urban areas for the state and districts in 1971.

The districtwise percentage figures are grouped into six ranges—three above, one nearer to and two below the state average (58%). These ranges are displayed in the map by different grades of hatching as shown in the index. In each district, a circle proportionate to total urban male population is inserted and in each circle a sector proportionate to male population in the age group 15—59 is cut off and shaded.

The total male population residing in the urban areas of the state is 1,000,060 out of which 579,992 or 58 per cent are in the age group 15—59. The distribution pattern of the urban male population reveals that there are six districts above and seven districts below the state average. The percentages of all the districts lie between 53 and 61.

A study of the data further reveals that a high percentage of employable male population in urban areas is visible in the districts of Sundargarh (60·31), Cuttack (59·96), Puri (59·67) and Sambalpur (59·59) as per the 1971 Census. It may be relevant to mention that more than 50 per cent of the male population of each district belong to the age group 15—59. Sundargarh district (60·31) has the highest proportion while Ganjam district (53·05) records the lowest proportion.

Sl. No.	State/District		Percentage of urban male population in age group 15—59 to total urban population
1	2		3
1	**Orissa**	..	**58·00**
2	Sambalpur	..	59·59
3	Sundargarh	..	60·31
4	Keonjhar	..	58·51
5	Mayurbhanj	..	57·42
6	Balasore	..	55·38
7	Cuttack	..	59·96
8	Dhenkanal	..	57·24
9	Baudh-Khondmals	..	58·07
10	Bolangir	..	56·85
11	Kalahandi	..	54·31
12	Koraput	..	57·07
13	Ganjam	..	53·05
14	Puri	..	59·67


ORISSA
CHANGING PATTERN OF
PROPORTION OF MALE POPULATION
IN WORKING AGE GROUP 15-59
IN URBAN AREAS, 1961-71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
14.01%
MAYURBHANJ
3.46%
Reservoir
SAMBALPUR
5.01%
KEONJHAR
6.06%
BALASORE
3.04%
DHENKANAL
0.55%
BOLANGIR
0.56%
CUTTACK
4.26%
BAUDH-KHONDMALS
2.99%
PURI
7.69%
KALAHANDI
1.73%
CHILKA LAKE
GANJAM
1.84%
KORAPUT
1.70%
VARIATION IN PROPORTION OF MALE
POPULATION IN WORKING AGE GROUP 15-59
IN URBAN AREAS DURING 1961-71
LOSS
GAIN
7.01 & Above
Below 1.00
5.01 - 7.00
STATE AVERAGE 5.04
3.01 - 5.00
Below 3.01

MAP No. 29

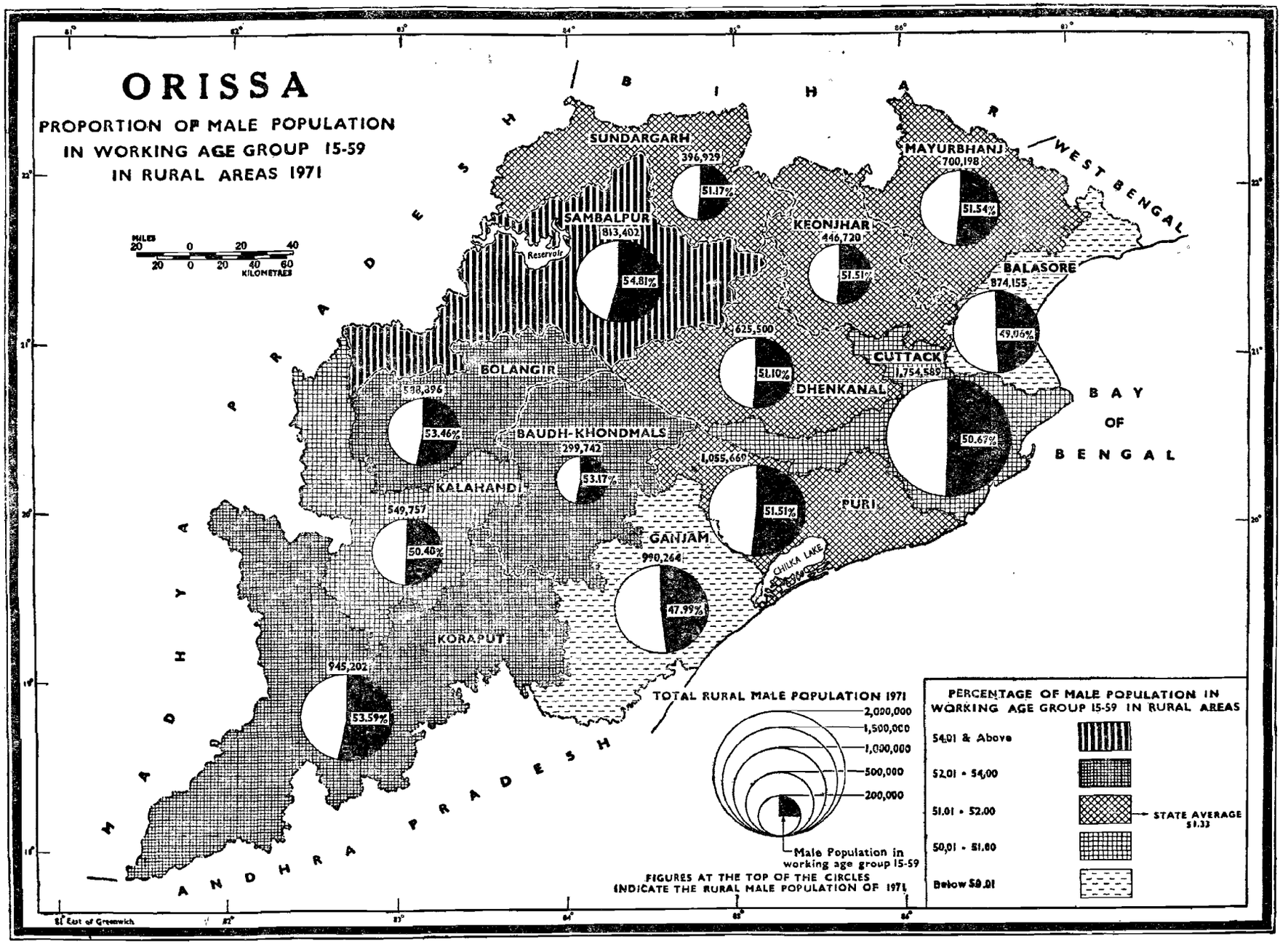
CHANGING PATTERN OF PROPORTION OF MALE POPULATION IN WORKING AGE GROUP 15—59 IN URBAN AREAS, 1961—71

This map reveals the change in the proportion of urban males in the working age 15—59 to total urban male population for the state and districts during the decade.

The percentages of urban males in the age 15—59 to total urban male population have been calculated for both 1961 and 1971 censuses for the state and districts. The figures thus obtained have been grouped into five suitable ranges—one for the gain and four for the loss in percentages. Accordingly all the districts are hatched as per the grades of hatching shown in the index. The districts with increased percentage are hatched in red colour while the districts with decreased percentage are hatched in black colour.

Proportion of urban males in the age group 15—59 to total urban male population decreased in 1971 for the state and eleven districts and increased in two districts only. The percentage of the state has come down from 63·04 in 1961 to 58·00 in 1971. There are six districts with percentage above the state average in 1971 as against five districts in 1961. The percentage of the urban employable male population of the districts lie between 53 to 61 in 1971 as against 54 to 75 in 1961. The districts of Bolangir and Dhenkanal record increase in the proportion in 1971. In 1971 maximum decrease is visible in the district of Sundargarh (14·01) followed by Puri district (7·69).

State/District	Percentage of urban male population in age 15—59 to total male population in urban area		Change during 1961—71
	1961	1971	
1	2	3	4
Orissa ..	**63·04**	**58·00**	**—5·04**
Sambalpur ..	64·60	59·59	—5·01
Sundargarh ..	74·32	60·31	—14·01
Keonjhar ..	64·57	58·51	—6·06
Mayurbhanj ..	60·88	57·42	—3·46
Balasore ..	58·42	55·38	—3·04
Cuttack ..	64·22	59·96	—4·26
Dhenkanal ..	56·69	57·24	+0·55
Baudh-Khondmals ..	61·06	58·07	—2·99
Bolangir ..	56·29	56·85	+0·56
Kalahandi ..	56·04	54·31	—1·73
Koraput ..	58·77	57·07	—1·70
Ganjam ..	54·89	53·05	—1·84
Puri ..	67·36	59·67	—7·69


ORISSA
PROPORTION OF MALE POPULATION
IN WORKING AGE GROUP 15-59
IN RURAL AREAS 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
Reservoir
SUNDARGARH
396,929
51.17%
SAMBALPUR
813,402
54.81%
MAYURBHANJ
700,198
51.54%
KEONJHAR
446,720
51.51%
BALASORE
874,155
49.06%
625,500
51.10%
CUTTACK
1,754,589
50.67%
DHENKANAL
BOLANGIR
538,896
53.46%
BAUDH-KHONDMALS
299,742
53.17%
KALAHANDI
549,757
50.40%
1,055,669
51.51%
PURI
GANJAM
990,264
47.99%
CHILKA LAKE
KORAPUT
945,202
53.59%
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
TOTAL RURAL MALE POPULATION 1971
2,000,000
1,500,000
1,000,000
500,000
200,000
Male Population in working age group 15-59
FIGURES AT THE TOP OF THE CIRCLES INDICATE THE RURAL MALE POPULATION OF 1971
PERCENTAGE OF MALE POPULATION IN WORKING AGE GROUP 15-59 IN RURAL AREAS
54.01 & Above
52.01 - 54.00
51.01 - 52.00
50.01 - 51.00
Below 50.01
STATE AVERAGE 51.33
81° East of Greenwich

MAP No. 30

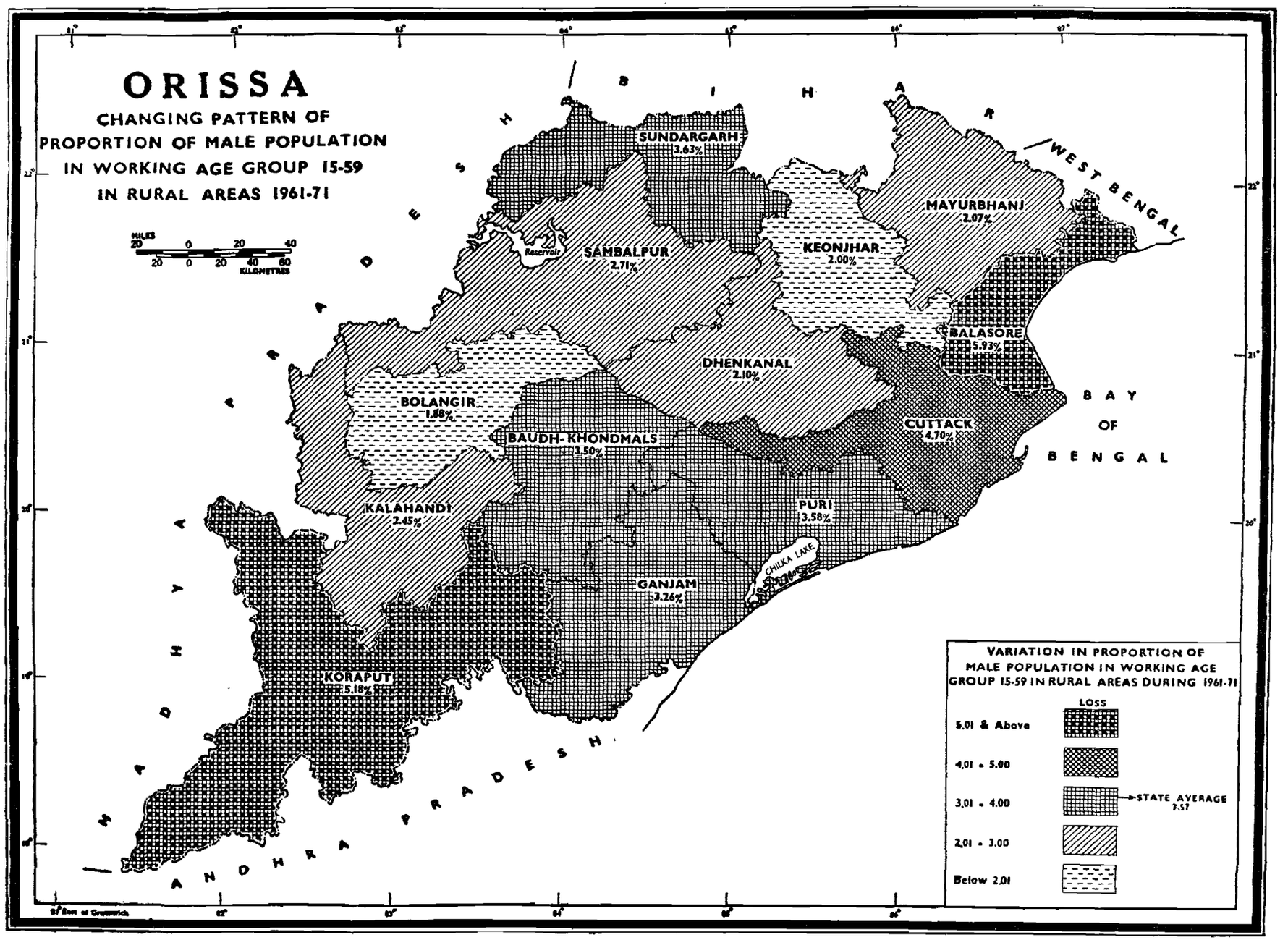
PROPORTION OF MALE POPULATION IN WORKING AGE GROUP 15—59 IN RURAL AREAS, 1971

This map shows the distribution of employable rural male population in age group 15—59 with reference to the total rural male population for the state and districts in 1971.

The proportions of rural male population in the age group 15—59 to total rural male population of each district have been calculated and the related percentage figures have been grouped into five ranges as indicated in the legend by different grades of hatching. All the districts are hatched as per these ranges using choropleth technique. A circle proportionate to the total rural male population of a district is drawn and a sector proportionate to the rural male population in the age 15—59 is shaded in black. The rural male population of each district is indicated at the top of the concerned circle. The percentage of rural males in age 15—59 to total rural male population is indicated inside the shaded sector of each district.

The total rural male population of the state is 10,041,023 of which 5,154,348 or 51·33 per cent belong to the working age group 15—59. There are seven districts which record the percentages above the state average. All the districts lie between the percentages 47 to 55. The district of Sambalpur (54·81) stands first while Ganjam district (47·99) remains at the bottom so far as percentages of employable rural males are concerned.

Sl. No.	State/District	Percentage of rural male population in working age 15—59 to total rural population
1	2	3
1	Orissa ..	51·33
2	Sambalpur ..	54·81
3	Sundargarh ..	51·17
4	Keonjhar ..	51·51
5	Mayurbhanj ..	51·54
6	Balasore ..	49·06
7	Cuttack ..	50·67
8	Dhenkanal ..	51·10
9	Baudh-Khondmals ..	53·17
10	Bolangir ..	53·46
11	Kalahandi ..	50·40
12	Koraput ..	53·59
13	Ganjam ..	47·99
14	Puri ..	51·51


ORISSA
CHANGING PATTERN OF
PROPORTION OF MALE POPULATION
IN WORKING AGE GROUP 15-59
IN RURAL AREAS 1961-71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
3.63%
SAMBALPUR
2.71%
Reservoir
KEONJHAR
2.00%
MAYURBHANJ
2.07%
BALASORE
5.93%
DHENKANAL
2.10%
BOLANGIR
1.88%
BAUDH-KHONDMALS
3.50%
CUTTACK
4.70%
KALAHANDI
2.45%
PURI
3.58%
CHILKA LAKE
GANJAM
3.26%
KORAPUT
5.18%
VARIATION IN PROPORTION OF
MALE POPULATION IN WORKING AGE
GROUP 15-59 IN RURAL AREAS DURING 1961-71
LOSS
5.01 & Above
4.01 - 5.00
3.01 - 4.00
STATE AVERAGE
3.57
2.01 - 3.00
Below 2.01

MAP No. 31

CHANGING PATTERN OF PROPORTION OF MALE POPULATION IN WORKING AGE GROUP 15—59 IN RURAL AREAS, 1961—71

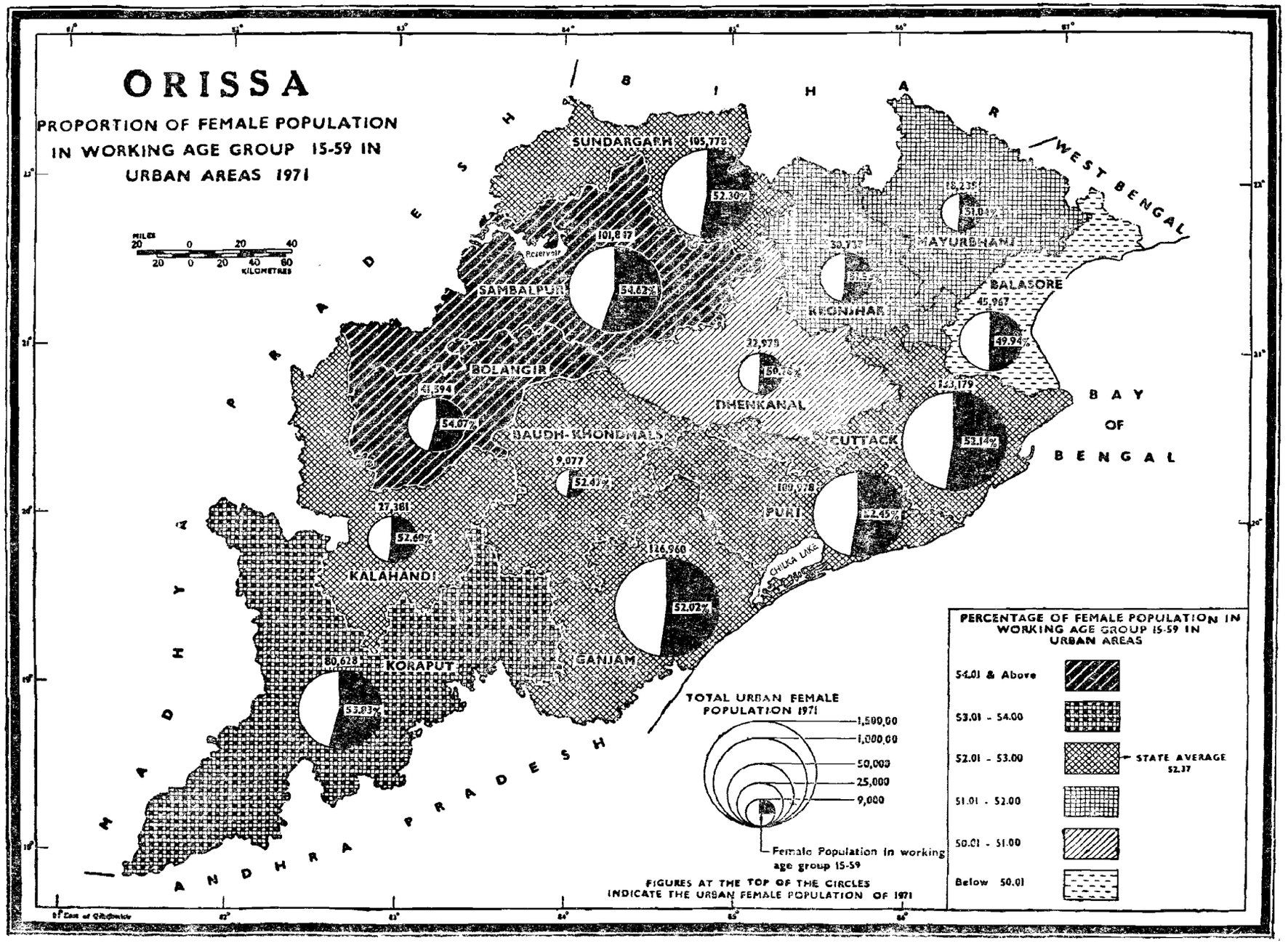
This map presents change of proportion of the rural male population in age 15—59 to the total rural male population for the state and districts during 1961—71.

Change of proportions recorded in 1961 and 1971 of rural males in age 15—59 to total rural male population have been worked out for the state and districts. The method adopted is the same as for Map No. 25. These figures have been grouped into five ranges—two above, one nearer to and two below the state average as indicated in the index. Accordingly all the districts are hatched using choropleth technique.

The state's percentage of rural males in age 15—59 slides down from 54·90 in 1961 to 51·33 in 1971. All the districts lie between the percentages, 47 to 55 in 1971 as against 51 to 59 in 1961. There are seven districts above the state average in both the censuses. Sambalpur (57·52 & 54·81) and Koraput (58·77 & 53·59) districts record higher percentages for both the censuses, while Ganjam (51·25 & 47·99) retains its lowest position. The percentages in respect of all the districts have decreased in 1971. Balasore (5·93) records the maximum decrease while minimum decrease is visible in the district of Bolangir (1·88).

State/Districts	Percentage of rural male population in age 15—59, 1961 to total rural male population, 1961	Percentage of rural male population in age 15—59, 1971 to total rural male population, 1971	Change during 1961—71
1	2	3	4
Orissa ..	**54·90**	**51·33**	**—3·57**
Sambalpur ..	57·52	54·81	—2·71
Sundargarh ..	54·80	51·17	—3·63
Keonjhar ..	53·51	51·51	—2·00
Mayurbhanj ..	53·61	51·54	—2·07
Balasore ..	54·99	49·06	—5·93
Cuttack ..	55·37	50·67	—4·70
Dhenkanal ..	53·20	51·10	—2·10
Baudh-Khondmals ..	56·67	53·17	—3·50
Bolangir ..	55·34	53·46	—1·88
Kalahandi ..	52·85	50·40	—2·45
Koraput ..	58·77	53·59	—5·18
Ganjam ..	51·25	47·99	—3·26
Puri ..	55·09	51·51	—3·58

Map No. 32


ORISSA
PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15-59 IN URBAN AREAS 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
SUNDARGARH
105,778
52.30%
SAMBALPUR
101,847
54.62%
Reservoir
BOLANGIR
41,594
54.07%
BAUDH-KHONDMALS
9,077
52.47%
KALAHANDI
27,381
52.60%
KORAPUT
80,628
53.83%
GANJAM
126,960
52.02%
DHENKANAL
22,978
50.76%
KEONJHAR
MAYURBHANJ
18,235
51.04%
BALASORE
45,967
49.94%
CUTTACK
133,179
52.14%
PURI
109,978
52.45%
CHILKA LAKE
TOTAL URBAN FEMALE POPULATION 1971
1,500,00
1,000,00
50,000
25,000
9,000
Female Population in working age group 15-59
FIGURES AT THE TOP OF THE CIRCLES INDICATE THE URBAN FEMALE POPULATION OF 1971
PERCENTAGE OF FEMALE POPULATION IN WORKING AGE GROUP 15-59 IN URBAN AREAS
54.01 & Above
53.01 - 54.00
52.01 - 53.00
STATE AVERAGE 52.37
51.01 - 52.00
50.01 - 51.00
Below 50.01

MAP No. 32

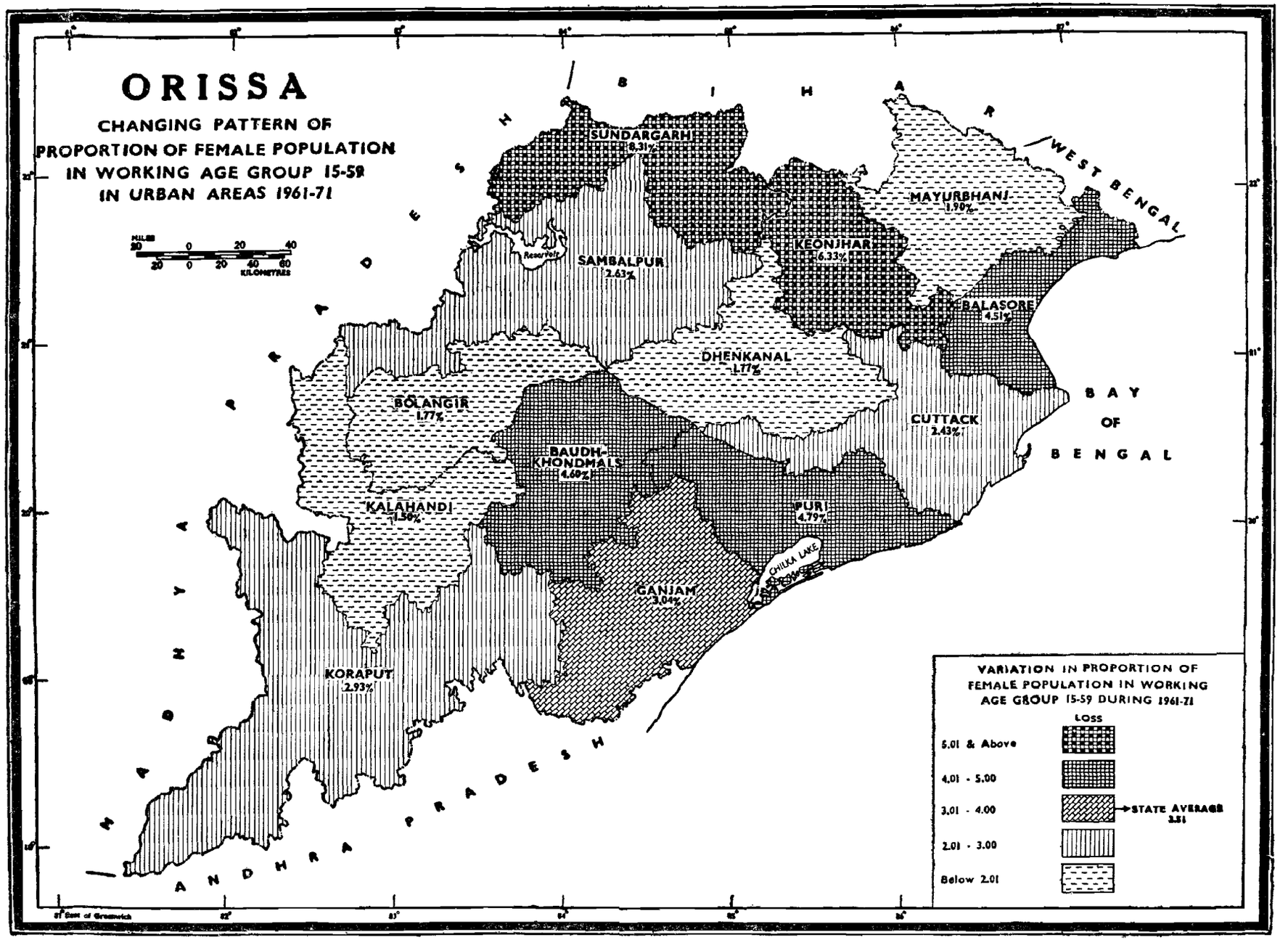
PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15—59 IN URBAN AREAS, 1971

This map depicts the proportion of urban female population in working age 15—59 to the total urban female population of each district in 1971.

The total urban female population of each district is represented by pie-diagrams and the proportion of urban females in the age 15—59 is shown in black shaded sectors inside the concerned circle. The technique followed for Map No. 24 has also been adopted in this case. The percentage figures of urban females in age 15—59 with reference to the total urban female population have been calculated and grouped into six convenient ranges—two above the state average, one nearer to and the rest three below the state average (52·55 per cent). All the districts are hatched as per the grades of hatchings shown in the index using the choropleth technique.

The total number of urban females is 845,335 of whom 444,218 belong to the age group under consideration. The state average comes to 52·55 per cent. Sambalpur district records the highest percentage (54·62) whereas the lowest percentage (49·94) is noticed in Balasore district in 1971.

State/Districts	Total urban female population	Urban female population in working age 15—59	Percentage
1	2	3	4
Orissa ..	**845,335**	**444,218**	**52·55**
Sambalpur ..	101,847	55,627	54·62
Sundargarh ..	105,778	55,326	52·30
Keonjhar ..	30,733	15,838	51·53
Mayurbhanj ..	18,235	9,308	51·04
Balasore ..	45,967	22,958	49·94
Cuttack ..	133,179	69,433	52·14
Dhenkanal ..	22,978	11,669	50·78
Baudh-Khondmals	9,077	4,763	52·47
Bolangir ..	41,594	22,488	54·07
Kalahandi ..	27,381	14,403	52·60
Koraput ..	80,628	43,399	53·83
Ganjam ..	126,960	66,047	52·02
Puri ..	100,978	52,959	52·45


ORISSA
CHANGING PATTERN OF
PROPORTION OF FEMALE POPULATION
IN WORKING AGE GROUP 15-59
IN URBAN AREAS 1961-71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 8.31%
SAMBALPUR 2.63%
Reservoir
MAYURBHANJ 1.90%
KEONJHAR 6.33%
BALASORE 4.51%
DHENKANAL 1.77%
BOLANGIR 1.77%
CUTTACK 2.43%
BAUDH-KHONDMALS 4.60%
KALAHANDI 1.58%
PURI 4.79%
CHILKA LAKE
GANJAM 3.04%
KORAPUT 2.93%
VARIATION IN PROPORTION OF
FEMALE POPULATION IN WORKING
AGE GROUP 15-59 DURING 1961-71
LOSS
5.01 & Above
4.01 - 5.00
3.01 - 4.00
2.01 - 3.00
Below 2.01
STATE AVERAGE 3.51

MAP No. 33

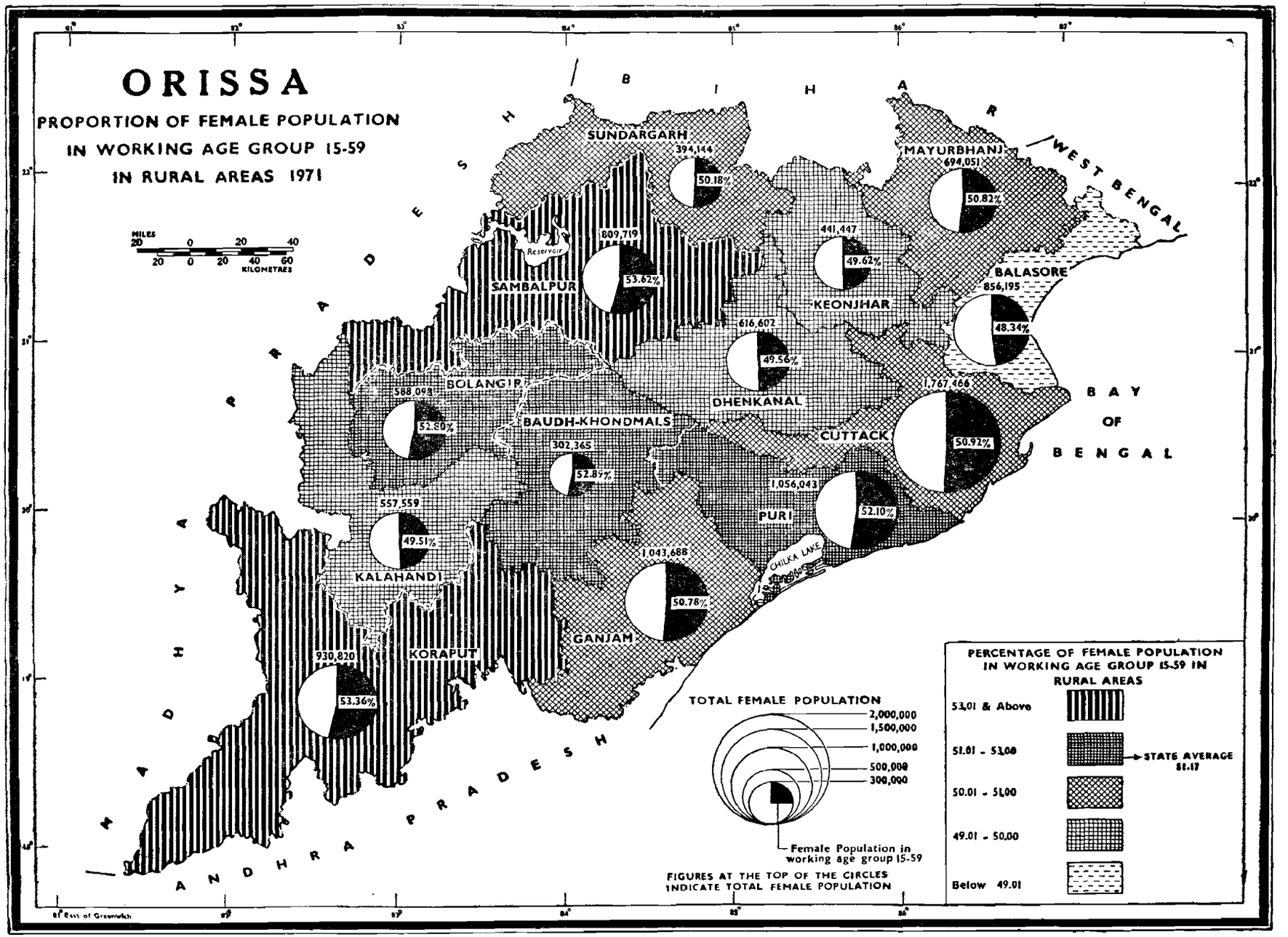
CHANGING PATTERN OF PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15—59 IN URBAN AREAS, 1961—71

This map presents the variation in proportions of urban females in working age 15—59 to the total urban female population during the decade 1961—71.

The proportions of urban females in the working age 15—59 per 100 of total urban female population are calculated for each district separately for the 1961 and 1971 censuses. The differences in these percentage figures relating to the 1971 and 1961 censuses have been grouped into five suitable ranges—two above, one nearer to and two below the state average. All the districts are hatched as per the grades of hatchings given in the index.

The percentage of urban females in the age 15—59 to total urban female population of the state slides down from 56·06 in 1961 to 52·55 in 1971. In 1971 four districts recorded percentages higher than the state average as against six districts of 1961. The districts of Sambalpur and Balasore respectively records the highest (54·62) and lowest (49·94) percent in 1971 whereas the highest and the lowest percentages respectively were noticed in Sundargarh (60·61) and Dhenkanal (52·55) in 1961. Although the number of urban females in age 15—59 has been increased the proportion of the same is declined in each of the districts of the state in 1971 Census.

State/District	Percentage of urban females in age 15—59		Change in percentages during 1961—71
	1961	1971	
1	2	3	4
Orissa ..	**56·06**	**52·55**	**—3·51**
Sambalpur ..	57·25	54·62	—2·63
Sundargarh ..	60·61	52·30	—8·31
Keonjhar ..	57·86	51·53	—6·33
Mayurbhanj ..	52·94	51·04	—1·90
Balasore ..	54·45	49·94	—4·51
Cuttack ..	54·57	52·14	—2·43
Dhenkanal ..	52·55	50·78	—1·77
Baudh-Khondmals	57·07	52·47	—4·60
Bolangir ..	55·84	54·07	—1·77
Kalahandi ..	54·10	52·60	—1·50
Koraput ..	56·76	53·83	—2·93
Ganjam ..	55·06	52·02	—3·04
Puri ..	57·24	52·45	—4·79


ORISSA
PROPORTION OF FEMALE POPULATION
IN WORKING AGE GROUP 15-59
IN RURAL AREAS 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
394,144
50.18%
MAYURBHANJ
694,051
50.82%
Reservoir
809,719
53.62%
SAMBALPUR
441,447
49.62%
KEONJHAR
BALASORE
856,195
48.34%
616,602
49.56%
DHENKANAL
BOLANGIR
588,099
52.80%
BAUDH-KHONDMALS
302,365
52.87%
1,767,466
50.92%
CUTTACK
1,056,043
52.10%
PURI
557,559
49.51%
KALAHANDI
1,043,688
50.78%
CHILKA LAKE
GANJAM
930,820
53.36%
KORAPUT
TOTAL FEMALE POPULATION
2,000,000
1,500,000
1,000,000
500,000
300,000
Female Population in working age group 15-59
FIGURES AT THE TOP OF THE CIRCLES INDICATE TOTAL FEMALE POPULATION
PERCENTAGE OF FEMALE POPULATION IN WORKING AGE GROUP 15-59 IN RURAL AREAS
53.01 & Above
51.01 - 53.00
STATE AVERAGE 51.17
50.01 - 51.00
49.01 - 50.00
Below 49.01
82° East of Greenwich

MAP No. 34

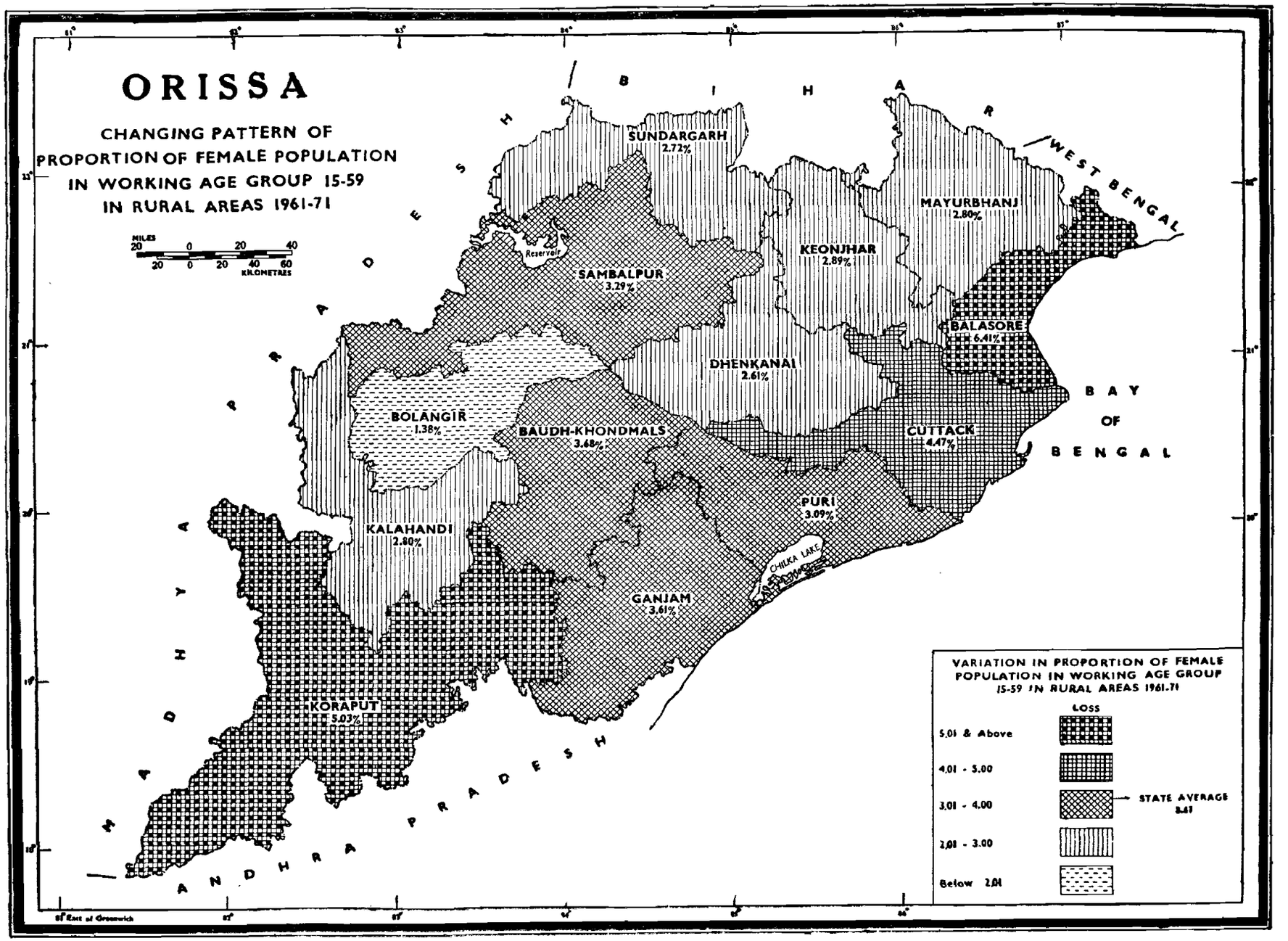
PROPORTION OF FEMALE POPULATION IN WORKING, AGE GROUP 15—59 IN RURAL AREAS, 1971

This map shows the proportion of female population in working age 15—59 to the total female population in the rural areas of each of the districts of Orissa in 1971.

The percentage figures of such female population have been calculated for all the districts and grouped into five ranges—one above, one nearer to and three below the state average (51·17). Choropleth technique is adopted for this map and all the districts have been hatched in accordance with the index given in this map. Pie-graph is drawn for each district to represent its rural female population and black sectors in the pie-graphs are intended to represent the rural female population of the concerned districts in the age group under consideration.

As many as 5,146,660 or 51·17 per cent of the total rural females (10,058,197) belong to the age 15—59 as per the 1971 Census report. A study of the map reveals that the districts of Sambalpur and Balasore respectively recorded the highest (53·62) and the lowest (48·34) percentages of females in the working age 15—59 to the total rural female population in 1971.

State/District	Total rural female population	Rural female population in working age 15—59	Percentage
1	2	3	4
Orissa ..	**10,058,197**	**5,146,660**	**51·17**
Sambalpur ..	809,719	434,159	53·62
Sundargarh ..	/394,144	197,776	50·18
Keonjhar ..	441,447	219,047	49·62
Mayurbhanj ..	694,051	352,735	50·82
Balasore ..	856,195	413,843	48·34
Cuttack ..	1,767,466	900,047	50·92
Dhenkanal ..	616,602	305,602	49·56
Baudh-Khondmals	302,365	159,911	52·89
Bolangir ..	588,098	310,519	52·80
Kalahandi ..	557,559	276,065	49·51
Koraput ..	930,820	496,724	53·36
Ganjam ..	1,043,688	529,990	50·78
Puri ..	1,056,043	550,242	52·10


ORISSA
CHANGING PATTERN OF PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15-59 IN RURAL AREAS 1961-71
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Hirakud Reservoir
SUNDARGARH 2.72%
SAMBALPUR 3.29%
KEONJHAR 2.89%
MAYURBHANJ 2.80%
BALASORE 6.41%
DHENKANAL 2.61%
CUTTACK 4.47%
BOLANGIR 1.38%
BAUDH-KHONDMALS 3.68%
PURI 3.09%
KALAHANDI 2.80%
CHILKA LAKE
GANJAM 3.61%
KORAPUT 5.03%
VARIATION IN PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15-59 IN RURAL AREAS 1961-71
LOSS
5.01 & Above
4.01 - 5.00
3.01 - 4.00
2.01 - 3.00
Below 2.01
STATE AVERAGE 3.61
82° East of Greenwich

MAP No. 35

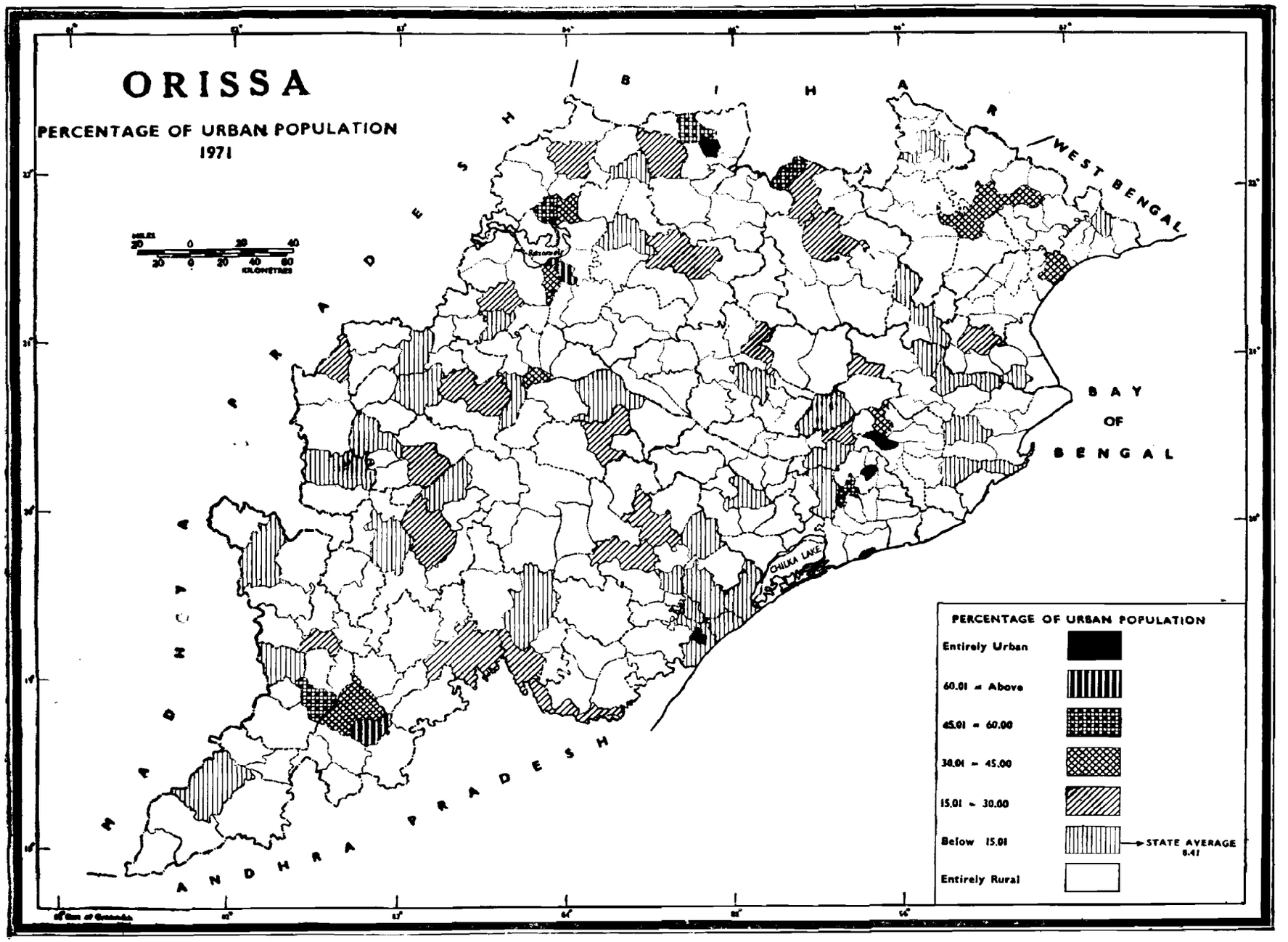
CHANGING PATTERN OF PROPORTION OF FEMALE POPULATION IN WORKING AGE GROUP 15—59 IN RURAL AREAS, 1961—71

This map presents the change in the proportion of rural females in working age 15—59 to the total rural female population in each of the districts during the decade, 1961—71.

Proportions of rural females in working age 15—59 per 100 rural female population have been calculated for each of the districts of the state separately for the 1961 and 1971 censuses. The differences of the percentage figures of 1961 and 1971 censuses are calculated and grouped into five ranges—two above, one nearer to and two below the state average (—3·67). All the districts have been shaded as per the grades of hatchings indicated in the index.

The state's percentage of rural females in the age 15—59 slides down by 3·67 from 54·84 in 1961 to 51·17 in 1971. The percentage figures of rural females in the working age 15—59 to total rural females decreased for all the districts in 1971. Maximum and minimum decrease is respectively noticed in the districts of Balasore (6·41) and Bolangir (1·38) during the decade under consideration. The following table would indicate the positions of the state and districts for both the censuses of 1961 and 1971.

State / District	Percentage of rural females in age 15—59		Change during the decade 1961—71
	1961	1971	
1	2	3	4
Orissa ..	**54·84**	**51·17**	**—3·67**
Sambalpur ..	56·91	53·62	—3·29
Sundargarh ..	52·90	50·18	—2·72
Keonjhar ..	52·51	49·62	—2·89
Mayurbhanj ..	53·62	50·82	—2·80
Balasore ..	54·75	48·34	—6·41
Cuttack ..	55·39	50·92	—4·47
Dhenkanal ..	52·17	49·56	—2·61
Baudh-Khondmals	56·57	52·89	—3·68
Bolangir ..	54·18	52·80	—1·38
Kalahandi ..	52·31	49·51	—2·80
Koraput ..	58·39	53·36	—5·03
Ganjam ..	54·39	50·78	—3·61
Puri ..	55·19	52·10	—3·09


ORISSA
PERCENTAGE OF URBAN POPULATION
1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
CHILKA LAKE
PERCENTAGE OF URBAN POPULATION
Entirely Urban
60.01 & Above
45.01 - 60.00
30.01 - 45.00
15.01 - 30.00
Below 15.01
STATE AVERAGE 8.41
Entirely Rural

MAP No. 36

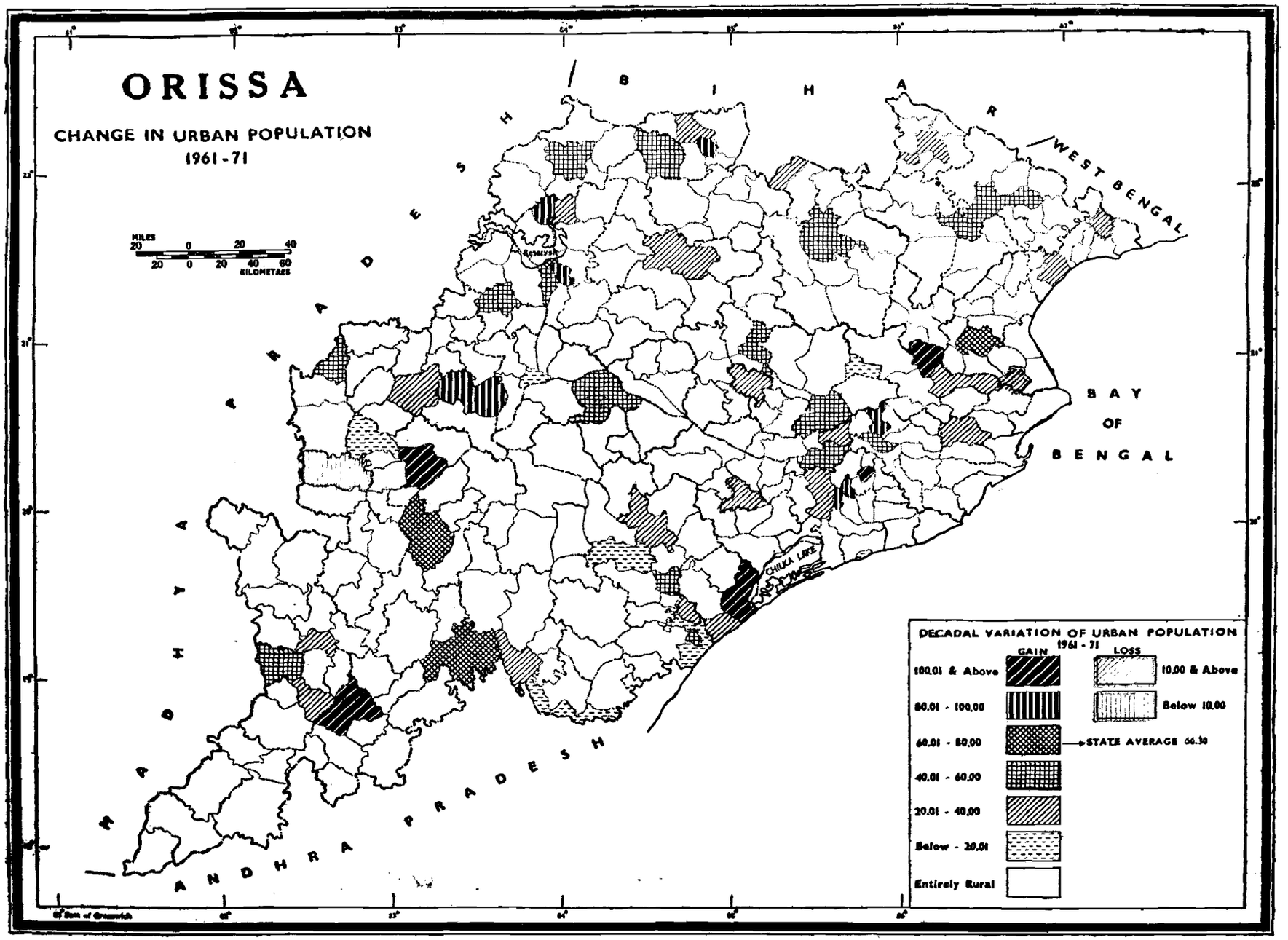
PERCENTAGE OF URBAN POPULATION, 1971

This map depicts the percentage of urban population to total population for each of the police stations of the state of Orissa in 1971.

Percentage of urban population to the total population of each police station is calculated. These percentage figures are then grouped into six suitable ranges above and below the state average. The police stations are shaded according to the gradations of hatchings as shown in the legend.

Out of the total population of 21,944,615 as recorded in the 1971 Census, as many as 1,845,395 persons are living in the urban areas. Thus the percentage of urban population comes to 8·41.

The town police stations of Cuttack, Bhubaneswar, Rourkela, Berhampur and Puri have got cent per cent urban population. The urban population constitute more than 75 per cent of the total population in the police stations of Sambalpur and Hirakud followed by the P. Ss. of Semiliguda and Brajrajnagar where urban population respectively consitute 62·16 and 53·81 per cent of the total population.


ORISSA
CHANGE IN URBAN POPULATION
1961 - 71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
CHILKA LAKE
DECADAL VARIATION OF URBAN POPULATION
1961 - 71
GAIN
LOSS
100.01 & Above
80.01 - 100.00
60.01 - 80.00
40.01 - 60.00
20.01 - 40.00
Below - 20.01
Entirely Rural
10.00 & Above
Below 10.00
STATE AVERAGE 66.38

MAP No. 37

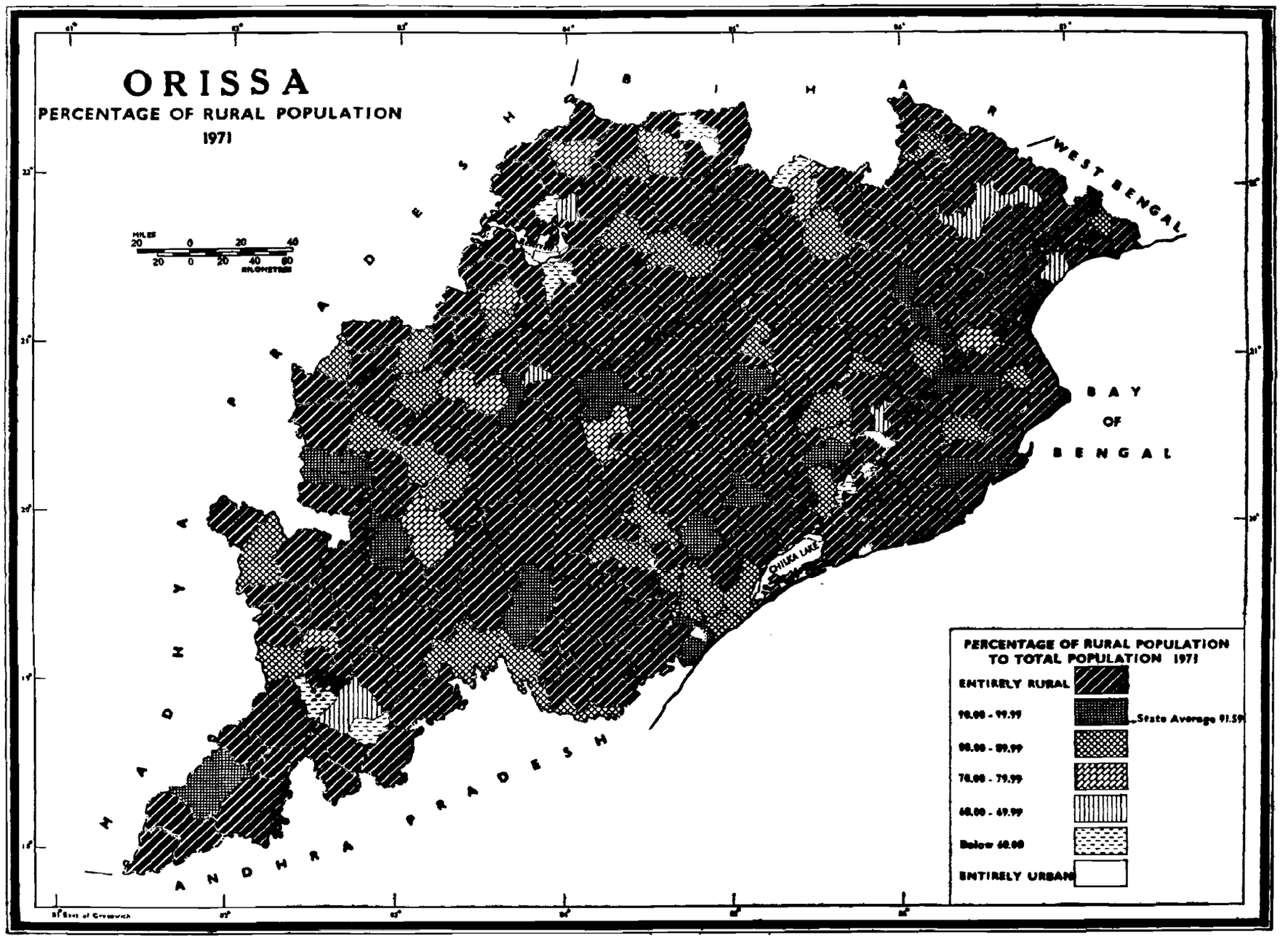
CHANGE IN URBAN POPULATION, 1961—71

This map presents the percentage decadal variation of urban population in each police station of the state during 1961—1971.

Percentages of net increase or decrease in urban population during the deacade 1961—71 have been calculated for each police station in the state and are grouped into eight (six for increase and two for decrease) suitable ranges as shown in the legend. The police stations are hatched according to the ranges as shown in the legend. The loss of urban population is shown in red colour while the gain is hatched in black colour.

The number of towns of the state increased from 62 in 1961 to 81 in 1971. The urban population accordingly increased from 1,109,650 in 1961 to 1,845,395 in 1971. The percentage of increase of the urban population of the state is 66·30 during the decade under reference.

There are five police stations in differentt districts of Orissa in which percentage decrease of their urban population is found during the decade 1961—71. Jaleswar and Chandbali police stations of Balasore district have respectively recorded decrease of 34·22 per cent and 28·59 per cent of their urban population. Maximum percentage decadal decrease (42·48 per cent) of urban population is recorded in Angul police station of Dhenkanal district. Khariar P. S. of Kalahandi district and Nayagarh P. S. of Puri district have respectively registered decrease of 2·82 per cent and 10·42 per cent of their urban population during the decade.


ORISSA
PERCENTAGE OF RURAL POPULATION
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
CHILKA LAKE
PERCENTAGE OF RURAL POPULATION TO TOTAL POPULATION 1971
ENTIRELY RURAL
90.00 - 99.99
State Average 91.59
80.00 - 89.99
70.00 - 79.99
60.00 - 69.99
Below 60.00
ENTIRELY URBAN

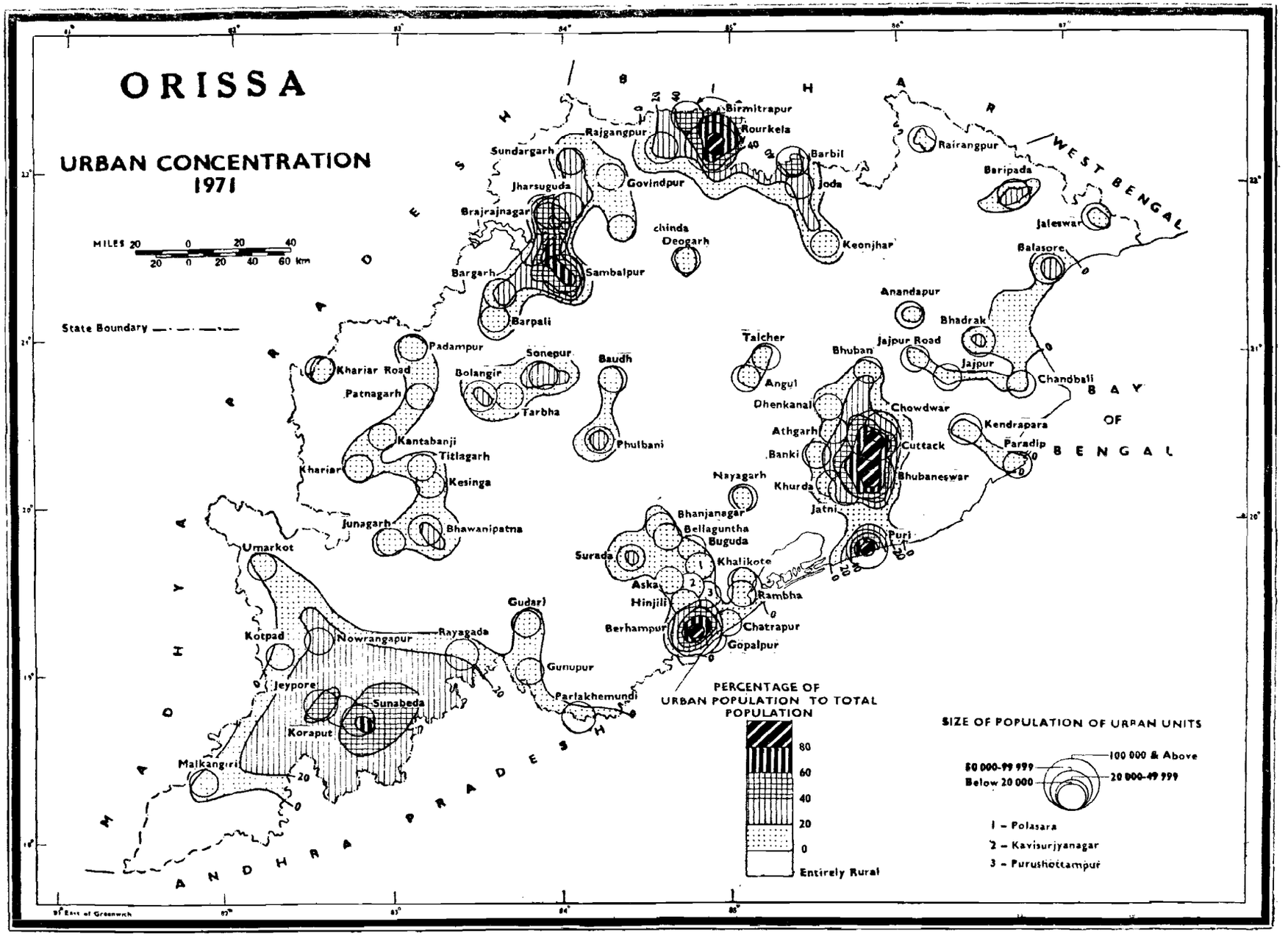
MAP No. 38

PERCENTAGE OF RURAL POPULATION, 1971

This map depicts the percentage of rural population to total population for each police station of the state of Orissa in 1971.

The percentage of rural popula tion to the total population of each police station has been calculated and the percentage figures thus obtained are grouped into six suitable ranges above and below the state average. The police stations are then hatched from dark to light hatching in a descending order of percentages as shown in the legend.

There are 230 police stations which have got exclusively rural population. The rural population of the state is 20,099,220 as per the 1971 Census. They constitute 91·59 per cent of the total population of the state. The percentage of rural population is very high (97·21 per cent) in the district of Mayurbhanj followed by Baudh-Khondmals (96·85 per cent) and Dhenkanal (96·00 per cent). As many as nine districts of the state present the percentages of rural population above the state average. The district of Sundargarh has the lowest percentage (76·75 per cent) of rural population in the state.


ORISSA
URBAN CONCENTRATION
1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Birmitrapur
Rourkela
Rajgangpur
Sundargarh
Barbil
Rairangpur
Baripada
Jharsuguda
Govindpur
Joda
Jaleswar
Brajrajnagar
chinda
Deogarh
Keonjhar
Balasore
Bargarh
Sambalpur
Anandapur
Barpali
Bhadrak
Talcher
Jajpur Road
Padampur
Sonepur
Baudh
Bhuban
Kharlar Road
Bolangir
Jajpur
Angul
Chandbali
Patnagarh
Tarbha
Dhenkanal
Chowdwar
Kantabanji
Phulbani
Athgarh
Kendrapara
Titlagarh
Banki
Cuttack
Paradip
Kharlar
Kesinga
Nayagarh
Bhubaneswar
Khurda
Junagarh
Bhawanipatna
Jatni
Bhanjanagar
Puri
Umarkot
Bellaguntha
Buguda
Surada
Khalikote
Aska
Rambha
Gudari
Hinjili
Berhampur
Chatrapur
Kotpad
Nowrangapur
Rayagada
Gopalpur
Gunupur
Jeypore
Parlakhemundi
Sunabeda
Koraput
Malkangiri
PERCENTAGE OF URBAN POPULATION TO TOTAL POPULATION
80
60
40
20
0
Entirely Rural
SIZE OF POPULATION OF URBAN UNITS
100 000 & Above
50 000-99 999
20 000-49 999
Below 20 000
1 – Polasara
2 – Kavisurjyanagar
3 – Purushottampur

MAP No. 39

URBAN CONCENTRATION, 1971

The map presents the degree of urban concentration in the state of Orissa in 1971.

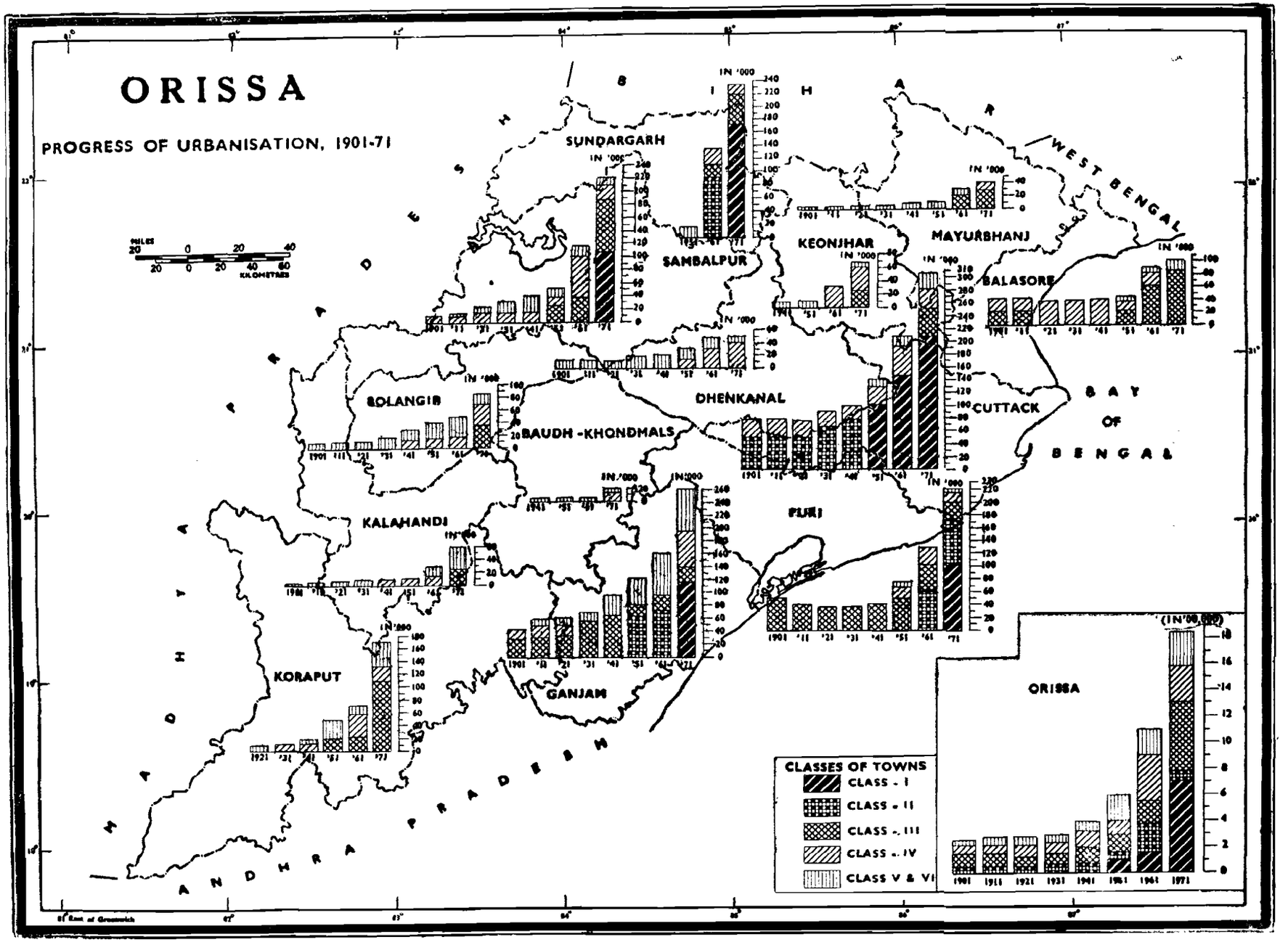
The percentage values of urban population to the total population of each police station are calculated and are plotted in the centre of each police station. The isopleth lines are then drawn at intervals of 5, 10, 15, 20, 25, 30, 40 and 50+. The intervening space between two isopleth lines are hatched from high to low shading according to the gradations as shown in the legend. Spheres proportionate to the size of the population of each town are drawn at the centre of each urban unit.

There are 1,845,395 persons living in towns out of 21,944,615 persons of the state. Thus the state average of the urban population is 8·41 per cent. There are 71 police stations in the state in which urban areas (75 towns) are found. So the rest of the police stations (230) do not have any urban population. But there are five town police stations embracing six towns are entirely urban areas.

The percentages of urban population in three police stations are very high (above 62 per cent) although the state average is very low (8·41 per cent). There are nine police stations, where the percentage of urban population is less than that of the state average. Gopalpur P. S. of Ganjam district has the lowest percentage (1·97) of urban population in the state.

Cuttack, Bhubaneswar, Berhampur, Rourkela and Puri are the five town police stations which have got the cent per cent urban population in the state. Sambalpur and Hirakud are the police stations where the urban population constitute over 75 per cent of the total population.

There are only two towns in the state which have lost their urban status during the decade 1961—71. They are, Soro in Balasore district and Machkund in Koraput district.


ORISSA
PROGRESS OF URBANISATION, 1901-71
SUNDARGARH
SAMBALPUR
KEONJHAR
MAYURBHANJ
BALASORE
SOLANGIR
BAUDH -KHONDMALS
DHENKANAL
CUTTACK
KALAHANDI
PURI
KORAPUT
GANJAM
BAY OF BENGAL
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
CLASSES OF TOWNS
CLASS - I
CLASS - II
CLASS - III
CLASS - IV
CLASS V & VI
ORISSA

MAP No. 40

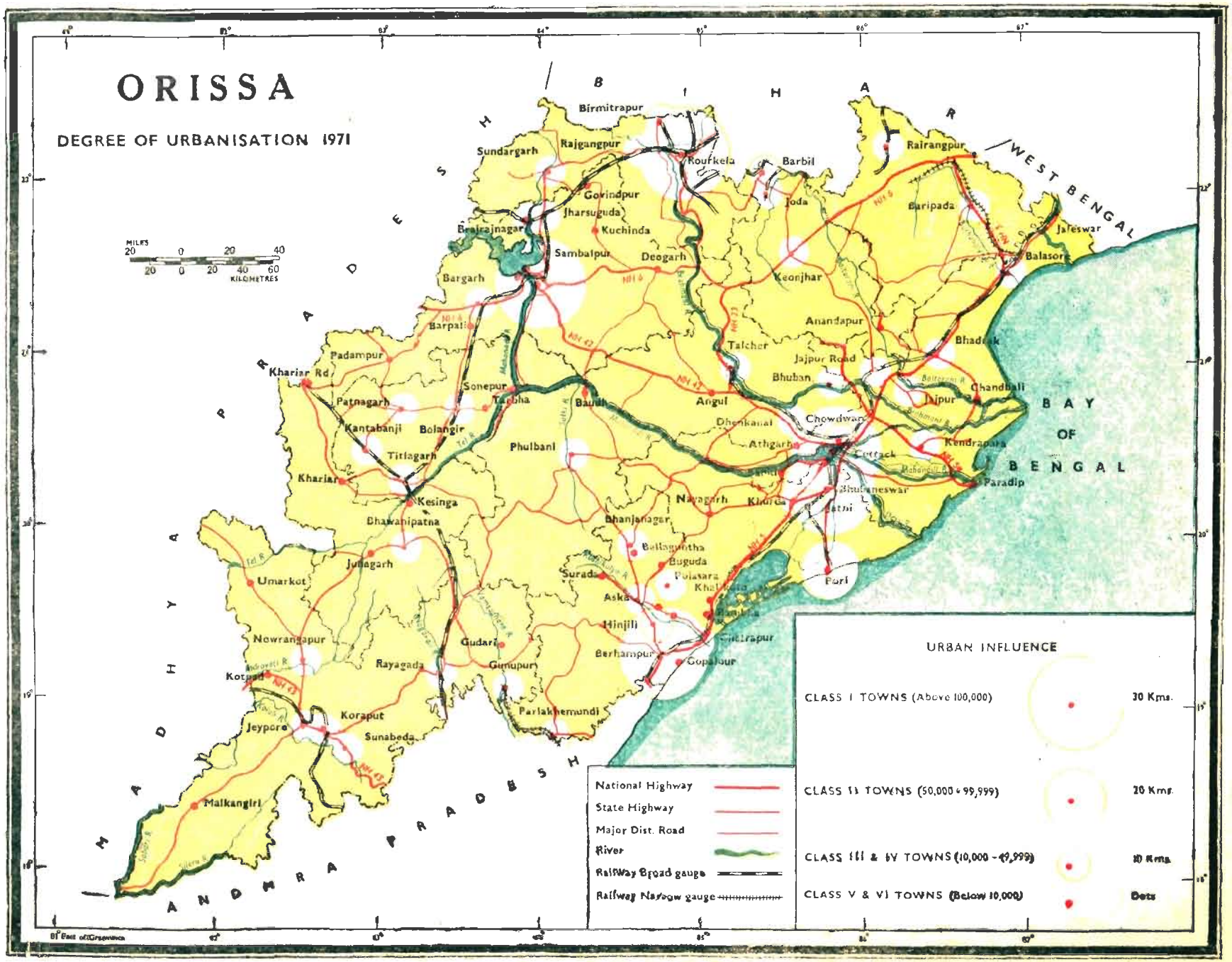
PROGRESS OF URBANISATION, 1901—71

The map shows the progress of urbanisation in each of the districts of Orissa since 1901.

Eight vertical bars proportionate to total urban population for the eight decennial Census years from 1901 to 1971 are drawn in each of the districts of the state. Each of these bars is devided into five parts indicating the urban population living in Class I cities/urban agglomerations, class II towns, class III towns, Class IV towns and Class V+VI (combined) towns in each district. These sectors of each bar are shaded by different hatchings. A vertical scale showing the urban population in absolute number is shown on the right hand side of each diagram.

During the last decade there is a notable progress of urbanisation in the district of Sundargarh owing to the location of the Rourkela Steel Plant and other auxilary industries in the district. Cuttack ranks second in the list of districts where the progress of urbanisation has been very speedy since the last three decades, followed by Ganjam, Puri and Sambalpur.

Baudh-Khondmals is the only district where the growth of ur banisation is not at all eye-catching


ORISSA
DEGREE OF URBANISATION 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Birmitrapur
Rajgangpur
Sundargarh
Rourkela
Barbil
Rairangpur
Govindpur
Jharsuguda
Kuchinda
Sambalpur
Deogarh
Bargarh
Barpali
Padampur
Kharian Rd
Patnagarh
Sonepur
Titlagarh
Kantabanji
Bolangir
Phulbani
Kharian
Kesinga
Bhawanipatna
Umarkot
Junagarh
Nowrangapur
Rayagada
Kotpad
Koraput
Jeypore
Sunabeda
Malkangiri
Gudari
Gunupur
Parlakhemundi
Berhampur
Gopalpur
Surada
Aska
Hinjili
Bhanjanagar
Baliguntha
Buguda
Polasara
Naragarh
Khurda
Puri
Bhubaneswar
Cuttack
Paradip
Kendrapara
Chandbali
Bhadrak
Balasore
Jaleswar
Baripada
Joda
Keonjhar
Anandapur
Jajpur Road
Bhuban
Dhenkanal
Angul
Talcher
Baudh
Athgarh
Chowdwar
Jajpur
MILES
KILOMETRES
National Highway
State Highway
Major Dist. Road
River
Railway Broad gauge
Railway Narrow gauge
URBAN INFLUENCE
CLASS I TOWNS (Above 100,000)
30 Kms.
CLASS II TOWNS (50,000 - 99,999)
20 Kms.
CLASS III & IV TOWNS (10,000 - 49,999)
10 Kms.
CLASS V & VI TOWNS (Below 10,000)
Dots

MAP No. 41

DEGREE OF URBANISATION, 1971

This map shows the extent of urban influence extended by the cities and towns of 1971 in their surrounding regions of the state.

The regions over which the influence of urban centres is felt are represented through circles of different radii. The radii of these circles represent the distances upto which the urban influence is felt. Each class of town has its degree of influence upon its surrounding areas as indicated below.

The classes of towns, then population and the distances upto which their influence is felt.

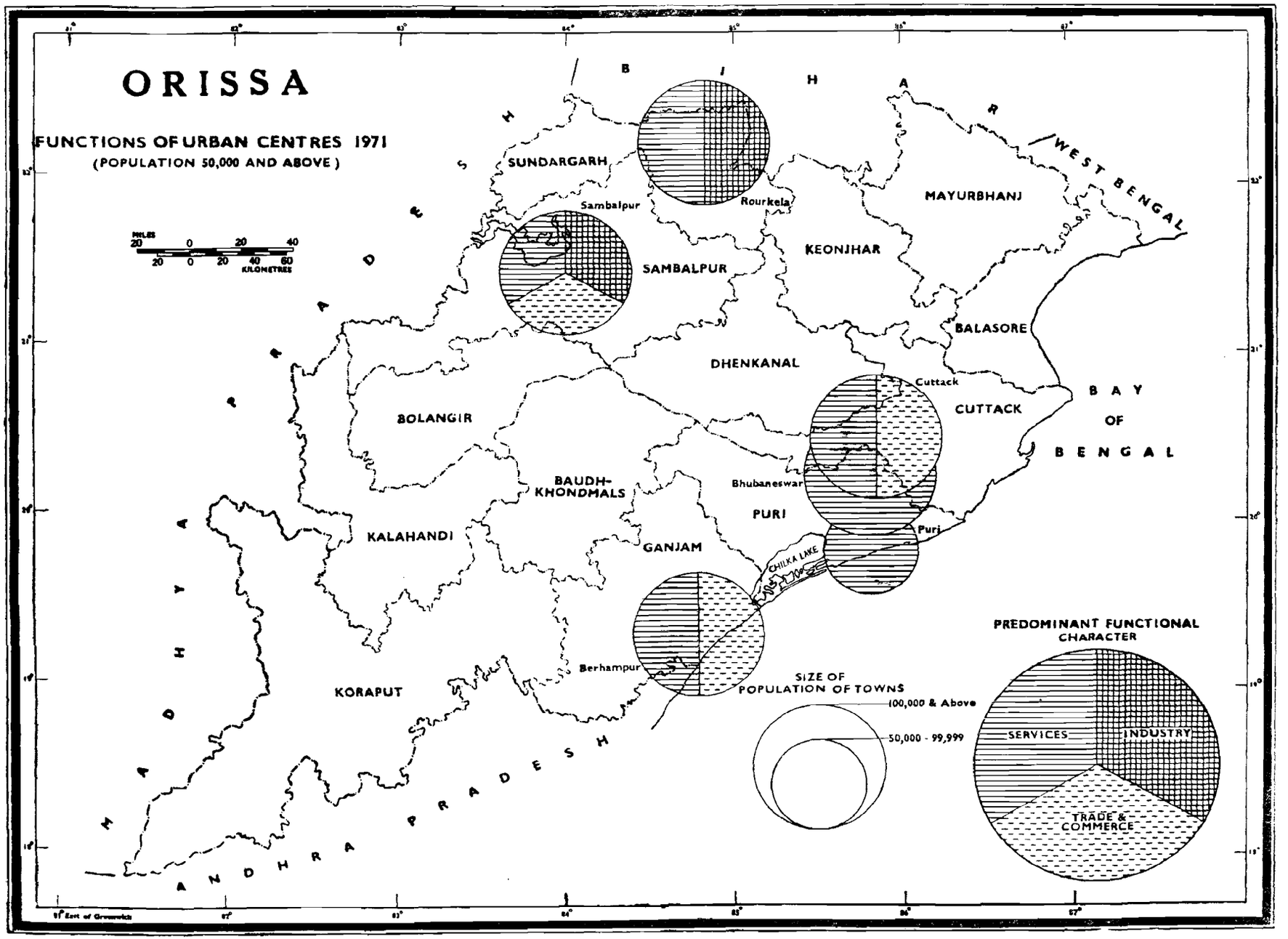
Classes of urban centres	Population size	Extent of urban influence
1	2	3
Class I	.. Above 100,000	30 Kms.
Class II	.. 50,000 to 99,999	20 Kms.
Class III & IV	.. 10,000 to 49,999	10 Kms.
Class V & VI	.. Below 10,000	Dots.

Thus an urban centre with population over 100,000 is assumed to influence a distance of 30 Kms. in its surrounding areas. Similarly, an urban centre having less than 10,000 of population is represented by a dot indicating its negligible extent of urban influence. Almaund colour is used in the map to differentiate the rural areas which are beyond the reach of urban influence.

A glance at the map reveals that the degree of urbanisation is very uneven in the state. Urban units of Cuttack, Bhubaneswar, Berhampur, Sambalpur and Rourkela under Class I urban centres show a high degree of urban influence while in the central region of the state the urban influence is very negligible.

The cities of Cuttack, Bhubaneswar, Berhampur and Rourkela have got very high degree of urban influence owing to contiguous location of other urban units.

Puri town is only one urban centre under Class II of the 1971 Census which influences a distance of 20 Kms. There are as many as 40 towns under Class III and IV each of which influence a distance of 10 Kms. only, whereas the rest 32 towns of this state have negligible influence upon their surroundings.


ORISSA
FUNCTIONS OF URBAN CENTRES 1971
(POPULATION 50,000 AND ABOVE)
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
Sambalpur
Rourkela
MAYURBHANJ
KEONJHAR
SAMBALPUR
BALASORE
DHENKANAL
Cuttack
CUTTACK
BOLANGIR
BAUDH-KHONDMALS
Bhubaneswar
PURI
Puri
KALAHANDI
GANJAM
CHILKA LAKE
Berhampur
KORAPUT
SIZE OF POPULATION OF TOWNS
100,000 & Above
50,000 - 99,999
PREDOMINANT FUNCTIONAL CHARACTER
SERVICES
INDUSTRY
TRADE & COMMERCE

MAP No. 42

FUNCTIONS OF URBAN CENTRES (POPULATION 50,000 AND ABOVE), 1971

This map depicts the predominant functional characters of urban centres having population of 50,000 and above in the state of Orissa, in 1971.

The nine broad industrial categories of workers are grouped into six as follows :

Industrial Categories	Group
I. Cultivators	I. Primary
II. Agricultural labourers	
III. Livestock, forestry, fishing, hunting and plantation etc.	
IV. Mining & Quarrying	II. Mining
V. Manufacturing, Processing, Servicing and Repairs	III. Industrial
(*a*) Household Industry	
(*b*) Other than household Industry	
VI. Construction	
VII. Trade and Commerce	IV. Commercial
VIII. Transport, Storage and Communications	V. Transport
IX. Other services	VI. Services

Percentage of workers under each category to total workers is calculated for each urban agglomeration/city/town. The towns are classified as Mono-functional, Bi-functional and Multi-functional in accordance with their percentage values as per the principle envisaged below.

1. If one sector of economy constitutes 40 per cent or more of the total workers it will be designated by a particular industrial category, e. g., Primary or Industrial or Mining town or as the case may be. Such category of towns may be mono-functional in character.

2. If the percentage figure is less than 40 then the next predominant industrial category is taken into account so that their total reaches 60 per cent or more. Such towns are designated as Bi-functional town, e. g., Industry-*cum*-Services or Mining-*cum*-Primary activities, etc.

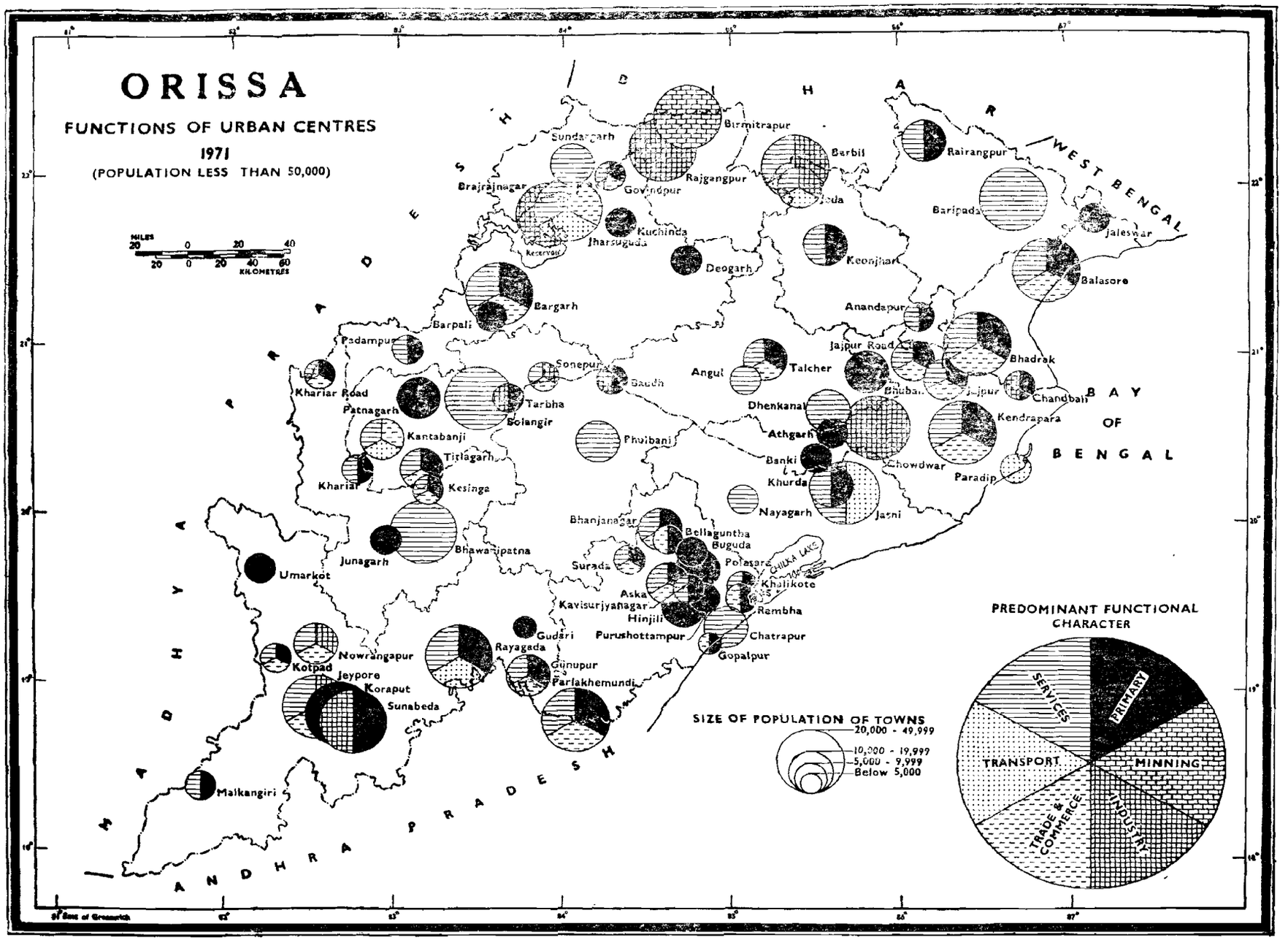
3. If this total does not come up to 60 per cent then the third predominant industrial category is taken into account to designate the town as Multi-functional town, e. g., Industry -*cum*-Service-*cum*-Commercial or Primary activities-*cum*-Industrial-*cum*-Transport town and so on.

The urban centres of different classes are shown by circles proportionate to the size of their population. To differentiate the various functional characters of urban centres different hatchings are used in different sectors of circles as shown in the legend.

In Orissa there are five urban centres namely, Sambalpur, Rourkela, Cuttack, Berhampur and Bhubaneswar which have population over 100,000 and only one urban centre namely, Puri which has more than 50,000 population.

Of these six urban centres, Puri and Bhubaneswar are the two mono-functional centres where services are the predominant character embracing more than 40 per cent of their total workers.

Rourkela, Cuttack and Berhampur are treated as bi-functional centres. In case of Rourkela the workers engaged in industry and services constitute more than 60 per cent of the total number of workers. But in the remaining two centres (Cuttack and Berhampur) workers engaged in trade & commerce and services contribute more than 60 per cent of the total workers. Sambalpur is the only multifunctional urban centre where workers engaged in services, trade & commerce and industry predominate other workers of the centre.


ORISSA
FUNCTIONS OF URBAN CENTRES
1971
(POPULATION LESS THAN 50,000)
MILES
KILOMETRES
WEST BENGAL
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
Sundargarh
Birmitrapur
Rajgangpur
Barbil
Rairangpur
Brajrajnagar
Govindpur
Kuchinda
Jharsuguda
Deogarh
Keonjhar
Baripada
Jaleswar
Balasore
Bargarh
Barpali
Padampur
Anandapur
Jajpur Road
Bhadrak
Sonepur
Baudh
Angul
Talcher
Bhubaneswar
Jajpur
Chandbali
Kharlar Road
Patnagarh
Tarbha
Bolangir
Dhenkanal
Kendrapara
Kantabanji
Phulbani
Athgarh
Titlagarh
Banki
Chowdwar
Kharlar
Kesinga
Khurda
Paradip
Nayagarh
Jatni
Bhanjanagar
Bellaguntha
Buguda
Bhawanipatna
Junagarh
Surada
Polesare
Chilka Lake
Umarkot
Khalikote
Aska
Kavisurjyanagar
Rambha
Hinjili
Gudari
Purushottampur
Chatrapur
Rayagada
Gopalpur
Nowrangapur
Gunupur
Kotpad
Parlakhemundi
Jeypore
Koraput
Sunabeda
Malkangiri
PREDOMINANT FUNCTIONAL CHARACTER
SERVICES
PRIMARY
TRANSPORT
MINNING
TRADE & COMMERCE
INDUSTRY
SIZE OF POPULATION OF TOWNS
20,000 - 49,999
10,000 - 19,999
5,000 - 9,999
Below 5,000

MAP No. 43

FUNCTIONS OF URBAN CENTRES, (POPULATION LESS THAN 50,000) 1971,

This map depicts the predominant functional characteristics of urban centres with population of less than 50,000.

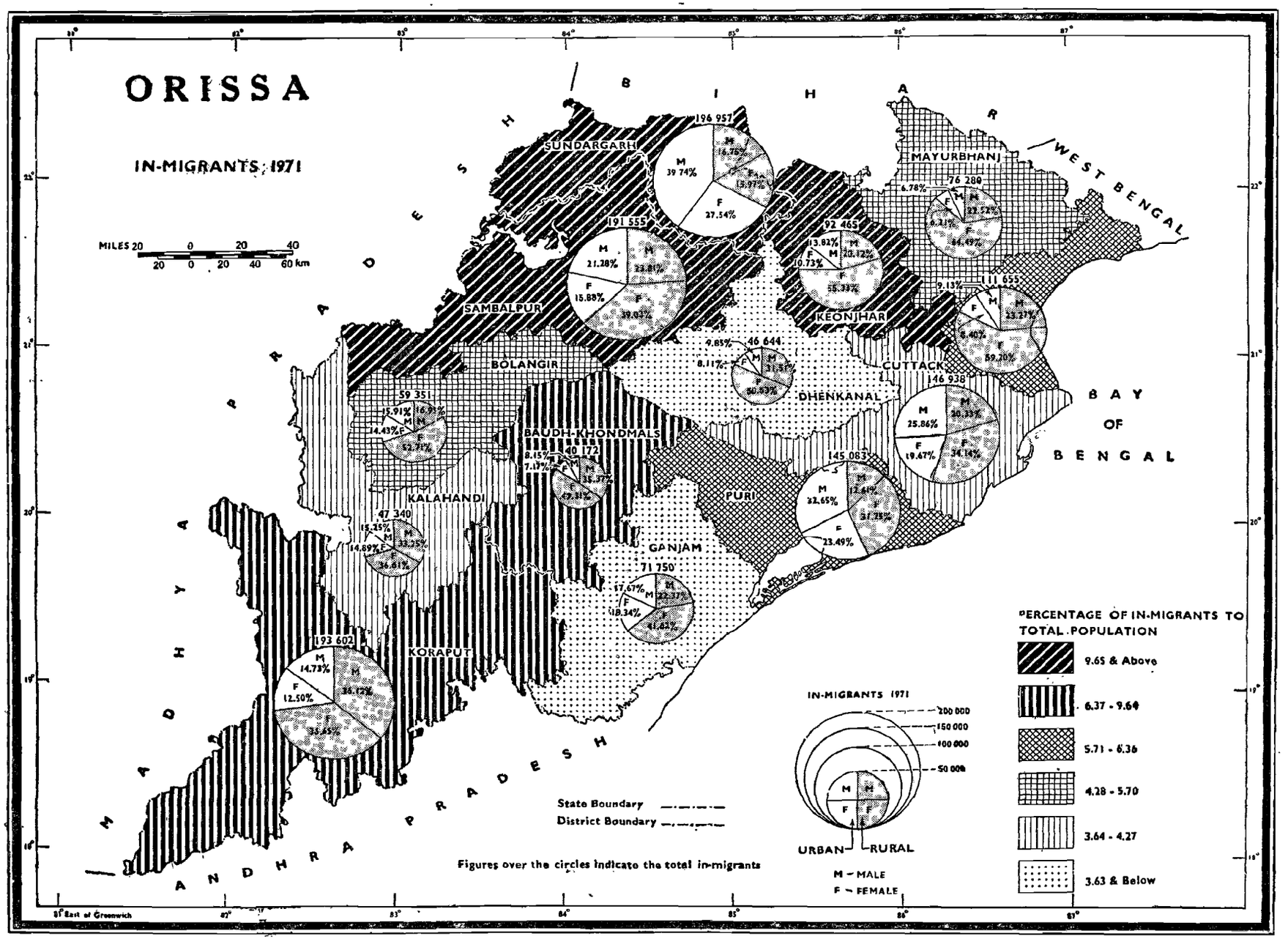
There are 72 urban centres of Class III, IV, V and VI with less than 50,000 population each in the state of Orissa. The technique for preparation of this map is the same as that of Map No. 42.

Of these 72 urban centres, as many as 31 centres are Mono-functional towns of which 17 are Primary activity towns, three are Industrial towns, ten are Services towns and only one (Paradip) is Transport town.

There are 16 bi-functional urban centres in the state of which nine are Primary-*cum*-Services towns, four are Primary-*cum*-Industrial towns and three are Primary-*cum*-Trade & Commercial towns.

There are 25 multi-functional urban centres in the state. The workers of any three predominant industrial categories constitute 60 per cent or more of total workers in each of these 25 towns.

MAP No. 44


ORISSA
IN-MIGRANTS 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
SUNDARGARH
SAMBALPUR
BOLANGIR
KALAHANDI
KORAPUT
BAUDH-KHONDMALS
GANJAM
PURI
DHENKANAL
CUTTACK
KEONJHAR
MAYURBHANJ
196 957
191 555
92 465
76 280
111 655
146 938
145 083
46 644
71 750
40 172
59 351
47 340
193 602
State Boundary
District Boundary
Figures over the circles indicate the total in-migrants
IN-MIGRANTS 1971
200 000
150 000
100 000
50 000
URBAN
RURAL
M – MALE
F – FEMALE
PERCENTAGE OF IN-MIGRANTS TO TOTAL POPULATION
9.65 & Above
6.37 - 9.64
5.71 - 6.36
4.28 - 5.70
3.64 - 4.27
3.63 & Below
81° East of Greenwich

MAP No. 44

IN-MIGRANTS, 1971

This map depicts two features—(*i*) the percentage of in-migrants to total population of each district and (*ii*) percentage of rural and urban migrants with sex break-up to total migrants of each district with reference to the place of birth.

A circle proportionate to total in-migrants of each district is drawn at the appropriate place on the map. The absolute figures of total in-migrants are written at the top of the circles of the respective districts. Each circle is further divided into sectors representing rural and urban in-migrants with sex break-up. A rural sector of each district is shaded with black screen to differentiate it from the urban sector. In each sector of the circle the percentage value of male and female in-migrants to total in-migrants of the respective district is written.

The percentage of total in-migrants to total population of each district is calculated. The data thus obtained are grouped into six suitable ranges—one above, one nearer to and four below the state average (6·47 per cent). The areas out side the circle of each of the districts are shaded from dark to light using the choropleth technique as shown in the legend of the map.

The total population of the state is 21,944,615 as per the 1971 Census of which 1,419,792 persons or 6·47 per cent are the in-migrants to all the districts of the state. This map does not include any data with regard to inter-district migrants.

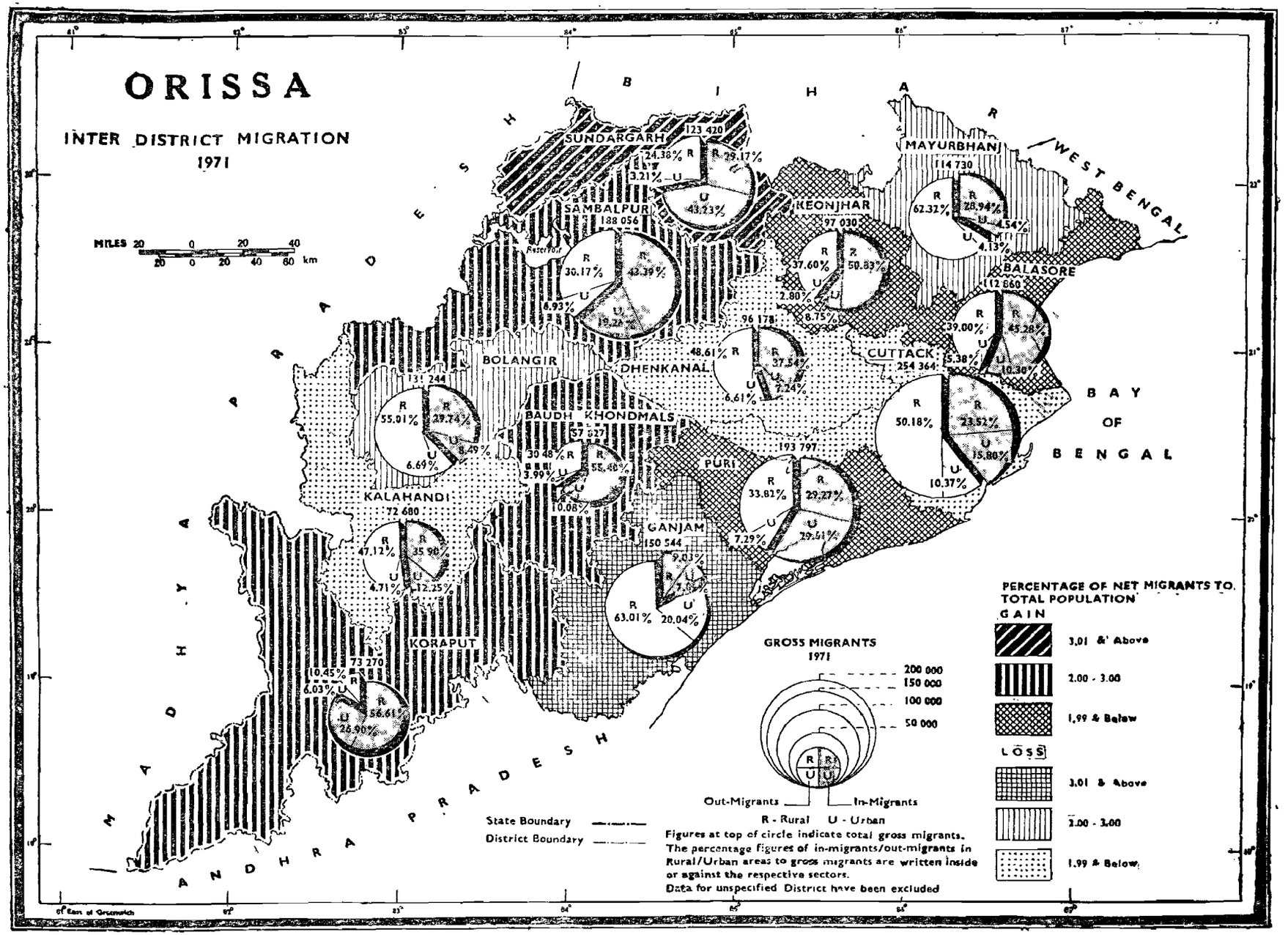
Sundargarh district accommodates the largest number of in-migrants (196, 957). The percentage share of these in-migrants is 19·11. This highest influx may be attributed to Rourkela steel township. Sambalpur stands second to this district having 10·38 as the percentage value of in-migrants. Keonjhar with 9·68 as the percentage value of in-migrants stands third in the rank although its number of in-migrants is not very large. These three districts of northern highland of the state are contiguous in which the percentage share of in-migrants exceeds 9·64.

In the second range (6·37—9·64) of the percentage value of in-migrants only two districts namely Koraput and Baudh-Khondmals are hatched. The state average (6·47) belongs to this range.

There are also four other ranges, viz., 5·71—6·36, 4·28—5·70, 3·64—4·27 and 3·63 and below and each of these ranges embraces two districts as shown under different hatchings as per the index.

The rural in-migrants constitute majority of the total in-migrants in all the districts excepting Sundargarh and Puri. Further, female in-migrants of rural areas have out-numbered the males of all the districts excepting Sundargarh. The social customs like marriages, etc, account for the preponderance of female in-migrants over males in rural areas.

In case of urban in-migrants the percentage share of males is greater than that of females in all the districts of Orissa excepting Ganjam where female's share is slightly greater than that of males.


ORISSA
INTER DISTRICT MIGRATION
1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
123 420
24.38% R
3.21% U
29.17%
43.23%
SAMBALPUR
188 056
30.17%
43.39%
6.93%
19.22%
KEONJHAR
97 030
37.60%
50.83%
2.80%
8.75%
MAYURBHANJ
114 730
62.32%
28.94%
4.54%
4.13%
BALASORE
112 660
39.00%
45.28%
5.38%
10.30%
BOLANGIR
131 244
55.01%
29.24%
8.49%
6.69%
DHENKANAL
96 178
48.61%
37.54%
7.24%
6.61%
CUTTACK
254 364
50.18%
23.52%
15.80%
10.37%
BAUDH KHONDMALS
30 48
55.48%
3.99%
10.08%
PURI
193 797
33.82%
29.27%
7.29%
29.61%
KALAHANDI
72 680
47.12%
35.90%
4.71%
12.25%
GANJAM
150 544
9.01%
7.36%
63.01%
20.04%
KORAPUT
73 270
10.45%
6.03%
56.61%
26.90%
GROSS MIGRANTS
1971
200 000
150 000
100 000
50 000
R R
U U
Out-Migrants
In-Migrants
R - Rural U - Urban
State Boundary
District Boundary
Figures at top of circle indicate total gross migrants.
The percentage figures of in-migrants/out-migrants in Rural/Urban areas to gross migrants are written inside or against the respective sectors.
Data for unspecified District have been excluded
PERCENTAGE OF NET MIGRANTS TO TOTAL POPULATION
GAIN
3.01 & Above
2.00 - 3.00
1.99 & Below
LOSS
3.01 & Above
2.00 - 3.00
1.99 & Below

MAP No. 45

INTER-DISTRICT MIGRATION, 1971

This map depicts inter-district gross migrants, percentage value of in-migrants, out-migrants with rural urban break-up and net migrants with reference to their place of birth for each of the districts of Orissa.

The absolute figures of inter-district in-migrants and out-migrants are added to obtain the gross migrants for each district. A circle proportionate to the number of gross migrants is drawn in each district. The figure of gross migrants is written at the top of each circle of the concerned district. The percentage value of the number of in-migrants and out-migrants with rural and urban break-up to total of gross migrants are calculated for each of the districts. The circle representing each district is further divided into sectors proportionate to the percentage value of in-migrants and out-migrants with rural and urban break-up. The circle is splitted at the dividing lines of in-migrants and out-migrants. Rural part of the in-migrants sector is shaded to differentiate it from the urban part. 'R' for rural and 'U' for urban are written in the respective sectors with their percentage values.

The absolute figure of out-migrants is subtracted from that of in-migrants to get the net migrants for each district. The percentage value of the net migrants to total population of each district is calculated and grouped into six suitable ranges—three showing net increase and three showing net decrease. The area out side the circle of each district is hatched using the choropleth technique as shown in the index of the map.

Collection of data with regard to inter-district movements of migrants is a novel feature of the 1971 Census. This map is a three dimensional picture which presents data on in-migrants, out-migrants, and net migrants of each district. A glance at the map reveals that the districts which have the net migrants on gain side (positive increase) are shaded in dark hatching and the districts which have the net migrants on loss side (negative increase) are shaded in light hatchings.

Sundargarh is the only district of the northern highland of Orissa which has the highest number of net migrants (+55,280) of all other districts of the state. These net migrants constitute 5·36 per cent of the total population of Sundargarh. The net migrants contribute 2·00 to 3·00 per cent of the total population recorded in three other districts, namely, Sambalpur, Baudh-Khondmals and Koraput. Further the net migrants respectively constitute 1·95 per cent, 1·47 per cent and 0·69 per cent of the total population of Keonjhar, Puri and Balasore. These three districts are shown under one hatching as indicated for the range below 2·00 per cent on plus side of the legend.

As many as six districts of the state record negative increase of net migrants on this class of districts. Ganjam occupies the first position (—4·34 per cent) followed by Mayurbhanj (—2·64 per cent) and Balangir (—2·44 per cent). The districts of Kalahandi, Dhenkanal and Cuttack are shown to have recorded negative increase in the number of net migrants in the range below 2·00 per cent.

Further this map reveals that the percentage share of rural in-migrants to the corresponding district gross migrants is the maximum in Koraput district (56·61) followed by Baudh-Khondmals (55·40), Keonjhar (50·83), Balasore (45·28), Sambalpur (43·39), Puri (29·27) and Sundargarh (29·17). Sundargarh district being famous for the Rourkela Steel Plant has the maximum percentage share (43·23 per cent) of urban in-migrants. Puri district

stands second to Sundargarh with percentage share of (29·61 per cent) urban in-migrants owing to the location of the State Headquarters within this district.

The percentage value of rural out-migrants is the maximum in the district of Ganjam (63·01) followed by Mayurbhanj (62·32), Bolangir (55·01), Cuttack (50·18), Dhenkanal (48·61) and Kalahandi (47·12). Percentage share of urban out-migrants is not of much significance in any district.

Data for unspecified district are not presented in this map. Similarly percentage share of out-migrants whose birth place is unclassifiable is not shown in separate sector of the circle but is mixed in sectors meant for out-migrants.

MAP No. 46

MIGRANTS IN CITIES, 1971

This map aims at presenting the number of in-migrants with reference to the place of last residence (not place of birth) to the urban units having population of 100,000 and above in 1971. This is a novel feature of the 1971 Census.

The major aspects of the in-migrants shown in this map are as follows :

(*i*) Place of last residence is elsewhere in the district of enumeration ;

(*ii*) Place of last residence is in other districts of the state of enumeration ;

(*iii*) Place of last residence is in other states of India beyond the state of enumeration ; and

(*iv*) Place of last residence is outside India.

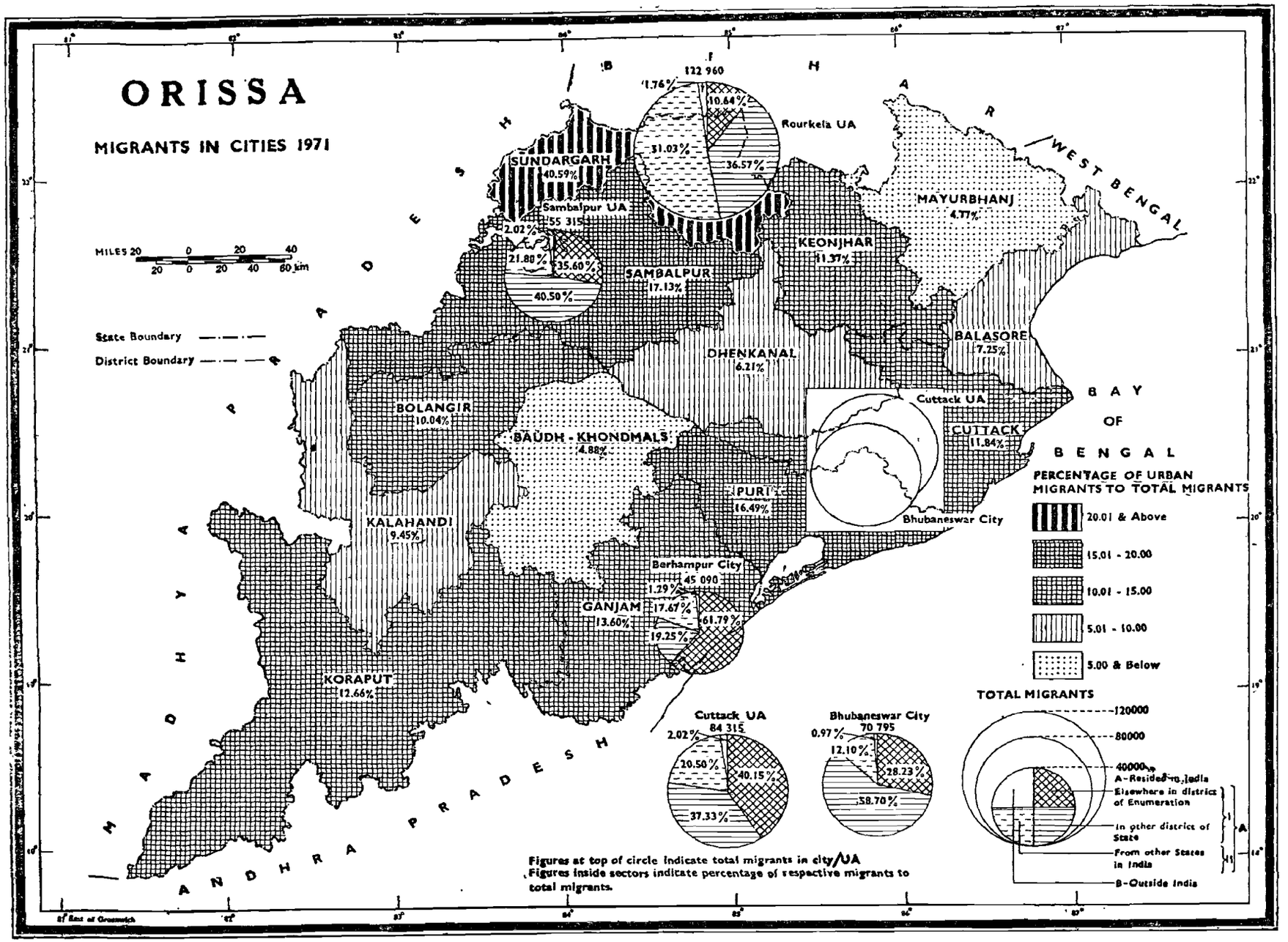
A circle proportionate to the total inmigrants to each of the urban units having population of 100,000 and above is drawn at the centre of location. The figures indicating the total in-migrants are written at the top of the circle of the concerned urban unit. Each of the circles is divided into two sectors proportionate to the number of in-migrants whose place of last residence is (*i*) within India and (*ii*) out side India. Further the sector proportionate to the number of in-migrants whose place of last residence is within India is divided into three sub-sectors proportionate to (*i*) elsewhere in the district of enumeration (*ii*) in other districts of the state of enumeration and (*iii*) in other states of India beyond the state of enumeration. All these three sectors are shaded with different hatchings as per the index of the map. But the sector proportionate to the strength of in-migrants whose place of last residence is outside India has been kept blank. The percentage values of in-migrants of different place of last residence are written in the respective sectors of each circle.

The percentage values of urban in-migrants to the total in-migrants are calculated for each of the districts taking the data from table D-II—"Migrants classified by place of last residence and duration of residence in place of enumeration", 1971. The data thus obtained are grouped into five ranges—two above, one nearer to and two below the state average (13·25). Background hatching in each district has been made as per the legend of the map.

This map shows five urban units each having population of 100,000 and above. Here urban unit includes the urban agglomeration. The concept of urban agglomeration is given in Map No. 9.

The total number of migrants in Orissa as per the table D-II of 1971 Census is 6,858,495 of which 909,035 or 13·25 per cent are urban migrants of the state. The percentage of urban migrants is found to be maximum in Sundargarh district (40·59). Sambalpur district stands second to Sundargarh in as much as its urban migrants contribute 17·13 per cent of its total migrants. Puri ranks third with 16·49 per cent of urban migrants. Percentage values of urban migrants of Bolangir, Keonjhar, Cuttack, Ganjam and Koraput districts come in the central range (10·01—15·00) to which state average (13·25) belongs. The next range, i. e., 5·00 to 10·00 percentage embraces as many as three districts, namely, Kalahandi, Dhenkanal, and Balasore, while the lowest range (below 5·00 per cent) is found in the districts of Mayurbhanj and Baudh-Khondmals.

The urban migrants in each of the four districts, namely, Sundargarh, Sambalpur, Puri and Ganjam constitute percentages higher than the state average (13·25). The presence of the urban unit having 100,000 and above population in each of the above four districts accounts for this higher percentage value. Cuttack district has also an urban unit having 100,000 and above population. This unit is known as Cuttack Urban Unit. There is no such urban unit in any other districts of the state.


ORISSA
MIGRANTS IN CITIES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 40.59%
Rourkela UA 122 960
1.76%
10.64%
31.03%
36.57%
Sambalpur UA 55 315
2.02%
21.80%
35.60%
40.50%
SAMBALPUR 17.13%
KEONJHAR 11.37%
MAYURBHANJ 4.77%
BALASORE 7.25%
DHENKANAL 6.21%
BOLANGIR 10.04%
BAUDH - KHONDMALS 4.88%
Cuttack UA
CUTTACK 11.84%
PURI 16.49%
Bhubaneswar City
KALAHANDI 9.45%
Berhampur City 45 090
1.29%
GANJAM 13.60%
17.67%
61.79%
19.25%
KORAPUT 12.66%
PERCENTAGE OF URBAN MIGRANTS TO TOTAL MIGRANTS
20.01 & Above
15.01 - 20.00
10.01 - 15.00
5.01 - 10.00
5.00 & Below
TOTAL MIGRANTS
120000
80000
40000
A-Resident in India
Elsewhere in district of Enumeration
In other district of State
From other States in India
B-Outside India
A
Cuttack UA 84 315
2.02%
20.50%
40.15%
37.33%
Bhubaneswar City 70 795
0.97%
12.10%
28.23%
58.70%
Figures at top of circle indicate total migrants in city/UA
Figures inside sectors indicate percentage of respective migrants to total migrants.

MAP No. 47

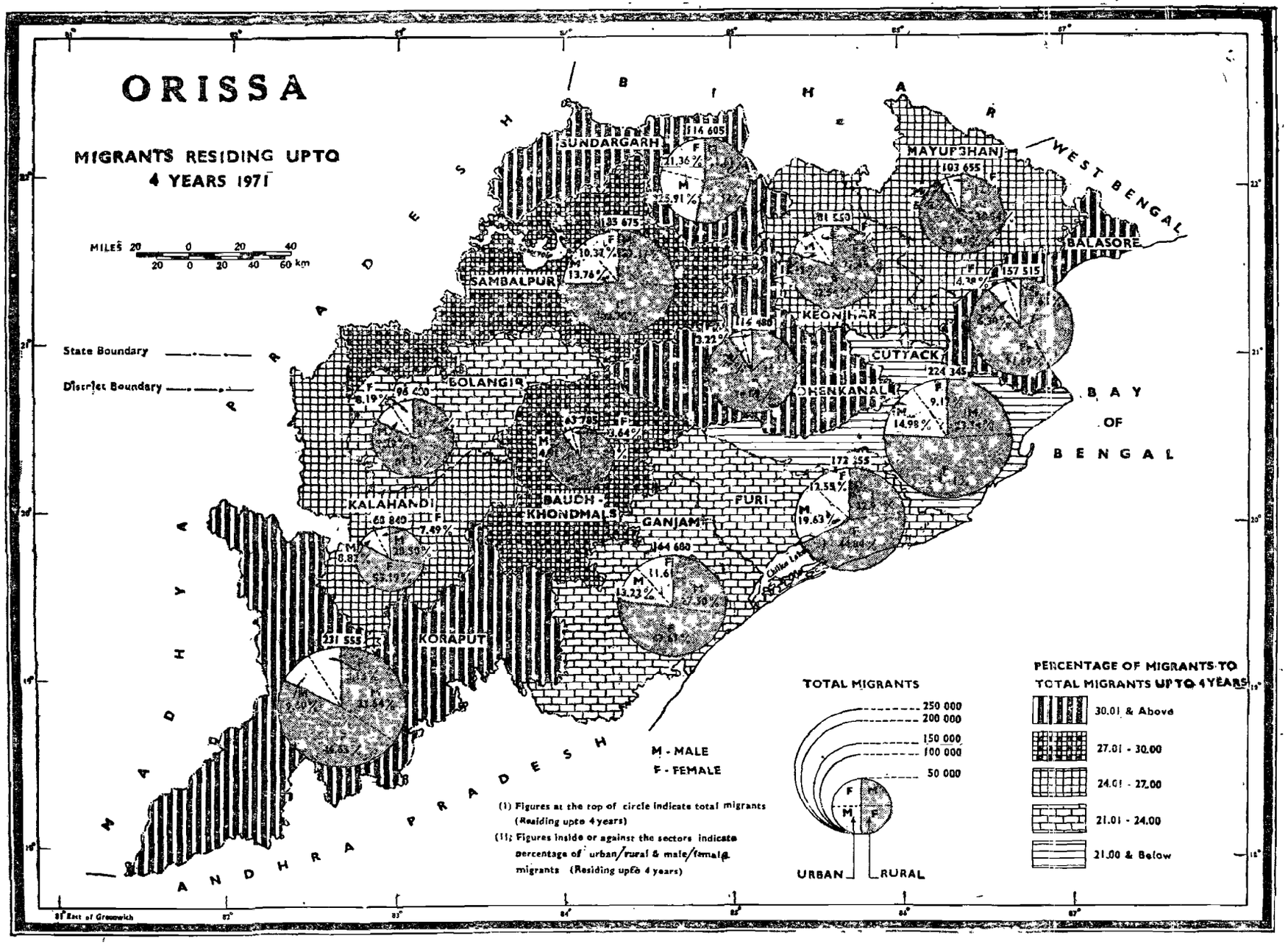
MIGRANTS RESIDING UP TO FOUR YEARS, 1971

This map presents the migrants classified by place of last residence with duration of residence up to four years and their percentage distribution in rural and urban areas with sex break-up in each of the districts in 1971.

A circle proportionate to total number of migrants residing up to four years in each of the districts is drawn. The number of such migrants is written at the top of each circle of the respective district. Each circle is divided into sectors to represent rural and urban migrants with male and female break-up as shown in the index for circles. Rural sector of each circle is shaded with screen. Percentage values of rural male and female, urban male and female migrants to total number of migrants residing up to four years are written in the respective sectors as far as space permits.

Percentage values of migrants residing up to four years in each district to its total migrants (all duration) are calculated and grouped into six ranges-two above, one nearer to and three below the state average (25·97). Background hatching of each district has been made as per the legend of the map. As per the 1971 Census there are as many as 6,858,495 migrants of which 1,781,420 or 25·97 per cent have resided in the place of enumeration for periods not exceeding four years by the reference date of the 1971 Census counting. The districts of Balasore, Dhenkanal and Koraput have the highest range (30·26 per cent and above) of percentage figures. The other five percentage ranges are 28·17—30·25, 25·68—28·16, 23·41—25·67, 22·41—23·40 and below 22·41 in each of which districts by twos have been shown.

Percentage share of rural migrants with duration of residence up to four years is much larger than that of urban migrants in each of the districts of the state. Similarly the percentage values of the rural female migrants exceed those of the rural male migrants by a large margin in all the districts. But in case of urban sectors percentage value of males exceeds that of females in all the districts.


ORISSA
MIGRANTS RESIDING UPTO
4 YEARS 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
BOLANGIR
KALAHANDI
KORAPUT
BAUCH-KHONDMALS
GANJAM
PURI
KEONJHAR
DHENKANAL
CUTTACK
MAYURBHANJ
BALASORE
M - MALE
F - FEMALE
(I) Figures at the top of circle indicate total migrants (Residing upto 4 years)
(II) Figures inside or against the sectors indicate percentage of urban/rural & male/female migrants (Residing upto 4 years)
TOTAL MIGRANTS
250 000
200 000
150 000
100 000
50 000
URBAN
RURAL
PERCENTAGE OF MIGRANTS TO TOTAL MIGRANTS UP TO 4 YEARS
30.01 & Above
27.01 - 30.00
24.01 - 27.00
21.01 - 24.00
21.00 & Below
81° East of Greenwich

MAP No. 48

MIGRANTS RESIDING 5 TO 9 YEARS, 1971

This map shows the migrants classified by place of last residence with duration of residence of five to nine years and their percentage distribution in rural and urban areas with sex break-up in each district of the state in 1971.

The technique of preparation of this map is same as that of Map No. 47.

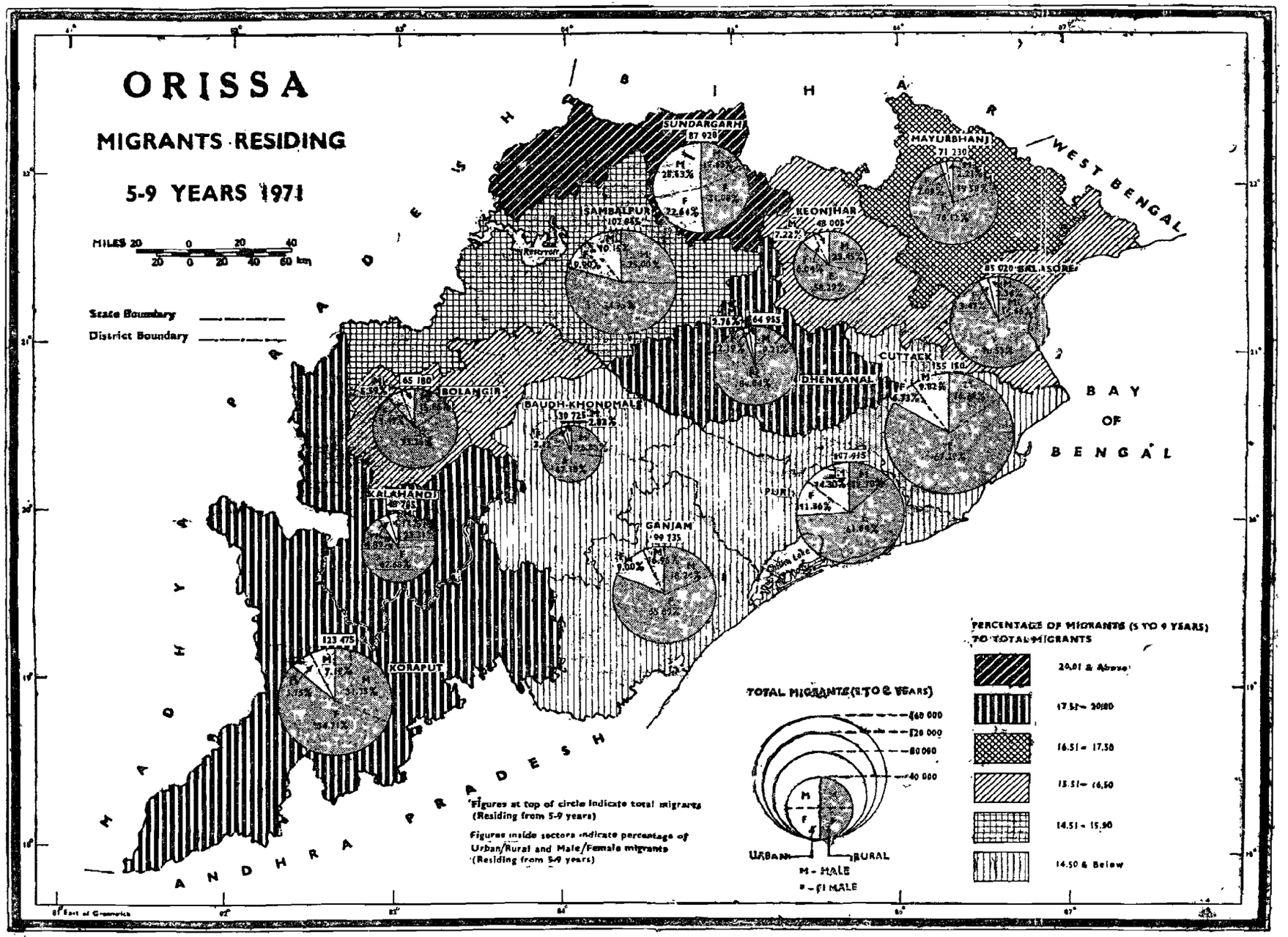
In this state as many as 1,090,960 out of 6,858,495 migrants have resided for a period of five to nine years in the place of enumeration as per the table D-II of the 1971 Census. Percentage value of these migrants to the total migrants of Orissa comes to 15·91.

The percentage of value of these migrants is the highest (22·76 per cent) in Sundargarh district which belongs to northern highland of Orissa. Sundargarh is followed by three districts, namely, Dhenkanal, Koraput and Kalahandi percentage values of which fall in the range 17·51 to 20·00. Mayurbhanj is the only district which figures in the third range (16·51—17·50). Fourth range (15·51—16·50) embraces three districts, viz., Balasore, Keonjhar and Bolangir and the state average (15·91).

In the lower range (14·51—15·50) only Sambalpur district is shown. Percentage values of migrants in four districts, namely, Baudh-Khondmals, Ganjam, Puri and Cuttack are recorded to be below 14·51.

Rural migrants residing five to nine years predominate over the urban migrants in all the districts excepting Sundargarh in which Rourkela Steel Plant is located. Further this map reveals that the percentage share of the rural female migrants preponderate that of rural male migrants in all the districts of the state.

In case of the urban migrants, males constitute larger share than that of the females in all the districts except four, viz., Balasore, Baudh-Khondmals, Kalahandi and Ganjam.


ORISSA
MIGRANTS RESIDING
5-9 YEARS 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BAY OF BENGAL
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
SUNDARGARH
87 928
SAMBALPUR
107 865
KEONJHAR
68 005
MAYURBHANJ
71 230
BALASORE
85 020
CUTTACK
155 180
DHENKANAL
64 955
BOLANGIR
65 180
BAUDH-KHONDMALE
39 725
KALAHANDI
KORAPUT
123 475
GANJAM
99 735
PURI
PERCENTAGE OF MIGRANTS (5 TO 9 YEARS) TO TOTAL MIGRANTS
20.01 & Above
17.51 - 20.00
16.51 - 17.50
15.51 - 16.50
14.51 - 15.50
14.50 & Below
TOTAL MIGRANTS (5 TO 9 YEARS)
60 000
40 000
URBAN
RURAL
M - MALE
F - FEMALE
Figures at top of circle indicate total migrants (Residing from 5-9 years)
Figures inside sectors indicate percentage of Urban/Rural and Male/Female migrants (Residing from 5-9 years)

MAP No. 49

MIGRANTS RESIDING 10 YEARS AND ABOVE, 1971

This map presents the migrants by place of last residence with duration of residence for 10 years and above and their percentage distribution by rural and urban areas with male and female break-up in each district of the state in 1971.

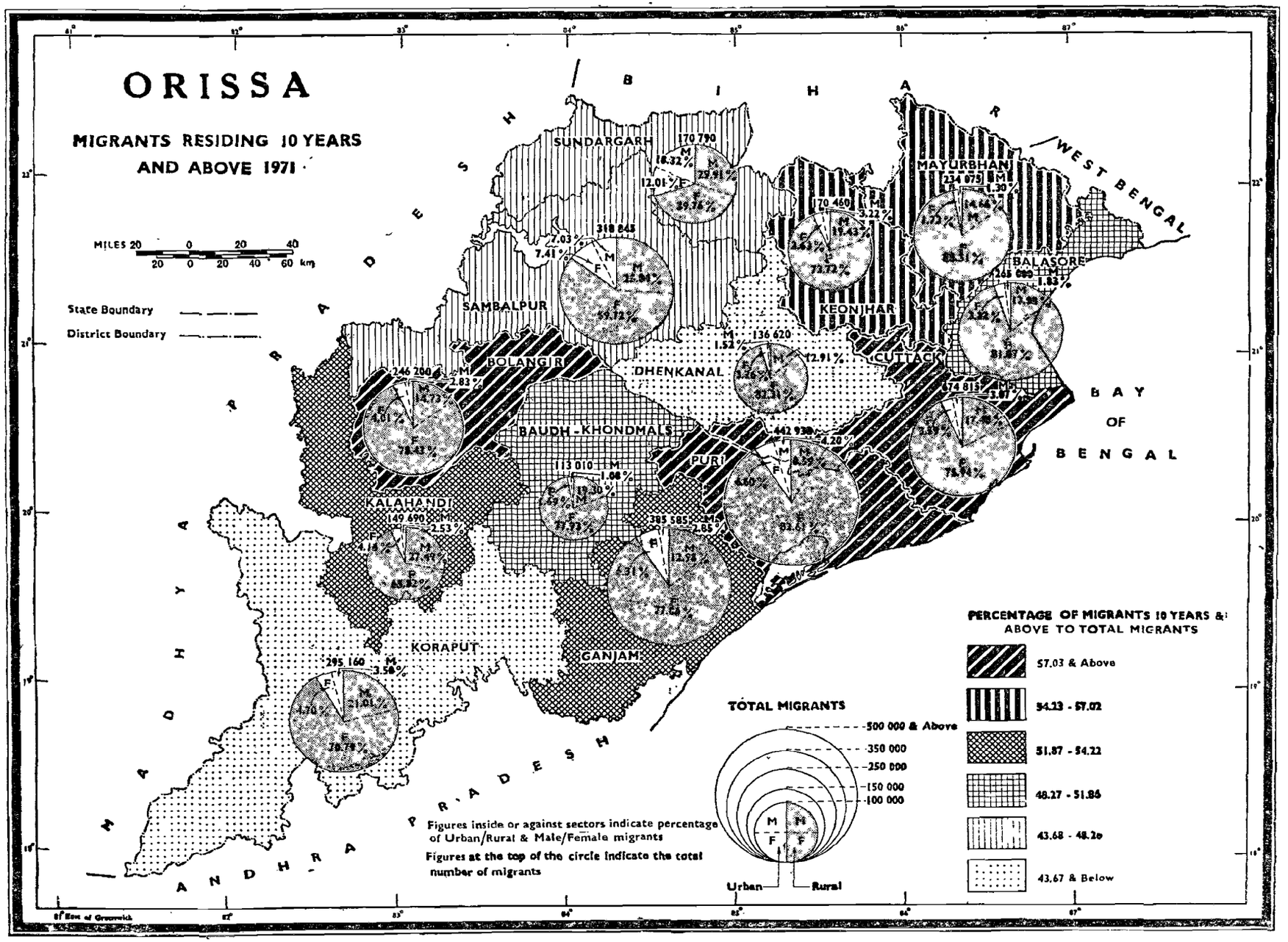
The technique of preparation of this map is the same as that of Map No.47

As many as 3,603,280 persons are enumerated in all the districts of Orissa as migrants with reference to their last place of residence and have resided 10 years and above at the place of enumeration. These migrants constitute 52·54 per cent of the total migrants (all duration of residence) in Orissa. All the 13 districts of this state are shown in different hatchings in accordance with their ranges of percentage of migrants (residing 10 years and above) to total migrants.

Cuttack, Puri and Bolangir are the three districts in which the percentage values of these migrants exceed 57·03. There are five other ranges, viz., 54·23—57·02, 51·87—54·22, 48·27—51·86, 43·68—48·26 and below 43·68 and each of these ranges embraces two districts.

Percentage share of the migrants in rural areas is significantly higher than that of urban areas in each of the districts. The percentage value of rural female migrants exceeds that of rural male migrants by a big margin in each of the districts.

Percentage share of urban migrants is below 10 in all the districts except Sambalpur (14·44) and Sundargarh (30·33). Further, this map depicts that the percentage value of urban female migrants exceeds that of urban male migrants in all the districts except Sundargarh district.


ORISSA
MIGRANTS RESIDING 10 YEARS AND ABOVE 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
BOLANGIR
KALAHANDI
KORAPUT
DHENKANAL
BAUDH-KHONDMALS
PURI
GANJAM
MAYURBHAN
KEONJHAR
CUTTACK
BALASORE
TOTAL MIGRANTS
500 000 & Above
350 000
250 000
150 000
100 000
Urban
Rural
Figures inside or against sectors indicate percentage of Urban/Rural & Male/Female migrants
Figures at the top of the circle indicate the total number of migrants
PERCENTAGE OF MIGRANTS 10 YEARS & ABOVE TO TOTAL MIGRANTS
57.03 & Above
54.23 - 57.02
51.87 - 54.22
48.27 - 51.86
43.68 - 48.26
43.67 & Below

MAP No. 50

WORKING AND NON-WORKING MIGRANTS IN CITIES WITH EDUCATIONAL LEVELS, 1971

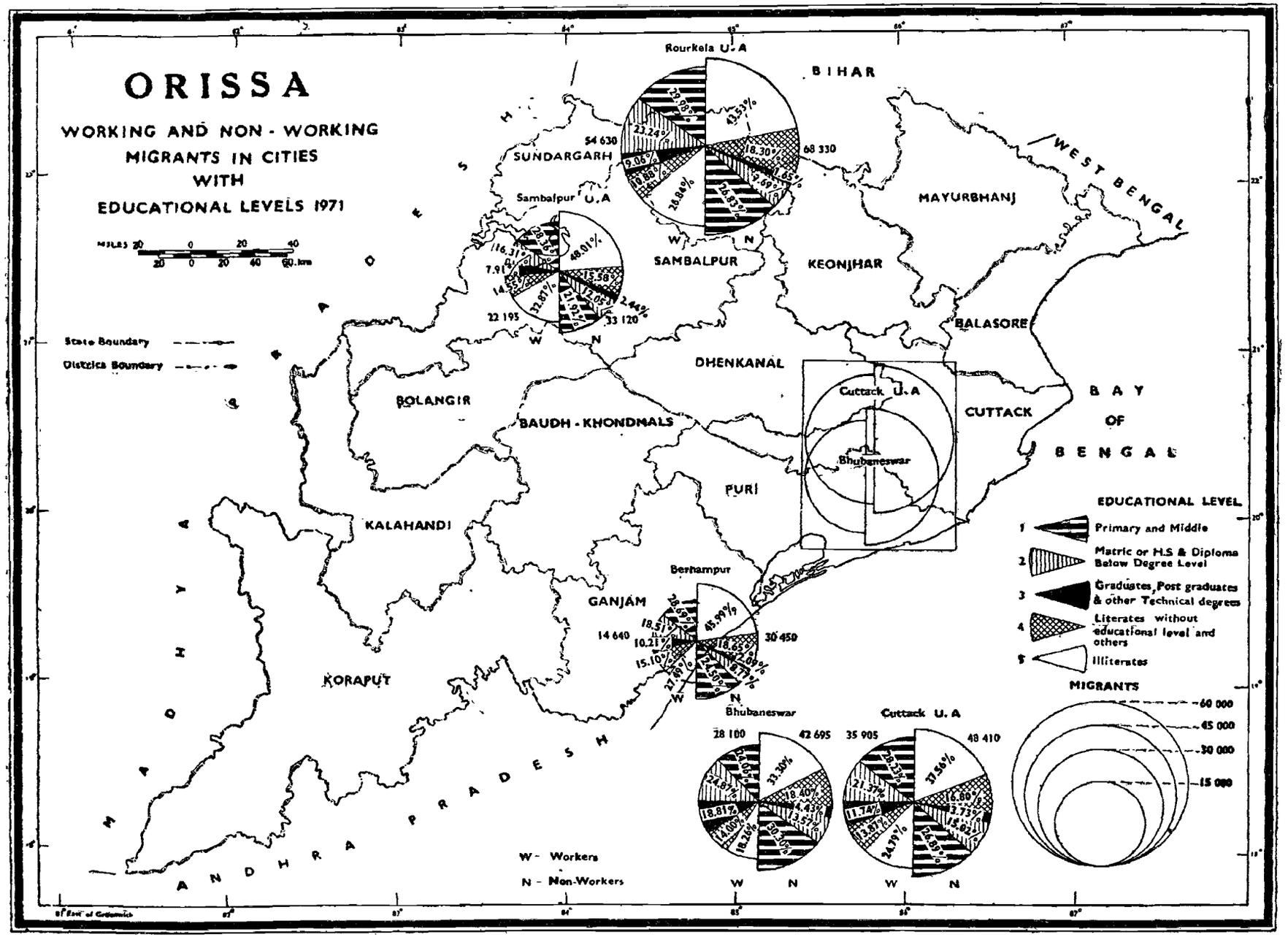
This map intends to show working and non-working migrants alongwith their educational levels with reference to place of last residence in cities and urban agglomerations having population of 100,000 and above.

Half circles proportionate to total number of working and non-working migrants to cities and urban agglomerations having population of 100,000 and above are drawn on the location point of the respective City/U. A. facing each other. Name of the City/U. A., number of total working and non-working migrants are written against the respective half circles. Five educational levels such as (*i*) Primary and middle; (*ii*)Matriculation or Higher Secondary and Technical or Non-technical diplomas below degree level; (*iii*) Graduates, Post-graduates and other technical degrees; (*iv*) Literates without educational levels and 'others' and (*v*) Illiterate are shown for these migrants. Percentage values of working migrants having each of the above educational levels to the total working migrants of each City/U. A. are calculated. Similarly the percentage values of non-working migrants with different educational levels to total non-working migrants of each City/U. A. are also calculated on the basis of the data contained in D-III table of the 1971 Census. Each of the half circles is divided into five sectors each of which is proportionate to the percentage value of migrants having one of the above mentioned educational levels. Percentage figures of migrants for every educational level are written at the appropriate place of the sector. Each of the sectors of both the half circles is shaded with distinct hatchings as per the index of the map to differentiate one from the other.

There are two cities, namely, Bhubaneswar and Berhampur and three urban agglomerations, viz., Cuttack U. A., Rourkela U. A. and Sambalpur U. A. in each of which population is 100,000 and above.

Percentage share of working migrants with the educational level of "Primary and Middle" is the highest in Berhampur City, Cuttack U. A. and Rourkela U. A. In case of Bhubaneswar City, the working migrants with the educational level of Matriculation or Higher Secondary and diploma below the degree level constitute the highest percentage value while in Sambalpur U. A. illiterate working migrants form the largest percentage share.

A study of the map further reveals that the illiterate non-working migrants have the maximum percentage share in each of the cities/urban agglomerations.


ORISSA
WORKING AND NON - WORKING MIGRANTS IN CITIES WITH EDUCATIONAL LEVELS 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
Districts Boundary
Rourkela U.A
54 630
68 330
Sambalpur U.A
22 195
33 120
Berhampur
14 640
30 450
Bhubaneswar
28 100
42 695
Cuttack U.A
35 905
48 410
W - Workers
N - Non-Workers
BIHAR
WEST BENGAL
ORISSA
ANDHRA PRADESH
MAYURBHANJ
KEONJHAR
SUNDARGARH
SAMBALPUR
BALASORE
DHENKANAL
CUTTACK
BOLANGIR
BAUDH - KHONDMALS
PURI
KALAHANDI
GANJAM
KORAPUT
BAY OF BENGAL
EDUCATIONAL LEVEL
1 Primary and Middle
2 Matric or H.S & Diploma Below Degree Level
3 Graduates, Post graduates & other Technical degrees
4 Literates without educational level and others
5 Illiterates
MIGRANTS
60 000
45 000
30 000
15 000

MAP No. 51

CLASSIFICATION OF WORKING MIGRANTS, 1971

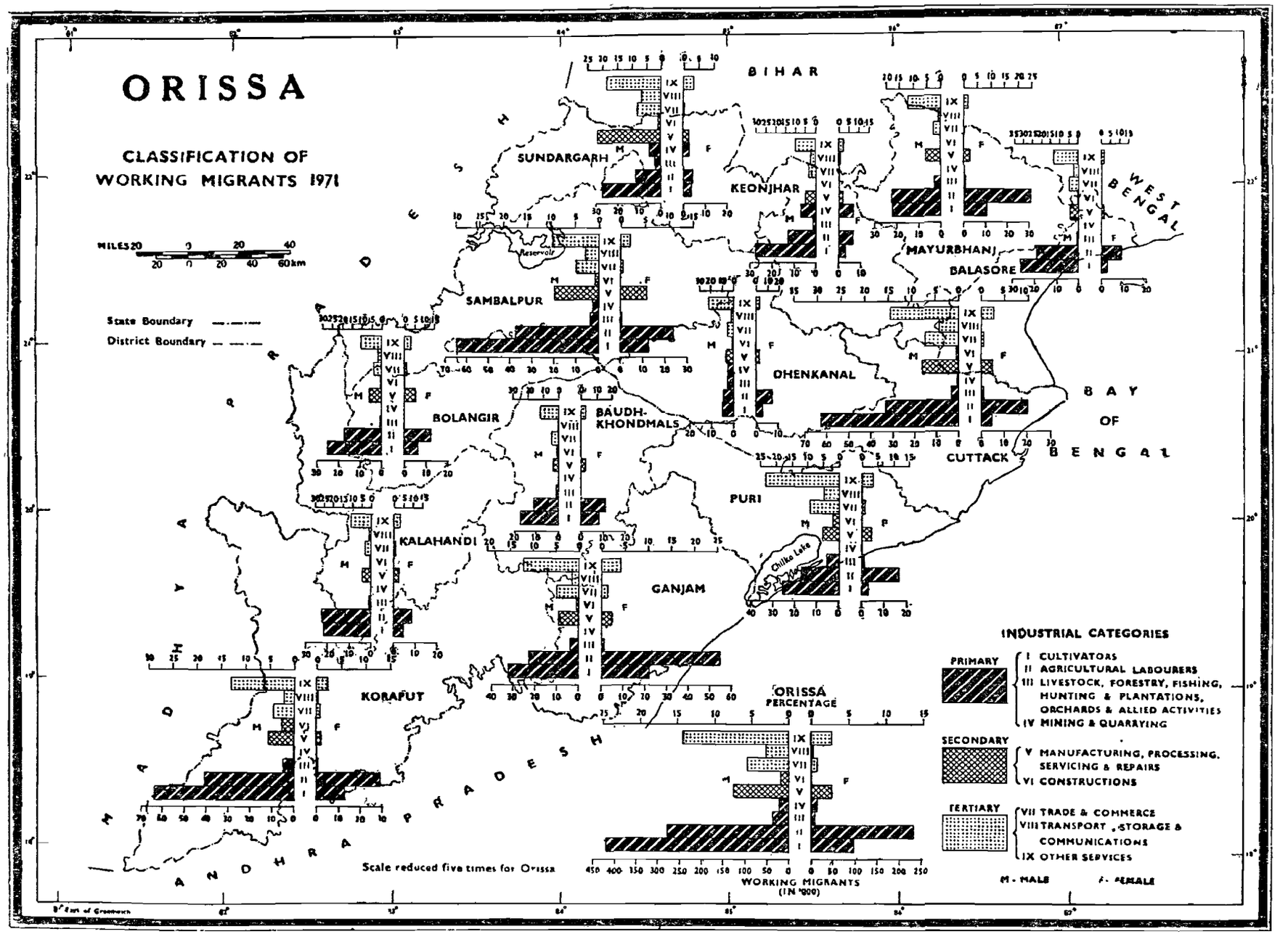
This map presents industrial structure of male and female working in-migrants with reference to place of last residence for each district of the state.

Percentage values of male and female migrants of each of the industrial categories of workers to total working migrants are calculated for each of the districts separately on the basis of the data contained in table D-V of the 1971 Census. Horizontal bars proportionate to the number of male migrants and female migrants of each of the industrial categories of workers (I, II, III, IV, V, VI, VII, VIII and IX) on either side of the vertical lines of pyramids are drawn. All these nine industrial categories of workers are grouped as Primary (I, II, III and IV), Secondary (V and VI) and Tertiary (VII, VIII and IX) activities and are hatched by three different types of hatchings to differentiate one from the other. Absolute and percentage scales are drawn below and above the pyramid of each district respectively to indicate the share of male and female working migrants in various industrial categories.

The males and females respectively constitute 73·51 per cent and 26·49 per cent of the total working migrants of the state. In all the districts the percentage share of male working migrants is significantly greater than that of females. In primary activities the percentage share of males is greater than that of females in all the districts except Ganjam in which percentage of females is 38·19 while that of males is 29·34. In secondary and tertiary activities males predominate females in all the districts.

In the districts of Dhenkanal and Puri the maximum percentage share is visible in case of male working migrants in industrial category IX (Other services). Ganjam and Mayurbhanj are the two exceptional districts of Orissa in which the maximum concentration of female working migrants is noticed in category II (Agricultural labourers). But in Kalahandi district the male horizontal bar is the maximum in the same category of workers.

This map further reveals that Sundargarh is the only district of Orissa in which the percentage share of male working migrants is the highest in category V (Manufacturing, processing, servicing and repairs). This highest percentage is attributed to location of Rourkela Steel Plant in Sundargarh district. In the remaining seven districts the maximum concentration of male working migrants is noticed in category I (Cultivators).


ORISSA
CLASSIFICATION OF
WORKING MIGRANTS 1971
MILES 20 0 20 40
20 0 20 40 60km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
KEONJHAR
MAYURBHANJ
BALASORE
SAMBALPUR
DHENKANAL
BOLANGIR
BAUDH-KHONDMALS
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
Chilka Lake
Reservoir
ORISSA PERCENTAGE
WORKING MIGRANTS (IN '000)
Scale reduced five times for Orissa
INDUSTRIAL CATEGORIES
PRIMARY
I CULTIVATORS
II AGRICULTURAL LABOURERS
III LIVESTOCK, FORESTRY, FISHING, HUNTING & PLANTATIONS, ORCHARDS & ALLIED ACTIVITIES
IV MINING & QUARRYING
SECONDARY
V MANUFACTURING, PROCESSING, SERVICING & REPAIRS
VI CONSTRUCTIONS
TERTIARY
VII TRADE & COMMERCE
VIII TRANSPORT, STORAGE & COMMUNICATIONS
IX OTHER SERVICES
M - MALE
F - FEMALE

MAP No. 52

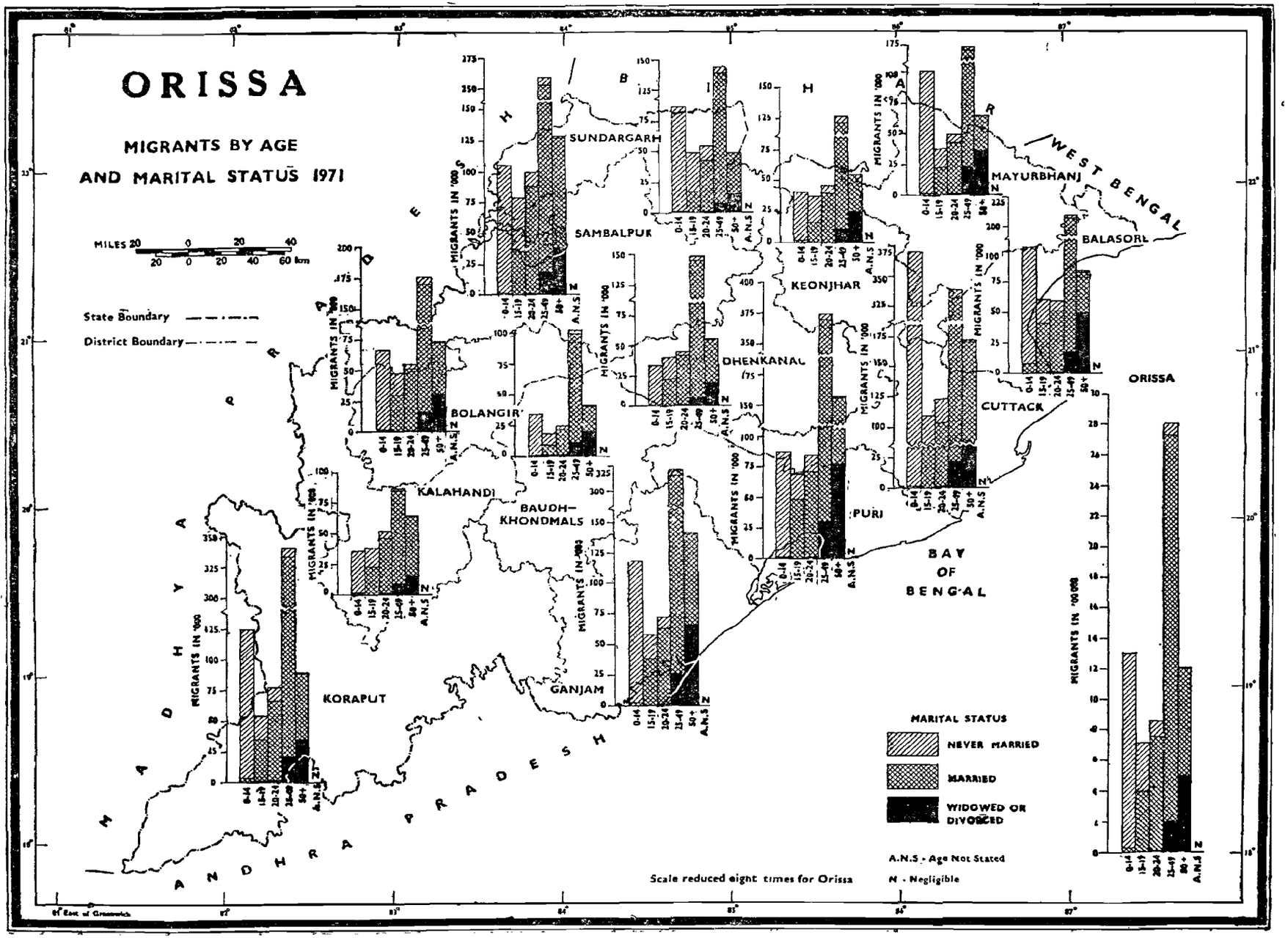
MIGRANTS BY AGE AND MARITAL STATUS, 1971

This map presents the migrants in different age groups with marital status in each district with reference to place of last residence.

The data on migrants in different age groups along with their marital status are compiled from the table D-VI of the 1971 Census. Bar-diagrams proportionate to total number of migrants belonging to each of the six age groups (0—14, 15—19, 20—24, 25—49, 50+ and ANS) are drawn for each district. Age groups are written at the bottom of each bar. Further, each bar is divided into sectors proportionate to the number of migrants coming under the categories "Never married", "Married" and "Widowed & divorced". Each sector is shaded with different hatchings as per the index of the map. Absolute scale is drawn vertically for each district.

There are as many as 6,858,495 migrants of whom 1,773,560 are never married, 4,354,140 are married and 721,035 are widowed and divorced in Orissa. This map reveals that the number of migrants in the age group 25—49 is maximum in each of the districts of Orissa. The two extreme age groups (0—14 and 50+) have the migrants much larger in number than the remaining age groups. Number of migrants in the age group ANS (Age not stated)is very insignificant.

The married migrants out-numbered all other migrants with other marital status in each district. In the age group 0—14 migrants with the status of never married predominate all other migrants in each district. Number of widowed and divorced migrants is found to be the highest in the old age group (50+).


ORISSA
MIGRANTS BY AGE
AND MARITAL STATUS 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
SUNDARGARH
SAMBALPUR
BOLANGIR
KALAHANDI
BAUDH-KHONDMALS
KORAPUT
GANJAM
DHENKANAL
KEONJHAR
MAYURBHANJ
BALASORE
CUTTACK
PURI
ORISSA
BAY OF BENGAL
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
MARITAL STATUS
NEVER MARRIED
MARRIED
WIDOWED OR DIVORCED
A.N.S - Age Not Stated
N - Negligible
Scale reduced eight times for Orissa
MIGRANTS IN '000
0-14
15-19
20-24
25-49
50+
A.N.S
N

MAP No. 53

LAND UTILIZATION,

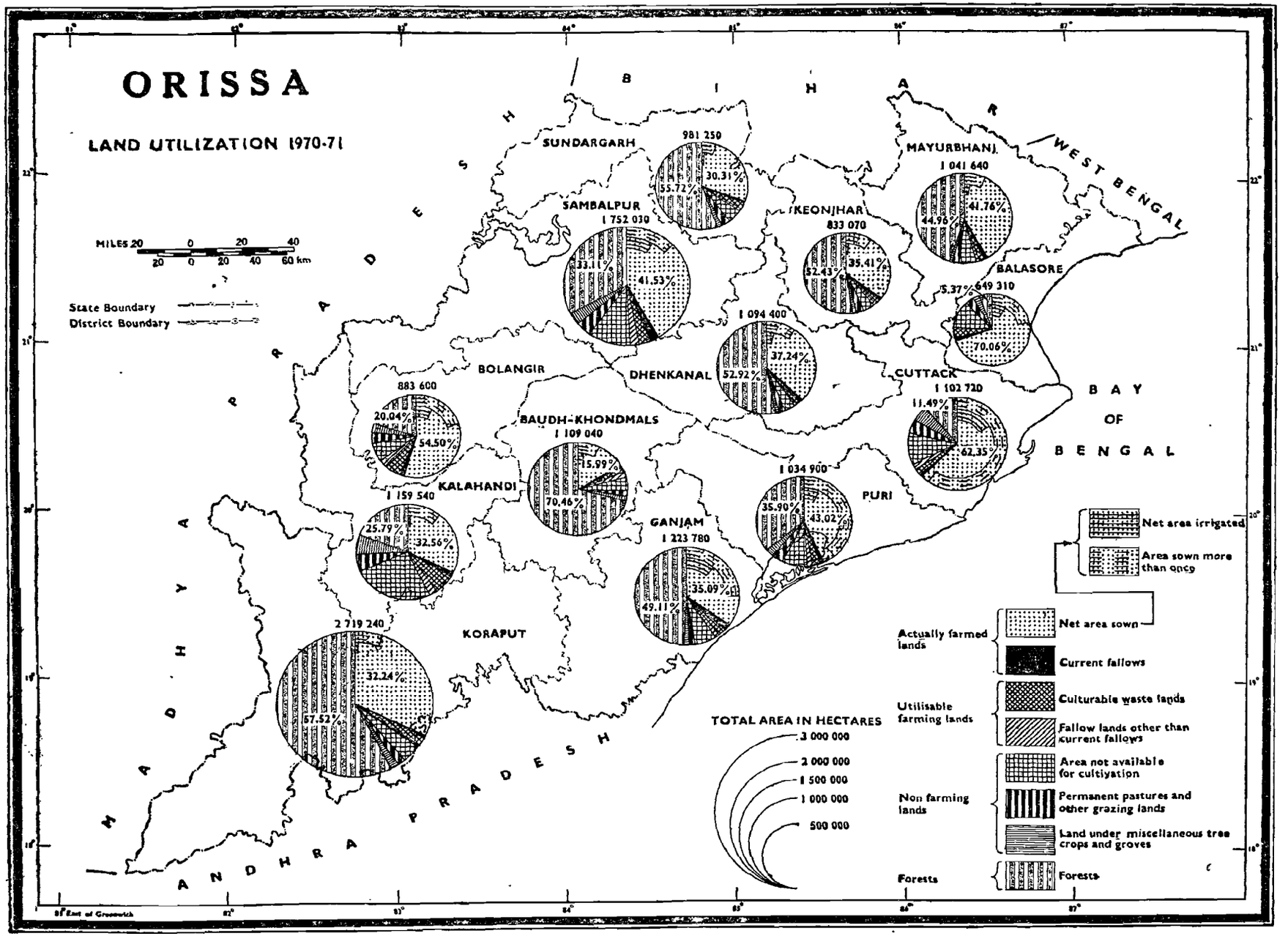
This map presents the pattern of land use in each of the districts of the state as in 1970-71.

The land use data of each district are collected from the records of the Collector of the district, Chief Conservator of Forests and Director of Agriculture and Food Production of Orissa. A circle proportionate to the total reported area of each district is drawn at the appropriate place of the concerned district. The absolute figure of the total reported areas of each district is written at the top of each circle. Each circle is cut into sectors proportionate to the extent of Net area sown, Current fallows, Cultivable waste lands, Fallow lands other than current fallows, Area not available for cultivation, Permanent pastures and other grazing lands, Land under miscellaneous tree crops and groves and forests. Percentage values of the area of the major sectors to the total reported areas are written at the appropriate places. The above mentioned eight sectors are shaded with different hatchings as shown in the index of the map. The area of the sector showing "Net area sown" is divided further as "Net area irrigated" and "Area sown more than once" in accordance with the percentages of these areas to the Net area sown. These two sectors are made partially visible and drawn parallel to each other with the proportionate thickness of their percentages just along the arc of the sector of "Net area sown". Two different hatchings are also made for these two sectors as indicated in the index. All these eight sectors are grouped into four categories of land use and demarcated in the index as (A) Actually farmed lands (B) Utilisable farming lands (C) Non-farming lands and (D) Forests.

The total reported area of the state is 15,578,520 hectares of which 6,560,794 hectares or 42·11 per cent of areas are under forests, 6,092,742 hectares constituting 39·11 per cent of the total reported areas are under "Net area sown", whereas 2,056,478 hectares or 13·20 per cent of the total reported areas come under the category of "Not farming lands" and 687,853 hectares or 4·41 per cent of areas are shown as "Utilisable farming lands".

The highest percentage of areas is shown under the forests in the district of Baudh-Khondmals (70·46) followed by Koraput (57·52), Sundargarh (55·72), Dhenkanal (52·92) and Keonjhar (52·43) whereas in Balasore district the forest areas constitute only 5·37 per cent.

This map further reveals that Balasore district has the maximum percentage of areas (70·06) under the category, "Net area sown" followed by Cuttack (62·35) and Bolangir (54·50) whereas the lowest percentage (15·99) of areas under this sector is seen in Baudh-Khondmals followed by Sundargarh (30·31).


ORISSA
LAND UTILIZATION 1970-71
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
SUNDARGARH
981 250
30.31%
55.72%
SAMBALPUR
1 752 030
33.11%
41.53%
KEONJHAR
833 070
52.43%
35.41%
MAYURBHANJ
1 041 640
41.76%
44.96%
BALASORE
649 310
5.37%
70.06%
BOLANGIR
883 600
20.04%
54.50%
DHENKANAL
1 094 400
37.24%
52.92%
CUTTACK
1 102 720
11.49%
62.35%
BAUDH-KHONDMALS
1 109 040
5.99%
70.46%
KALAHANDI
1 159 540
25.79%
32.56%
GANJAM
1 223 780
35.09%
49.11%
PURI
1 034 900
35.90%
43.02%
KORAPUT
2 719 240
32.24%
57.52%
TOTAL AREA IN HECTARES
3 000 000
2 000 000
1 500 000
1 000 000
500 000
Net area irrigated
Area sown more than once
Actually farmed lands
Net area sown
Current fallows
Utilisable farming lands
Culturable waste lands
Fallow lands other than current fallows
Non farming lands
Area not available for cultivation
Permanent pastures and other grazing lands
Land under miscellaneous tree crops and groves
Forests
Forests

MAP No. 54

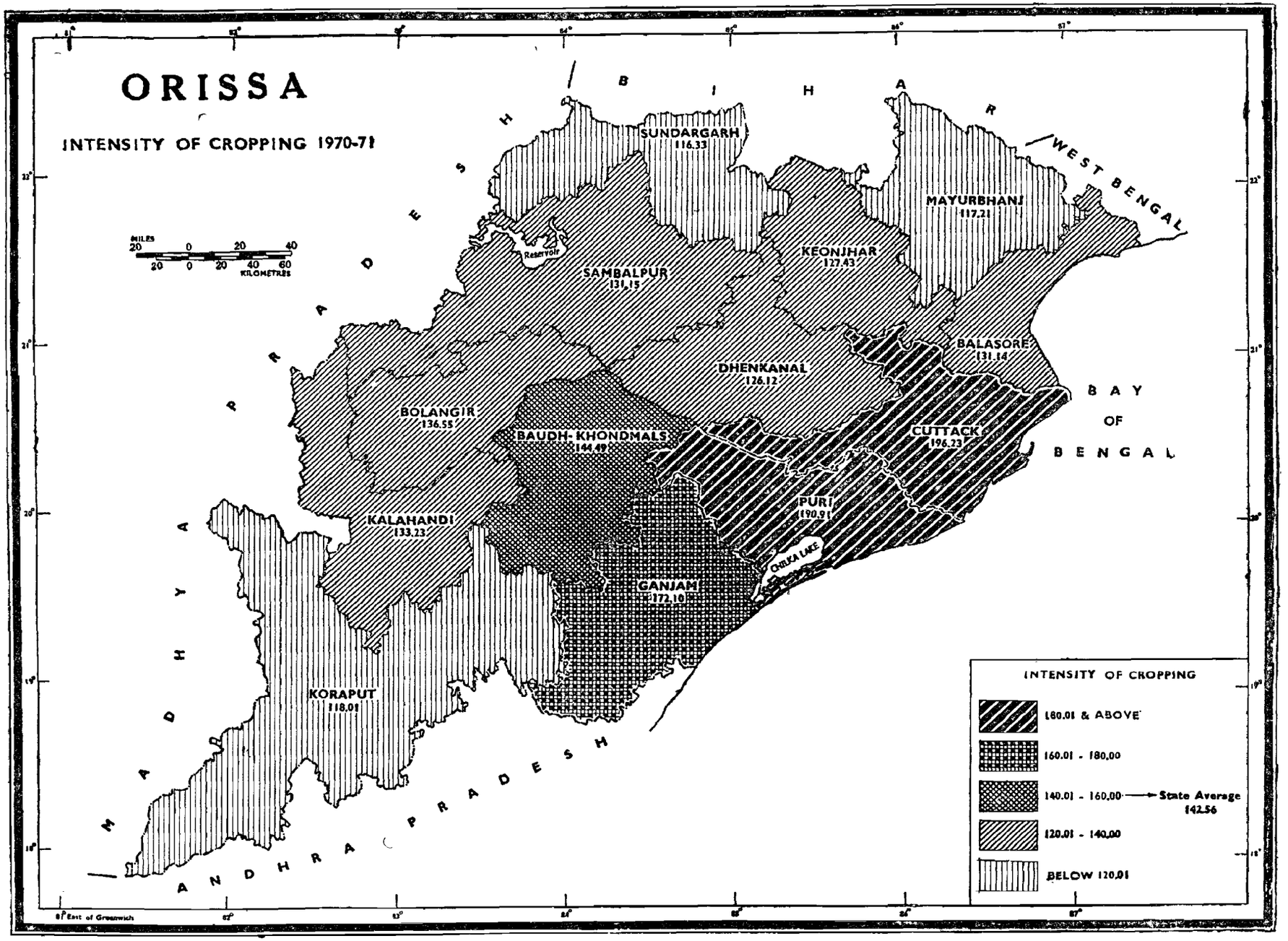
INTENSITY OF CROPPING, 1970-71

This map illustrates the distictwise intensity index of cropping in Orissa during 1970-71.

Intensity index of cropping indicates the farming practices followed for better output from a particular patch of land by growing crops thereon more than once in a year. It is calculated by working out, $\frac{\text{Gross area sown}}{\text{Net area sown}} \times 100$ for each district where Gross area sown=Net area sown+Area sown more than once. The indices thus obtained are grouped into five ranges—two above, one nearer to and two below the state average (142·56). All the districts are hatched in the order from high to low intensity as per the grades of hatchings shown in the index by using choropleth technique.

During 1970-71 the gross area sown in the state is 8,685,997 hectares, net area sown is 6,092,742 hectares and intensity of index of the state is 142·54. The district having the highest intensity is Cuttack (196·23 per cent) followed by Puri (190·91 per cent) and Ganjam (172·10 per cent). In the state these three districts have comparatively larger double-cropping areas due to better irrigation facilities although rainfall is seasonal. The districts having lower intensity indices are Sundargarh (116·33), Mayurbhanj (117·21) and Koraput (118·01). These districts are mostly hilly regions of the state having very poor irrigation facilities. These districts depend mostly on seasonal rainfall. The districts arranged in descending order of intensity index are as follows:

Range	Name of District	Intensity index
180·01 & above	.. (2) Cuttack	196.23
	Puri	190·91
160·01—180·00	.. (1) Ganjam	172·10
140·01—160·00	.. (1) Baudh-Khondmals	144·49
120·01—140·00	.. (6) Bolangir	136·55
	Kalahandi	133·23
	Sambalpur	131·15
	Balasore	131·14
	Keonjhar	127·43
	Dhenkanal	126·12
Below 120·01	.. (3) Koraput	118·01
	Mayurbhanj	117·21
	Sundargarh	116·33


ORISSA
INTENSITY OF CROPPING 1970-71
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 116.33
MAYURBHANJ 117.21
KEONJHAR 127.43
SAMBALPUR 131.15
BALASORE 131.14
DHENKANAL 126.12
BOLANGIR 136.55
BAUDH-KHONDMALS 144.49
CUTTACK 196.23
PURI 190.91
KALAHANDI 133.23
GANJAM 172.10
KORAPUT 118.01
Reservoir
ORISSA LAKE
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
INTENSITY OF CROPPING
180.01 & ABOVE
160.01 - 180.00
140.01 - 160.00
State Average 142.56
120.01 - 140.00
BELOW 120.01
East of Greenwich

MAP No. 55

AREA UNDER MAJOR CEREALS (RICE, WHEAT AND MILLETS), 1970-71

This map depicts the districtwise distribution of area under cultivation of major cereals, viz., rice, wheat and millets in the state during 1970-71.

The area under each crop is represented in hectares by one type of coloured dots in each district. Each dot in orange colour represents 250 hectares under wheat, while a green dot represents 500 hectares under millets and black dot represents 1,000 hectares under rice.

The total area figure of the state under major creals (rice, wheat and millets) is 4,936,498 hectares in 1970-71 of which 4,511,221 hectares constituting 91·39 per cent come under rice, 12,992 hectares or 0·26 per cent come under wheat and 412,285 hectares or 8·35 per cent come under millets. Thus the rice is the predominant cereal of the state.

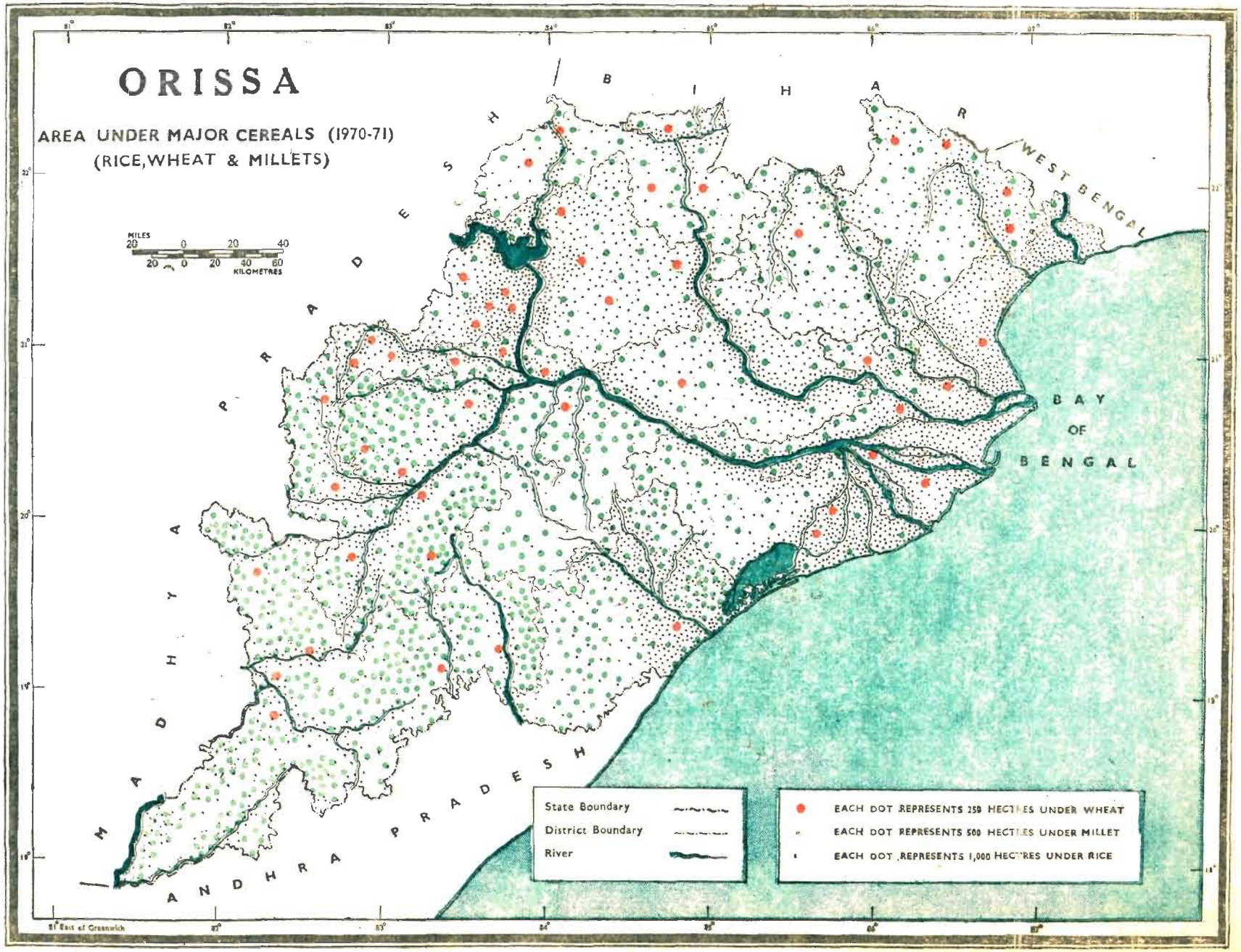
Rice—The largest and the smallest area figure (in hectares) pertaining to rice cultivation are respectively found in Cuttack (638,724) and Baudh-Khondmals (83,903) districts. All the coastal districts are noted as major rice producing areas. Hilly tracts having inadequate irrigation facilities are poor rice producing areas.

Wheat—The largest and the smallest area (in hectares) under wheat cultivation in the state are respectively found in Sambalpur (3,089) and Ganjam (127). Wheat cultivation is not encouraging in this state. None of the districts of the state has even one per cent of the total areas of major cereals under wheat cultivation.

Millets—Cultivation of these cereals is also not encouraging in this state. The largest and the smallest area (in hectares) under millet cultivation are seen in Koraput (146,042) and Balasore (595) districts.

State/District	Area in hectares under			
	Major cereals	Rice	Wheat	Millets
1	2	3	4	5
Orissa ..	**4,936,498**	**4,511,221**	**12,992**	**412,285**
Sambalpur ..	620,794	604,091	3,089	13,614
Sundargarh ..	194,890	180,336	1,293	13,261
Keonjhar ..	214,721	202,415	351	11,955
Mayurbhanj ..	322,007	308,071	1,017	12,919
Balasore ..	414,332	413,428	309	595
Cuttack ..	650,357	638,724	1,355	10,278
Dhenkanal ..	346,412	335,442	230	10,740
Baudh-Khondmals ..	117,075	83,903	243	32,929
Bolangir ..	361,583	317,522	1,574	42,487
Kalahandi ..	359,513	300,894	1,245	57,374
Koraput ..	515,428	367,689	1,697	146,042
Ganjam ..	419,173	372,267	127	46,779
Puri ..	400,213	386,439	462	13,312

SOURCE—Director of Agriculture and Food production, Orissa.


ORISSA
AREA UNDER MAJOR CEREALS (1970-71)
(RICE, WHEAT & MILLETS)
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
River
EACH DOT REPRESENTS 250 HECTARES UNDER WHEAT
EACH DOT REPRESENTS 500 HECTARES UNDER MILLET
EACH DOT REPRESENTS 1,000 HECTARES UNDER RICE
81° East of Greenwich

MAP No. 56

AREA UNDER PULSES AND OIL SEEDS, 1970-71

This map presents the districtwise distribution of areas in hectares under pulses and oil seeds in the state during 1970-71.

Data on areas utilised for pulses and oil seeds are collected for each district of the state. Dots of two colours are chosen for indicating the extent of areas under pulses and oil seeds separately. Each dot in sky-blue colour represents 1,000 hectares under oil seeds while each dot in black colour represents 1,000 hectares under pulses as shown in the index.

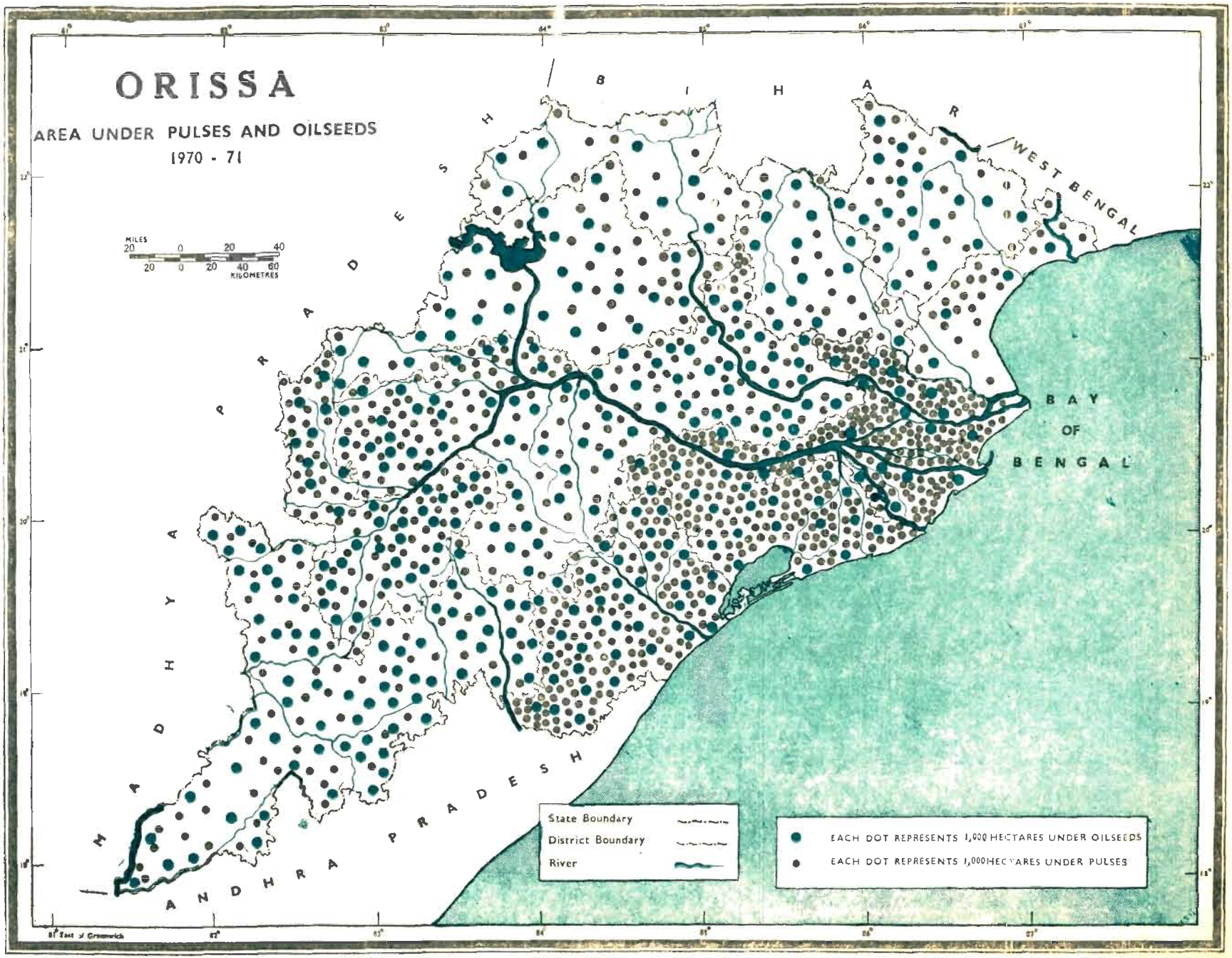
Pulses and oil seeds respectively were grown in 844,699 and 330,166 hectares of land of the state during the period under review. The district of Cuttack with 168,067 hectares under pulses stands first in the state. Cuttack is followed by Ganjam district with 136,125 hectares and Puri district with 123,782 hectares under pulses. The district of Keonjhar with 16,986 hectares occupies the lowest rank so far as cultivation of pulses is concerned.

Oil Seeds—The district of Koraput occupies the highest position, so far as areas used for oil seeds (71,697 hectares) during the relevant period is concerned. Balasore district with 3,854 hectares under oil seeds occupies the lowest position in the list of areas utilised for oil seeds.

The following statement indicates the areas under pules and oil seeds in the districts of Orissa during 1970-71.

State/District		Area in hectares under pulses	Area in hectares under oil seeds
1		2	3
Orissa	..	**844,699**	**330,166**
Sambalpur	..	34,037	26,085
Sundargarh	..	20,281	6,940
Keonjhar	..	16,986	14,383
Mayurbhanj	..	29,388	20,336
Balasore	..	24,302	3,854
Cuttack	..	168,067	21,324
Dhenkanal	..	53,496	32,165
Baudh-Khondmals	..	33,920	21,898
Bolangir	..	63,928	21,163
Kalahandi	..	77,520	34,340
Koraput	..	62,867	71,697
Garjam	..	136,125	35,895
Puri	..	123,782	20,086

SOURCE—Director of Agriculture and Food production, Orissa.


ORISSA
AREA UNDER PULSES AND OILSEEDS
1970 - 71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
River
EACH DOT REPRESENTS 1,000 HECTARES UNDER OILSEEDS
EACH DOT REPRESENTS 1,000 HECTARES UNDER PULSES

MAP No. 57

AREA UNDER COMMERCIAL CROPS, 1970-71

The areas under cultivation of commercial crops, viz., Sugar-cane, Cotton, Jute, Dry chillies and Tobacco in each district of the state during 1970-71 are shown in this map.

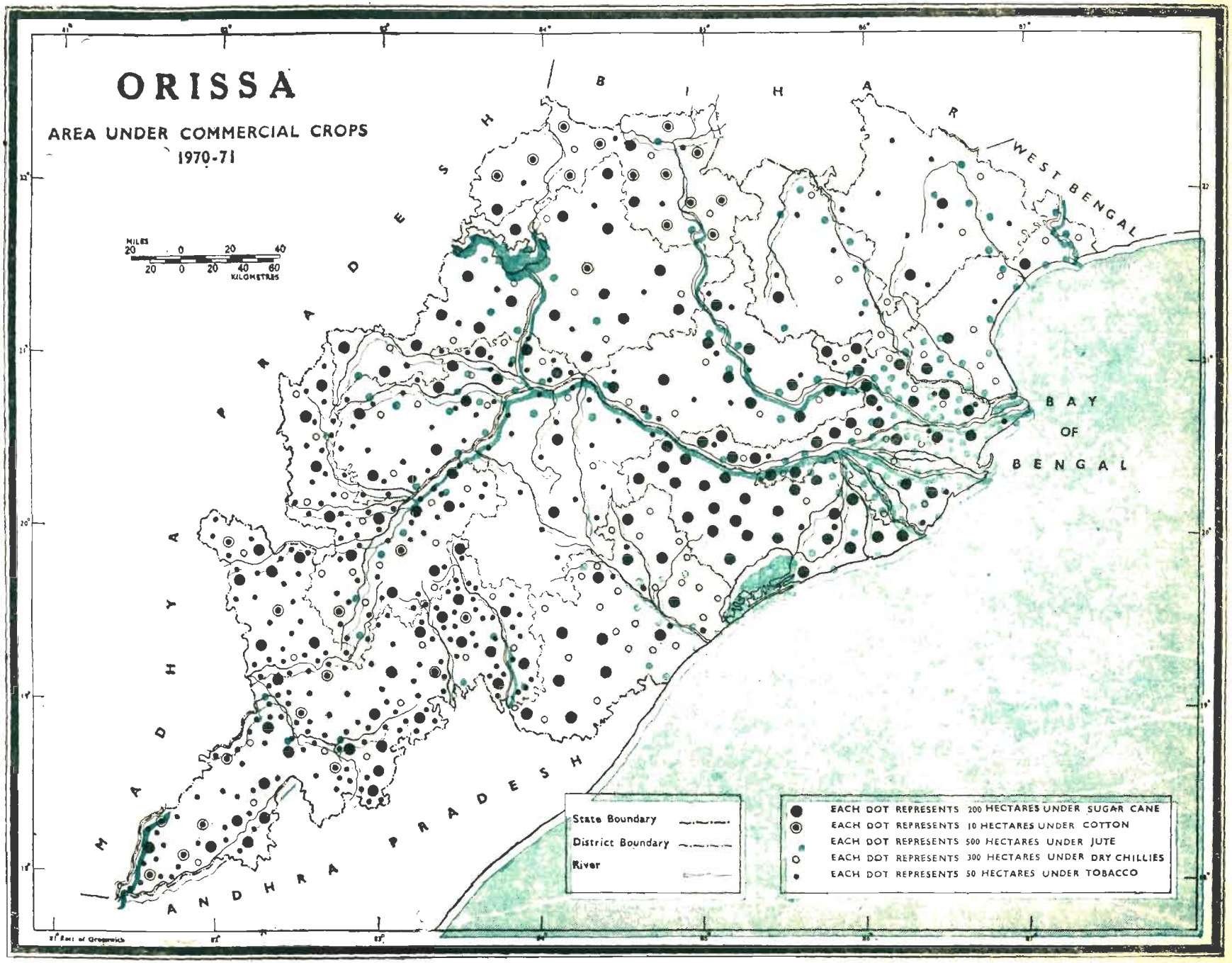
Data on area under different commercial crops are collected for each district of the state. Dots of different kinds and colours are chosen to represent areas in hectares under different commercial crops as shown in the index.

The district of Koraput has the largest areas under tobacco (7,079 hectares) and sugar-cane (6,046 hectares) during the period 1970-71. The districts of Cuttack, Sundargarh and Ganjam have fairly larger areas under jute, cotton and dry chillies. The delta region of the river Mahanadi is reputed for jute cultivation grown in coastal areas of Orissa. The prospect of cotton cultivation in the state is not encouraging. Commercial crops like tea and coffee are not grown in the state.

The area in hectares under each commercial crop is indicated as follows:

State/District		Sugar-cane	Jute	Cotton	Tobacco	Dry chillies
1		2	3	4	5	6
Orissa	..	**30,184**	**78,296**	**301**	**14,156**	**29,574**
Sambalpur	..	3,329	2,375	9	320	2,200
Sundargarh	..	659	1,097	132	179	833
Keonjhar	..	198	3,888	16	197	806
Mayurbhanj	..	314	3,122	..	382	775
Balasore	..	662	7,739	..	7	2,152
Cuttack	..	4,831	34,143	..	620	3,613
Dhenkanal	..	2,063	4,012	..	494	1,479
Baudh-Khondmals	..	335	1,111	..	832	584
Bolangir	..	2,034	6,036	..	1,333	1,901
Kalahandi	..	2,281	2,590	19	2,401	3,923
Koraput	..	6,046	3,558	125	7,079	3,686
Ganjam	..	2,427	5,503	..	232	7,236
Puri	..	5,005	3,122	..	80	386

SOURCE—Director of Agriculture and Food production, Orissa.


ORISSA
AREA UNDER COMMERCIAL CROPS
1970-71
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
River
EACH DOT REPRESENTS 200 HECTARES UNDER SUGAR CANE
EACH DOT REPRESENTS 10 HECTARES UNDER COTTON
EACH DOT REPRESENTS 500 HECTARES UNDER JUTE
EACH DOT REPRESENTS 300 HECTARES UNDER DRY CHILLIES
EACH DOT REPRESENTS 50 HECTARES UNDER TOBACCO

MAP No. 58

YIELD PER HECTARE OF RICE, WHEAT, MILLETS AND PULSES, 1971

Four separate maps printed on one sheet indicate the average yield of rice, wheat, millets and pulses per hectare in the districts of Orissa during 1971.

The yield per hectare of each of the above mentioned cereals measured in Kilograms for each of the districts is shown in four separate maps. The per-hectare yield figures of rice, wheat, millets and pulses are grouped into five ranges above and below the state average as indicated in the index. The districts are shaded by choropleth method to indicate the variation of average crop-yields.

Rice—The average yield per hectare of rice for the state is 861 Kgs. Eight districts have recorded yield above the state average. The yield of rice per hectare of Cuttack district (1,075 Kgs.) is the highest in the state whereas Keonjhar district (564 Kgs.) has recorded the lowest yield per hectare. The yield per hectare in the coastal districts is comparatively higher than that of the districts belonging to the hilly tracts.

Wheat—The average yield per hectare of wheat in Orissa is 1,056 Kg. The highest yield is recorded in the district of Sambalpur (1,822 Kgs.) being followed by Mayurbhanj (1,226 Kgs.) The lowest yield is seen in the district of Koraput (617 Kgs.).

Millets—The average yield per hectare of millet crops of the state is 713 Kgs. The district of Ganjam has recorded the highest yield (1,385 Kgs. per hectare) while the lowest yield (378 Kgs.) is noticed in Balangir district in 1971.

Pulses—The average yield for the state is 517 Kgs. per hectare. The districts of Keonjhar and Baudh-Khondmals have respectively recorded the highest (711 Kgs.) and the lowest (307 Kgs.) yield during the period under review.

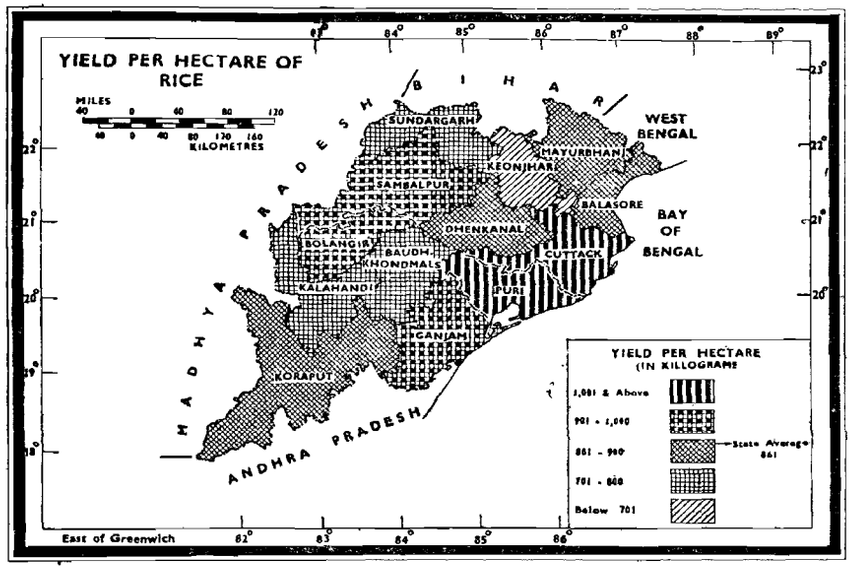
The statement below shows the average yield in Kgs. per hectare of rice, wheat, millets and pulses in the districts of Orissa during 1971.

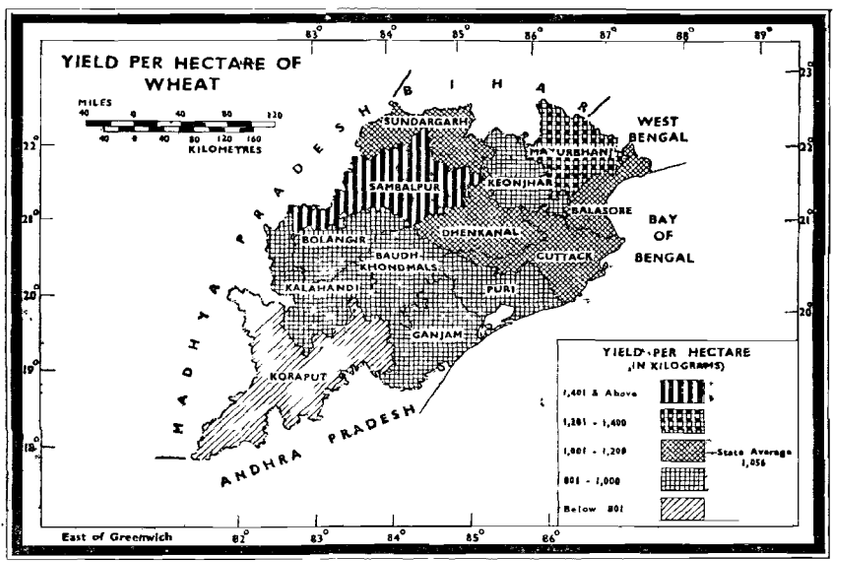
State/District	Rice	Wheat	Millets	Pulses
1	2	3	4	5
Orissa ..	**861**	**1,056**	**713**	**517**
Sambalpur ..	981	1,822	630	660
Sundargarh ..	743	1,134	393	322
Keonjhar ..	564	996	799	711
Mayurbhanj ..	898	1,226	788	560
Balasore ..	875	1,117	1,158	526
Cuttack ..	1,075	1,034	804	610
Dhenkanal ..	897	1,194	540	510
Baudh-Khondmals.	730	868	508	307
Balangir ..	918	870	378	534
Kalahandi ..	726	876	473	567
Koraput ..	809	617	663	528
Ganjam ..	968	980	1,385	488
Puri ..	1,037	994	762	403

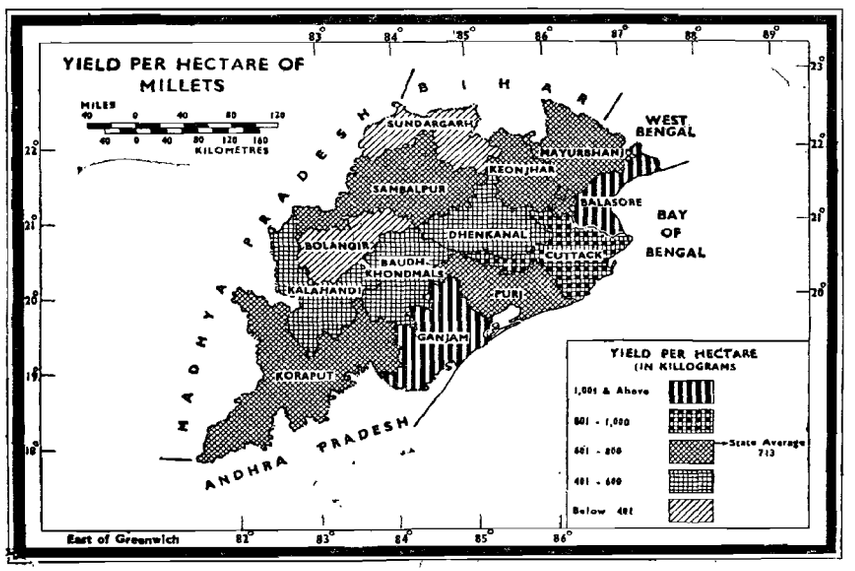
SOURCE—The Director of Agriculture and Food production, Orissa.

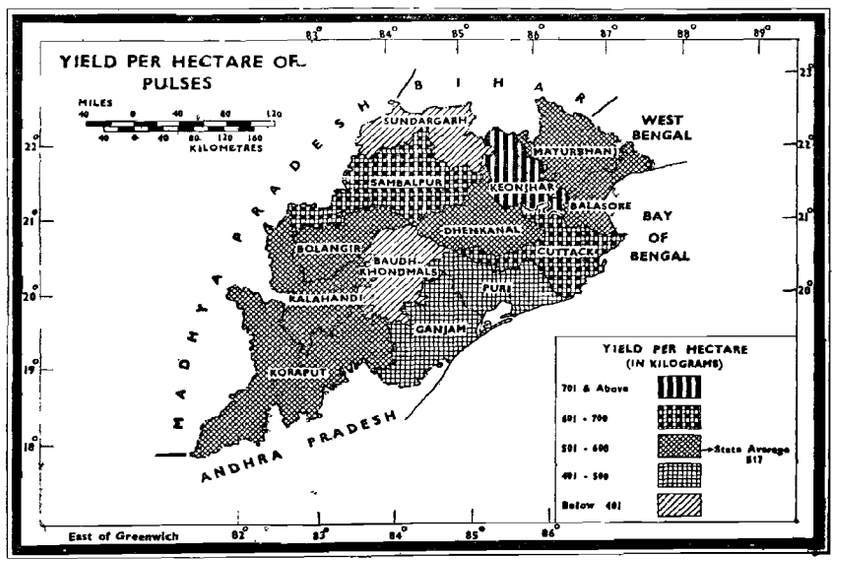
ORISSA

YIELD PER HECTARE OF RICE, WHEAT, MILLETS AND PULSES, 1971









MAP No. 59

AREA IRRIGATED BY VARIOUS SOURCES, 1970-71

This map shows the percentage share of irrigated areas to the total net area sown and also proportion of areas irrigated by different sources, e. g., canals, tanks, wells and other sources to total irrigated areas in each of the districts of the state during 1970-71.

The percentage of areas irrigated to net area sown is calculated for every district and grouped into five ranges- -one above, one nearer to and three below the state average (11·92 per cent). All the districts are shaded according to the grades of hatchings as indicated in the index. Further in each district the circle is drawn proportionate to the net irrigated areas of the district. Each circle is subdivided by sectors, which represent the extent of irrigated areas under different sources, viz., canals, tanks, wells and other sources. The sectors are shaded as per the grades of colour indicated in the index.

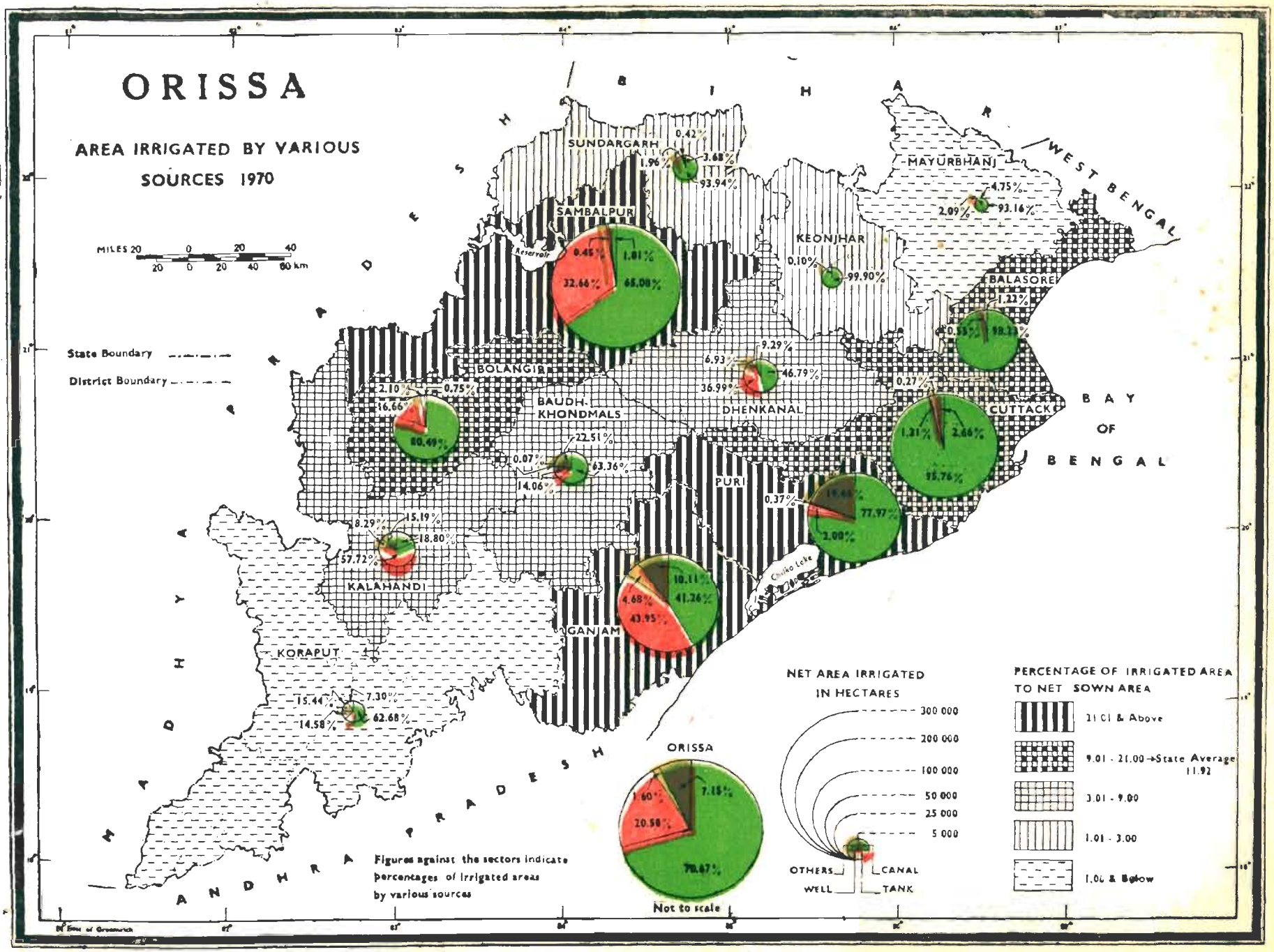
The total irrigated area of the state is 726,374·27 hectares which is 11·92 per cent of 6,092,742 hectares of net area sown. The district of Ganjam has the highest (28·85) and Mayurbhanj has the lowest 0·44 per cent irrigated areas. The percentage of irrigated area is comparatively higher in respect of coastal districts than the districts which are composed of hilly tracts. The district of Sambalpur has higher percentage of irrigated area which may be due to the Hirakud reservoir.

Area of the state irrigated by canals, tanks, wells and other sources constitutes respectively 70·67, 20·58, 1·60 & 7·15 per cent of the total irrigated area. Percentage of area irrigated by various sources for each district is shown within the sectors of respective circles. The districts of Balasore, Cuttack, Sundargarh and Mayurbhanj are mainly irrigated by canals, Sambalpur, Balangir, Ganjam, Dhenkanal and Baudh-Khondmals by canals and tanks, Kalahandi by tanks, Koraput by canals and wells, Keonjhar by other sources and Puri by canal and other sources.

Area in hectares

State/District	Net area sown	Total irrigated area	Area irrigated by: Canals	Tanks	Wells	Other sources
1	2	3	4	5	6	7
Orissa ..	**6,092,742**	**726,374·27**	**513,357·94**	**149,454·10**	**11,619·01**	**51,943·22**
Sambalpur ..	727,641	206,756·95	134,547·12	67,535·52	930·88	3,743·43
Sundargarh ..	297,450	7,147·00	6,714·00	140·00	30·00	263·00
Keonjhar ..	295,022	4,665·50	..	0·37	4·49	4,660·64
Mayurbhanj ..	435,047	1,914·00	1,783·00	40·00	..	91·00
Balasore ..	454,877	47,285·57	46,450·18	..	261·58	573·81
Cuttack ..	687,576	141,488·49	135,483·39	1,851·57	383·56	3,769·97
Dhenkanal ..	407,527	13,061·73	6,111·93	4,832·02	904·42	1,213·36
Baudh-Khondmals ..	177,323	11,318·38	7,171·66	1,591·26	7·70	2,547·76
Balangir ..	481,586	49,867·00	40,138·00	8,307·00	1,049·00	373·00
Kalahandi ..	377,580	13,879·00	2,610·00	8,011·00	1,150·00	2,108·00
Koraput ..	876,568	4,705·36	2,949·18	685·85	726·63	343·70
Ganjam ..	429,381	123,874·46	51,113·90	54,446·44	5,796·20	12,517·92
Puri ..	445,164	100,410·83	78,285·58	2,043·07	374·55	19,737·63

SOURCE—Report on Agricultural Census of Orissa, 1970-71


ORISSA
AREA IRRIGATED BY VARIOUS SOURCES 1970
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
0.42%
3.68%
1.96%
93.94%
SAMBALPUR
0.45%
1.81%
32.66%
65.08%
Reservoir
MAYURBHANJ
4.75%
2.09%
93.16%
KEONJHAR
0.10%
99.90%
BALASORE
1.23%
0.55%
98.22%
BOLANGIR
9.29%
6.93%
46.79%
36.99%
2.10%
0.75%
16.66%
80.49%
BAUDH-KHONDMALS
22.51%
0.07%
63.36%
14.06%
DHENKANAL
0.27%
CUTTACK
1.31%
2.66%
95.76%
PURI
0.37%
19.68%
77.97%
2.00%
Chilka Lake
8.29%
15.19%
18.80%
57.72%
KALAHANDI
10.11%
41.26%
4.68%
43.95%
GANJAM
KORAPUT
15.44%
7.30%
62.68%
14.58%
ORISSA
7.15%
1.60%
20.58%
70.67%
Not to scale
Figures against the sectors indicate percentages of irrigated areas by various sources
NET AREA IRRIGATED IN HECTARES
300 000
200 000
100 000
50 000
25 000
5 000
OTHERS
WELL
CANAL
TANK
PERCENTAGE OF IRRIGATED AREA TO NET SOWN AREA
21.01 & Above
9.01 - 21.00 → State Average 11.92
3.01 - 9.00
1.01 - 3.00
1.00 & Below

MAP No. 60

AGRICULTURAL HOLDING PER CULTIVATING HOUSEHOLD, 1971

This map intends to show the average size of agricultural holdings in hectares per cultivating household in each of the district, 1971.

According to the 1971 Census a household is defined as a cultivating household if one or more persons in the household are engaged in cultivation of land or suprervision or direction of cultivation of land owned or held from Government or from private persons or institutions for payment in money, kind or share.

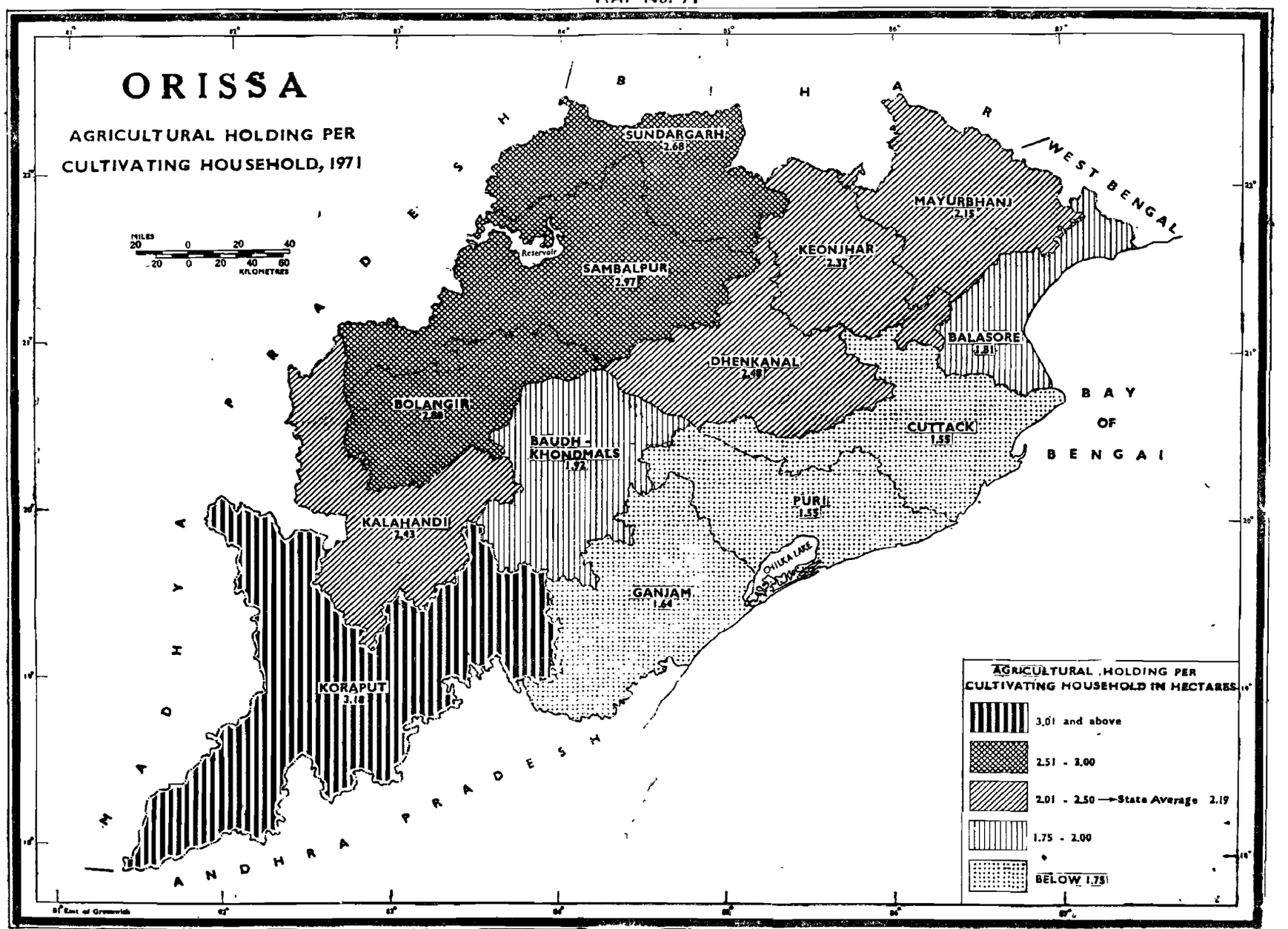
Average size of agricultural holdings per cultivating household is calculated for each district by dividing the total extent of agricultural land in hectares by the number of cultivating households in the district. These data have been shown in the map by choropleth method after grouping the same into five ranges—two above, one nearer to and two below the state average (2·19 hectares) as indicated in the legend of the map.

The district of Koraput with 3·18 hectares per cultivating household stands at the apex and Cuttack and Puri with 1·55 hectares stand at the bottom so far as the size of the agricultural holdings per cultivating household is concerned. The coastal districts of Orissa exhibit the smaller agricultural holdings.

The size of the agricultural holdings per cultivating household in 1971 is indicated below.

State/District	Agricultural holdings in hectares	Cultivating household	Area per cultivating household in hectares
1	2	3	4
Orissa ..	**6,273,395**	**2,866,580**	**2·19**
Sambalpur ..	766,467	258,060	2·97
Sundargarh ..	309,003	115,130	2·68
Keonjhar ..	305,491	128,760	2·37
Mayurbhanj ..	449,856	209,455	2·15
Balasore ..	462,949	256,335	1·81
Cuttack ..	700,319	450,730	1·55
Dhenkanal ..	417,396	168,225	2·48
Baudh-Khondmals	186,546	97,350	1·92
Bolangir ..	496,973	177,235	2·80
Kalahandi ..	387,060	159,130	2·43
Koraput ..	886,313	278,595	3·18
Ganjam ..	449,161	273,080	1·64
Puri ..	455,861	294,495	1·55

MAP No. 71


ORISSA
AGRICULTURAL HOLDING PER
CULTIVATING HOUSEHOLD, 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 2.68
SAMBALPUR 2.97
Reservoir
KEONJHAR 2.37
MAYURBHANJ 2.15
BALASORE 1.81
DHENKANAL 2.48
BOLANGIR 2.88
BAUDH - KHONDMALS 1.92
CUTTACK 1.55
PURI 1.55
CHILKA LAKE
KALAHANDI 2.43
GANJAM 1.64
KORAPUT 3.18
AGRICULTURAL HOLDING PER CULTIVATING HOUSEHOLD IN HECTARES
3.01 and above
2.51 - 3.00
2.01 - 2.50 → State Average 2.19
1.75 - 2.00
BELOW 1.75

MAP No. 61

AGRICULTURAL HOLDING *PER CAPITA*, 1971

This map displays the districtwise *per capita* agricultural holding in 1971.

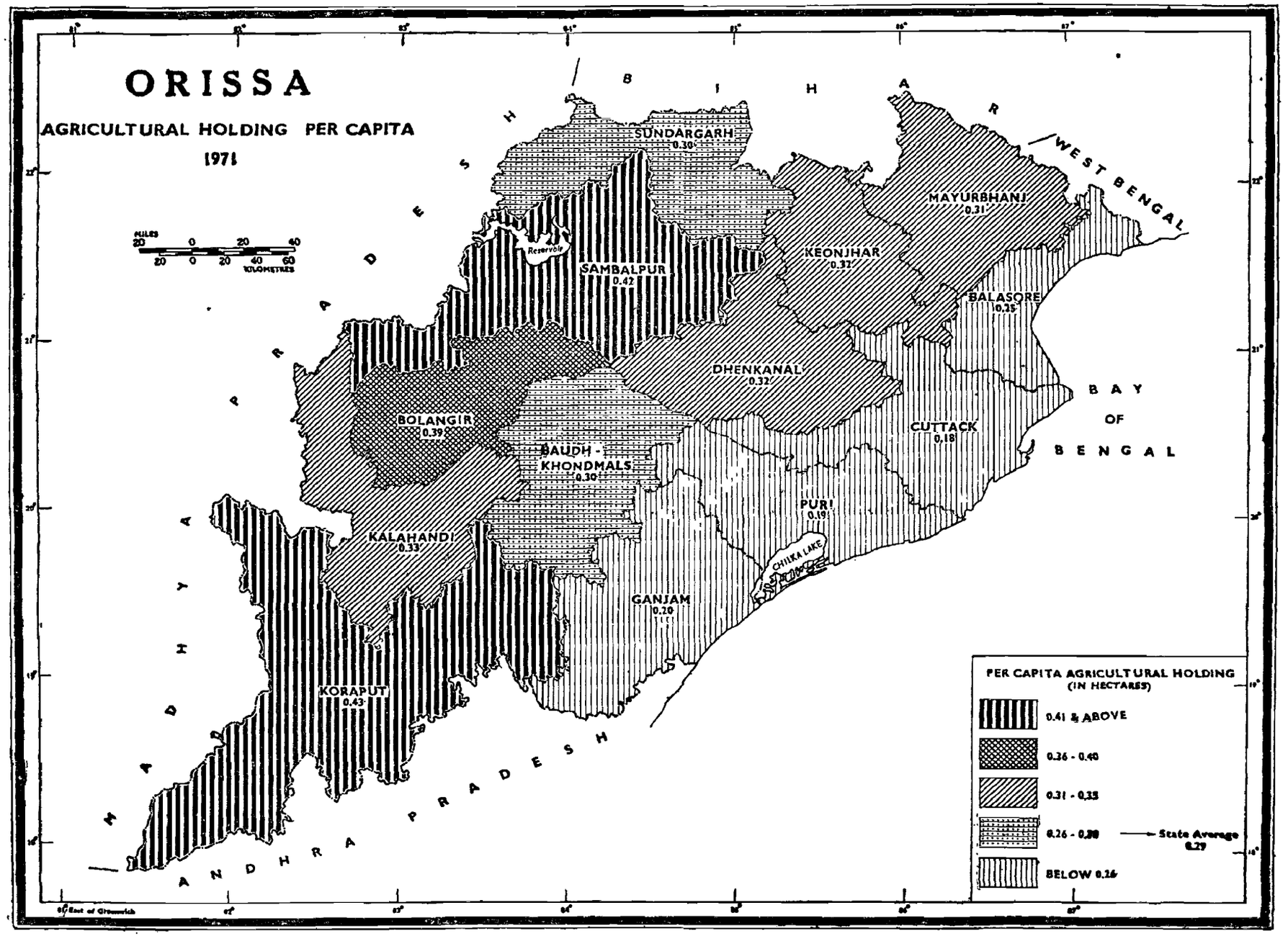
Total acreage of cultivated land of each district has been divided by the total population in order to get the *per capita* agricultural holding in hectares for each of the districts in 1971. The *per capita* agricultural holdings thus obtained are divided into five ranges. All the districts are hatched as per the grades of hatching indicated in the index corresponding to these five ranges of *per capita* agricultural holding.

The *per capita* agricultural holding of the state is 0·29 hectare. The district of Koraput has the maximum size of *per capita* agricultural holding (0·43 hectare) being followed by Sambalpur (0·42 hectare). The *per capita* agricultural holdings in all the coastal districts come under the lowest range (below 0·26 hectare). Excessive fragmentation of the coastal regions on account of higher density of population reduces the size of *per capita* agricultural holding.

The *per capita* holding in the districts is indicated below.

State/District	Total population	Total agricultural land (N.A.+C.F.)	Per capita agricultural land in hectares
1	2	3	4
Orissa ..	**21,944,615**	**6,273,395**	**0·29**
Sambalpur ..	1,844,898	766,467	0·42
Sundargarh ..	1,030,758	309,003	0·30
Keonjhar ..	955,514	305,491	0·32
Mayurbhanj ..	1,434,200	449,856	0·31
Balasore ..	1,830,504	462,949	0.25
Cuttack ..	3,827,678	700,319	0.18
Dhenkanal ..	1,293,914	417,396	0·32
Baudh-Khondmals	621,675	186,546	0·30
Bolangir ..	1,263,657	496,973	0·39
Kalahandi ..	1,163,869	387,060	0·33
Koraput ..	2,043,281	886,313	**0·45**
Ganjam ..	2,293,808	449,161	0·20
Puri ..	2,340,859	455,861	0·19

SOURCE—Total agricultural land is taken from the figures of the Directorate of Agricultere.


ORISSA
AGRICULTURAL HOLDING PER CAPITA
1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 0.30
SAMBALPUR 0.42
MAYURBHANJ 0.31
KEONJHAR 0.32
BALASORE 0.25
DHENKANAL 0.32
CUTTACK 0.18
BOLANGIR 0.39
BAUDH - KHONDMALS 0.30
PURI 0.19
KALAHANDI 0.33
CHILKA LAKE
GANJAM 0.20
KORAPUT 0.43
Reservoir
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
PER CAPITA AGRICULTURAL HOLDING (IN HECTARES)
0.41 & ABOVE
0.36 - 0.40
0.31 - 0.35
0.26 - 0.30
BELOW 0.26
State Average 0.29

MAP No. 62

AGRICULTURAL HOLDING PER MALE CULTIVATOR, 1971

This map presents the average size of agricultural holding in hectares per male cultivator for each of the districts of the state during 1971.

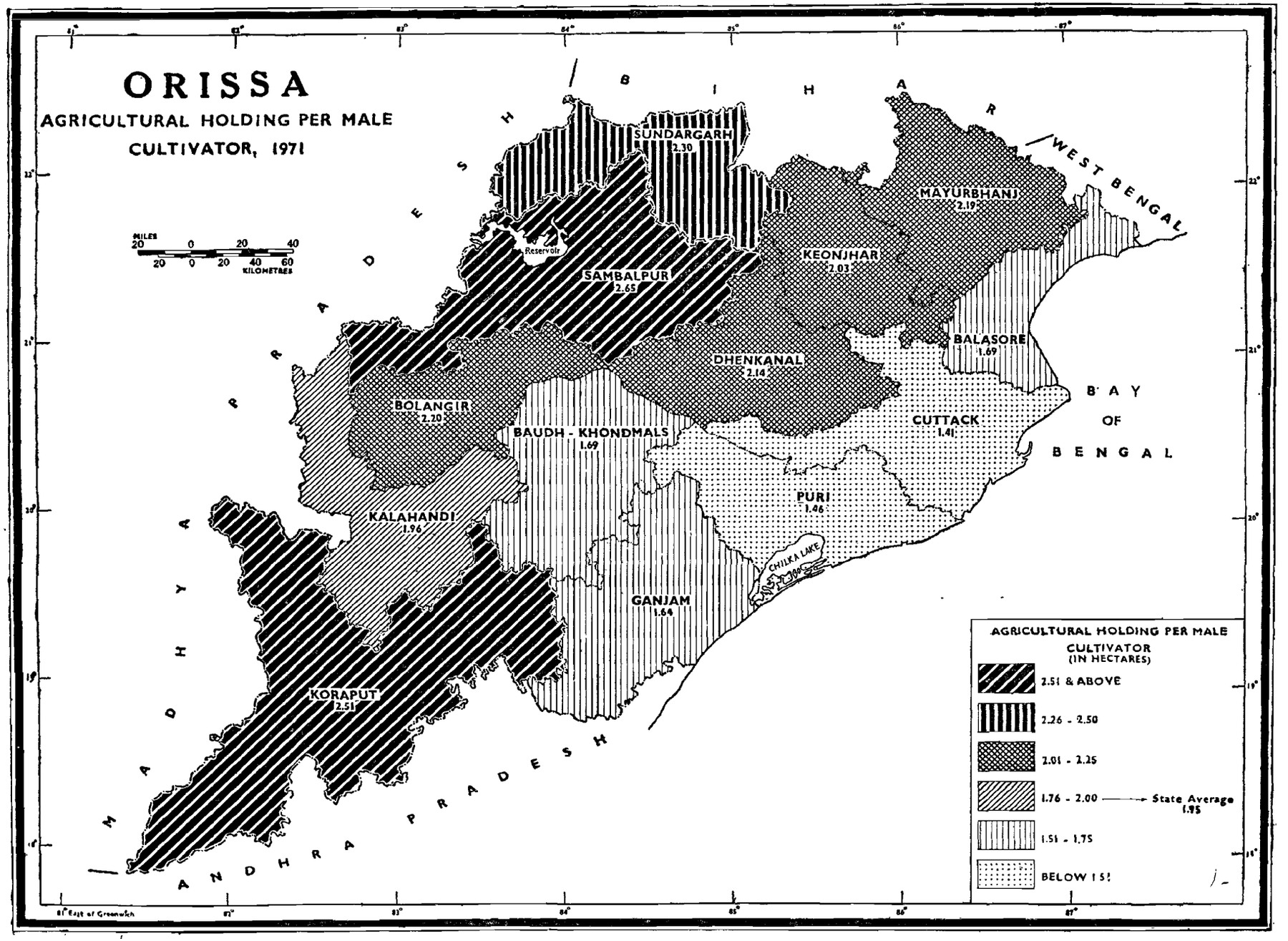
For purposes of the 1971 Census, a person is called a cultivator if he or she is engaged in cultivation by oneself or by supervision or direction in one's capacity as the owner or lessee of land held from Government or as a tenant of land held from private persons or institutions for payment of money, kind or share.

Total agricultural land in hectares of each district has been divided by its total number of male cultivators in order to get the average size of the agricultural holding per male cultivator during 1971. The sizes of the agricultural holdings thus obtained per male cultivator are grouped into six categories—three above, one nearer to and two below the state average (1·95). Accordingly all the districts are hatched to show the ranges in descending order by using the choropleth technique.

The number of male cultivators of Orissa is 3,219,678 and the extent of agricultural land is 6,273,395 hectares. Thus the average area per male cultivator of the state comes to 1·95 hectares. Among the districts, highest acreage per male cultivator is found in the districts of Sambalpur (2·65 hectares) followed by Koraput district (2·51 hectares). A study of the map reveals that the coastal districts have got smaller agricultural holdings. The district of Cuttack has the minimum size of agricultural holding per male cultivator. Excessive fragmentation of holdings in the coastal districts is attributed to higher density of population.

The average size of agricultural holding per male cultivator in the districts of the state in 1971 is indicated below.

State/District	Total agricultural land in hectares	Total male cultivators	Area per cultivator in hectares
1	2	3	4
Orissa ..	**6,273,395**	**3,219,678**	**1·95**
Sambalpur ..	766,467	289,582	2·65
Sundargarh ..	309,003	134,120	2·30
Keonjhar ..	305,491	150,785	2·03
Mayurbhanj ..	449,856	205,038	2·19
Balasore ..	462,949	274,022	1·69
Cuttack ..	700,319	497,594	1·41
Dhenkanal ..	417,396	194,661	2·14
Baudh-Khondmals	186,546	110,065	1·69
Bolangir ..	496,973	225,581	2·20
Kalahandi ..	387,060	197,295	1·96
Koraput ..	886,313	353,499	2·51
Ganjam ..	449,161	274,672	1·64
Puri ..	455,861	312,764	1·46


ORISSA
AGRICULTURAL HOLDING PER MALE CULTIVATOR, 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
Reservoir
SUNDARGARH 2.30
SAMBALPUR 2.65
BOLANGIR 2.20
KALAHANDI 1.96
KORAPUT 2.51
BAUDH - KHONDMALS 1.69
DHENKANAL 2.14
KEONJHAR 2.03
MAYURBHANJ 2.19
BALASORE 1.69
CUTTACK 1.41
PURI 1.46
GANJAM 1.64
CHILKA LAKE
BIHAR
WEST BENGAL
ORISSA
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
AGRICULTURAL HOLDING PER MALE CULTIVATOR (IN HECTARES)
2.51 & ABOVE
2.26 - 2.50
2.01 - 2.25
1.76 - 2.00 → State Average 1.95
1.51 - 1.75
BELOW 1.51
81° East of Greenwich

MAP No. 63

PER ADULT REQUIREMENT AND SUPPLY OF STAPLE FOOD CROPS (CEREALS AND PULSES) 1971

This map presents the ratio of yearly supply and requirements of staple food crops in terms of calories per adult man for each district.

Requirements of cereals and pulses in calories for adult male, adult female, adolescent and children as recommended by the Advisory Committee on "The Nutritive value of Indian Foods and the Planning of satisfactory diets, vide Special Reports Series No. 42 by W. R. Aykroyd, Indian Council of Medical Research, New Delhi" are taken into account as given below.

'A'

Age groups	Co-efficient of the intake of cereals and pulses in the respective age group	Requirement of cereals and pulses per day in calories
1	2	3
1. Adult male 20+ ..	1·00	2,400
2. Adult female 20+ ..	0·90	2,160
3. Adolescent 15—19 ..	1·00	2,400
4. Children 10—14 ..	0·85	2,040
5— 9 ..	0·65	1,560
0— 4 ..	0·45	1,080

Similarly supply of staple food crops (in terms of calories) per adult value as are taken into account are shown as follows :

'B'

Name of the cereals and pulses	Calories per 100 grams of cereals and pulses
1	2
Rice ..	348
Wheat ..	348
Jawar ..	356
Bajra ..	356
Maize ..	342
Ragi ..	345
Gram ..	350
Other pulses ..	340

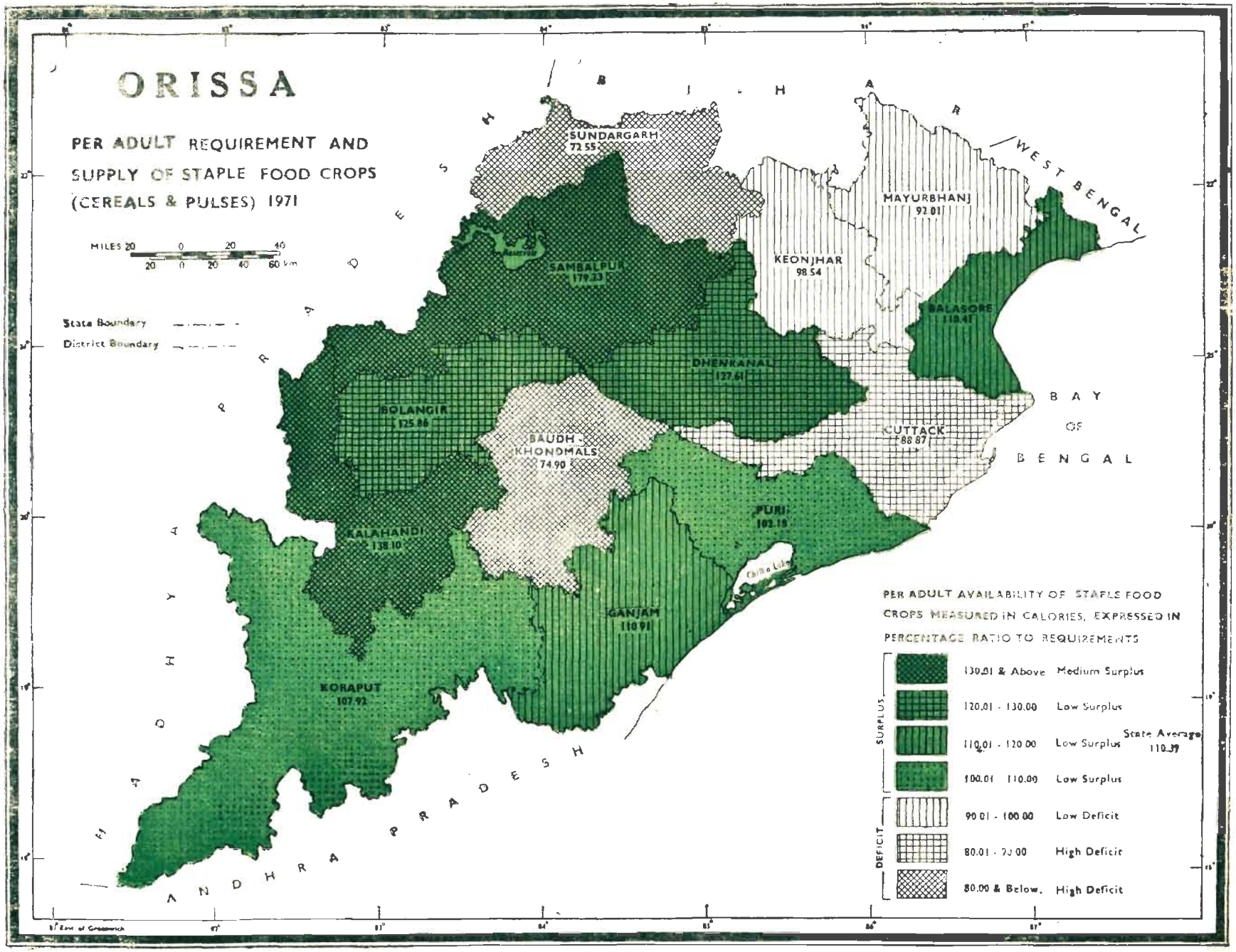
Yearly production of cereals and pulses are estimated in terms of calories as per the above procedures as shown at 'B' for each district. Similarly yearly requirements of cereals and pulses in terms of calories for adult males are estimated in accordance with the above mentioned procedure as shown at 'A for each district.

The ratio between yearly production and nutritive requirements in 100 is then estimated for each of the districts of the state. These ratios are grouped into seven ranges— four on the surplus side and three on the deficit side. The districts on the surplus side are shaded by different hatchings and shown in flat green colour, whereas districts on the deficit side are shown in different black hatchings as per the legend of the map.

In this map ratio 100 is treated as equilibrium for supply and requirements. The districts having ratio exceeding 100 are treated as surplus areas while those having ratio less than 100 are earmarked as deficit areas.

The ratios exceed 130 in the districts of Sambalpur and Kalahandi and as such these two districts are known as medium surplus areas of the state. The ratios vary between 100 and 130 in as many as six districts, namely, Dhenkanal, Bolangir, Ganjam, Balasore, Koraput and Puri. These districts are known as low surplus areas.

Of the remaining five districts, Keonjhar and Mayurbhanj are treated as low deficit areas as their ratios lie between 90·01 and 100·00. Other three districts, namely, Cuttack, Baudh-Khondmals and Sundargarh are marked as high deficit areas of the state as their ratios fall below 90·01.


ORISSA
PER ADULT REQUIREMENT AND SUPPLY OF STAPLE FOOD CROPS (CEREALS & PULSES) 1971
MILES 20 0 20 40
20 0 20 40 60 Km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 72.55
SAMBALPUR 179.23
MAYURBHANJ 92.01
KEONJHAR 98.54
BALASORE 110.41
DHENKANAL 127.61
BOLANGIR 125.86
BAUDH-KHONDMALS 74.90
CUTTACK 88.87
PURI 102.19
KALAHANDI 138.10
GANJAM 110.91
KORAPUT 107.92
PER ADULT AVAILABILITY OF STAPLE FOOD CROPS MEASURED IN CALORIES, EXPRESSED IN PERCENTAGE RATIO TO REQUIREMENTS
SURPLUS
DEFICIT
130.01 & Above Medium Surplus
120.01 - 130.00 Low Surplus
110.01 - 120.00 Low Surplus
100.01 - 110.00 Low Surplus
State Average 110.39
90.01 - 100.00 Low Deficit
80.01 - 90.00 High Deficit
80.00 & Below. High Deficit

MAP No. 64

PROOPRTI ON OF TOTAL WORKERS AND NON-WORKERS TO TOTAL POPULATION, 1971

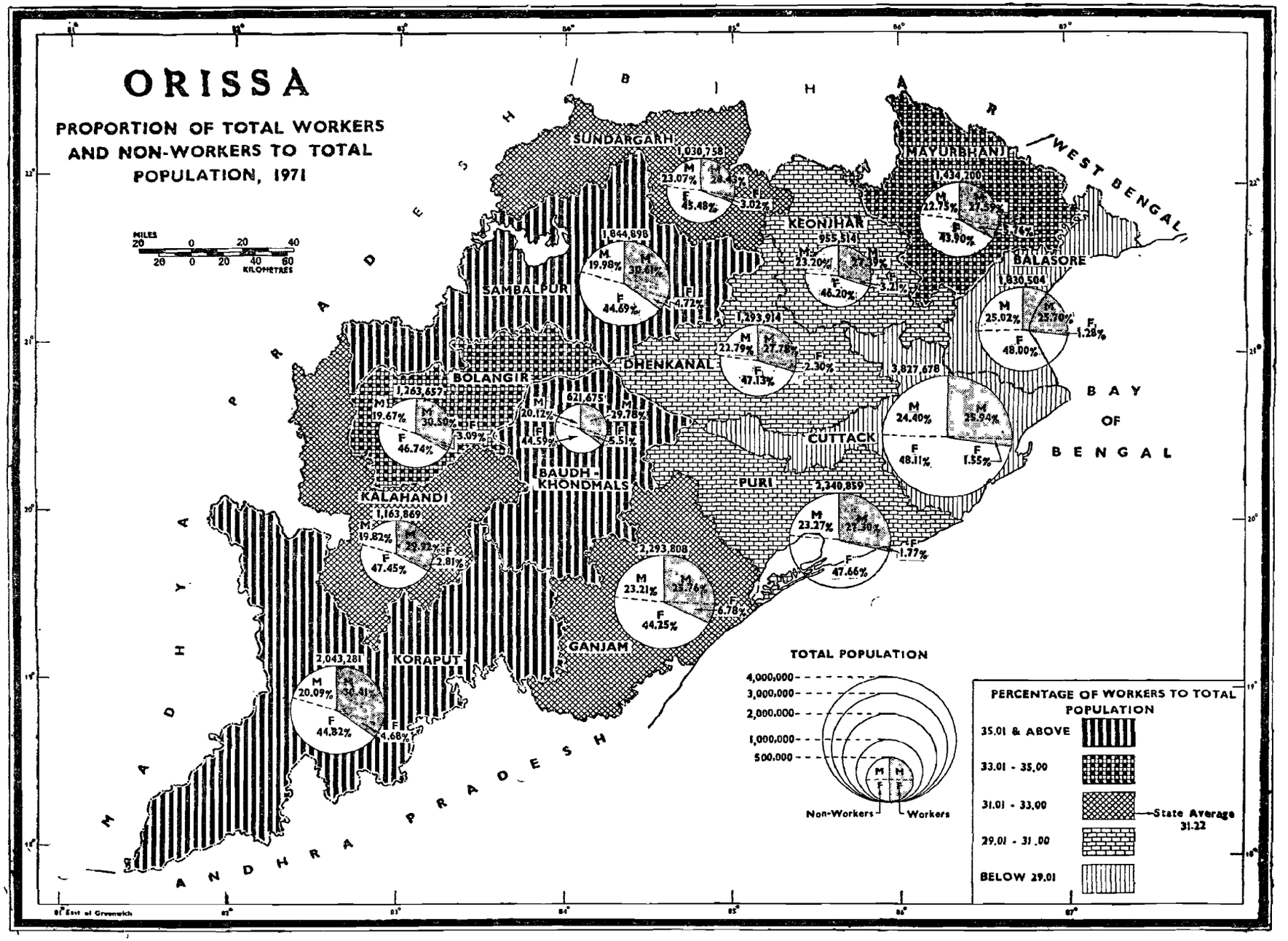
This map shows the percentage of workers and non-workers in each of the districts of the state with sex break-up in 1971.

Pie-diagram is drawn for each district proportionate to its total population as shown in the legend. The total population of a district is indicated above the concerned circle. Each circle has been divided into two sectors. Percentage of workers is shown by screen shading and that of non-workers without any shading. Each sector is further subdivided by dashed lines for indicating the percentage of males and females in the working and non-working sectors. Percentage figures for male and female workers and non-workers are shown in the respective sectors. Percentage figures of workers to total population are grouped into five convenient ranges—two above, one nearer to and two below the state average (31·22). All the districts are hatched using choropleth technique in the descending order of values as shown in the index.

There are as many as 6,850,651 or 31·22 per cent of total population (21,944,615) are workers. Male working participants are 27·83 per cent whereas female are 3·39 per cent. In non-working sector females predominate males by 23·82 per cent.

The district of Sambalpur records the highest percentage or male workers and total workers whereas the lowest percentage is recoorded by the district of Balasore for the male, female and total workers. The percentage figures of male workers for all the districts vary between 25·70 to 30·61 while those of female workers for the districts lie below in 1·28 to 6·78. The figures of all the districts exhibit higher per cent of non-workers. The female workers constitute the low percentage of the working population. The low participation rate of female workers might be due to the social prejudice against women working out door and biological phenomenon of women.

State / District	Total population	Workers in percentage			Non-workers in percentage		
		Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8
Orissa ..	**21,944,615**	**27·83**	**3·39**	**31 22**	**22·48**	**46·30**	**68·78**
Sambalpur ..	1,844,898	30·61	4·72	35·33	19·98	44·69	64·67
Sundargarh ..	1,030,758	28·43	3·02	31·45	23·07	45·48	68·55
Keonjhar ..	955,514	27·39	3·21	30·60	23·20	46·20	69·40
Mayurbhanj ..	1,434,200	27·59	5·76	33·35	22·75	43·90	66·65
Balasore ..	1,830,504	25·70	1·28	26·98	25·02	48·00	73·02
Cuttack ..	3,827,678	25·94	1·55	27·49	24·40	48·11	72·51
Dhenkanal ..	1,293,914	27·78	2·30	30·08	22·79	47·13	69·92
Baudh-Khondmals ..	621,675	29·78	5·51	35·29	20·12	44·59	64·71
Bolangir ..	1,263,657	30·50	3·09	33·59	19·67	46·74	66·41
Kalahandi ..	1,163,869	29·92	2·81	32·73	19·82	47·45	67·27
Koraput ..	2,043,281	30·41	4·68	35·09	20·09	44·82	64·91
Ganjam ..	2,293,808	25·76	6·78	32·54	23·21	44·25	67·46
Puri ..	2,340,859	27·30	1·77	29·07	23·27	47·66	70·93


ORISSA
PROPORTION OF TOTAL WORKERS AND NON-WORKERS TO TOTAL POPULATION, 1971
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
1,030,758
M 23.07%
M 28.43%
F 45.48%
F 3.02%
MAYURBHANJ
1,434,200
M 22.75%
M 27.59%
F 43.90%
F 5.74%
KEONJHAR
955,514
M 23.20%
M 27.19%
F 46.20%
F 3.21%
SAMBALPUR
1,844,898
M 19.98%
M 30.61%
F 44.69%
F 4.72%
BALASORE
1,830,504
M 25.02%
M 25.70%
F 48.00%
F 1.28%
1,293,914
M 22.79%
M 27.78%
F 47.13%
F 2.30%
DHENKANAL
BOLANGIR
1,263,657
M 19.67%
M 30.59%
F 46.74%
F 3.09%
621,675
M 20.12%
M 29.78%
F 44.59%
F 5.51%
3,827,678
M 24.40%
M 25.94%
F 48.11%
F 1.55%
CUTTACK
BAUDH-KHONDMALS
KALAHANDI
1,163,869
M 19.82%
M 29.92%
F 47.45%
F 2.81%
PURI
2,340,859
M 23.27%
M 27.30%
F 47.66%
F 1.77%
2,293,808
M 23.21%
M 26.76%
F 44.25%
F 6.78%
GANJAM
KORAPUT
2,043,281
M 20.09%
M 30.41%
F 44.82%
F 4.68%
TOTAL POPULATION
4,000,000
3,000,000
2,000,000
1,000,000
500,000
M
F
Non-Workers
Workers
PERCENTAGE OF WORKERS TO TOTAL POPULATION
35.01 & ABOVE
33.01 - 35.00
31.01 - 33.00
State Average 31.22
29.01 - 31.00
BELOW 29.01

MAP No. 65

PROPORTION OF RURAL WORKERS AND NON-WORKERS TO TOTAL RURAL POPULATION, 1971

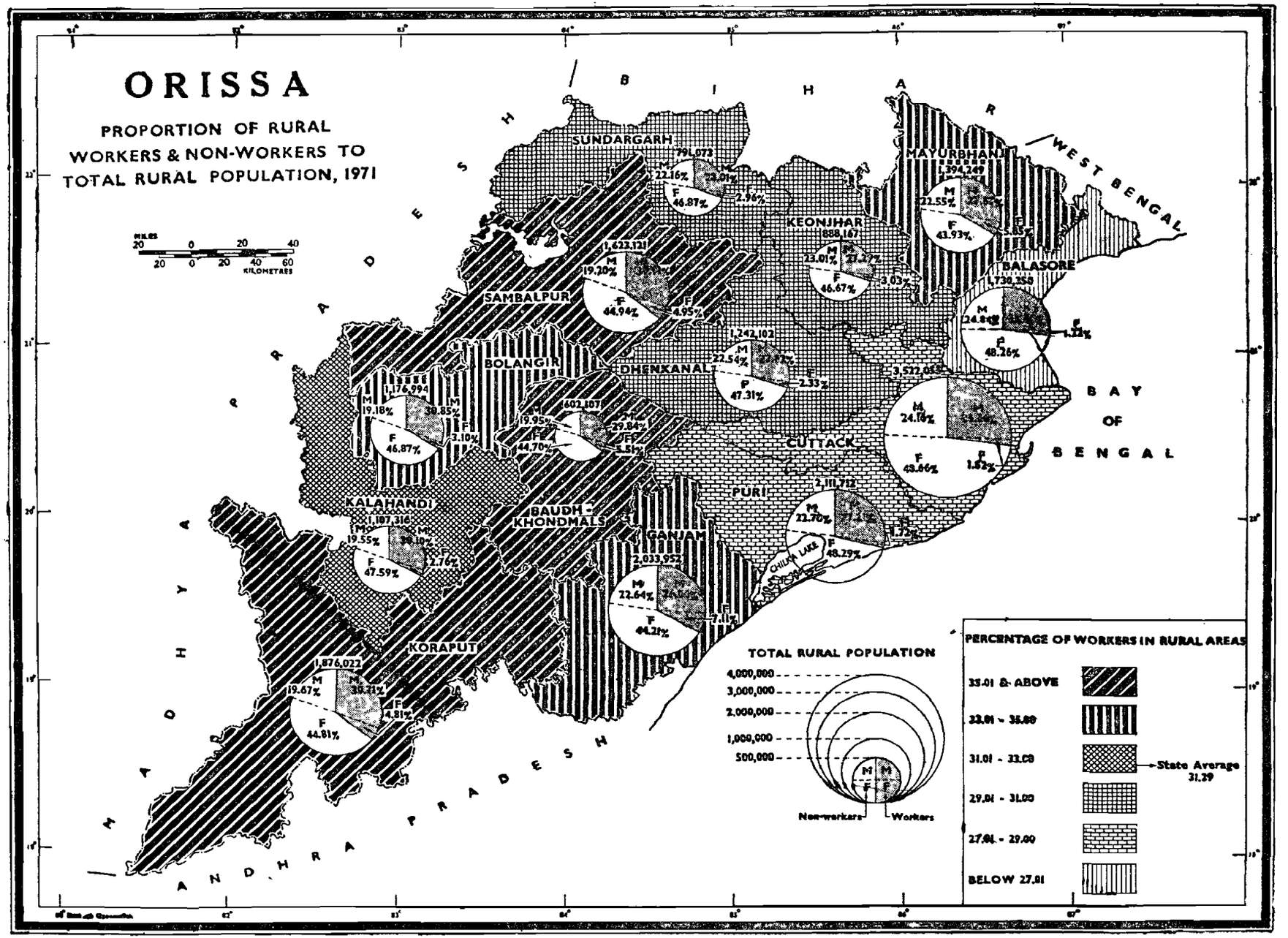
This map presents the proportion of rural workers and non-workers to total rural population with sex break-up in 1971. These proportions have been calculated for each of the districts of the state in percentages.

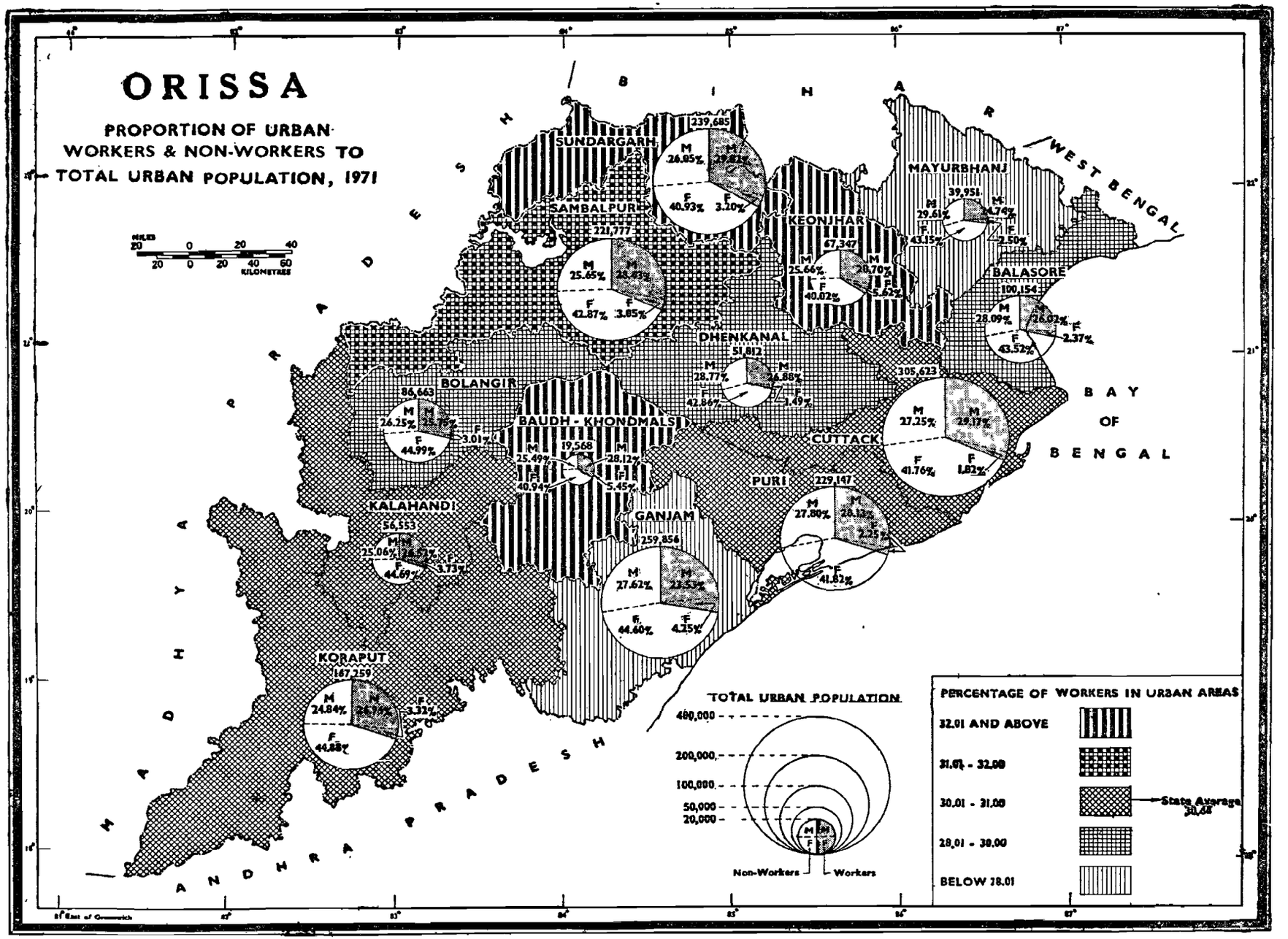
A circle proportionate to the total rural population of each district is drawn and divided into two sectors according to the proportion of rural workers and non-workers. Sectors representing the proportion of rural workers are shaded with light black. Again both the sectors are subdivided by the line of dashes to indicate the percentage of males and females. The procedure followed for preparation of Map No, 64 is also followed in this case. The percentage figures of rural workers to the total rural population of each of the districts are calculated and graded into six suitable ranges as shown in the index. All the districts are hatched by choropleth technique.

The workers constitute 31·29 per cent of the total population in rural areas of the state. Seven districts have the percentages of workers above the state average. Sambalpur district records the highest percentage (35·86) of workers, where as Balasore district has the lowest percentage (26·90). Low percentage of workers are seen in most of the coastal districts. For all the districts of the state the counterparts of the workers (Non-workers) are too large in number.

The statement below gives the absolute and percentage figures of male and female workers and non-workers to the total rural population in the districts of Orissa in 1971.

State/District	Total rural population	Workers				Total	Non-workers				Total
		Male	Percentage	Female	Percentage		Male	Percentage	Female	Percentage	
1	2	3	4	5	6	7	8	9	10	11	12
Orissa ..	**20,099,220**	**5,601,630**	**27·87**	**687,201**	**3·42**	**31·29**	**4,439,393**	**22·09**	**9,370,996**	**46·62**	**68·71**
Sambalpur ..	1,623,121	501,724	30·91	80,343	4·95	35·86	311,678	19·20	729,376	44·94	64·14
Sundargarh ..	791,073	221,585	28·01	23,388	2·96	30·97	175,344	22·16	370,756	46·87	69·03
Keonjhar ..	888,167	242,359	27·29	26,943	3·03	30·32	204,361	23·01	414,504	46·67	69·68
Mayurbhanj ..	1,394,249	385,742	27·67	81,616	5·85	33·52	314,456	22·55	612,435	43·93	66·48
Balasore ..	1,730,350	444,325	25·68	21,057	1·22	26·90	429,830	24·84	835,138	48·26	73·10
Cuttack ..	3,522,055	903,767	25·66	53,608	1·52	27·18	850,822	24·16	1,713,858	48·66	72·82
Dhenkanal ..	1,242,102	345,573	27·82	28,955	2·33	30·15	279,927	22·54	587,647	47·31	69·85
Baudh-Khondmals ..	602,107	179,636	29·84	33,187	5·51	35·35	120,106	19·95	269,178	44·70	64·65
Bolangir ..	1,176,994	363,073	30·85	36,467	3·10	33·95	225,823	19·18	551,631	46·87	66·05
Kalahandi	1,107,316	333,277	30·10	30,596	2·76	32·86	216,480	19·55	526,963	47·59	67·14
Koraput ..	1,876,022	576,198	30·71	90,150	4·81	35·52	369,004	19·67	840,670	44·81	64·48
Ganjam ..	2,033,952	529,741	26·04	144,528	7·11	33·15	460,523	22·64	899,160	44·21	66·85
Puri ..	2,111,712	574,630	27·21	36,363	1·72	28·93	481,039	22·78	1,019,680	48·29	71·07


ORISSA
PROPORTION OF RURAL WORKERS & NON-WORKERS TO TOTAL RURAL POPULATION, 1971
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
791,073
M 22.16%
F 46.87%
MAYURBHANJ
1,394,249
M 22.55%
F 43.93%
KEONJHAR
888,167
M 23.01%
F 46.67%
BALASORE
1,739,358
M 24.84%
F 48.26%
SAMBALPUR
1,623,121
M 19.20%
F 44.94%
BOLANGIR
1,176,994
M 19.18%
F 46.87%
DHENKANAL
1,242,102
M 22.54%
F 47.31%
CUTTACK
3,522,053
M 24.16%
F 43.66%
KALAHANDI
1,187,316
M 19.55%
F 47.59%
BAUDH-KHONDMALS
602,107
M 19.95%
F 44.70%
GANJAM
2,033,952
M 22.64%
F 44.21%
PURI
2,111,712
M 22.70%
F 48.29%
CHILKA LAKE
KORAPUT
1,876,022
M 19.67%
F 44.81%
TOTAL RURAL POPULATION
4,000,000
3,000,000
2,000,000
1,000,000
500,000
Non-workers
Workers
PERCENTAGE OF WORKERS IN RURAL AREAS
33.01 & ABOVE
33.01 - 35.00
31.01 - 33.00
29.01 - 31.00
27.01 - 29.00
BELOW 27.01
State Average 31.29


ORISSA
PROPORTION OF URBAN WORKERS & NON-WORKERS TO TOTAL URBAN POPULATION, 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
239,685
M 26.95%
M 29.82%
F 40.93%
F 3.20%
SAMBALPUR
221,777
M 25.65%
M 28.43%
F 42.87%
F 3.05%
KEONJHAR
67,347
M 25.66%
M 30.70%
F 40.02%
F 3.62%
MAYURBHANJ
39,951
M 29.61%
M 24.76%
F 43.15%
F 2.50%
BALASORE
100,154
M 28.09%
M 26.02%
F 43.52%
F 2.37%
DHENKANAL
51,812
M 28.77%
M 24.88%
F 42.86%
F 3.49%
BOLANGIR
86,663
M 26.25%
M 25.79%
F 44.99%
F 3.01%
BAUDH - KHONDMALS
19,568
M 25.49%
M 28.12%
F 40.94%
F 5.45%
CUTTACK
305,623
M 27.25%
M 29.17%
F 41.76%
F 1.82%
PURI
229,147
M 27.80%
M 28.13%
F 41.82%
F 2.25%
KALAHANDI
56,553
M 25.06%
M 28.87%
F 44.69%
F 3.73%
GANJAM
259,856
M 27.62%
M 23.53%
F 44.60%
F 4.25%
KORAPUT
167,259
M 24.84%
M 26.17%
F 44.85%
F 3.32%
0 20 40 KILOMETRES
20 0 20 40 60 MILES
TOTAL URBAN POPULATION
400,000
200,000
100,000
50,000
20,000
Non-Workers
Workers
PERCENTAGE OF WORKERS IN URBAN AREAS
32.01 AND ABOVE
31.01 - 32.00
30.01 - 31.00
State Average 30.68
28.01 - 30.00
BELOW 28.01

MAP No. 66

PROPORTION OF URBAN WORKERS AND NON-WORKERS TO TOTAL URBAN POPULATION, 1971

This map depicts the proportion of urban workers and non-workers to the total urban population with sex break-up for the state and districts during 1971.

A circle proportionate to total urban population of each district is drawn and sectors showing the percentage of workers and non-workers with further break-up of males and females are cut off in accordance with the instructions followed for Map No. 64. Percentage figures of urban workers to total urban population of the districts are grouped into five ranges—two above, one nearer to and two below the state average. All the districts are hatched as per the legend given at the bottom of the map.

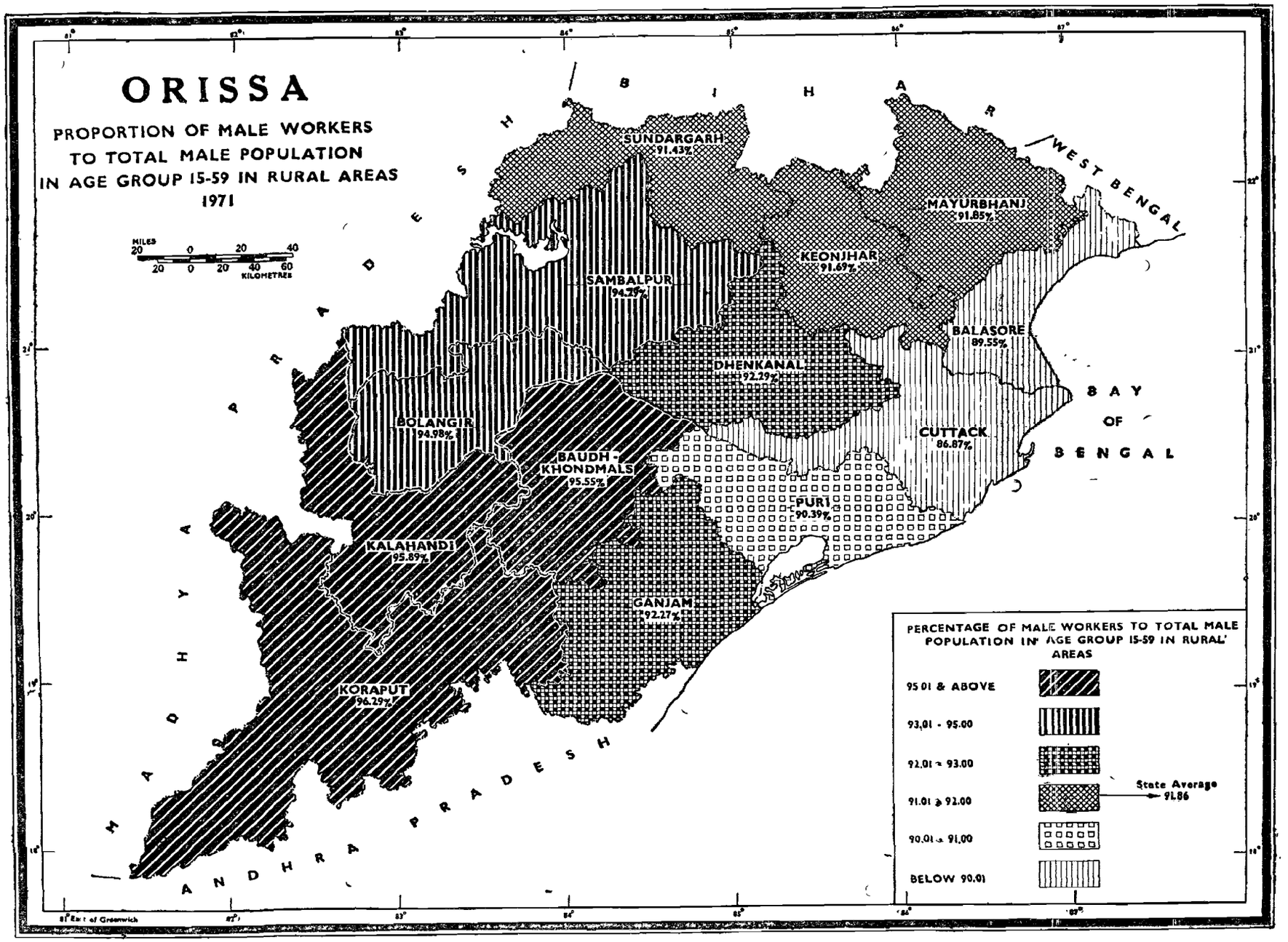
As many as 1,845,395 persons are living in the urban areas of the state, of whom 506,363 males and 55,457 females are recorded as workers. In other words, 27·44 per cent males and 3·00 per cent females of urban areas are workers. The male and female non-workers respectively constitute 26·76 per cent and 42·80 per cent of the total urban population.

The percentage share of urban non-workers is significantly higher than that of urban workers in each of the districts of Orissa. Further this map reveals that female urban non-workers preponderate the urban male non-workers in all the districts whereas in working sector it is seen that the percentage of urban male workers predominate that of urban female workers in each district.

Sundargarh, Keonjhar and Baudh-Khondmals are three districts of Orissa in which percentage share of workers is above 32·00 per cent whereas Ganjam and Mayurbhanj have the lowest (below 28·01) percentage share of workers.

State/District	Total urban population	Workers					Non-workers				
		Male	Percentage	Female	Percentage	Total/ Percentage	Male	Percentage	Female	Percentage	Total Percentage
1	2	3	4	5	6	7	8	9	10	11	12
Orissa ..	**1,845,395**	**506,363**	**27·44**	**55,457**	**3·00**	**561,820/ 30·44**	**493,697**	**26·76**	**789,878**	**42·80**	**1,283,575 69·56**
Sambalpur ..	221,777	63,047	28·43	6,763	3·05	69,810/ 31·48	56,883	25·65	95,084	42·87	151,967/ 68·52
Sundargarh ..	239,685	71,468	29·82	7,681	3·20	79,149/ 33·02	62,439	26·05	98,097	40·93	160,536/ 66·98
Keonjhar ..	67,347	19,330	28·70	3,781	5·62	23,111/ 34·32	17,284	25·66	26,952	40·02	44,236/ 65·68
Mayurbhanj ..	39,951	9,885	24·74	996	2·50	10,881/ 27·24	11,831	29·61	17,239	43·15	29,070/ 72·76
Balasore ..	100,154	26,058	26·02	2,377	2·37	28,435/ 28·39	28,129	28·09	43,590	43·52	71,719/ 71·61
Cuttack ..	305,623	89,147	29·17	5,553	1·82	94,700/ 30·99	83,297	27·25	127,626	41·76	210,923/ 69·01
Dhenkanal ..	51,812	13,927	26·88	771	1·49	14,698/ 28·37	14,907	28·77	22,207	42·86	37,114/ 71·63

State/District		Total urban population	Workers				Total/ Percentage	Non-workers				Total/ Percentage
			Male	Percentage	Female	Percentage		Male	Percentage	Female	Percentage	
1		2	3	4	5	6	7	8	9	10	11	12
Baudh-Khondmals	..	19,568	5,503	28·12	1,066	5·45	6,569/ 33·57	4,988	25·49	8,011	40·94	12,999 66·43
Bolangir	..	86,663	22,321	25·75	2,607	3·01	24,928/ 28·76	22,748	26·25	38,987	44·99	61,735/ 71·24
Kalahandi	..	56,553	14,996	26·52	2,109	3·73	17,105/ 30·25	14,176	25·06	25,272	44·69	39,448/ 69·75
Koraput	..	167,259	45,091	26·96	5,558	3·32	50,649/ 30·28	41,540	24·84	75,070	44·88	116,610 69·72
Ganjam	..	259,856	61,128	23·53	11,053	4·25	72,181/ 27·78	71,768	27·62	115,907	44·60	187,675/ 72·22
Puri	..	229,147	64,462	28·13	5,142	2·25	69,604/ 30·38	63,707	27·80	95,836	41·82	159,543/ 69·62


ORISSA
PROPORTION OF MALE WORKERS
TO TOTAL MALE POPULATION
IN AGE GROUP 15-59 IN RURAL AREAS
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 91.43%
SAMBALPUR 94.29%
MAYURBHANJ 91.85%
KEONJHAR 91.69%
BALASORE 89.55%
DHENKANAL 92.29%
CUTTACK 86.87%
BOLANGIR 94.98%
BAUDH - KHONDMALS 95.55%
PURI 90.39%
KALAHANDI 95.89%
GANJAM 92.27%
KORAPUT 96.29%
PERCENTAGE OF MALE WORKERS TO TOTAL MALE POPULATION IN AGE GROUP 15-59 IN RURAL AREAS
95.01 & ABOVE
93.01 - 95.00
92.01 - 93.00
91.01 - 92.00
State Average 91.86
90.01 - 91.00
BELOW 90.01
81° East of Greenwich

MAP No. 67

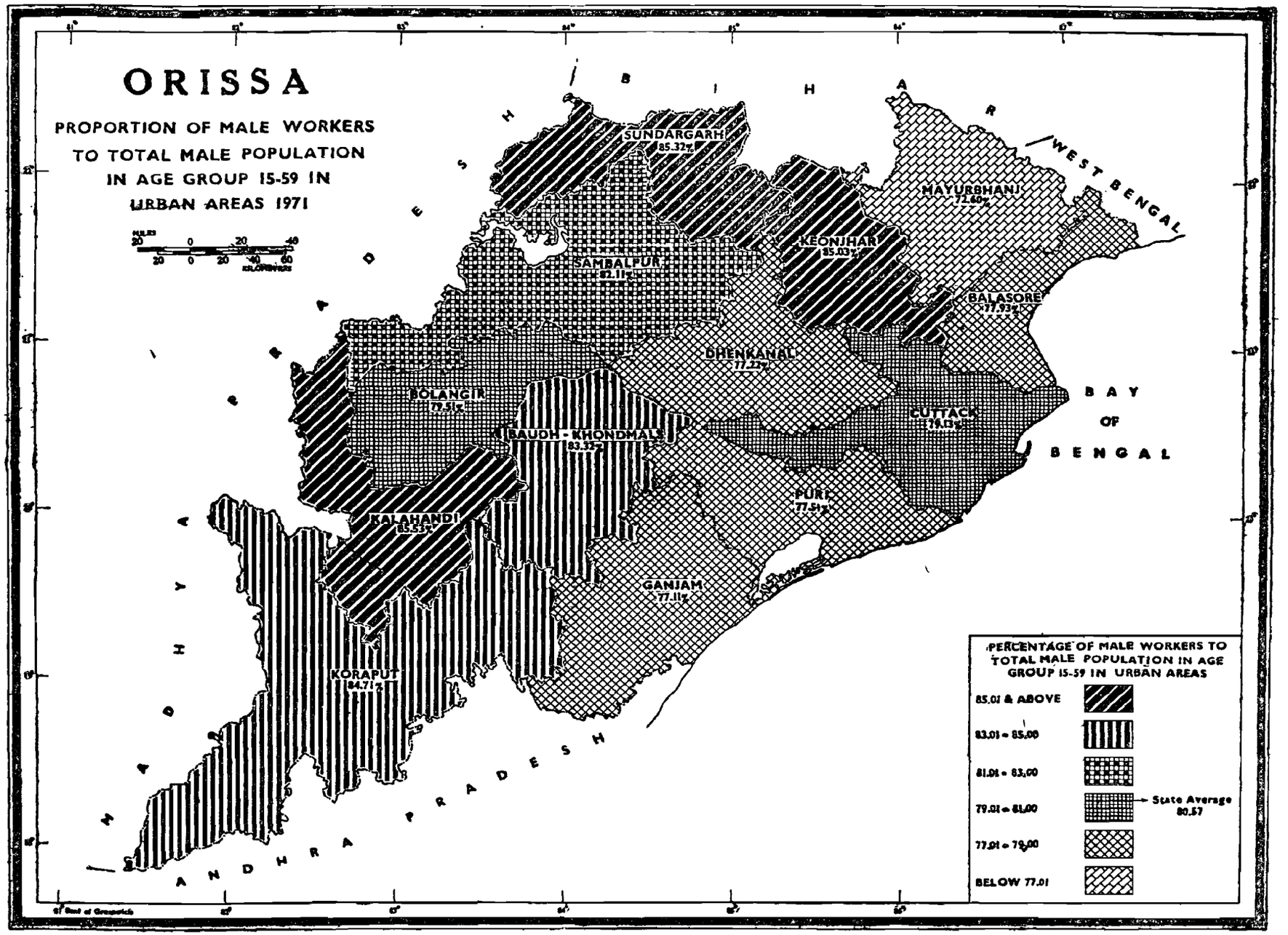
PROPORTION OF MALE WORKERS TO TOTAL MALE POPULATION IN AGE GROUP 15—59 IN RURAL AREAS, 1971

This map brings out the districtwise proportion of rural male workers in age 15—59 to total males in rural areas in 1971. The proportion has been calculated on percentage basis.

The percentage of rural male workers in age 15—59 to total males of rural areas in age 15—59 has been calculated for each district of the state and is grouped into six convenient ranges—thre above, one nearer to and two below the state average (91·86). The districts are hatched as per the grades of hatching by choropleth method. The total male population in the age group 15—59 of rural areas of the state comes to 5,154,348 out of which 4,734,720 (91·86 per cent) are workers. The percentage figures of rural male workers in age 15—59 to total rural males in the same age group for all the district lie between 86·87 and 96·29.

A glance at the map indicates that highest percentage (96·29) is noticed in the district of Koraput followed by Kalahandi (95·89). A study of the map further reveals that the lowest percentage (86·87 per cent) is recorded by Cuttack district and the reason may be attributed to migration of rural male workers to the developed urban areas of the district for better economic pursuits.

State/District	Male population of age group 15—59	Male workers of age group 15—59	Percentage
1	2	3	4
Orissa ..	**5,154,348**	**4,734,720**	91·86
Sambalpur ..	445,851	420,415	94·29
Sundargarh ..	203,116	185,708	91·43
Keonjhar ..	230,118	210,995	91·69
Mayurbhanj ..	360,877	331,479	91·85
Balasore ..	428,841	384,023	89·55
Cuttack ..	889,096	772,352	86·87
Dhenkanal ..	319,601	294,955	92·29
Baudh-Khondmals	159,375	152,285	95.55
Bolangir ..	314,830	299,018	94·98
Kalahandi ..	277,098	265,709	95·89
Koraput ..	506,536	487,746	96.29
Ganjam ..	475,219	438,499	92·2
Puri ..	543,790	491,536	90·39


ORISSA
PROPORTION OF MALE WORKERS TO TOTAL MALE POPULATION IN AGE GROUP 15-59 IN URBAN AREAS 1971
MILES 20 0 20 40
20 0 20 40 60 KILOMETRES
SUNDARGARH 85.32%
MAYURBHANJ 72.60%
KEONJHAR 85.03%
SAMBALPUR 82.11%
BALASORE 77.93%
DHENKANAL 77.23%
BOLANGIR 79.51%
BAUDH - KHONDMALS 83.33%
CUTTACK 79.03%
KALAHANDI 85.53%
PURI 77.51%
GANJAM 77.11%
KORAPUT 84.71%
BIHAR
WEST BENGAL
ORISSA
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
PERCENTAGE OF MALE WORKERS TO TOTAL MALE POPULATION IN AGE GROUP 15-59 IN URBAN AREAS
85.01 & ABOVE
83.01 - 85.00
81.01 - 83.00
79.01 - 81.00
State Average 80.57
77.01 - 79.00
BELOW 77.01

MAP No. 68

PROPORTION OF MALE WORKERS TO TOTAL MALE POPULATION IN AGE GROUP 15—59 IN URBAN AREAS, 1971

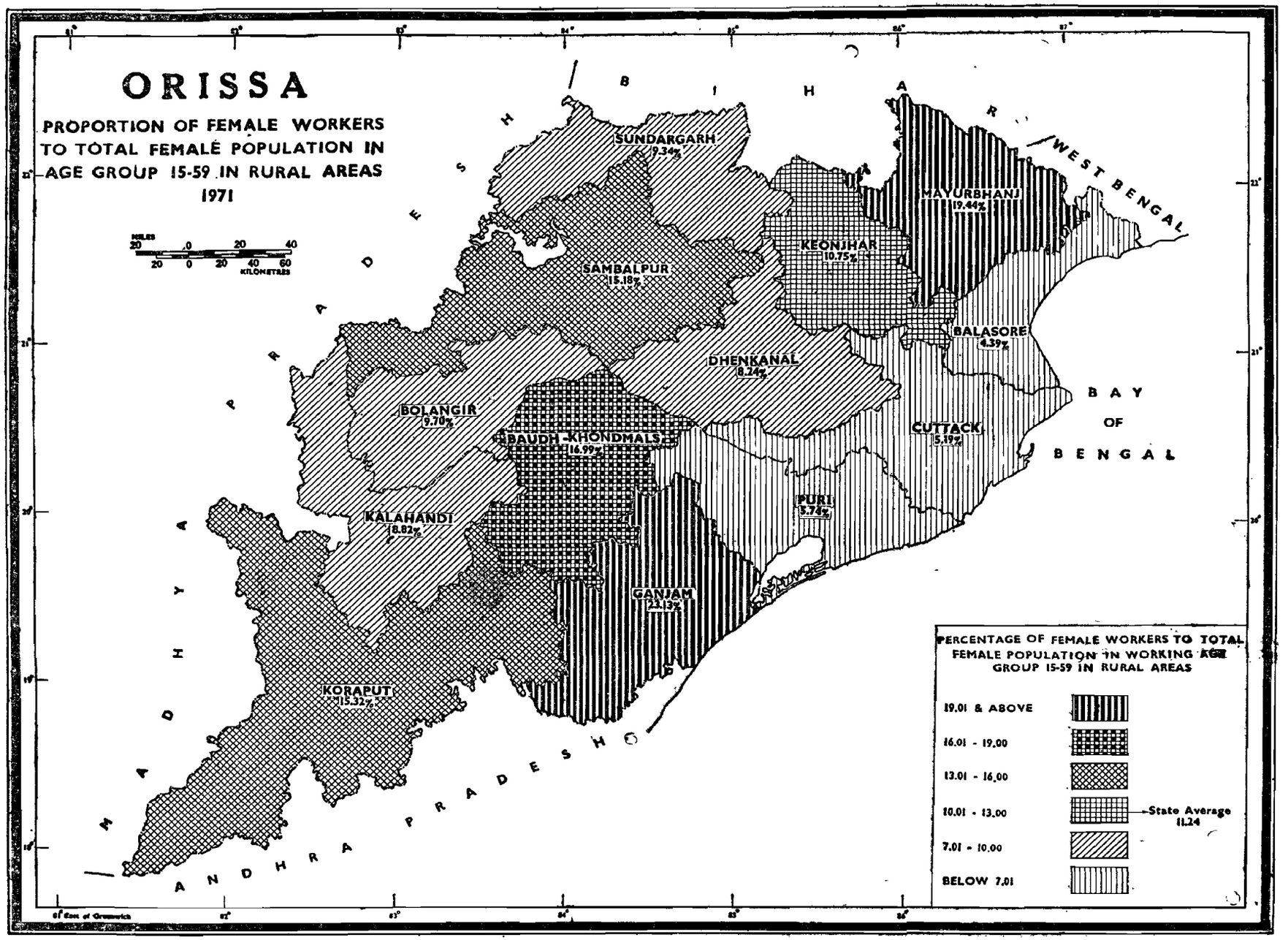
This map depicts the proportion of urban male workers to total urban males in age 15—59 for the state and districts during 1971.

The percentage of urban male workers in age 15—59 to total urban males in working age 15—59 has been calculated on percentage basis. The percentage figures are grouped into six convenient ranges—three above, one nearer to and two below the state average. All the districts are hatched as per the grades of hatching indicated in the index by choropleth method.

The total number of urban males of the state in the age 15—59 comes to 579,992 out of which 467,308 persons (80·57 per cent) are workers. Highest percentage of urban male workers in age 15—59 is recorded by the district of Kalahandi (85·53) being followed by the districts of Sundargarh (85·32) and Keonjhar (85·03). The lowest percentage of urban male workers in age 15—59 is seen in the district of Mayurbhanj (72·60).

The following statement gives the percentage figures of urban male workers of the districts in 1971.

State/District	Total urban male population in age 15—59	Total urban male workers in age 15—59	Percentage
1	2	3	4
Orissa ..	**579,992**	**467,308**	**80·57**
Sambalpur ..	71,465	58,680	82·11
Sundargarh ..	80,759	68,902	85·32
Keonjhar ..	21,423	18,215	85·03
Mayurbhanj ..	12,469	9,053	72·60
Balasore ..	30,010	23,386	77·93
Cuttack ..	103,396	81,815	79·13
Dhenkanal ..	16,504	12,745	77·22
Baudh-Khondmals	6,092	5,076	83·32
Bolangir ..	25,620	20,370	79·51
Kalahandi ..	15,844	13,551	85·53
Koraput ..	49,436	41,875	84·71
Ganjam ..	70,498	54,362	77·11
Puri ..	76,476	59,278	77·51


ORISSA
PROPORTION OF FEMALE WORKERS TO TOTAL FEMALE POPULATION IN AGE GROUP 15-59 IN RURAL AREAS 1971
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 9.34%
SAMBALPUR 15.18%
KEONJHAR 10.75%
MAYURBHANJ 19.44%
BALASORE 4.39%
DHENKANAL 8.24%
BOLANGIR 9.70%
BAUDH-KHONDMALS 16.99%
CUTTACK 5.19%
PURI 5.74%
KALAHANDI 8.82%
GANJAM 23.13%
KORAPUT 15.32%
PERCENTAGE OF FEMALE WORKERS TO TOTAL FEMALE POPULATION IN WORKING AGE GROUP 15-59 IN RURAL AREAS
19.01 & ABOVE
16.01 - 19.00
13.01 - 16.00
10.01 - 13.00
State Average 11.24
7.01 - 10.00
BELOW 7.01

MAP No. 69

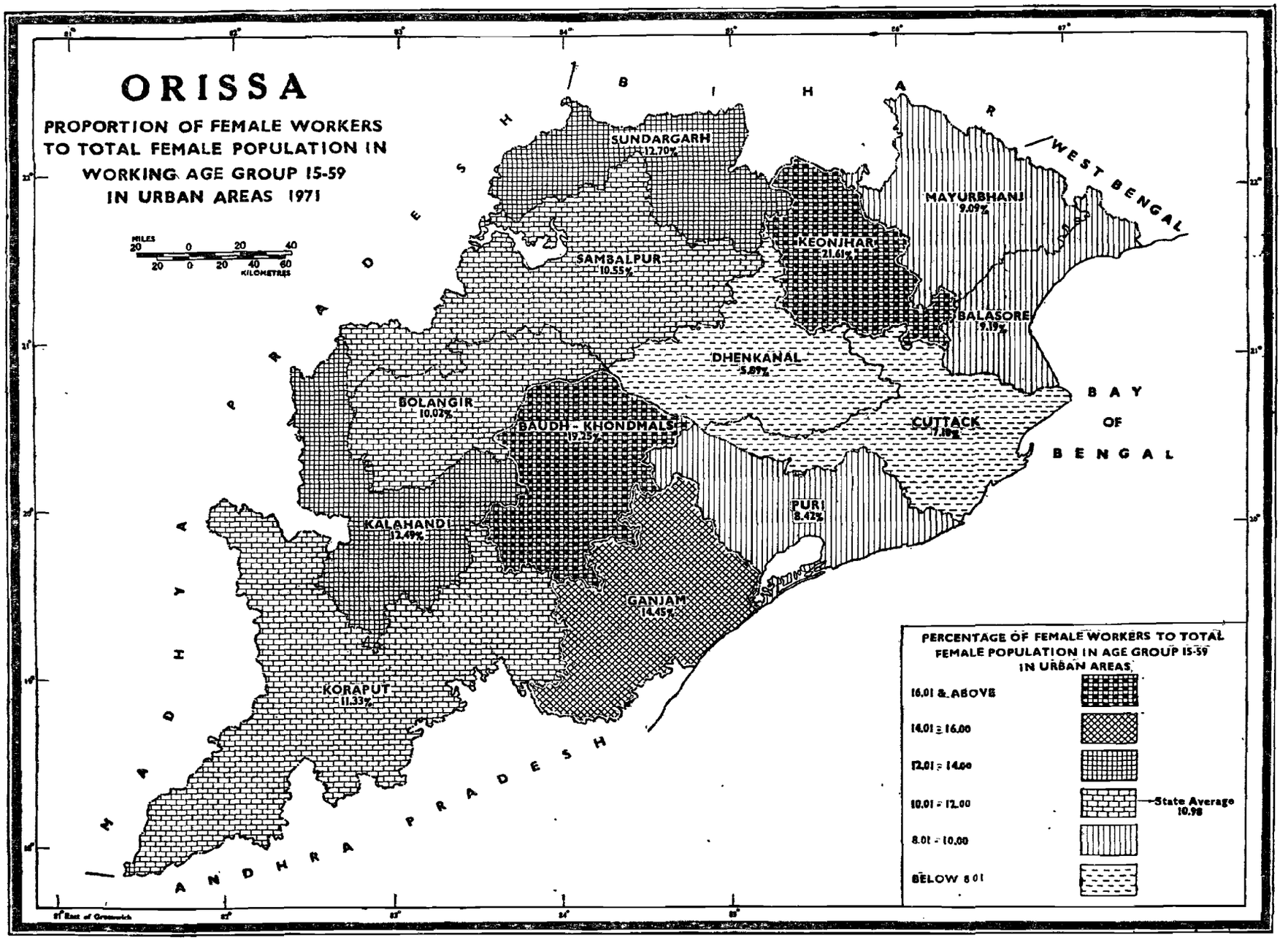
PROPORTION OF FEMALE WORKERS TO TOTAL FEMALE POPULATION IN AGE GROUP 15—59 IN RURAL AREAS, 1971

This map shows the districtwise proportion of rural female workers to total rural females in age 15—59 during 1971. The proportion has been calculated on percentage basis.

Percentage figures of rural female workers in age 15—59 to total rural females in age 15—59 are calculated and grouped into six ranges—three above, one nearer to and two below the state average. Districts are hatched with different intensities in descending order as indicated in the legend of the map.

The total population of females in rural areas in age 15—59 is 5,146,660 out of which 578,448 are workers. Thus the percentage of female workers in the age group under consideration is very poor. The district of Ganjam records the highest percentage (23·13) of rural female workers in age 15—59 being followed by Mayurbhanj (19·44). The districts of Ganjam, Mayurbhanj, Baudh-Khondmals, Koraput and Sambalpur record percentage above the state's average. Concentration of tribal population is comparatively heavier in these disticts. This class of people are economically weaker for which the female-folk work along with their males for their subsistence. The districts of Balasore, Cuttack and Puri come in the lowest range (below 7·01). All the districts have percentages varying from 4·39 to 23·13. The district of Balasore records the lowest perentage (4·39) in this regard.

State/District	Total rural female population in age 15—59	Total rural female workers in age 15—59	Percentage
1	2	3	4
Orissa ..	**5,146,660**	**578,448**	**11·24**
Sambalpur ..	434,159	65,886	15·18
Sundargarh ..	197,776	18,465	9·34
Keonjhar ..	219,047	23,539	1075
Mayurbhanj ..	352,735	68,559	19·44
Balasore ..	413,843	18,173	4·39
Cuttack ..	900,047	46,733	5·19
Dhenkanal ..	305,602	25,187	8·24
Baudh-Khondmals	159,911	27,161	16·99
Bolangir ..	310,519	30,118	9·70
Kalahandi ..	276,065	24,355	8·82
Koraput ..	496,724	76,093	15·32
Ganjam ..	529,990	122,583	23·13
Puri ..	550,242	31,596	5·74


ORISSA
PROPORTION OF FEMALE WORKERS TO TOTAL FEMALE POPULATION IN WORKING AGE GROUP 15-59 IN URBAN AREAS 1971
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 12.70%
SAMBALPUR 10.55%
KEONJHAR 21.61%
MAYURBHANJ 9.09%
BALASORE 9.19%
DHENKANAL 5.87%
CUTTACK 7.10%
BOLANGIR 10.02%
BAUDH - KHONDMALS 19.25%
KALAHANDI 12.49%
PURI 8.42%
GANJAM 14.45%
KORAPUT 11.33%
PERCENTAGE OF FEMALE WORKERS TO TOTAL FEMALE POPULATION IN AGE GROUP 15-59 IN URBAN AREAS
16.01 & ABOVE
14.01 - 16.00
12.01 - 14.00
10.01 - 12.00
State Average 10.98
8.01 - 10.00
BELOW 8.01

MAP No. 70

PROPORTION OF FEMALE WORKERS TO TOTAL FEMALE POPULATION IN AGE GROUP 15—59 IN URBAN AREAS, 1971

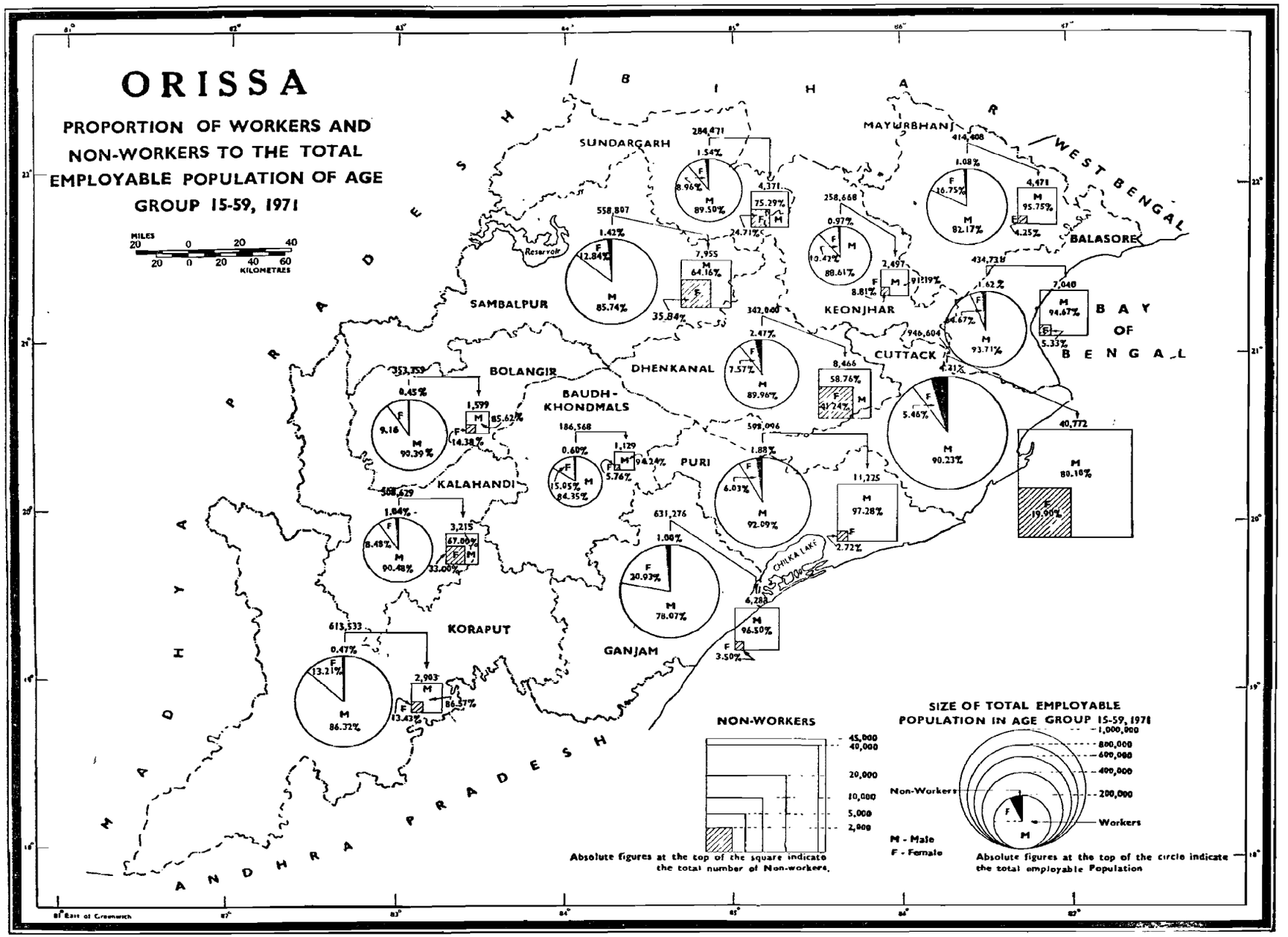
This map presents the districtwise proportion of urban female workers to total urban female population in age 15—59 in 1971.

The percentage figures of urban female workers in age 15—59 to total urban female population in age 15—59 have been calculated for each district and are grouped into six convenient ranges—three above, one nearer to and two below the state average. All the districts are hatched as per the grades of hatching indicated in the index.

There are 444,218 urban female population in age 15—59 out of which 48,783 are workers for the state. This shows that only 10·98 per cent of the urban females in the age 15—59 are workers. The percentages of all the districts vary between 5·89 to 21·61. This shows that like the rural areas the female participation in urban areas is also too poor due to social prejudices. Highest percentage is noticed in the district of Keonjhar (21·61) being followed by Baudh-Khondmals (19·25). Dhenkanal (5·89) and Cuttack (7·10) districts record the lowest percentage of female workers. Six districts, namely, Keonjhar, Baudh-Khondmals, Ganjam, Sundargarh, Kalahandi and Koraput exhibit percentages of urban female workers above the state average. These districts have large number of economically backward and tribal people who have no social prejudice for their women to take to out door work.

The following statement gives the districtwise percentage figures of female workers in urban areas in 1971.

State/District	Total female urban population in age 15—59	Total female urban workers in age 15—59	Percentage
1	2	3	4
Orissa ..	**444,218**	**48,783**	**10·98**
Sambalpur ..	55,627	5,871	10·55
Sundargarh ..	55,326	7,025	12·70
Keonjhar ..	15,838	3,422	21·61
Mayurbhanj ..	9,308	846	9·09
Balasore ..	22,958	2,109	9·19
Cuttack ..	69,433	4,932	7·10
Dhenkanal ..	11,669	687	5·89
Baudh-Khondmals	4,763	917	19·25
Bolangir ..	22,488	2,254	10·02
Kalahandi ..	14,403	1,799	12·49
Koraput ..	43,399	4,916	11·33
Ganjam ..	66,047	9,544	14·45
Puri ..	52,959	4,461	8·42


ORISSA
PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL EMPLOYABLE POPULATION OF AGE GROUP 15-59, 1971
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
MAYURBHANJ
BALASORE
SAMBALPUR
KEONJHAR
BOLANGIR
DHENKANAL
CUTTACK
BAUDH-KHONDMALS
PURI
KALAHANDI
KORAPUT
GANJAM
CHILKA LAKE
Reservoir
NON-WORKERS
SIZE OF TOTAL EMPLOYABLE POPULATION IN AGE GROUP 15-59, 1971
Non-Workers
Workers
M - Male
F - Female
Absolute figures at the top of the square indicate the total number of Non-workers.
Absolute figures at the top of the circle indicate the total employable Population

MAP No. 71

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL EMPLOYABLE POPULATION OF AGE GROUP 15—59, 1971

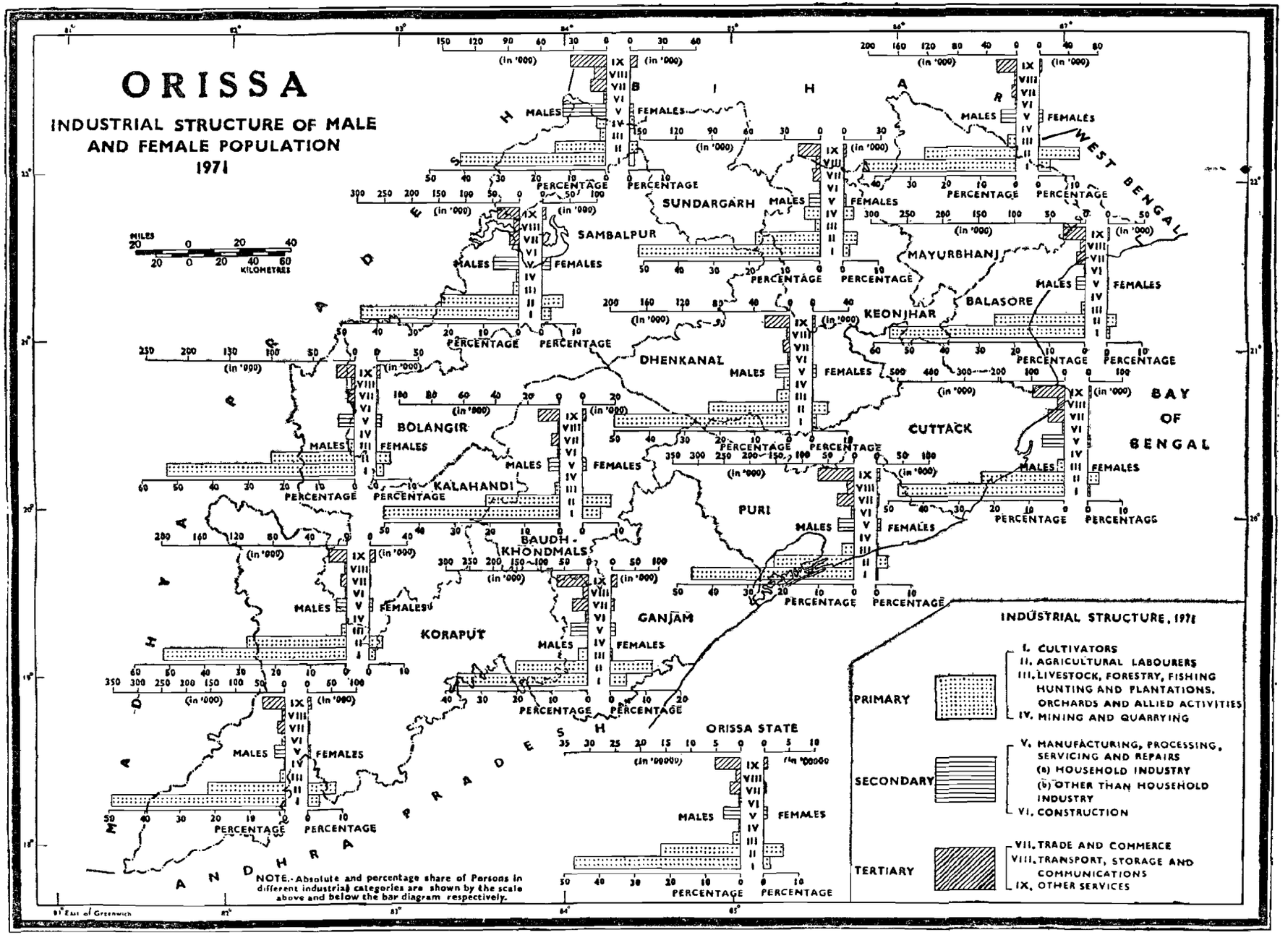
This map depicts the proportion of workers and non-workers to the total employable population in the age group 15—59 with sex break-up for each district of the state.

Employable population for the purpose of this map is the number of persons of age group 15—59 excluding those who are engaged in "household duties" and those who are full-time students, dependants, disabled persons, rentiers, beggars, infants and inmates of penal, mental and charitable institutions.

Percentage of workers and non-workers with male and female division to the total employable population in the age group 15—59 are calculated for each district. For each district a pie-graph is drawn proportionate to its total employable population in age 15—59. Sectors are drawn in each circle proportionate to workers and non-workers by males and females. The sector representing non-workers is shaded with black and is furher enlarged by proportionate squares within which male and female percentages are shown seperately. The total figures of employable population is written at the top of each circle. The figure of non-workers in the age 15—59 has been shown at the top of the square. The squares representing the female non-workers have been hatched.

Out of 5,931,190 total employable population in age 15—59 of the state 5,202,028 males and 627,231 females belong to working group and 83,339 males and 18,592 females to the non-working group. Highest percentage of male workers is noticed in the district of Balasore (93·71) being followed by Puri (92·09) and lowest percentage is seen in the district of Ganjam (78·07).

The highest and the lowest percentage of employable male non-workers has been recorded in the district of Cuttack (3·45) and Bolangir (0·39), respectively.


ORISSA
INDUSTRIAL STRUCTURE OF MALE AND FEMALE POPULATION 1971
SUNDARGARH
SAMBALPUR
MAYURBHANJ
BALASORE
KEONJHAR
DHENKANAL
BOLANGIR
CUTTACK
KALAHANDI
PURI
BAUDH-KHONDMALS
KORAPUT
GANJAM
BAY OF BENGAL
WEST BENGAL
ORISSA STATE
MALES
FEMALES
PERCENTAGE
(in '000)
(in '00000)
MILES
KILOMETRES
INDUSTRIAL STRUCTURE, 1971
PRIMARY
I. CULTIVATORS
II. AGRICULTURAL LABOURERS
III. LIVESTOCK, FORESTRY, FISHING HUNTING AND PLANTATIONS, ORCHARDS AND ALLIED ACTIVITIES
IV. MINING AND QUARRYING
SECONDARY
V. MANUFACTURING, PROCESSING, SERVICING AND REPAIRS
(a) HOUSEHOLD INDUSTRY
(b) OTHER THAN HOUSEHOLD INDUSTRY
VI. CONSTRUCTION
TERTIARY
VII. TRADE AND COMMERCE
VIII. TRANSPORT, STORAGE AND COMMUNICATIONS
IX. OTHER SERVICES
NOTE.- Absolute and percentage share of Persons in different industrial categories are shown by the scale above and below the bar diagram respectively.

MAP No. 72

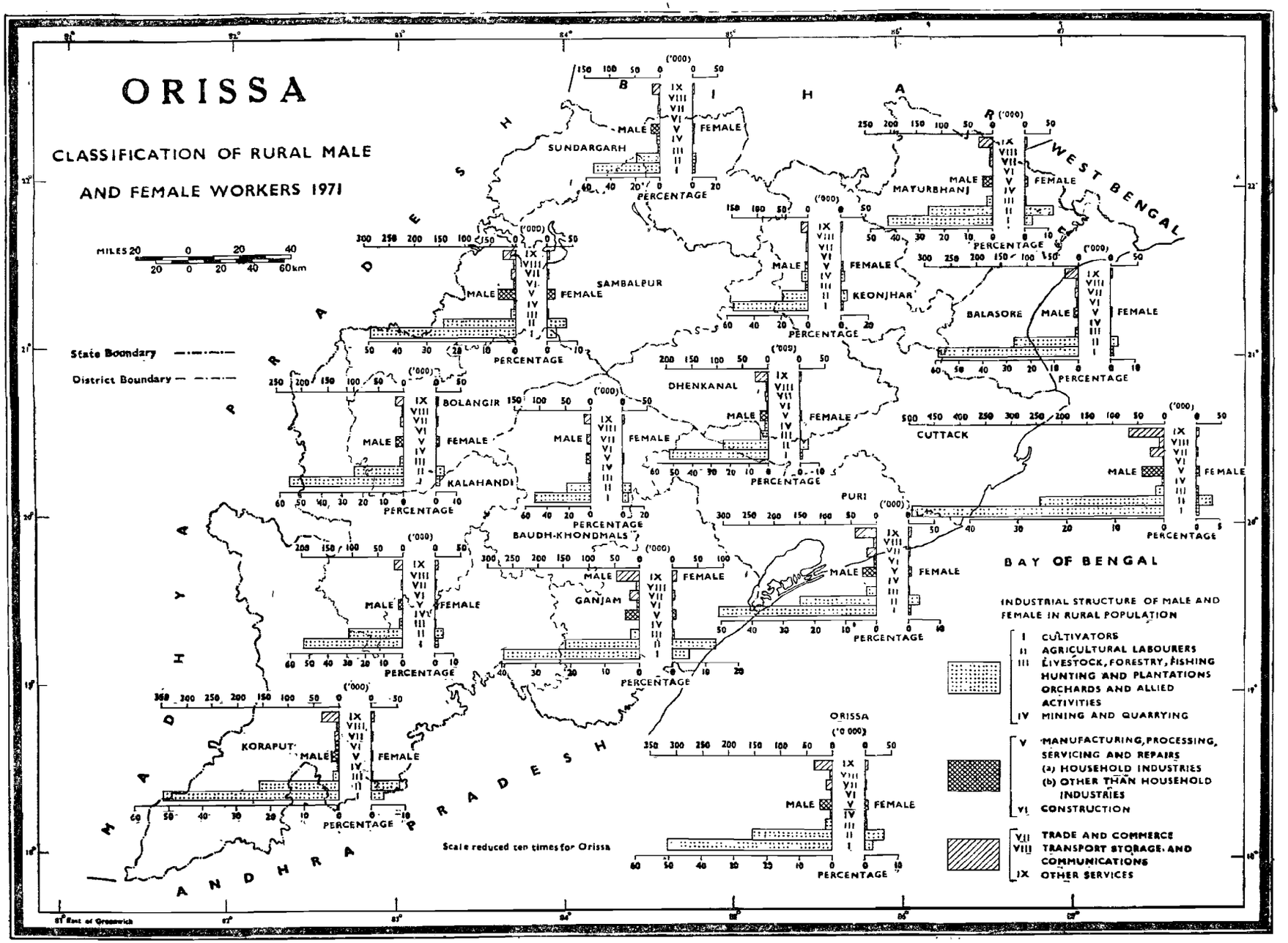
INDUSTRIAL STRUCTURE OF MALE AND FEMALE POPULATION, 1971

This map displays the districtwise industrial structure of male and female workers as per the 1971 Census data.

In each district, pyramid is drawn to present the size of workers of each sex engaged in the nine industrial categories. These nine categories are shown by Roman figures which are inserted between two vertical parallel lines drawn for each district at convenient places. On both sides of these vertical parallel lines horizontal bars are drawn proportionate to the total number of workers engaged in each category. The bars drawn on the left and right side of the vertical lines of the pyramids respectively represent the number of males and females engaged in different categories. The absolute and percentage (percentage of each category of male and female workers to total workers) scales are drawn respectively above and below the diagrams of each district. Three types of hatchings have been used as shown in the index to differentiate industrial activities under Primary, Secondary and Tertiary sectors.

There are as many as 6,850,651 workers of the state of which 5,504,223 or 80·35 per cent of total workers belong to primary sector, 443,755 or 6·48 per cent of total workers are engaged in secondary activities and 902,673 or 13·17 per cent are engaged in tertiary sector of economy.

The female participation rate is too low as seen from the bar diagram. The district of Cuttack has the maximum number of male cultivators (497,594) while the district of Baudh-Khondmals has the minimum number (110,065). The district of Ganjam presents the largest number (34,519) of female cultivators while the smallest number (3,795) are seen in Puri district. The district of Cuttack also engages the highest number of male workers (246,652) in the category II (Agricultural labourer). Baudh-Khondmals occupies the lowest position with regard to the number of male workers in that category. The district of Ganjam has 88,447 female workers in category II and ranks first in the list while Sundargarh occupies the lowest position with 8,016 female workers engaged in category II. The districts of Puri, Ganjam and Cuttack become conspicuously prominent among others for the large-scale participation of male and female workers in category III (Livestock, forestry, fishing, hunting and plantations, orchards and allied activities). The districts of Keonjhar and Sundargarh occupy predominant positions in the state owing to the participation of large number of male and female workers in the category IV (Mining and quarrying). The districts of Sambalpur, Cuttack, Ganjam, Puri, Mayurbhanj and Bolangir are especially noted for the large-scale involvement of their male and female workers in category V(*a*) (Household Industry). The districts of Sundargarh, Cuttack, Sambalpur, Ganjam and Puri deserve recognition for the engagement of male and female workers in category V(b) (Manufacturing, processing, servicing and repairs other than household industry). Koraput district has the maximum number (6,676 males and 460 females) of workers in category VI (Construction). The districts of Cuttack, Ganjam, Puri, Sambalpur and Koraput have a fairly larger number of workers in category VII (Trade and commerce). Cuttack, Puri, Sundargarh, Sambalpur and Ganjam have comparatively larger number of workers in the category VIII (Transport, storage and communications). The districts of Cuttack, Ganjam, Puri, Koraput, Sambalpur and Sundargarh have a good number of workers in category IX (Other services).


ORISSA
CLASSIFICATION OF RURAL MALE AND FEMALE WORKERS 1971
MILES 20 0 20 40
20 0 20 40 60km
State Boundary
District Boundary
SUNDARGARH
SAMBALPUR
BOLANGIR
KALAHANDI
KORAPUT
DHENKANAL
KEONJHAR
MAYURBHANJ
BALASORE
CUTTACK
PURI
BAUDH-KHONDMALS
GANJAM
MALE
FEMALE
PERCENTAGE
('000)
ORISSA
('0 000)
Scale reduced ten times for Orissa
BAY OF BENGAL
WEST BENGAL
BIHAR
MADHYA PRADESH
ANDHRA PRADESH
INDUSTRIAL STRUCTURE OF MALE AND FEMALE IN RURAL POPULATION
I CULTIVATORS
II AGRICULTURAL LABOURERS
III LIVESTOCK, FORESTRY, FISHING HUNTING AND PLANTATIONS ORCHARDS AND ALLIED ACTIVITIES
IV MINING AND QUARRYING
V MANUFACTURING, PROCESSING, SERVICING AND REPAIRS (a) HOUSEHOLD INDUSTRIES (b) OTHER THAN HOUSEHOLD INDUSTRIES
VI CONSTRUCTION
VII TRADE AND COMMERCE
VIII TRANSPORT STORAGE AND COMMUNICATIONS
IX OTHER SERVICES

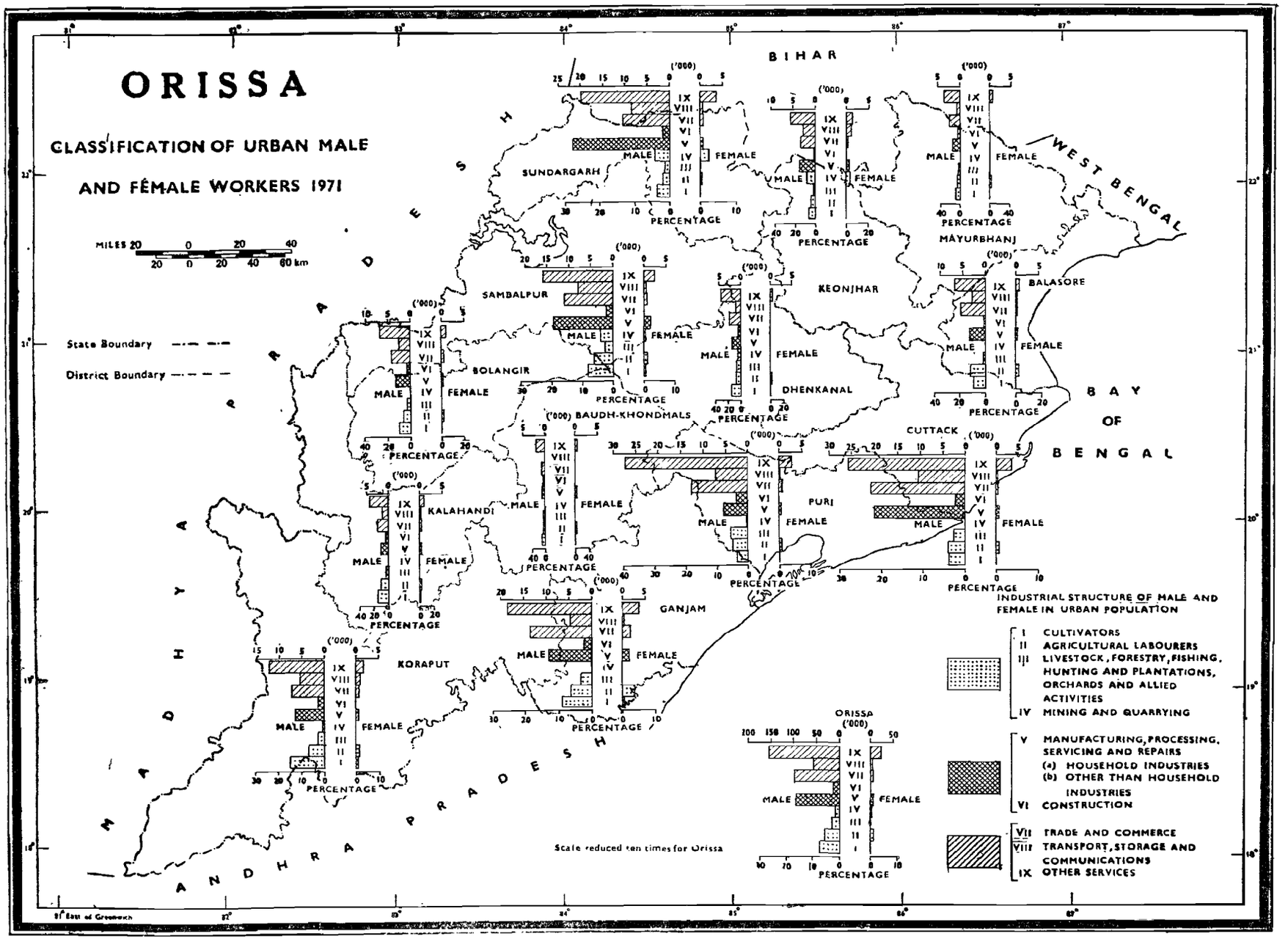
MAP No. 73

CLASSIFICATION OF RURAL MALE AND FEMALE WORKERS, 1971

This map brings out the districtwise industrial structure of rural population as per the 1971 Census data.

It is drawn on the same principle as discussed in the explanatory note to Map No. 72. A pyramid is drawn for each district in which horizontal bars proportionate to the number of rural workers are drawn on the left and right sides of the vertical lines of pyramid respectively for the males and females engaged in different nine industrial categories. Three types of hatchings have been used as shown in the index to differentiate industrial activities in the rural areas under each of the sectors—Primary, Secondary and Tertiary.

There are as many as 6,288,831 workers recorded in the rural areas of the state. Of these, 5,394,066 persons or 85·77 per cent of workers are returned under the Primary sector, 329,434 persons or 5·23 per cent are recorded under the Secondary sector and 565,331 persons or 9·00 per cent of workers are returned under the Tertiary sector. Thus the rural areas of the state show that the highest percentage of workers are engaged in Primary activities, especially in agriculture (83·07 per cent). Secondary activities are less developed in the state. The rate of participation in the Tertiary sector is also not encouraging.


ORISSA
CLASSIFICATION OF URBAN MALE AND FEMALE WORKERS 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
BOLANGIR
KALAHANDI
KORAPUT
BAUDH-KHONDMALS
GANJAM
KEONJHAR
DHENKANAL
MAYURBHANJ
BALASORE
CUTTACK
PURI
('000)
MALE
FEMALE
PERCENTAGE
Scale reduced ten times for Orissa
INDUSTRIAL STRUCTURE OF MALE AND FEMALE IN URBAN POPULATION
I CULTIVATORS
II AGRICULTURAL LABOURERS
III LIVESTOCK, FORESTRY, FISHING, HUNTING AND PLANTATIONS, ORCHARDS AND ALLIED ACTIVITIES
IV MINING AND QUARRYING
V MANUFACTURING, PROCESSING, SERVICING AND REPAIRS
(a) HOUSEHOLD INDUSTRIES
(b) OTHER THAN HOUSEHOLD INDUSTRIES
VI CONSTRUCTION
VII TRADE AND COMMERCE
VIII TRANSPORT, STORAGE AND COMMUNICATIONS
IX OTHER SERVICES

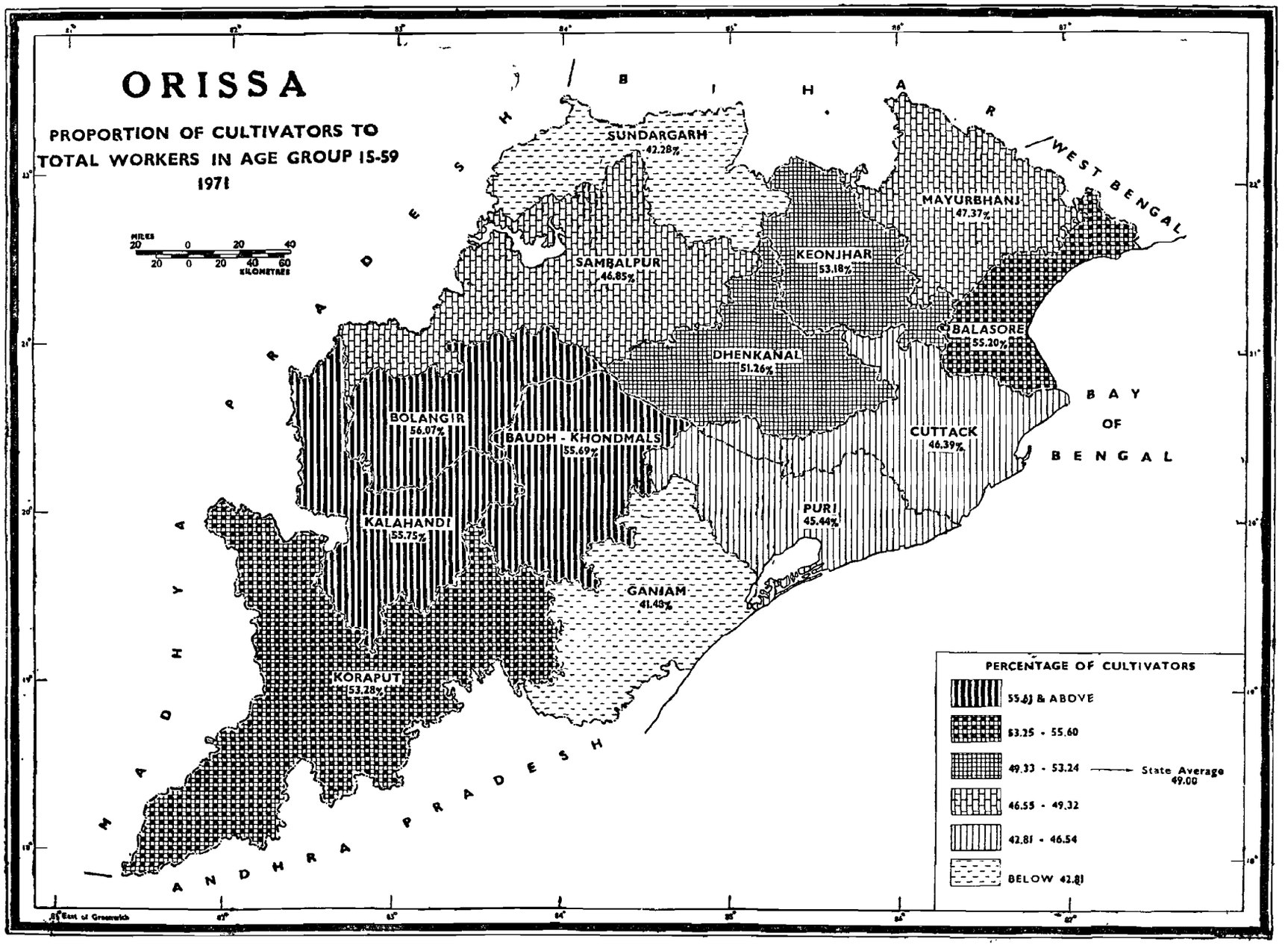
MAP No. 74

CLASSIFICATION OF URBAN MALE AND FEMALE WORKERS, 1971

This map shows the districtwise industrial structure of workers in urban areas of the state as per the 1971 Census.

It is drawn on the same principle as explained in notes of previous maps (Map No. 72 & 73). As the map shows, the structure of each of the pyramids looks just like an inverted pyramid because top bars of the pyramids are more extensive than the bars shown at the bottom. In this respect the urban structure presents a picture which is just opposite to that of the rural structure.

There are as many as 561,820 workers recorded in the urban areas of the state. Of these, 110,157 or 19·61 per cent workers belong to Primary sector, 114,321 workers or 20·35 per cent come under the Secondary sector and 337,342 or 60·04 per cent workers are recorded under the Tertiary sector. It is therefore evident that the largest number of workers in the urban areas are engaged in the tertiary sector of economy. The cultivators (category I) and agricultural labourers (category II) respectively constitute 7·73 per cent and 6·77 per cent of the workers in urban areas of the state. The districts like Sundargarh, Cuttack and Puri which embrace the more important urban centres of the state show lowest participation rate in the category of agriculture. The percentage of urban workers engaged in category III (Live stock, forestry, fishing, hunting, and plantations, orchards and allied activities) is as low as 2·98 per cent. The districts of Puri, Ganjam and Cuttack have comparatively larger number of workers in this category. The urban areas of the districts of Sundargarh, Sambalpur and Keonjhar have larger number of workers engaged in category IV (Mining and quarrying). The workers engaged in this category constitute 2·13 per cent of the total workers in urban areas at the state level. The urban areas of the districts of Ganjam, Cuttack and Sambalpur have largest number of workers in the category V (*a*) (Household industry). The workers engaged in category V (*a*) constitute 4·15 per cent of the urban workers. The workers engaged in category V (*b*) (Manufacturing, processing, servicing and repairs other than household industry) form 13·73 per cent of the total workers of the urban areas of the state. The districts of Sundargarh, Cuttack and Sambalpur have a fairly larger number of workers in the category V (*b*). The workers engaged in category VI (Construction) account for 2·47 per cent of the workers in urban areas of the state. The category VII (Trade and commerce) engages 18·30 per cent of workers in the urban areas of the state. The districts of Cuttack, Ganjam, Puri and Sambalpur may be mentioned in this category. The workers engaged in category VIII (Transport, storage & communications) account for 10·53 per cent of the total workers in urban areas of the state. The districts of Cuttack, Sundargarh, Sambalpur and Puri are prominent in this category. The largest proportion (31·21 per cent) of workers in the urban areas of the state is engaged in category IX (Other services). The districts of Puri, Cuttack, Sundargarh, Ganjam and Sambalpur present a large number of workers under category IX. A glance at the map reveals that the rate of female participation in the state is too low in all the categories of workers.


ORISSA
PROPORTION OF CULTIVATORS TO TOTAL WORKERS IN AGE GROUP 15-59
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 42.28%
SAMBALPUR 46.85%
MAYURBHANJ 47.37%
KEONJHAR 53.18%
BALASORE 55.20%
DHENKANAL 51.26%
BOLANGIR 56.07%
BAUDH - KHONDMALS 55.69%
CUTTACK 46.39%
KALAHANDI 55.75%
PURI 45.44%
GANJAM 41.43%
KORAPUT 53.28%
PERCENTAGE OF CULTIVATORS
55.61 & ABOVE
53.25 - 55.60
49.33 - 53.24
State Average 49.00
46.55 - 49.32
42.81 - 46.54
BELOW 42.81
East of Greenwich

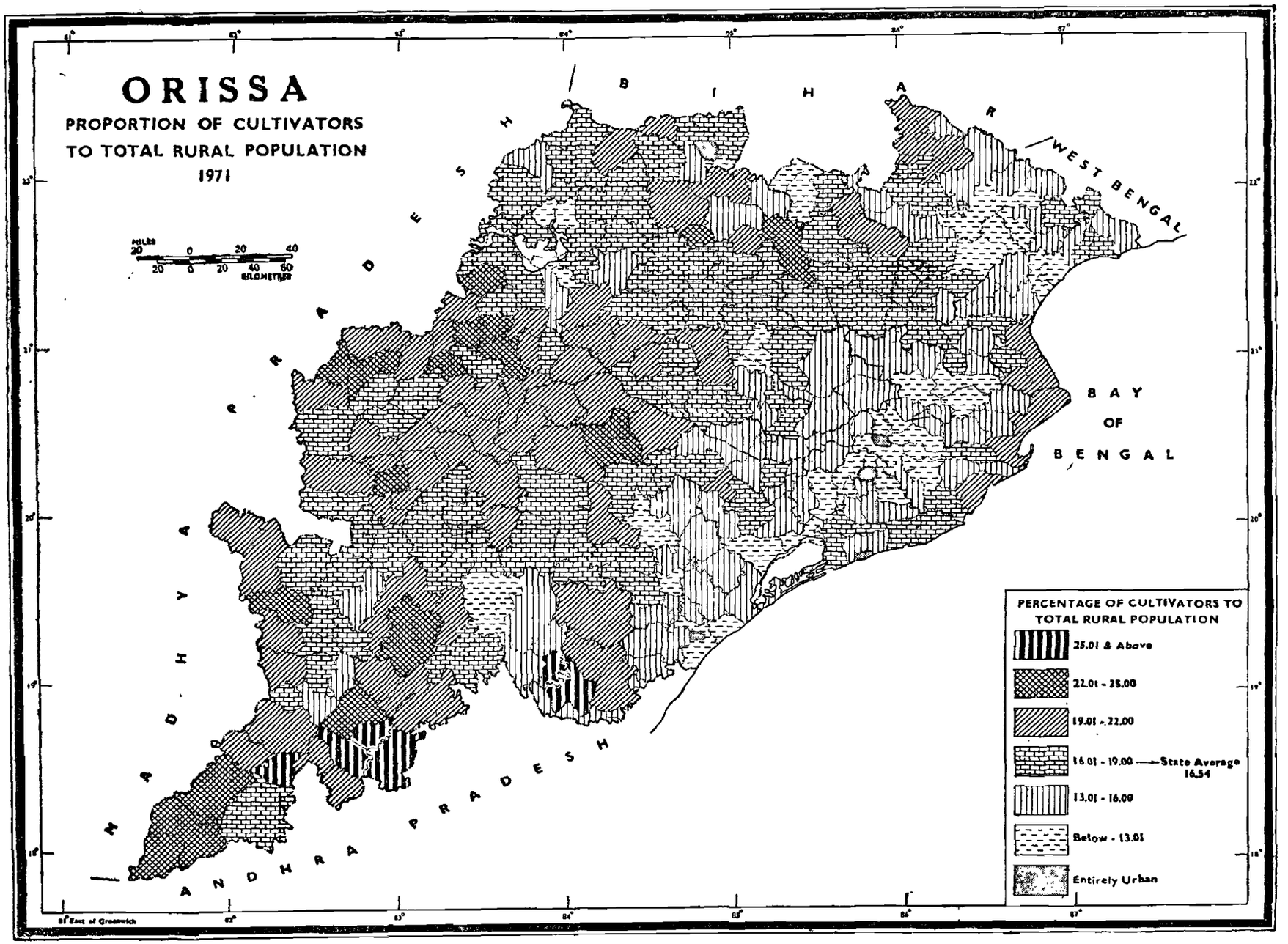
MAP No. 75

PROPORTION OF CULTIVATORS TO TOTAL WORKERS IN AGE GROUP 15—59, 1971

This map illustrates the districtwise proportion of cultivators to total workers in age 15—59 during 1971.

Such proportion is calculated and expressed in terms of percentage and the percentage figures are grouped into six ranges above and below the state average (49·00 per cent), viz., 55·61 and above 53·25—55·60, 49·33—53·24, 46·55—49·32, 42·81—46·54 and below 42·81. Districts are hatched according to these ranges as per the grades of hatchings indicated in the index using choropleth technique.

There are 5,829,259 workers in the age 15—59 out of which 2,856,281 are cultivators. Thus it is seen that there are 49 cultivators among every 100 workers of the state in the age 15—59. Bolangir district has the highest percentage (56·07) followed by Kalahandi (55·75) and Baudh-Khondmals (55·69). The districts of Ganjam and Sundargarh come under the lowest range. The districts having percentages higher than the state's average are Bolangir, Kalahandi, Baudh-Khondmals, Balasore, Koraput, Keonjhar and Dhenkanal. The districts of Sambalpur, Mayurbhanj and Sundargarh have lower percentage of cultivators. Similar is the case with the coastal districts, namely, Cuttack, Puri and Ganjam.


ORISSA
PROPORTION OF CULTIVATORS
TO TOTAL RURAL POPULATION
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY
OF
BENGAL
PERCENTAGE OF CULTIVATORS TO
TOTAL RURAL POPULATION
25.01 & Above
22.01 - 25.00
19.01 - 22.00
16.01 - 19.00 —State Average
16.54
13.01 - 16.00
Below - 13.01
Entirely Urban

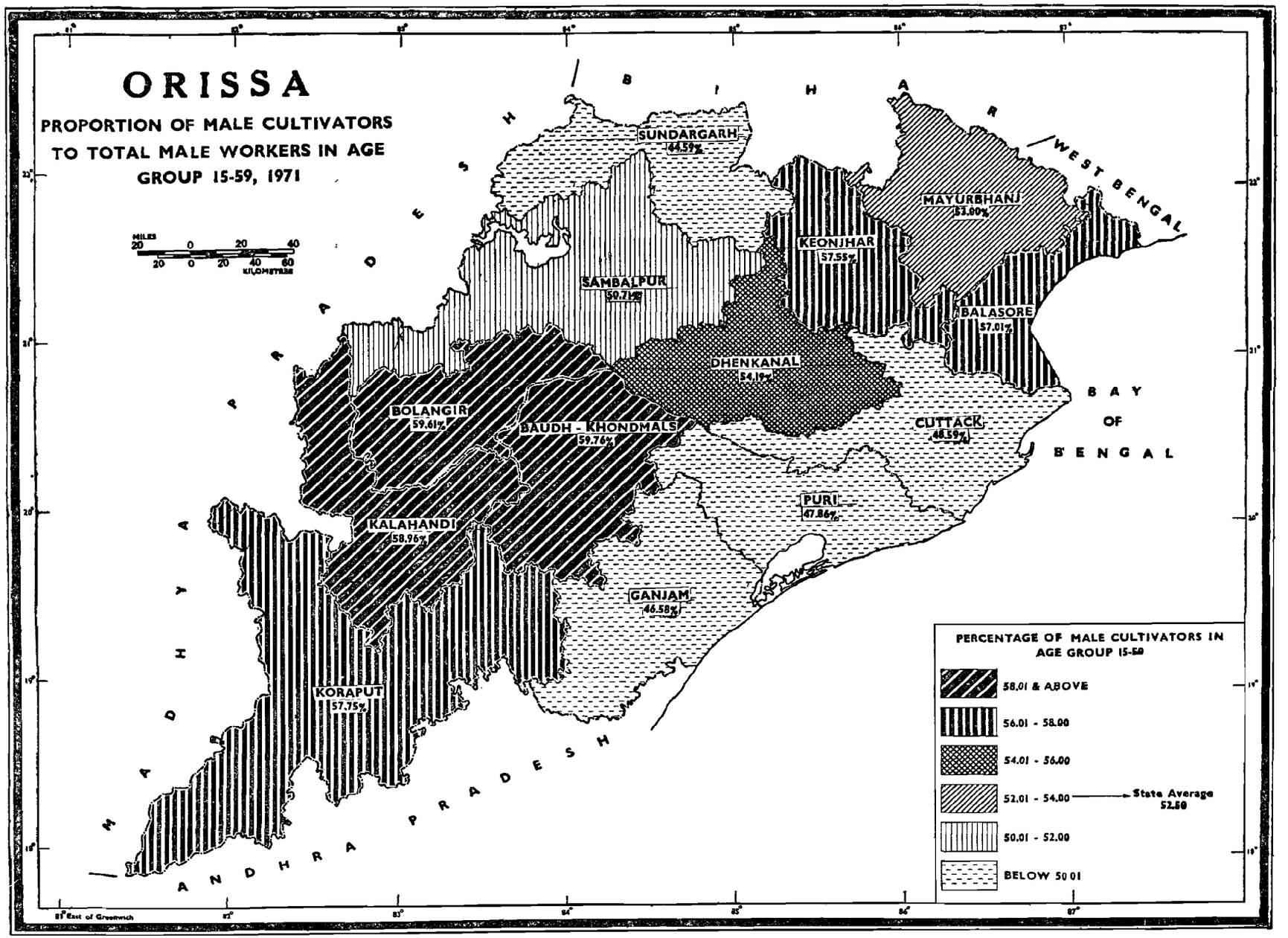
MAP No. 76

PROPORTION OF CULTIVATORS TO TOTAL RURAL POPULATION, 1971

This map shows the proportion of cultivators to total rural population in each police station of the state in 1971.

The percentages of cultivators to total rural population of each of the police stations of the state are calculated and percentage figures grouped into six ranges—three above, one nearer to and two below the state average (16·54). All the police stations are hatched as per the grades of hatchings indicated in the index.

As-per the 1971 Census there are as many as 20,099,220 persons living in the rural areas of the state. Out of which 3,324,592 persons or 16·54 per cent are cultivators. The district of Baudh-Khondmals has the highest percentage (19·96) of cultivators to the total rural population of the state while the lowest percentage is noticed in case of Cuttack (14·21 per cent). The districts of Baudh-Khondmals, Bolangir, Koraput, Sambalpur, Kalahandi, Sundargarh and Keonjhar record percentages higher than that of the state average (16·54). These districts comprise mostly hilly areas where the value of the lands is cheaper. The districts of Cuttack, Ganjam, Puri, Balasore. Dhenkanal, and Mayurbhanj have percentages lower than that of the state. The lands are very costlier in the coastal districts owing to their higher productivity. The increasing pressure of population over lands also adds to the value of the lands in the coastal districts. The police stations of Puttasingi (Koraput) and Barbil (Keonjhar) respectively present the highest and the lowest position in the state in 1971.


ORISSA
PROPORTION OF MALE CULTIVATORS TO TOTAL MALE WORKERS IN AGE GROUP 15-59, 1971
MILES
KILOMETRES
SUNDARGARH 44.59%
SAMBALPUR 50.71%
KEONJHAR 57.55%
MAYURBHANJ 53.00%
BALASORE 57.01%
DHENKANAL 54.19%
BOLANGIR 59.61%
BAUDH - KHONDMALS 59.76%
CUTTACK 48.59%
PURI 47.86%
KALAHANDI 58.96%
GANJAM 46.58%
KORAPUT 57.75%
BIHAR
WEST BENGAL
ORISSA
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
PERCENTAGE OF MALE CULTIVATORS IN AGE GROUP 15-59
58.01 & ABOVE
56.01 - 58.00
54.01 - 56.00
52.01 - 54.00
State Average 52.50
50.01 - 52.00
BELOW 50.01
East of Greenwich

MAP No. 77

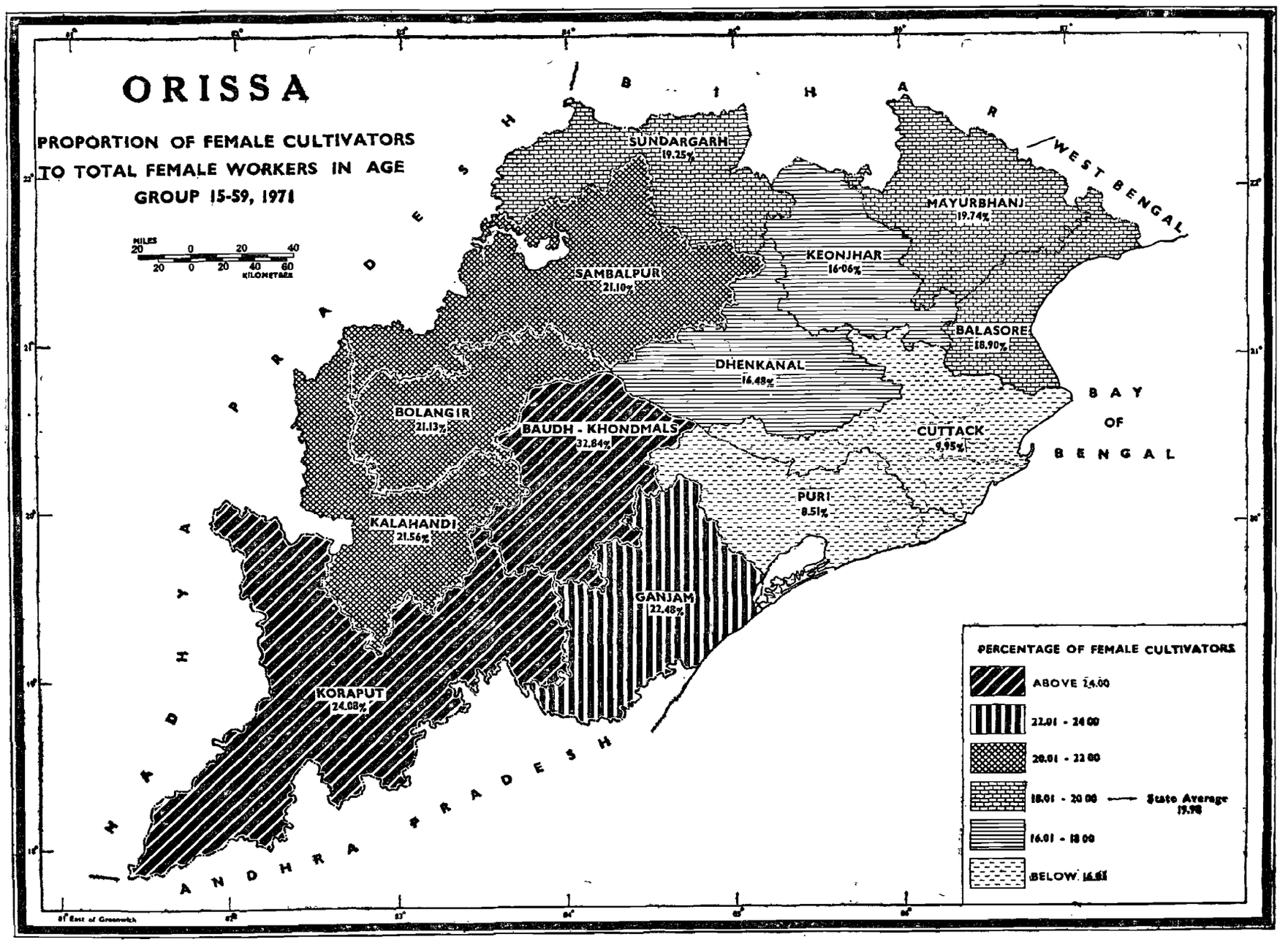
PROPORTION OF MALE CULTIVATORS TO TOTAL MALE WORKERS IN AGE GROUP 15—59, 1971,

This map represents the districtwise proportion of male cultivators to total male workers in age 15—59 in 1971.

The percentage of male cultivators to total male workers in age 15—59 for each of the districts in the state has been calculated. The data thus obtained are grouped into six ranges—three above, one nearer to and two below the state average (52·50). All the districts are hatched as per the grades of hatchings indicated in the index using choropleth technique.

There are 5,202,028 male workers in age 15—59 out of which 2,730,990 or 52·50 per cent are male cultivators of the state. The district of Baudh-Khondmals has the highest percentage (59·76). The next in order are the districts of Bolangir (59·61 per cent), Kalahandi (58·96 per cent) and Koraput (57·75 per cent).

The district of Sundargarh has the lowest percentage (44·59) of cultivators as per the 1971 Census. Besides, Sundargarh, three coastal districts, namely, Ganjam, Puri and Cuttack have percentages lower than that of the state average (52·50).


ORISSA
PROPORTION OF FEMALE CULTIVATORS TO TOTAL FEMALE WORKERS IN AGE GROUP 15-59, 1971
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 19.25%
SAMBALPUR 21.10%
MAYURBHANJ 19.74%
KEONJHAR 16.06%
BALASORE 18.90%
DHENKANAL 16.48%
BOLANGIR 21.13%
BAUDH - KHONDMALS 32.84%
CUTTACK 9.95%
PURI 8.51%
KALAHANDI 21.56%
GANJAM 22.48%
KORAPUT 24.08%
PERCENTAGE OF FEMALE CULTIVATORS
ABOVE 24.00
22.01 - 24.00
20.01 - 22.00
18.01 - 20.00
State Average 19.98
16.01 - 18.00
BELOW 16.01

MAP No. 78

PROPORTION OF FEMALE CULTIVATORS TO TOTAL FEMALE WORKERS IN AGE GROUP 15—59, 1971

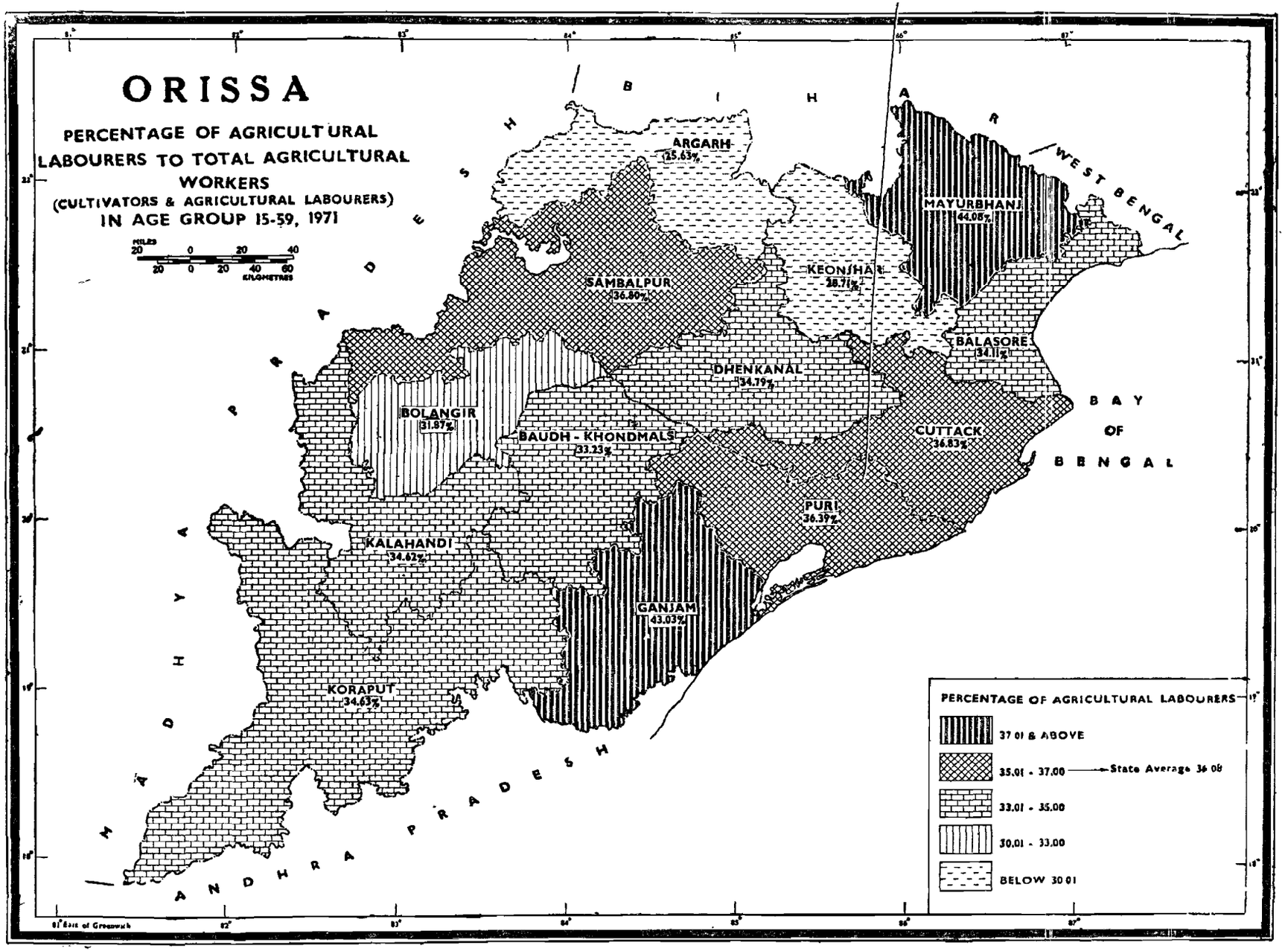
This map intends to show the proportion of female cultivators to total female workers in the age group 15—59 for each of the districts of Orissa during 1971.

The proportion of female cultivators to total female workers in age 15—59 for each of the districts of the state has been worked out and expressed in terms of percentages. These percentage figures are arranged in six groups—three above, one nearer to and two below the state average. Accordingly all the districts are hatched using choropleth technique. The grades of hatchings are indicated at the bottom of the map.

As per the 1971 Census, there are 627,231 female workers in the age group 15—59 of the state out of which 125,291 representing 19·98 per cent are cultivators. The highest percentage (32·84) of female cultivators is recorded by the district of Baudh-Khondmals followed by Koraput with 24·08 per cent.

A study of the map reveals that female cultivators in the age group 15—59 constitute lowest percentage in the district of Puri (8·51) followed by Cuttack (9·95).

State/District	Total female workers of age group 15—59	Total female cultivators of age group 15—59 (Category—I)	Percentage
1	2	3	4
Orissa ..	**627,231**	**125,291**	**19·98**
Sambalpur ..	71,757	15,141	21·10
Sundargarh ..	25,490	4,908	19·25
Keonjhar ..	26,961	4,329	·16·06
Mayurbhanj ..	69,405	13,699	19·74
Balasore ..	20,282	3,833	18·90
Cuttack ..	51,665	5,139	9·95
Dhenkanal ..	25,874	4,264	16·48
Baudh-Khondmals ..	28,078	9,222	32·84
Bolangir ..	32,372	6,839	21·13
Kalahandi ..	26,154	5,640	21·56
Koraput ..	81,009	19,511	24·08
Ganjam ..	132,127	29,696	22·48
Puri ..	36,057	3,070	8·51


ORISSA
PERCENTAGE OF AGRICULTURAL LABOURERS TO TOTAL AGRICULTURAL WORKERS
(CULTIVATORS & AGRICULTURAL LABOURERS)
IN AGE GROUP 15-59, 1971
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
ARGARH 25.63%
SAMBALPUR 36.80%
KEONJHAR 38.71%
MAYURBHANJ 44.08%
BALASORE 34.11%
DHENKANAL 34.79%
BOLANGIR 31.87%
BAUDH - KHONDMALS 33.23%
CUTTACK 36.83%
PURI 36.39%
KALAHANDI 34.62%
GANJAM 43.03%
KORAPUT 34.63%
PERCENTAGE OF AGRICULTURAL LABOURERS
37.01 & ABOVE
35.01 - 37.00
State Average 36.08
33.01 - 35.00
30.01 - 33.00
BELOW 30.01

MAP No. 79

PERCENTAGE OF AGRICULTURAL LABOURERS TO TOTAL AGRICULTURAL WORKERS (CULTIVATORS AND AGRICULTURAL LABOURERS) IN AGE GROUP 15—59, 1971

This map brings out the proportion of agricultural labourers to the total agricultural workers (cultivators and agricultural labourers) in the age group 15—59 during 1971. The proportion has been calculated in terms of percentage for each district for the year 1971.

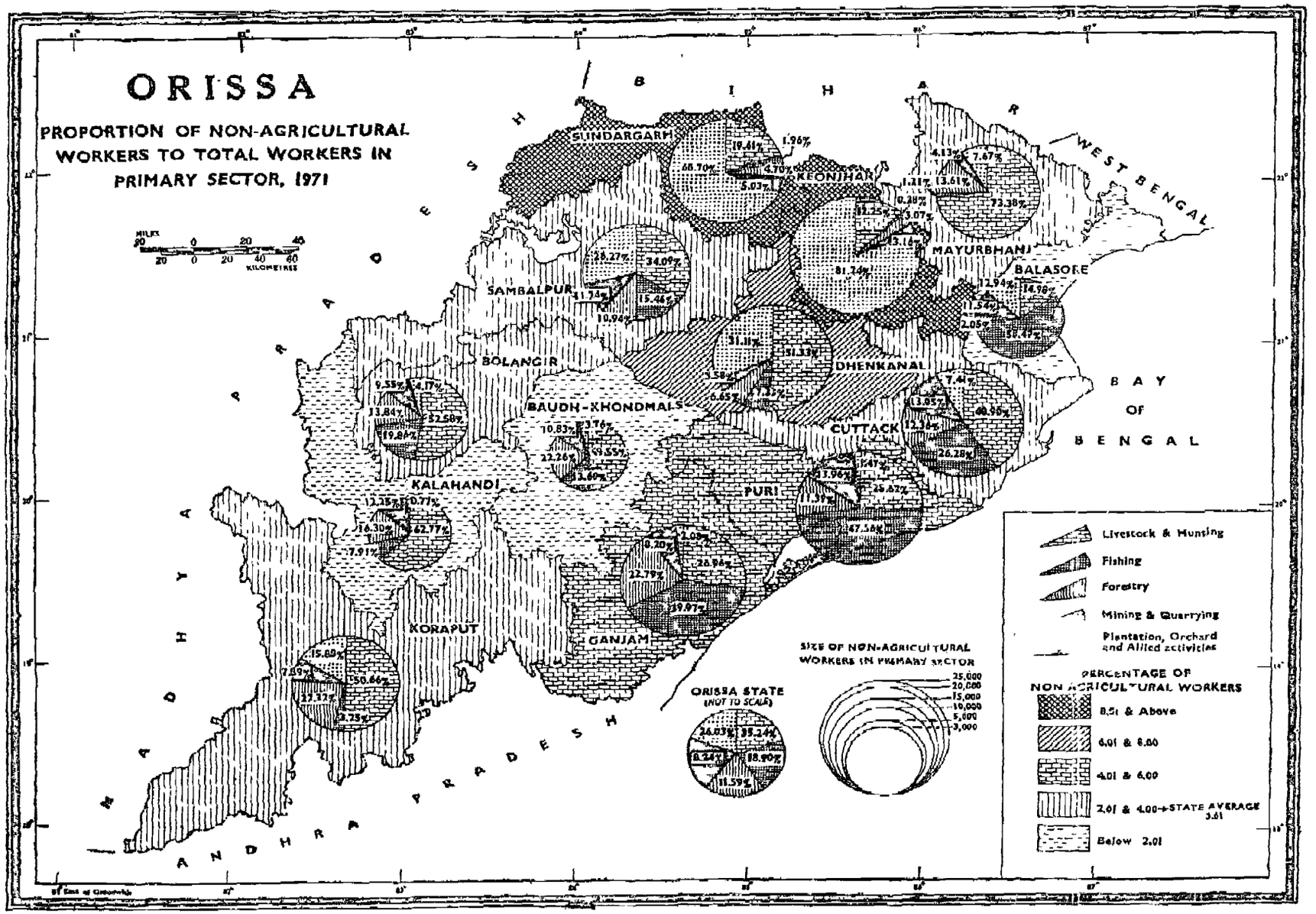
For the purpose of the 1971 Census, an agricultural labourer is a person who works in another person's land for wages in money, kind or share. He has no risk in the cultivation but he merely works in another person's land for wages. The labourer could have no right of lease or contract on land on which he works.

The percentage figures for all the districts have been computed and grouped into five ranges—one above, one nearer to and three below the state average (36·08). All the districts are hatched as per the grades of hatchings indicated in the index using choropleth technique.

As many as 4,468,293 persons were recorded at the 1971 Census as agricultural workers (cultivators and agricultural labourers) in the age group of 15—59 out of which 1,612,012 constituting 36·08 per cent were agricultural labourers.

A look at the map indicates that agricultural workers constitute the maximum percentage in the district of Mayurbhanj (44·08 per cent) while Sundargarh district (25·63 per cent) records the minimum percentage in this regard.

State/District	Total agricultural workers of age group 15—59 (Category I and II)	Total agricultural labourers of age group 15—59 (Category II)	Percentage
1	2	3	4
Orissa ..	**4,468,293**	**1,612,012**	**36·08**
Sambalpur ..	408,346	150,277	36·80
Sundargarh ..	159,251	40,813	25·63
Keonjhar ..	191,108	54,876	28·71
Mayurbhanj ..	347,263	153,078	44·08
Balasore ..	358,307	122,206	34·11
Cuttack ..	665,215	245,008	36·83
Dhenkanal ..	262,239	91,233	34·79
Baudh-Khondmals ..	154,655	51,391	33·23
Bolangir ..	289,489	92,272	31·87
Kalahandi ..	260,430	90,149	34·62
Koraput ..	497,715	172,374	34·63
Ganjam ..	455,078	195,803	43·03
Puri ..	419,197	152,532	36·39


ORISSA
PROPORTION OF NON-AGRICULTURAL WORKERS TO TOTAL WORKERS IN PRIMARY SECTOR, 1971
MILES
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
KEONJHAR
MAYURBHANJ
BALASORE
SAMBALPUR
BOLANGIR
BAUDH-KHONDMALS
DHENKANAL
CUTTACK
PURI
KALAHANDI
KORAPUT
GANJAM
ORISSA STATE
(NOT TO SCALE)
SIZE OF NON-AGRICULTURAL WORKERS IN PRIMARY SECTOR
25,000
20,000
15,000
10,000
5,000
1,000
Livestock & Hunting
Fishing
Forestry
Mining & Quarrying
Plantation, Orchard and Allied activities
PERCENTAGE OF NON-AGRICULTURAL WORKERS
8.51 & Above
6.01 & 8.00
4.01 & 6.00
2.01 & 4.00 → STATE AVERAGE 3.01
Below 2.01

MAP No. 80

PROPORTION OF NON-AGRICULTURAL WORKERS TO TOTAL WORKERS IN PRIMARY SECTOR, 1971

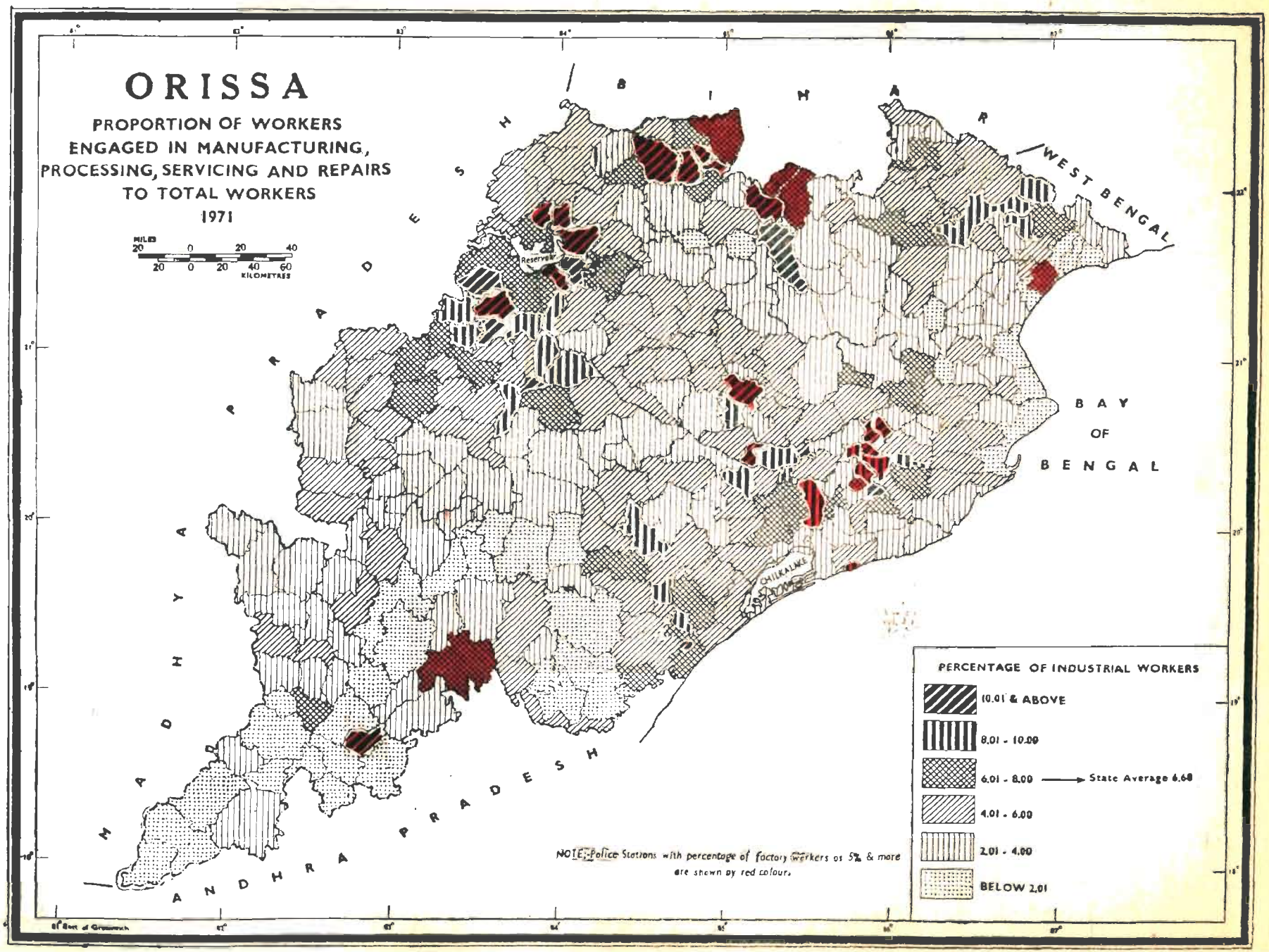
This map brings out the proportion of non-agricultural workers to total workers in primary sector for each of the districts of the state in 1971.

Primary sector includes industrial categories (I) Cultivators, (II) Agricultural labourers, (III) Live stock, forestry, fishing, hunting and plantations, orchards and allied activites, (IV) Mining and buarrying. Non-agricultural activities in the primary sector comprise all above mentioned categories other than Cultivators and Agricultural labourers.

The percentage of non-agricultural workers (categories III and IV) to total workers in the primary sector (categories I, II, III and IV) for each district of the state has been calculated. A circle is drawn for each district proportionate to the number of non-agricultural workers in primary sector. This circle is divided into five sectors proportionate tot the percentage of workers engaged in (*i*) Live stock and hunting (*ii*) Fishing (*iii*) Forestry (*iv*) Plantation, orchard etc. and (*v*) Mining and quarrying. Sectors within the circle are shaded as per the grades of hatchings indicated in the index. Further each district is hatched out side the circle according to the ranges of percentage of non-agricultural workers to the total workers under primary activities as shown in the index.

The number of total workers in the primary sector of the state is 5,504,223 of which 198, 624 or 3·61 per cent are non-agricultural workers.

Among the non-agricultural workers in primary sector, Mayurbhanj scores the highest percentage (73·38) in live stock and hunting, Balasore (58·49) in fishing, Ganjam (22·79) in forestry, Puri (13·96) in plantation and Keonjhar (81·24) in mining and quarrying. The coastal districts of Balasore, Puri, Ganjam and Cuttack are predominant in fishing. Most of the districts of high lands of Orissa are predominant in forestry, live stock and hunting. The district of Sundargarh ranks second in mining and quarrying. The district of Keonjhar occupies the lowest place with regard to the activities of livestock (12·25), fshing (0·28) and plantation (3·16). The lowest percentage value of forestry is observed in the district of Balasore and that of mining and quarrying is shown in Kalahandi district.


ORISSA
PROPORTION OF WORKERS ENGAGED IN MANUFACTURING, PROCESSING, SERVICING AND REPAIRS TO TOTAL WORKERS
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Reservoir
CHILKA LAKE
NOTE:-Police Stations with percentage of factory workers as 5% & more are shown by red colour.
PERCENTAGE OF INDUSTRIAL WORKERS
10.01 & ABOVE
8.01 - 10.00
6.01 - 8.00
State Average 6.68
4.01 - 6.00
2.01 - 4.00
BELOW 2.01

MAP No. 81

PROPORTION OF WORKERS ENGAGED IN MANUFACTURING, PROCESSING, SERVICING AND REPAIRS TO TOTAL WORKERS, 1971

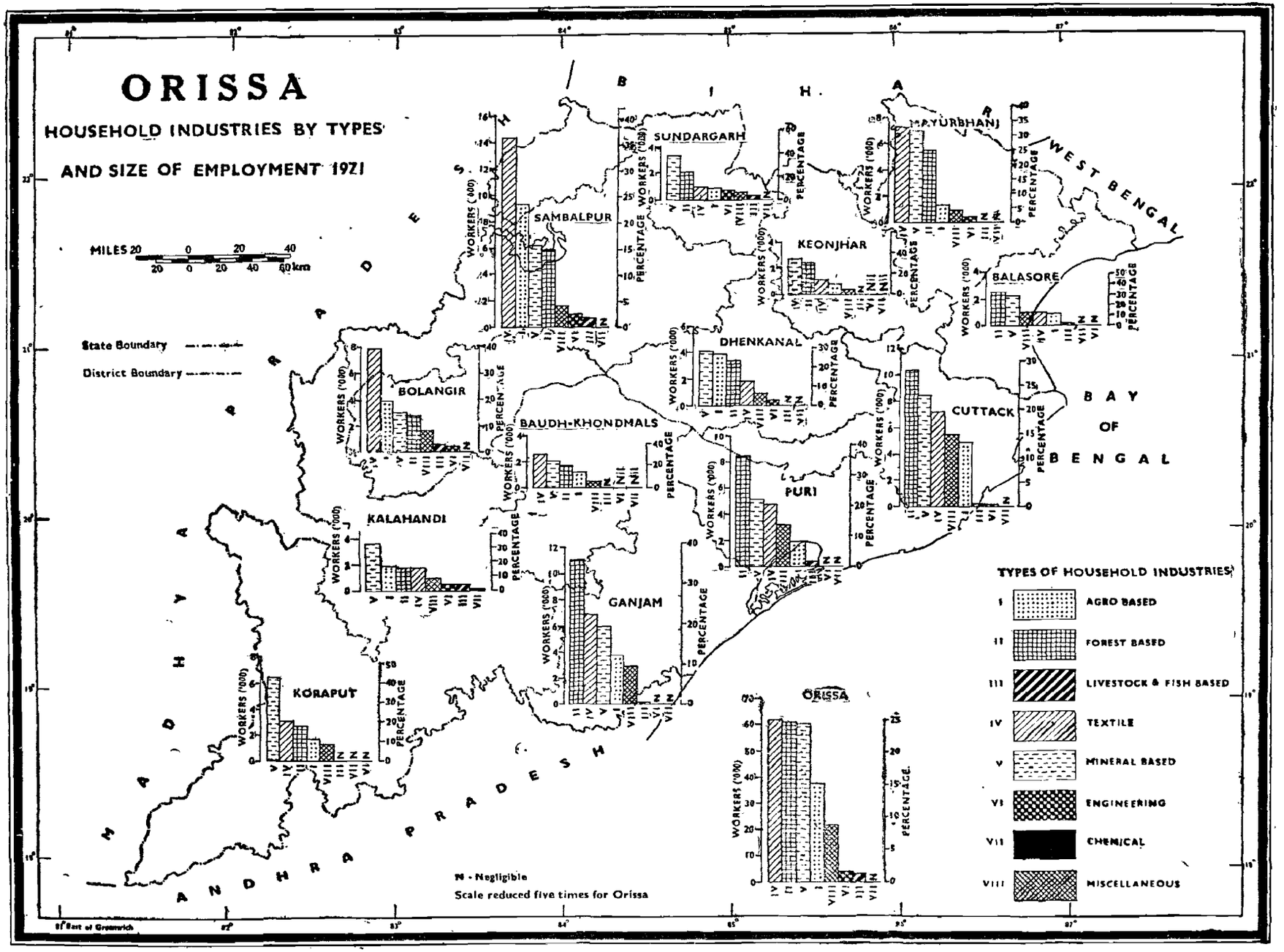
This map shows the proportion of workers engaged in manufacturing, processing, servicing and repairs to total workers of each of the police stations of the state.

Establishments on manufacturing, processing, servicing and repairs have been divided into two categories, namely, V(*a*) and V(*b*). Category V(*a*) represents household industry and V (*b*) belongs to other than household industry. Total workers include all the economically active workers (categories I to IX) as defined in the Census.

Proportion of workers engaged in industries classified under the categories of V(*a*) and V(*b*) to total workers (categories I to IX) has been calculated for each of the police stations of the state. The percentage figures thus obtained are grouped into six ranges—three above, one nearer to and two below the state average (5·93). All the police stations are hatched as per the grades of hatchings indicated in the index. The police stations having 5 per cent or more workers in category V(*b*) to total workers are shown in red colour. Choropleth method has been adopted for this map.

There are 306 police stations in the state of which 5 are completely urban. Among these 306 police stations, 25 are found in the first range (10·01 and above)' 22 in the second range (8·01—10·00), 37 in the third range (6·01—8·00), 89 in the fourth range (4·01—6·00), 98 in the fifth range (2·01—4·00) and 35 in the last range (below 2·01). As many as 19 out of 25 police stations coming under the highest range belong to the industrially developed districts of Sambalpur, Sundargarh and Cuttack. Most of the police stations in the highest range comprise either the urban centres or areas adjacent to them. Cities like Rourkela, Cuttack and Berhampur come under this range. Out of the 35 police stations in the lowest range, 15 belong to Koraput district. Police stations in the lowest range mostly belong to the under developed hilly regions.

There are as many as 28 police stations which present 5 per cent or more workers in manufacturing, processing, servicing and repairs other than household industry to total number of workers. These police stations are shown in red and they mostly belong to the districts of Sambalpur, Sundargarh, Cuttack and Puri. The police stations of Brajrajnagar of Sambalpur district, Raghunathpali and Rourkela city of Sundargarh district and Chowdwar of Cuttack district present over 30 per cent of the total workers.


ORISSA
HOUSEHOLD INDUSTRIES BY TYPES
AND SIZE OF EMPLOYMENT 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
MAYURBHANJ
SAMBALPUR
KEONJHAR
BALASORE
DHENKANAL
BOLANGIR
BAUDH-KHONDMALS
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
ORISSA
WORKERS ('000)
PERCENTAGE
N - Negligible
Scale reduced five times for Orissa
TYPES OF HOUSEHOLD INDUSTRIES
I AGRO BASED
II FOREST BASED
III LIVESTOCK & FISH BASED
IV TEXTILE
V MINERAL BASED
VI ENGINEERING
VII CHEMICAL
VIII MISCELLANEOUS

MAP No. 82

HOUSEHOLD INDUSTRIES BY TYPES AND SIZE OF EMPLOYMENT, 1971

This map depicts the distribution of workers engaged in different types of household industry in each district of the state, 1971.

The household industries are grouped under eight categories, namely, (*i*) Agro-based industries, (*ii*) Forest-based industries, (*iii*) Livestock and fish-based industries, (*iv*) Textile industries, (*v*) Mineral-based industries, (*vi*) Engineering industries, (*vii*) Chemical industries, (*viii*) Miscellaneous industries. Figures for these eight types of industries have been compiled from the table B-IV Part A of 1971 Census.

Vertical bars proportionate to the number of workers employed in each type of the above household industries are arranged in the descending order in each district. These bars are shaded as per the grades of hatchings indicated in the index. The absolute and percentage scales are drawn on left and right sides of the bars respectively.

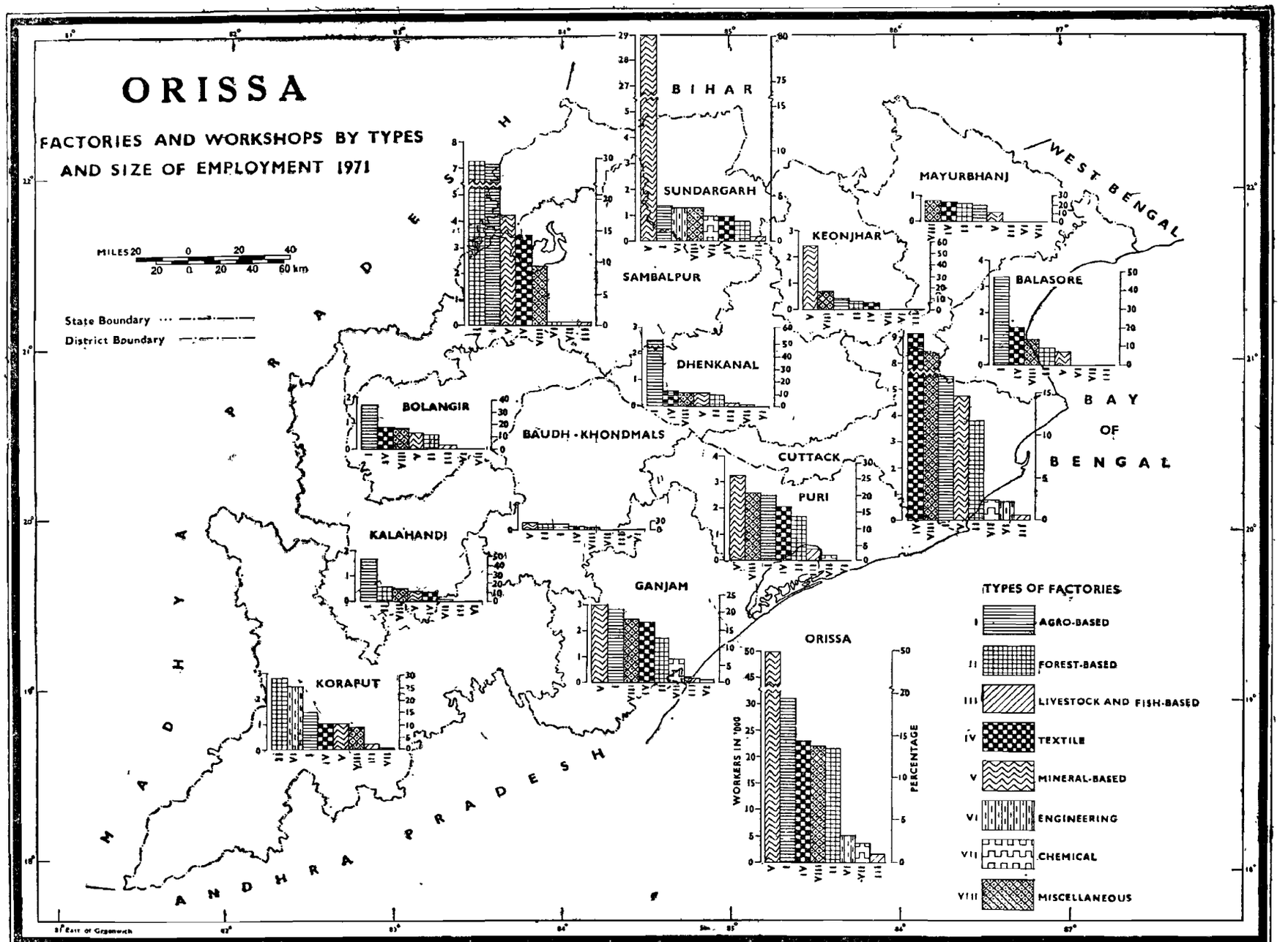
Of the eight categories of household industries, textile-based industries employ the largest number of persons (61,113), whose percentage share is 24·58 in the state. The district of Sambalpur alone employs as many as 14,282 workers. Bolangir, Cuttack, Mayurbhanj and Ganjam are the districts which occupy prominent positions in these industries.

Second in rank is the forest-based industry which employs as many as 60,884 workers or 24·49 per cent of the total workers employed in the household industries of the state. The districts of Ganjam, Cuttack, Puri, Sambalpur and Mayurbhanj occupy prominent positions in this category.

The third important type is the mineral which provides employment to 60,540 persons or 24·35 per cent of the workers engaged in household industries of the state. Cuttack, Mayurbhanj, Koraput, Sambalpur, Ganjam, Puri and Dhenkanal districts deserve mention in this group.

The next in order of importance is the agro-based industry which employs 36,754 persons or 14·78 per cent of workers employed in household industries. The districts of Sambalpur, Cuttack, Dhenkanal, Bolangir and Ganjam have remarkable size of employment in this group.

The percentage of workers engaged in other groups are very low.


ORISSA
FACTORIES AND WORKSHOPS BY TYPES AND SIZE OF EMPLOYMENT 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KEONJHAR
BALASORE
DHENKANAL
BOLANGIR
BAUDH-KHONDMALS
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
ORISSA
WORKERS IN '000
PERCENTAGE
TYPES OF FACTORIES
I AGRO-BASED
II FOREST-BASED
III LIVESTOCK AND FISH-BASED
IV TEXTILE
V MINERAL-BASED
VI ENGINEERING
VII CHEMICAL
VIII MISCELLANEOUS

MAP No. 83

FACTORIES AND WORKSHOPS BY TYPES AND SIZE OF EMPLOYMENT, 1971

This map shows the number of workers engaged in various types of factories and workshops in each of the districts of the state, 1971.

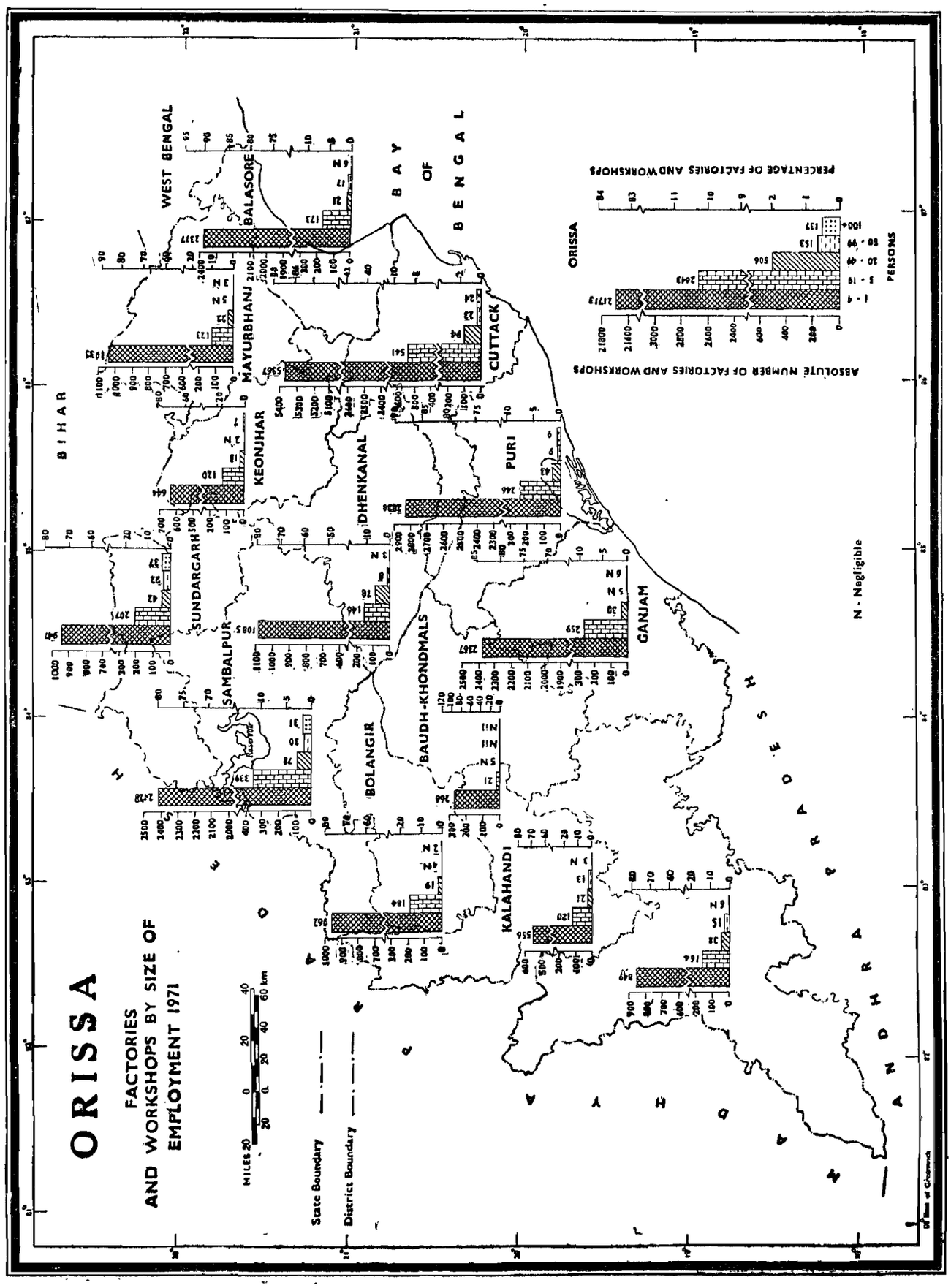
Factories and workshops in the industries of manufacturing, processing, servicing and repairs other than household industries are categorised into eight types—(*i*) Agro-based industries,(*ii*) Forest-based industries, (*iii*) Livestock and fish-based industries, (*iv*) Textile industries, (*v*) Mineral-based industries, (*vi*) Engineering industries, (*vii*) Chemical industries and (*viii*) Miscellaneous industries. The total number of workers engaged in each of the above eight types of factories and workshops are obtained from the appendix to table B-IV Part A, 1971 Census.

Percentage figure of workers of each type of factories and workshops to total workers in all types of factories and workshops are calculated in each district. Vertical bars proportionate to the number of workers employed in each type of the factories and workshops are drawn in each district. These bars are shaded as per the grades of hatchings indicated in the index. The absolute and percentage scales are drawn on left and right sides of the bar respectively.

There are as many as 157,344 workers enumerated under this category of industries in the 1971 Census of this state. Of which 49,205 or 31·27 per cent are engaged in mineral-based industries; 31,083 or 19·75 per cent are in agro-based industries; 23,319 or 14·82 per cent in textile industries and the rest are in other types of industries.

The workers in mineral-based industries constitute the highest percentage to the total workers in all types of factories and workshops in the districts of Sundargarh (80·83), Keonjhar (56·84), Puri (25·20), Baudh-Khondmals (25·05) and Ganjam (22·15). Whereas the percentage share of workers in agro-based industries is the highest in the districts of Balasore, Dhenkanal, Bolangir and Kalahandi. But Sambalpur and Koraput are only two districts in which workers of forest-based industries take the largest percentage share. Further this map reveals that workers in textile industries contribute the highest percentage value in Cuttack district. Mayurbhanj is the only one out of 13 districts of the state in which workers of miscellaneous industries formulate the maximum percentage value.

MAP No. 84


ORISSA
FACTORIES
AND WORKSHOPS BY SIZE OF
EMPLOYMENT 1971
MILES 20 0 20 40 60 km
State Boundary
District Boundary
N - Negligible
BAY OF BENGAL
WEST BENGAL
BIHAR
ORISSA
BALASORE
MAYURBHANJ
KEONJHAR
SUNDARGARH
SAMBALPUR
DHENKANAL
CUTTACK
PURI
BOLANGIR
BAUDH-KHONDMALS
GANJAM
KALAHANDI
ABSOLUTE NUMBER OF FACTORIES AND WORKSHOPS
PERCENTAGE OF FACTORIES AND WORKSHOPS
PERSONS

MAP No. 84

FACTORIES AND WORKSHOPS BY SIZE OF EMPLOYMENT, 1971

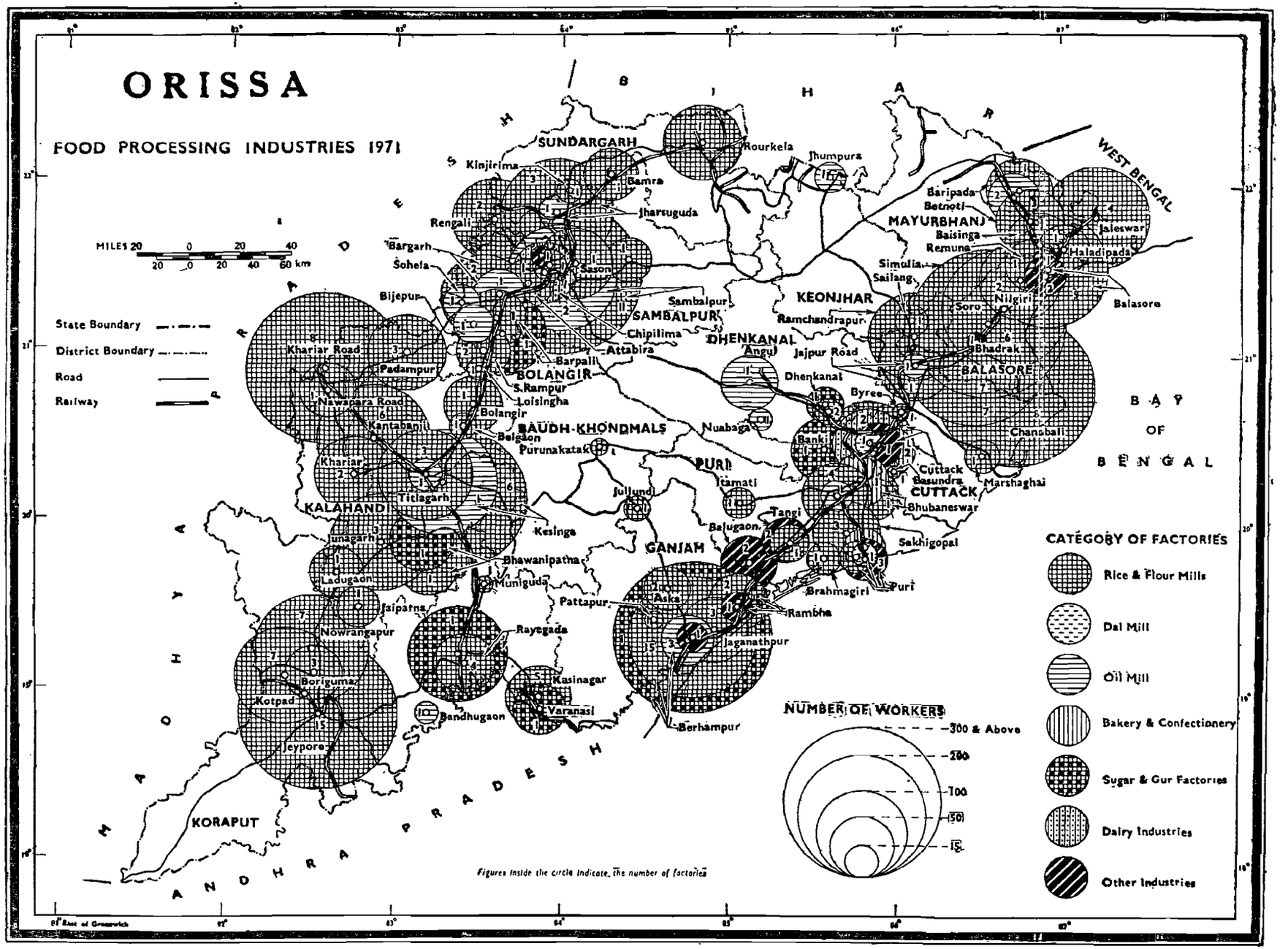
This map depicts the districtwise distribution of number of factories and workshops by size of employment as per the 1971 Census data.

Any census house, where some kind of 'production', i.e., processing, servicing, repairing or making of goods for sale is undertaken has been considered as a factory or workshop in the 1971 Census. The workshop which is registered under the "Indian Factories Act" is treated as registered factory and others as unregistered workshops. Factories and workshops as enumerated at the 1971 Census are grouped into five classes 1—4, 5—19, 20—49, 50—99 and 100+ in accordance with their employment sizes. Vertical bars are drawn proportionate to the number of factories and workshops in each class of the employment size for each district.

An absolute scale on the left and a percentage scale on the right of the bar diagram are drawn. Absolute number of factories and workshops of each size is written at the top of the bars. The bars are shaded with appropriate hatchings.

There are as many as 26,015 factories and workshops out of which 21,713 or 83·46 per cent of workshops employing 1—4 persons have been recorded for the state. The percentages of workshops belonging to the category are very high for almost all the districts. Alternatively very low percentage of big size factories and workshops are existing in the state. Thus it is clearly visible that this state is not industrially developed. The percentages of factories and workshops having the employment size 5—19, 20—49, 50—99 and 100+ persons are 10·16, 1·94, 0·59 and 0·53 respectively for the state. The factories and workshops in the state whose size could not be specified comprise 3·32 per cent. There are 137 factories in the state in each of which more than 100 persons are engaged. Of these, the districts of Sundargarh, Sambalpur and Cuttack claim 37, 31 and 24 factories respectively. These districts have also good number of factories having employment size 50—99.

MAP No. 85


ORISSA
FOOD PROCESSING INDUSTRIES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
Road
Railway
BIHAR
WEST BENGAL
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
SUNDARGARH
Kinjirima
Bamra
Jharsuguda
Rourkela
Jhumpura
Rengali
Bargarh
Sohela
Sason
Bijepur
Sambalpur
SAMBALPUR
Chipilima
Attabira
Barpali
BOLANGIR
S.Rampur
Loisingha
Bolangir
Belgaon
Purunakatak
BAUDH-KHONDMALS
Kharlar Road
Padampur
Nawapara Road
Kantabanji
Khariar
Titlagarh
KALAHANDI
Junagarh
Ladugaon
Jaipatna
Nowrangapur
Boriguma
Kotpad
Jeypore
KORAPUT
Kesinga
Bhawanipatha
Muniguda
Rayagada
Bandhugaon
Kasinagar
Varanasi
Pattapur
Aska
Jaganathpur
Berhampur
GANJAM
Jullundi
Itamati
PURI
Nuabaga
DHENKANAL
Angul
Dhenkanal
Jajpur Road
Ramchandrapur
KEONJHAR
Simulia
Sailang
Baripada
Betnoti
MAYURBHANJ
Baisinga
Remuna
Soro
Nilgiri
Bhadrak
BALASORE
Jaleswar
Haladipada
Balasore
Chanabali
Marshaghai
Cuttack
Basundra
CUTTACK
Bhubaneswar
Sakhigopal
Puri
Brahmagiri
Rambha
Tangi
Balugaon
Banki
Byree
NUMBER OF WORKERS
300 & Above
200
100
50
15
CATEGORY OF FACTORIES
Rice & Flour Mills
Dal Mill
Oil Mill
Bakery & Confectionery
Sugar & Gur Factories
Dairy Industries
Other Industries
Figures inside the circle indicate the number of factories

MAP No. 85

FOOD-PROCESSING INDUSTRIES, 1971

This map shows the location of the food-processing industries at different part of the state, 1971.

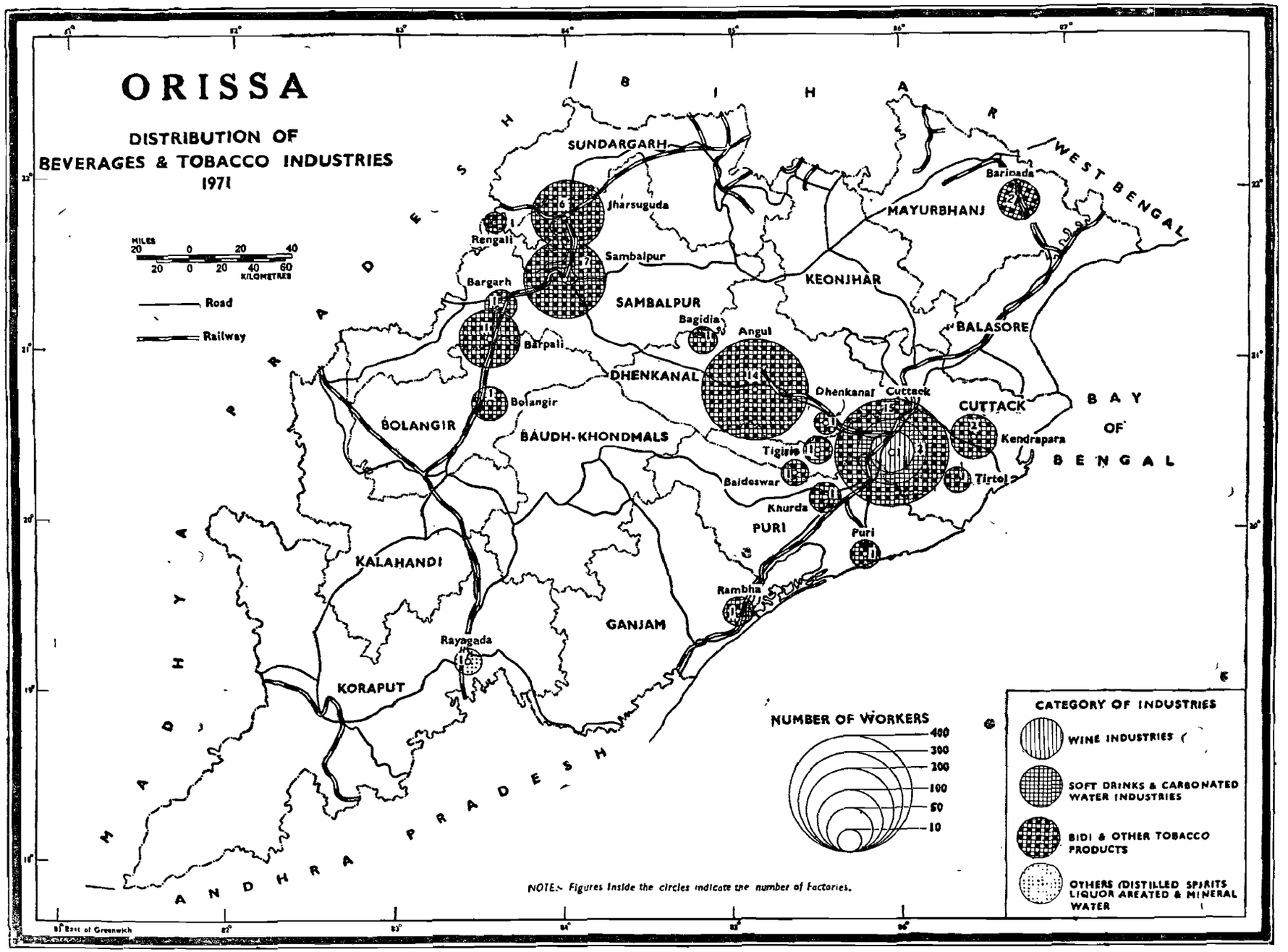
Food-processing industries of this state include (1) Rice and flour mills, (2) Dal mills, (3) Oil mills, (4) Bakery and confectionery factories, (5) Sugar and gur factories, (6) Dairy factories and (7) Other factories. Data on these factories are collected from the Registrar of Factories of this state. Circles are drawn proportionate to the number of workers engaged in each of these industries located at different centres of the state. Two or more circles are drawn at a centre representing two or more types of industries. Total number of factories relating to a particular industry is indicated within the circle concerned. These circles are hatched as per the grades of hatchings indicated in the index.

As many as 200 factories with 5,596 workers of the state are engaged in milling of rice and flour. These mills are found in almost all the districts of the state. Orissa is primarily an agricultural state and most of its people live on rice. Wheat is the second principal food of the inhabitants of this state. Hence rice and flour mills employ the largest number of persons of the state when compared with other food-processing industries. The district of Balasore has the highest number of mills (41) and workers (1,550) in the state whereas Baudh-Khondmals has the lowest number of mills (1) and workers (4). The principal rice mills of the state are found in the districts of Balasore, Kalahandi, Sambalpur, Koraput, Ganjam and Bolangir.

Sugar and gur factories are the state's second important food-processing industries. As many as 736 workers of the state are engaged in seven factories. The largest sugar factory is located at Aska of Ganjam district which alone employs 376 workers. The districts of Koraput, Sambalpur, Cuttack, Kalahandi and Dhenkanal have each got a sugar factory.

The oil mills of the state constitute the third important category of food-processing industry. There are 19 oil mills in the state with a strength of 525 workers. Sambalpur district has the maximum number of oil mills (6) with maximum workers (225). Other districts noted for this type of industry are Kalahandi, Dhenkanal, Ganjam and Mayurbhanj. There is not even a single oil mill in the districts of Sundargarh, Baudh-Khondmals and Puri.

Other categories of food-processing industries include dairy farming, bakery and confectionery factories and dal mills. These three types of industries respectively employ 104, 87 and 17 workers of the state. Dairy farming are found in the districts of Cuttack and Sambalpur. The districts of Puri and Cuttack have bakery and confectionery factories. Dal mills are found in the district of Cuttack and Puri (one in each).


ORISSA
DISTRIBUTION OF
BEVERAGES & TOBACCO INDUSTRIES
1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
Road
Railway
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
Jharsuguda
Rengali
Sambalpur
Bargarh
SAMBALPUR
Bagidia
Angul
Barpali
DHENKANAL
Bolangir
BOLANGIR
BAUDH-KHONDMALS
Barinada
MAYURBHANJ
KEONJHAR
BALASORE
Dhenkanal
Cuttack
CUTTACK
Kendrapara
Tigiria
Baideswar
Tirtol
Khurda
PURI
Puri
Rambha
GANJAM
KALAHANDI
Rayagada
KORAPUT
NUMBER OF WORKERS
400
300
200
100
50
10
CATEGORY OF INDUSTRIES
WINE INDUSTRIES
SOFT DRINKS & CARBONATED WATER INDUSTRIES
BIDI & OTHER TOBACCO PRODUCTS
OTHERS (DISTILLED SPIRITS LIQUOR AREATED & MINERAL WATER
NOTE:- Figures inside the circles indicate the number of factories.
81° East of Greenwich

MAP No. 86

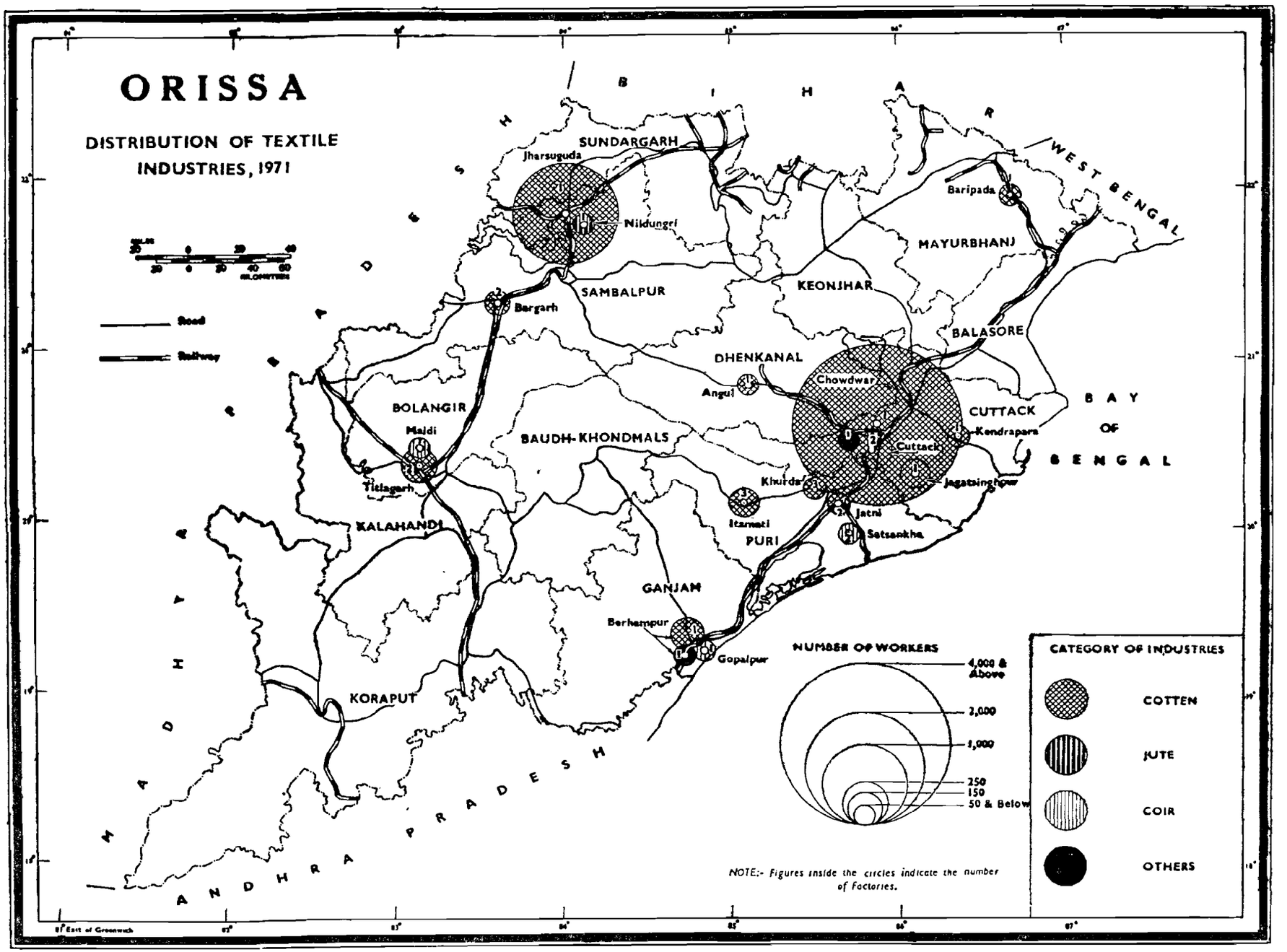
DISTRIBUTION OF BEVERAGES AND TOBACCO INDUSTRIES, 1971

This map depicts the distribution of beverages and tobacco industries in each police station of the state in 1971.

Data on industries with persons engaged in them at the P. S. level have been collected from the Registrar of Factories. Circle is drawn proportionate to number of workers engaged in each industry at the appropriate place of the concerned police stations. For a police station where there are more than one type of industries concentric circles are also drawn. Total number of factories of each industry has been written in each of the concerned circle. Circles corresponding to different industries are hatched as per the grades of hatchings indicated in the index. Important railways and roads connecting these areas are also shown.

The state has only one factory with 50 workers engaged in wine industry located in the sadar police station of Cuttack district. Similarly in the state there are two factories with 125 workers who produce soft drinks and carbonated water and located in the sadar police station of Cuttack district. *Bidi* and other tobacco products are produced by 58 factories with 1,348 workers located in the district of Sambalpur, Mayurbhanj, Cuttack, Dhenkanal, Bolangir, Ganjam and Puri.

There is only one factory with 17 employees in other industry of the state in which distilled spirit, liquor, aerated and mineral water are produced. This industry is located at Rayagada P. S. of Koraput district.


ORISSA
DISTRIBUTION OF TEXTILE INDUSTRIES, 1971
Road
Railway
SUNDARGARH
Jharsuguda
Nildungri
Bargarh
SAMBALPUR
MAYURBHANJ
KEONJHAR
Baripada
WEST BENGAL
BALASORE
DHENKANAL
Angul
Chowdwar
CUTTACK
Kendrapara
Cuttack
Jagatsinghpur
BAY OF BENGAL
BOLANGIR
Maldi
Titlagarh
BAUDH-KHONDMALS
Khurda
Itamati
Jatni
Satsankha
PURI
KALAHANDI
GANJAM
Berhampur
Gopalpur
KORAPUT
MADHYA PRADESH
ANDHRA PRADESH
BIHAR
ORISSA
NUMBER OF WORKERS
4,000 & Above
2,000
1,000
250
150
50 & Below
CATEGORY OF INDUSTRIES
COTTEN
JUTE
COIR
OTHERS
NOTE:- Figures inside the circles indicate the number of factories.

MAP No. 87

DISTRIBUTION OF TEXTILE INDUSTRIES, 1971

This map shows the distribution of textile industries at various centres of the state in 1971.

Data on various textile industries such as, cotton, jute, coir, etc. are obtained from the Registrar of Factories. A circle is drawn proportionate to the number of workers engaged in the concerned textile industry located at each of the centres. Total number of factories relating to a particular textile industry is indicated in the circle concerned. Circles are hatched as per the grades of hatchings indicated in the legend. Important roads and railways connecting the textile centres are also shown in this map.

There are 21 cotton industries in the state which employ as many as 6,668 workers. This textile industry is found in the districts of Cuttack, Sambalpur, Puri, Ganjam, Balangir, Dhenkanal and Mayurbhanj. The remaining six districts do not have any textile industry. This textile industry is predominant in the districts of Cuttack and Sambalpur. There are four coir factories in the districts of Balangir, Ganjam and Puri. Only 91 workers are employed in these factories. Two factories on other textile with 40 workers are in the districts of Cuttack and Ganjam.

MAP No. 88

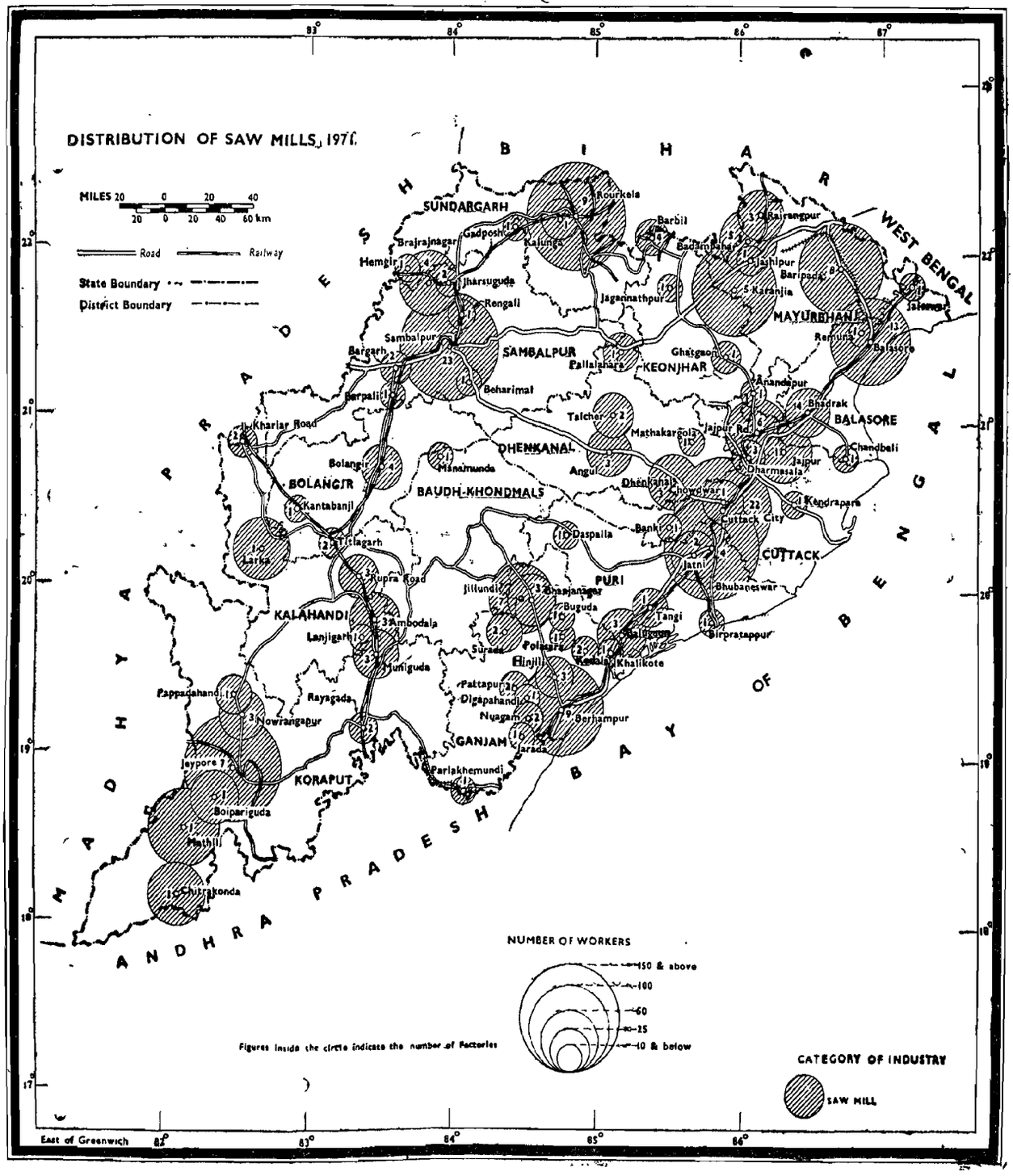
DISTRIBUTION OF LEATHER AND WOOD-BASED INDUSTRIES, 1971

This map presents the distribution of leather and wood-based industries of the state as per the 1971 Census data.

Leather industries of this state are of two kinds, namely, (1) Industries for shoe-making and (2) Industries for making other leather products. Similarly wood-based industries include (*i*) Saw mills, (*ii*) Factories for making furniture and fixtures and (*iii*) Factories producing paper and paper products. Data on these industries are collected from the Registrar of Factories. As in the case of Map No. 85 , circles are drawn proportionate to the number of workers engaged in each of the industries located at different centres of the state. These circles are hatched as per the grades of hatchings indicated in the index.

There is a very small shoe factory of the state located at Cuttack. Three small factories producing other leather goods are also located in the districts of Bolangir, Baudh-Khondmals and Ganjam. Saw-mills are found almost in all the districts of the state. There are as many as 232 saw mills in the state which employ about 3,000 workers. The Saw mills located in the districts of Cuttack, Koraput, Ganjam, Sundargarh, Mayurbhanj, Sambalpur, Puri, Balasore and Dhenkanal are prominent among others. The factories which produce paper and paper products are seen in the districts of Sambalpur, Cuttack and Koraput. There are five paper and paper product factories in the state with 4,813 workers. The largest paper factory is located at Brajrajnagar (Sambalpur) which alone employs 2,923 workers. The other two large paper factories located at Chowdwar (Cuttack) and Rayagada (Koraput) respectively employ 930 and 862 workers. Furniture factories are located in eleven out of thirteen districts of the state. The districts of Kalahandi and Keonjhar do not have any such industry.

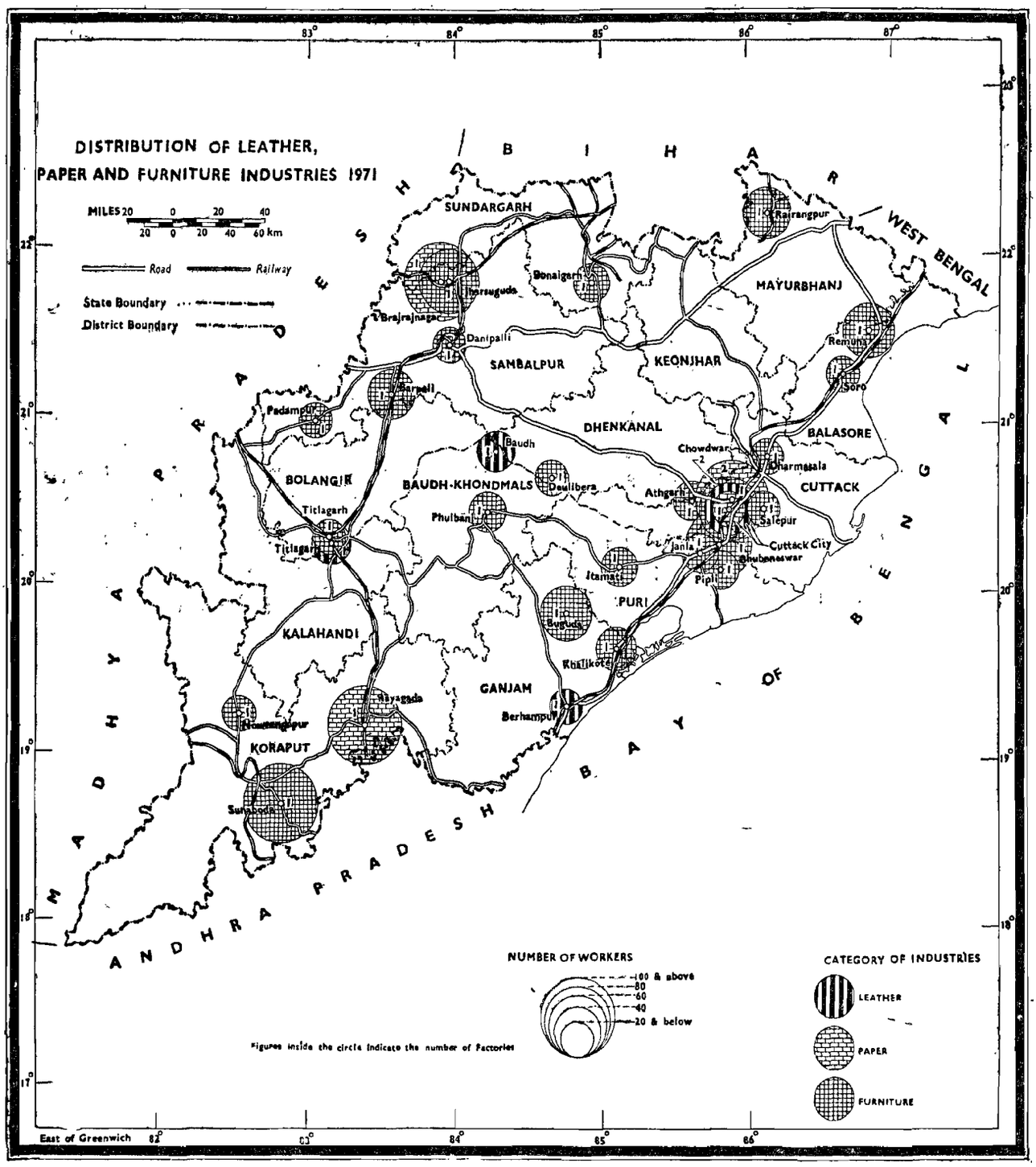
DISTRIBUTION OF LEATHER AND WC



MAP No.88

S A

OOD BASED INDUSTRIES 1971



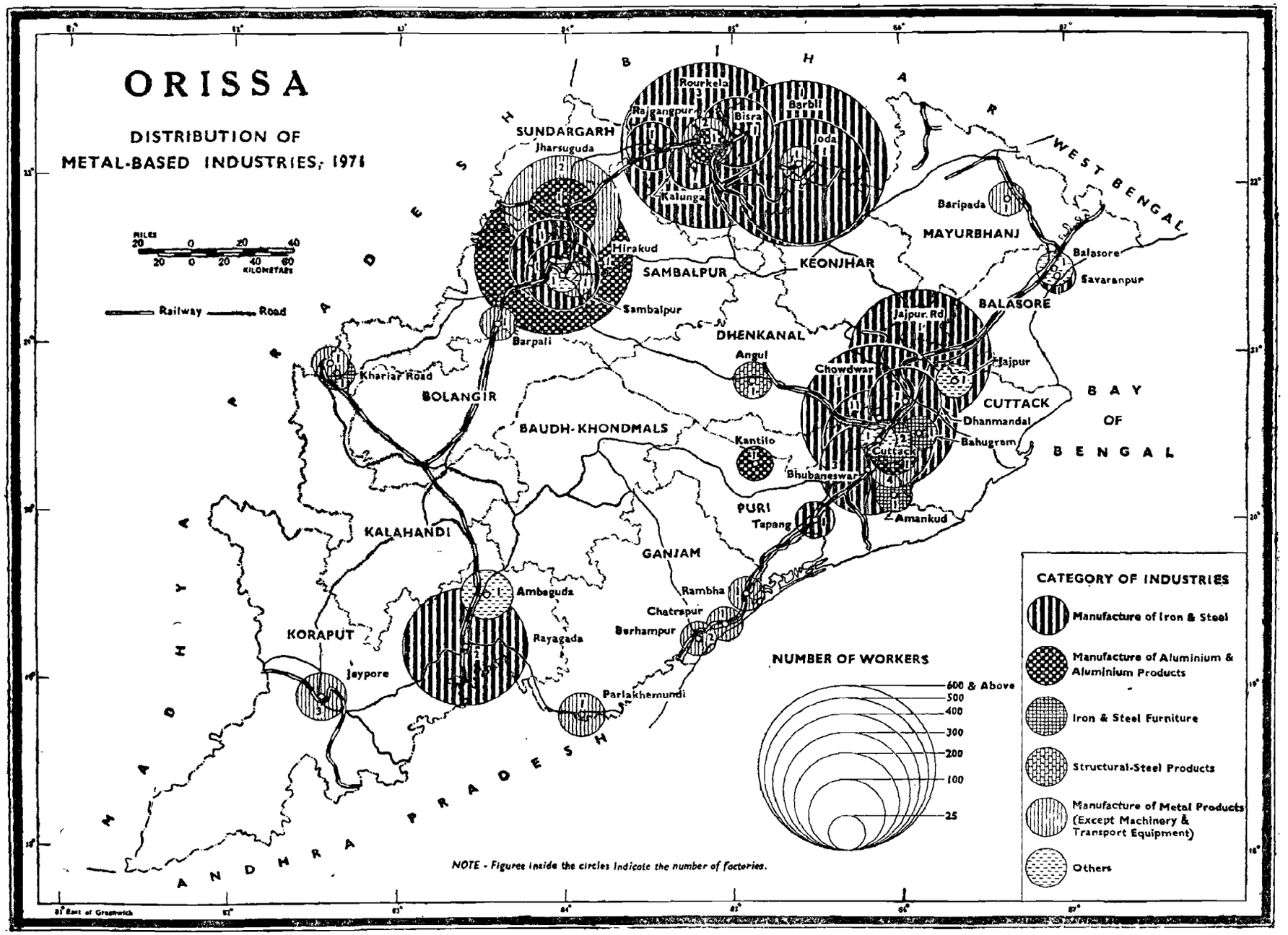
MAP No. 89

DISTRIBUTION OF METAL-BASED INDUSTRIES, 1971

This map presents the distribution of metal-based industries of the state in 1971.

The metal-based industries of this state include (1) Manufacture of Iron and Steel, (2) Manufacture of Aluminium and Aluminium products, (3) Iron and Steel furniture, (4) Structural Steel products, (5) Manufacture of metal products (except machinery and transport equipment) and (6) Others. A circle is drawn proportionate to the number of workers employed in each type of industry. The total number of factories under each industry is indicated in the concerned circle. Circles are hatched as per the grades of hatchings indicated in the index. Important roads and railways connecting these industrial centres are also shown in the map.

The district of Sundargarh occupies the top most position among the districts owing to the location of the biggest steel factory at Rourkela. This district alone has as many as 16,430 or 85·01 per cent of total workers (19,328) engaged in the manufacture of Iron and Steel industry of the state. The districts of Cuttack and Keonjhar respectively occupy the 2nd and 3rd positions so far as this industry is concerned. Six factories with 647 workers of the state are engaged in the manufacture of Aluminium and Aluminium products. The Aluminium factory at Hirakud is more pronounced. These factories are distributed among the districts of Sambalpur, Cuttack, Sundargarh and Puri. There are five small factories for Iron and Steel furniture. They employ only 87 workers in the state. These are located in the districts of Cuttack, Puri and Kalahandi. A small factory meant for structural steel products is also installed in Angul Sub division of Dhenkanal district. As many as 21 factories employ 552 workers for manufacture of metal products in the districts of Sambalpur, Ganjam, Sundargarh, Koraput, Cuttack, Kalahandi, Mayurbhanj and Keonjhar.


ORISSA
DISTRIBUTION OF
METAL-BASED INDUSTRIES, 1971
Railway
Road
MILES
KILOMETERS
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
Jharsuguda
Rourkela
Rajgangpur
Bisra
Barbil
Joda
Kalunga
SAMBALPUR
Hirakud
Sambalpur
Barpali
KEONJHAR
MAYURBHANJ
Baripada
Balasore
Savaranpur
BALASORE
DHENKANAL
Angul
Jajpur Rd
Jajpur
Chowdwar
CUTTACK
Dhanmandal
Bahugram
Cuttack
Bhubaneswar
Kantilo
BOLANGIR
Khariar Road
BAUDH-KHONDMALS
PURI
Tapang
Amankud
KALAHANDI
GANJAM
Ambaguda
Rayagada
Rambha
Chatrapur
Berhampur
KORAPUT
Jaypore
Parlakhemundi
NUMBER OF WORKERS
600 & Above
500
400
300
200
100
25
CATEGORY OF INDUSTRIES
Manufacture of Iron & Steel
Manufacture of Aluminium & Aluminium Products
Iron & Steel Furniture
Structural-Steel Products
Manufacture of Metal Products (Except Machinery & Transport Equipment)
Others
NOTE - Figures inside the circles indicate the number of factories.
81° East of Greenwich

MAP No. 9

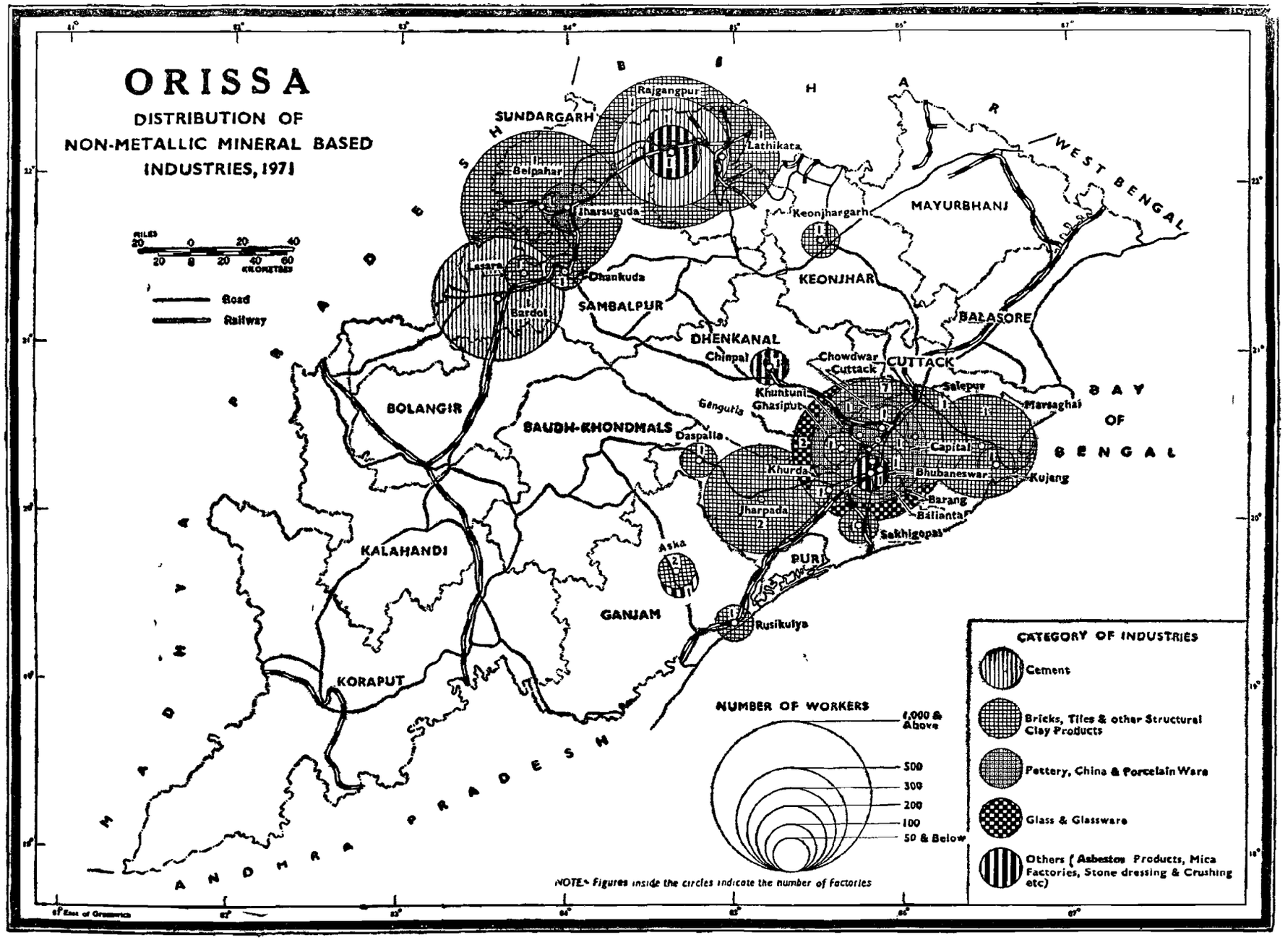
DISTRIBUTION OF NON-METALLIC MINERAL BASED INDUSTRIES, 1971

This map shows the distribution of non-metallic mineral based industries of the state in 1971.

The non-metallic mineral based industries include (*i*) Cement; (*ii*) Bricks, Tiles and other structural clay products; (*iii*) Pottery, China and Porcelain ware; (*iv*) Glass and glassware and (*v*) Others (Asbestos products, Mica factories, Stone dressing and crushing etc.). Circles proportionate to the number of workers engaged in each type of non-metallic mineral based industries are drawn at different centres in the state. Total number of factories of the industry is indicated in the concerned circle. The circles are hatched as per the legend given in the map. Important roads and railways connecting these industrial centres are also shown in the map.

There are two cement factories of the staet which are located at Bardol in Bargarh police station of Sambalpur district and Rajgangpur town of Sundargarh district and these factories respectively employ 699 and 563 persons. The districts of Sundargarh, Sambalpur, Cuttack and Puri occupy prominent positions in the state for the industries of bricks, tiles and other structural clay products. This group of industries employs more than seven thousand workers of the state. The districts of Cuttack and Sambalpur have got three factories of pottery, china-clay and porcelain-ware industries. These factories engage as many as 691 workers. The state has got four factories of other non-metallic mineral based industries. These factories are established in the districts of Sundargarh, Ganjam, Puri, and Dhenkanal. They employ only 245 workers.

MAP No. 90


ORISSA
DISTRIBUTION OF
NON-METALLIC MINERAL BASED
INDUSTRIES, 1971
MILES
KILOMETRES
Road
Railway
SUNDARGARH
Rajgangpur
Lathikata
Belpahar
Jharsuguda
Lasara
Dhankuda
Bardol
SAMBALPUR
Keonjhargarh
KEONJHAR
MAYURBHANJ
BALASORE
WEST BENGAL
DHENKANAL
Chinpal
Chowdwar
Cuttack
CUTTACK
Salepur
Marsaghai
Khuntuni
Ghasiput
Gangutia
BOLANGIR
BAUDH-KHONDMALS
Daspalla
Capital
Khurda
Bhubaneswar
Kujang
Barang
Balianta
Jharpada
Sakhigopal
PURI
Aska
GANJAM
Rusikulya
KALAHANDI
KORAPUT
BAY OF BENGAL
ANDHRA PRADESH
NUMBER OF WORKERS
1,000 & Above
500
300
200
100
50 & Below
NOTE:- Figures inside the circles indicate the number of factories
CATEGORY OF INDUSTRIES
Cement
Bricks, Tiles & other Structural Clay Products
Pottery, China & Porcelain Ware
Glass & Glassware
Others (Asbestos Products, Mica Factories, Stone dressing & Crushing etc)

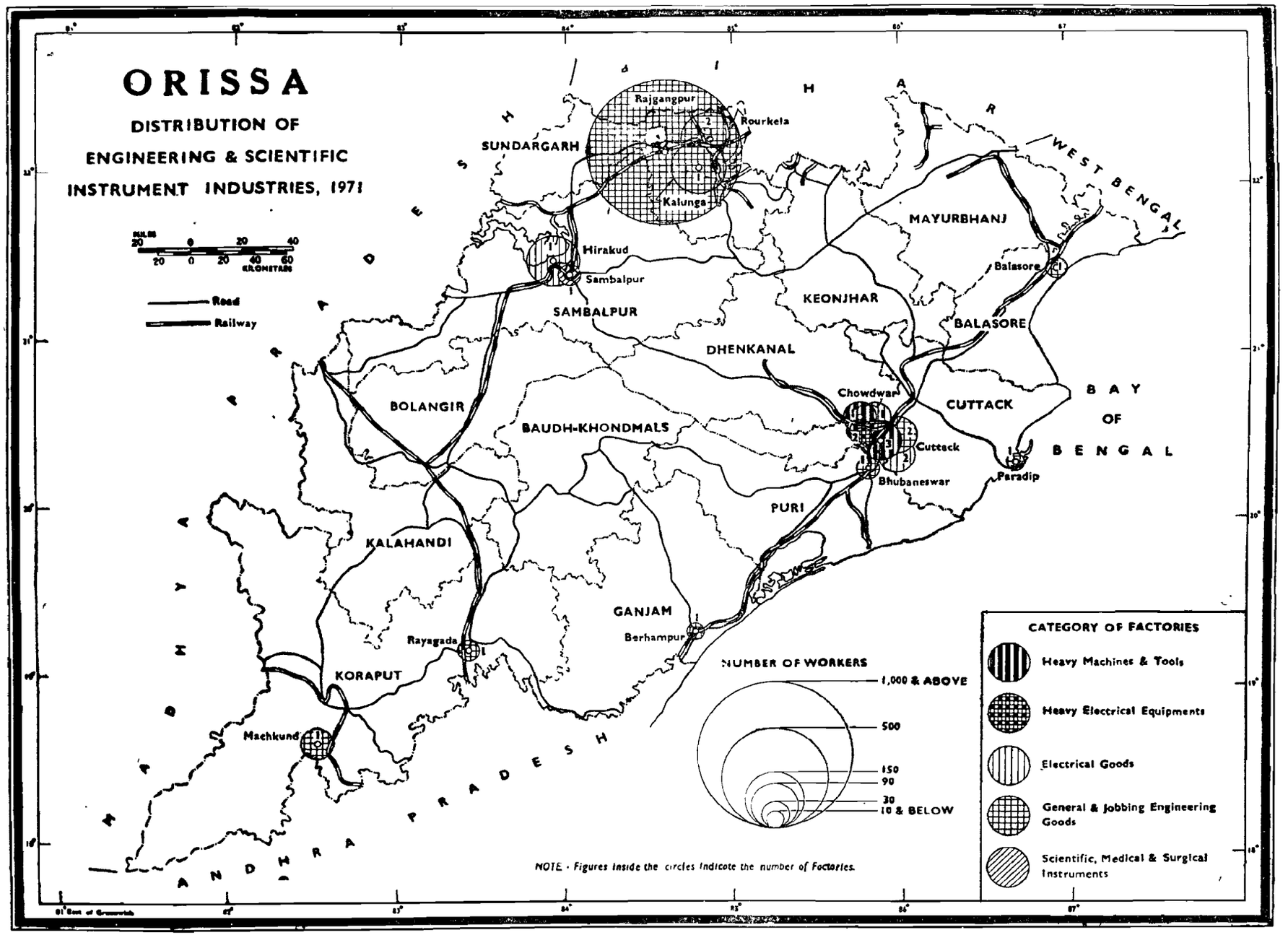
MAP No. 91

DISTRIBUTION OF ENGINEERING AND SCIENTIFIC INSTRUMENT INDUSTRIES, 1971

This map shows the distribution of engineering and scientific instrument industries in Orissa in 1971.

All the engineering and scientific instrument industries of this state are categorised as (*i*) Heavy machines and tools, (*ii*) Heavy electrical equipments, (*iii*) Electrical goods, (*iv*) General and jobbing engineering goods and (*v*) Scientific, Medical and Surgical instruments. Data on factories connected with the above mentioned industries of the state are collected from the Registrar of Factories of the state. Circles are drawn proportionate to the number of persons engaged in each of the industries located at different centres of the state. These circles are hatched as per the grades of hatchings indicated in the index. Important roads and railways connecting these centres are shown in the map.

There are only four factories with 102 workers located in the district of Cuttack which produce heavy machines and tools. Only one factory of heavy electrical equipment industry is located in sadar police station of Cuttack district. There are four factories of electrical goods in the state which employ as many as 199 workers. The major one is located at Hirakud of Sambalpur district. Others are established in Cuttack district. There are 15 factories in the state which produce general and jobbing engineering goods with the help of 1,641 workers. The factory at Kansbahal in Rajgangpur P. S. of Sundargarh district engages 1,157 workers. Major factories of this category are located in the district of Sundargarh. This industry is also found in the districts of Cuttack, Koraput, Ganjam and Balasore. There is only one small factory located in Sambalpur district of the state which produces scientific, medical and surgical instruments with the assistance of 16 workers.


ORISSA
DISTRIBUTION OF
ENGINEERING & SCIENTIFIC
INSTRUMENT INDUSTRIES, 1971
Road
Railway
Rajgangpur
Rourkela
SUNDARGARH
Kalunga
Hirakud
Sambalpur
SAMBALPUR
MAYURBHANJ
Balasore
KEONJHAR
BALASORE
DHENKANAL
Chowdwar
CUTTACK
BOLANGIR
BAUDH-KHONDMALS
Cuttack
Bhubaneswar
Paradip
PURI
KALAHANDI
GANJAM
Berhampur
Rayagada
KORAPUT
Machkund
WEST BENGAL
BAY
OF
BENGAL
MADHYA PRADESH
ANDHRA PRADESH
NUMBER OF WORKERS
1,000 & ABOVE
500
150
90
30
10 & BELOW
CATEGORY OF FACTORIES
Heavy Machines & Tools
Heavy Electrical Equipments
Electrical Goods
General & Jobbing Engineering Goods
Scientific, Medical & Surgical Instruments
NOTE - Figures inside the circles indicate the number of Factories.

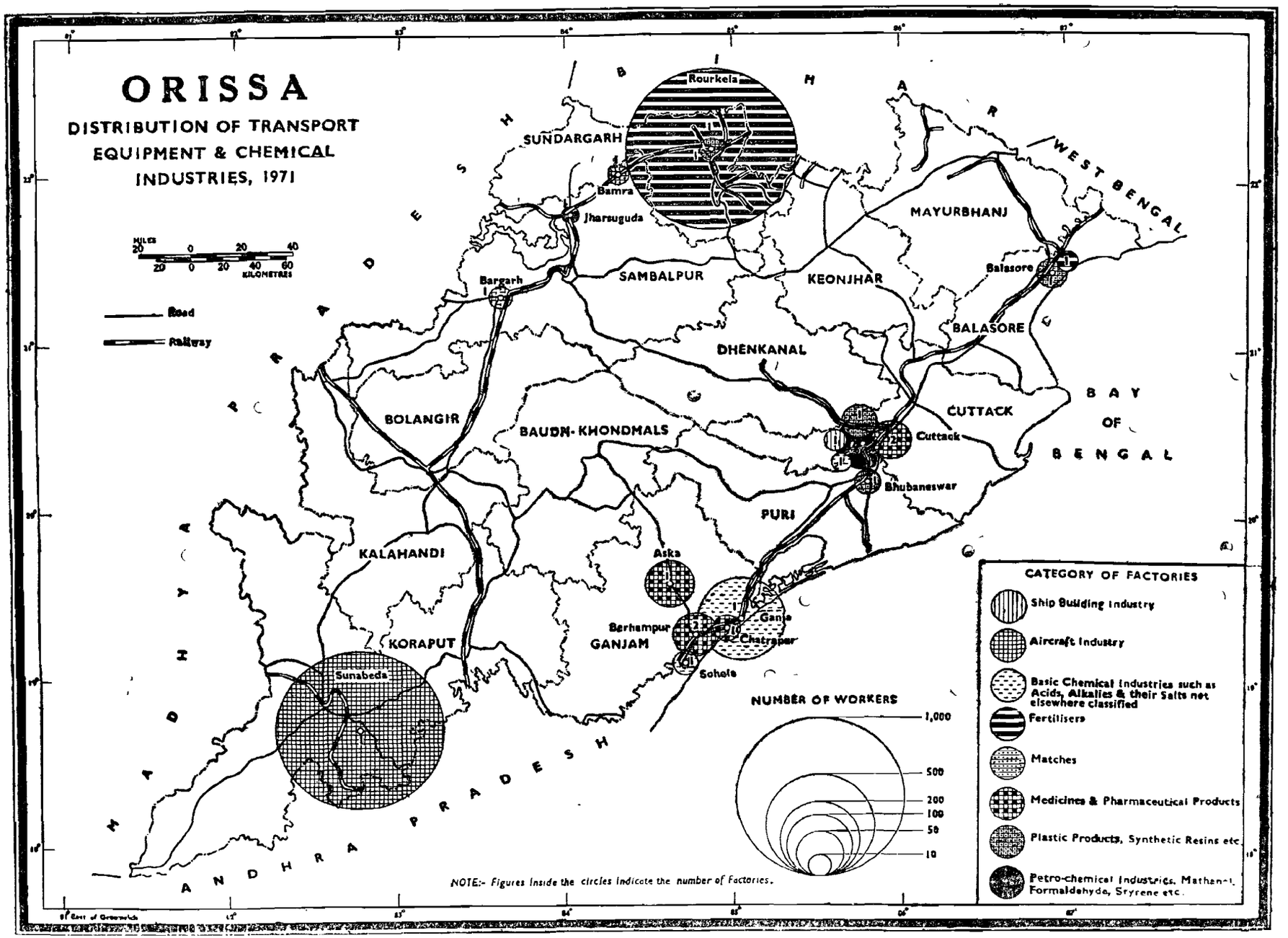
MAP No. 92

DISTRIBUTION OF TRANSPORT EQUIPMENT AND CHEMICAL INDUSTRIES, 1971

This map shows the distribution of transport equipment and chemical industries of the state in 1971.

Data on transport equipments and chemical industries of the state are obtained from the Registrar of Factories. Circles are drawn proportionate to the number of persons engaged in each of these industries located at different centres of the state. Number of factories pertaining to a particular industry is indicated in the concerned circle. Further these circles are hatched as per the grades of hatchings indicated in the index. Important roads and railways connecting these industrial centres are also shown in the map.

There is only one small factory of ship building industry in the Sadar police station of Cuttack district. The state has got only one Air Craft industry at Sunabeda of Koraput district, which provides employment to 1,466 workers. There are four factories of the basic chemical industries in the state. Two of these factories are located in Ganjam district while Sambalpur and Cuttack each has got one factory of this industry. An important fertiliser factory of the state is located at Rourkela of Sundargarh district, which employs as many as 1,037 workers of the state. There is a very small match factory at Bamra in Govindpur police station of Sambalpur district. The state has got only six small factories for medical and pharmaceutical products, two of which are located in Cuttack district while the rest four belong to the district of Ganjam. There are only four small factories of plastic products and synthetic resins located in the districts of Cuttack, Sundargarh, Balasore and Puri. The Petro-Chemical industries have got three small factories located in the districts of Cuttack and Sambalpur.


ORISSA
DISTRIBUTION OF TRANSPORT EQUIPMENT & CHEMICAL INDUSTRIES, 1971
MILES 20 0 20 40
KILOMETRES 20 0 20 40 60
Road
Railway
Rourkela
SUNDARGARH
Bamra
Jharsuguda
Bargarh
SAMBALPUR
MAYURBHANJ
KEONJHAR
Balasore
BALASORE
WEST BENGAL
DHENKANAL
BOLANGIR
BAUDH-KHONDMALS
CUTTACK
Cuttack
Bhubaneswar
BAY OF BENGAL
PURI
KALAHANDI
Aska
Berhampur
GANJAM
Ganja
Chatrapur
Sohela
KORAPUT
Sunabeda
MADHYA PRADESH
ANDHRA PRADESH
NUMBER OF WORKERS
1,000
500
200
100
50
10
CATEGORY OF FACTORIES
Ship Building Industry
Aircraft Industry
Basic Chemical Industries such as Acids, Alkalies & their Salts not elsewhere classified
Fertilisers
Matches
Medicines & Pharmaceutical Products
Plastic Products, Synthetic Resins etc.
Petro-chemical Industries, Methanol, Formaldehyde, Styrene etc.
NOTE:- Figures inside the circles indicate the number of Factories.

MAP No. 93

RURAL POPULATION IN ELECTRIFIED VILLAGES, 1971

This map depicts the distribution of police stations in accordance with the percentage value of the rural population living in the electrified villages to the total rural population in each police station.

The percentage figures of rural population living in electrified villages to total rural population in each of the police stations of the state are calculated and grouped into five suitable ranges—three above, one nearer to and one below the state average (9·32 per cent). All the police stations are shaded with different grades of hatchings by choropleth method as given in the legend to the map. The police stations having no electrified village are left blank in the map.

There has been no appreciable progress of rural electrification in Orissa by 1971. Only 1,872,844 persons or 9·32 per cent of the total rural population (20,099,220) of the state are living in electrified villages as per the 1971 Census data.

There are as many as 113 police stations of Orissa in which no village is electrified by the time of the 1971 Census. Of the remaining 188 police stations there are only six P. Ss. (one in Sambalpur and five in Ganjam district) in which above 35·00 per cent of the rural population live in electrified villages. The rural population living in electrified villages of 15 police stations (four in Puri, three each in Garjam, Dhenkanal and Cuttack and one each in Keonjhar and Sambalpur) constitute the percentage values within the range 25·01 to 35·00. There are three more ranges of percentage figures, viz., 15·01 to 25·00, 5·01 to 15·00 and below 5·01 and these ranges respectively embrace 28, 89 and 50 police stations of the state.

APN 630.M

ORISSA
RURAL POPULATION IN
ELECTRIFIED VILLAGES 1971
PERCENTAGE OF RURAL POPULATION LIVING IN ELECTRIFIED VILLAGES
35.01 and Above
25.01 - 35.00
15.01 - 25.00
5.01 - 15.00 → State Average 9.32
5.00 and Below
Not Electrified
BAY OF BENGAL
WEST BENGAL
Chilka Lake
Miles 20 0 20 40 60 km
State Boundary
District Boundary
PS Boundary

MAP No. 94

PERCENTAGE OF WORKERS ENGAGED IN CONSTRUCTION, TRANSPORT, STORAGE AND COMMUNICATION ACTIVITIES TO TOTAL WORKERS IN RURAL AREAS, 1971

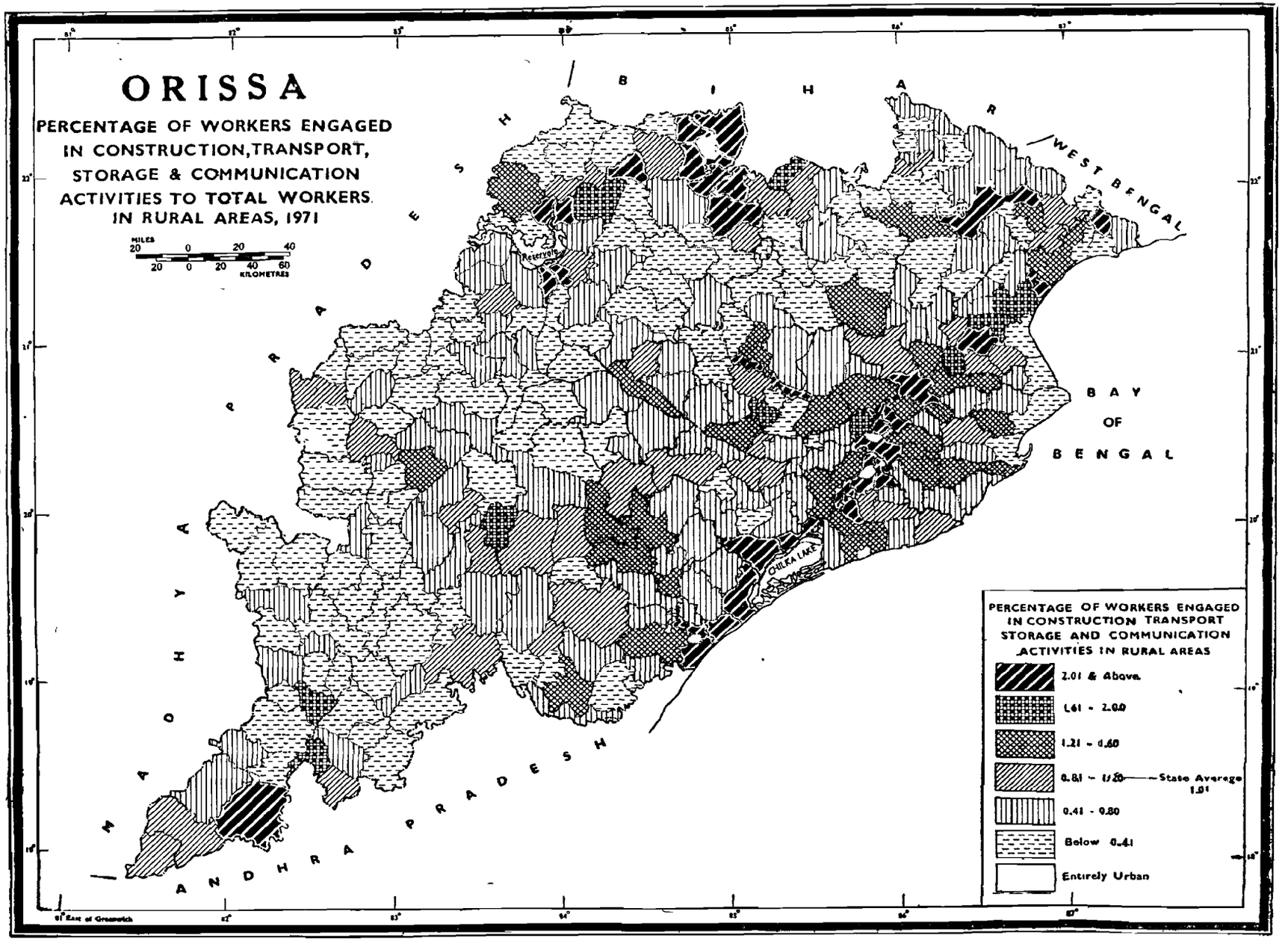
This map depicts the percentage of workers engaged in construction, transport, storage and communications to total workers in rural areas of each police station in 1971.

Percentages of workers engaged in construction (category VI), transport, storage and communications (category VIII) to the total workers in rural areas of each of the police stations are calculated and percentage figures grouped into six suitable ranges—three above, one nearer to and two below the state average (1·01 per cent). All the police stations are shaded with dark to light hatchings according to the ranges in descending order as per the index of the map. The five urban police stations are kept blank.

This map reveals that workers engaged in construction, transport, storage and communications constitute only 1·01 per cent of the total workers in the rural part of the state as per the 1971 Census.

The areas with a relatively high percentage (above 2·00) of rural workers engaged in construction, transport, storage and communication activities are located in only 31 police stations of which six each lie in Sambalpur, Sundargarh and Puri; four in Cuttack; three in Ganjam; two each in Balasore and Dhenkanal and one each in Mayurbhanj and Koraput.

In the second range (2·00 to 1·61 per cent) only eight police stations—two each in Koraput and Balasore and one each in Baudh-Khondmals, Dhenkanal, Cuttack and Sambalpur districts are noticed. There are four other ranges, viz., 1·60 to 1·21 per cent, 1·20 to 0·81 per cent, 0·80 to 0·41 per cent and below 0·41 per cent which respectively include 36, 40, 86 and 100 police stations of this state.


ORISSA
PERCENTAGE OF WORKERS ENGAGED IN CONSTRUCTION, TRANSPORT, STORAGE & COMMUNICATION ACTIVITIES TO TOTAL WORKERS IN RURAL AREAS, 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
Reservoir
CHILKA LAKE
BAY OF BENGAL
PERCENTAGE OF WORKERS ENGAGED IN CONSTRUCTION TRANSPORT STORAGE AND COMMUNICATION ACTIVITIES IN RURAL AREAS
2.01 & Above
1.61 - 2.00
1.21 - 1.60
0.81 - 1.20
State Average 1.01
0.41 - 0.80
Below 0.41
Entirely Urban

MAP No. 95

PERCENTAGE OF WORKERS ENGAGED IN CONSTRUCTION, TRANSPORT, STORAGE AND COMMUNICATION ACTIVITIES TO TOTAL WORKERS IN URBAN AREAS, 1971

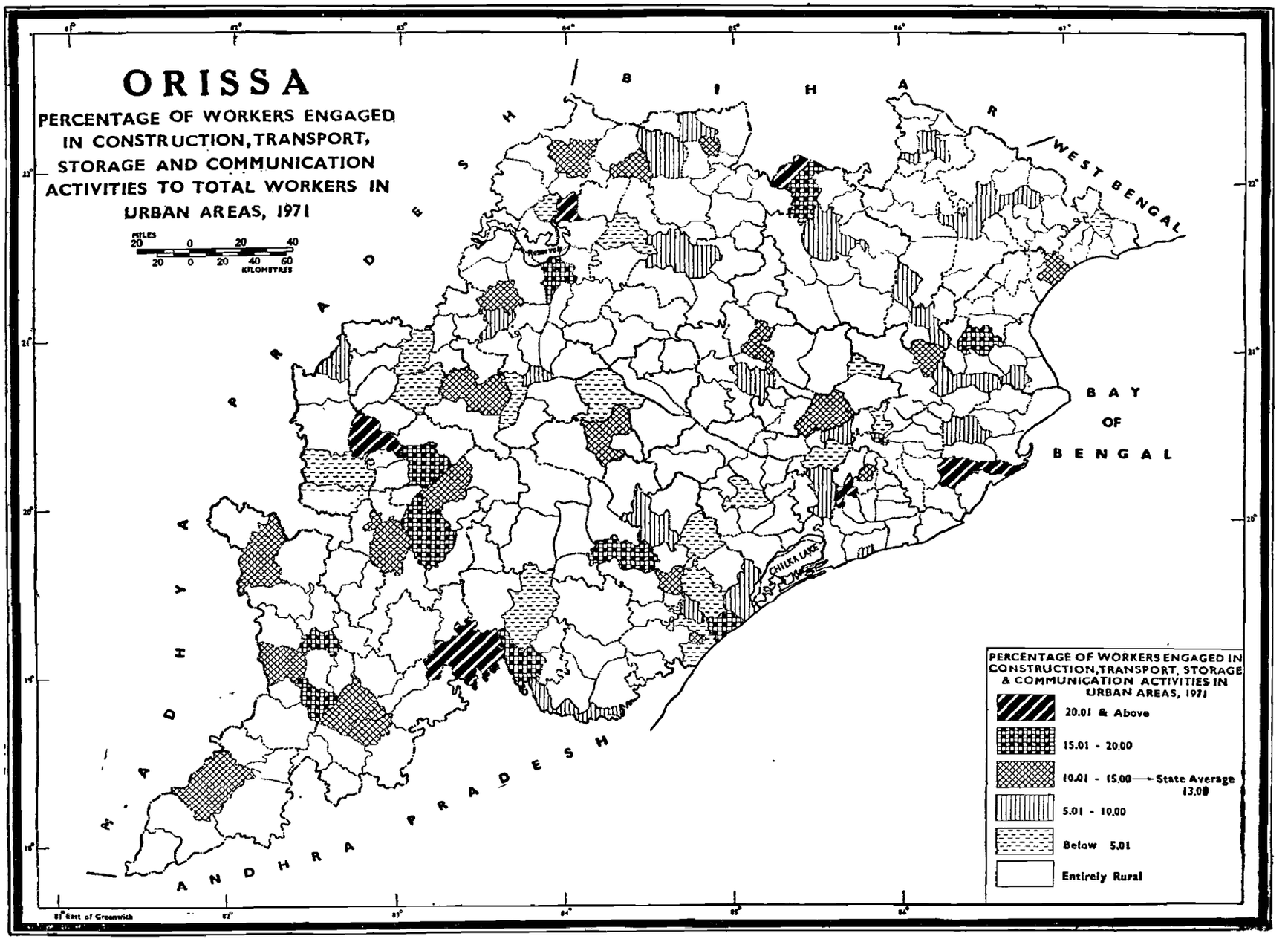
This map depicts the percentage of workers engaged in construction, transport, storage and communication activities to total workers in urban areas of each police station of the state in 1971.

The method of preparation of this map is the same as that of the Map No. 94.

In 1971 as many as 561,820 workers are enumerated in urban areas of the State, of which 73,032 persons or 13·00 per cent are engaged in the sector of economy such as construction, transport, storage and communications. Areas of the police stations which are kept blank in this map indicate that there is no urban unit in those police stations. The urban units are found only in 76 police stations of the State where the urban workers are counted. Of these 76 police stations only six police stations in which workers engaged in construction, transport, storage and communications constitute more than 20·00 per cent of total urban workers of the corresponding police stations. Paradip town in Tirtol police station of Cuttack district has the maximum percentage value (44·32) followed by Jatni police station (36·61 per cent) of Puri district, Kantabanji of Bolangir district (30·77 per cent) and Jharsuguda (30·10 per cent) of Sambalpur district.

The second range (15·01—20·00 per cent) includes only 13 police stations, namely, Sambalpur, Hirakud and Burla of Sambalpur district, Joda of Keonjhar district, Bhadrak of Balasore district, Cuttack urban unit, Titlagarh of Bolangir district, Bhawanipatna of Kalahandi district, Nowrangapur, Jeypore and Gunupur of Koraput district, Surada and Chatrapur of Ganjam district.

There are as many as 20 police stations in which percentage values of workers lie in the range, 10·01 to 15·00 which also embrace the state average (13·00 per cent). There are two other ranges, such as, 5·01 to 10·00 per cent and below 5·01 per cent which respectively include 21 and 16 police stations of the state.


ORISSA
PERCENTAGE OF WORKERS ENGAGED IN CONSTRUCTION, TRANSPORT, STORAGE AND COMMUNICATION ACTIVITIES TO TOTAL WORKERS IN URBAN AREAS, 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
CHILKA LAKE
81° East of Greenwich
PERCENTAGE OF WORKERS ENGAGED IN CONSTRUCTION, TRANSPORT, STORAGE & COMMUNICATION ACTIVITIES IN URBAN AREAS, 1971
20.01 & Above
15.01 - 20.00
10.01 - 15.00 — State Average 13.00
5.01 - 10.00
Below 5.01
Entirely Rural

MAP No. 96

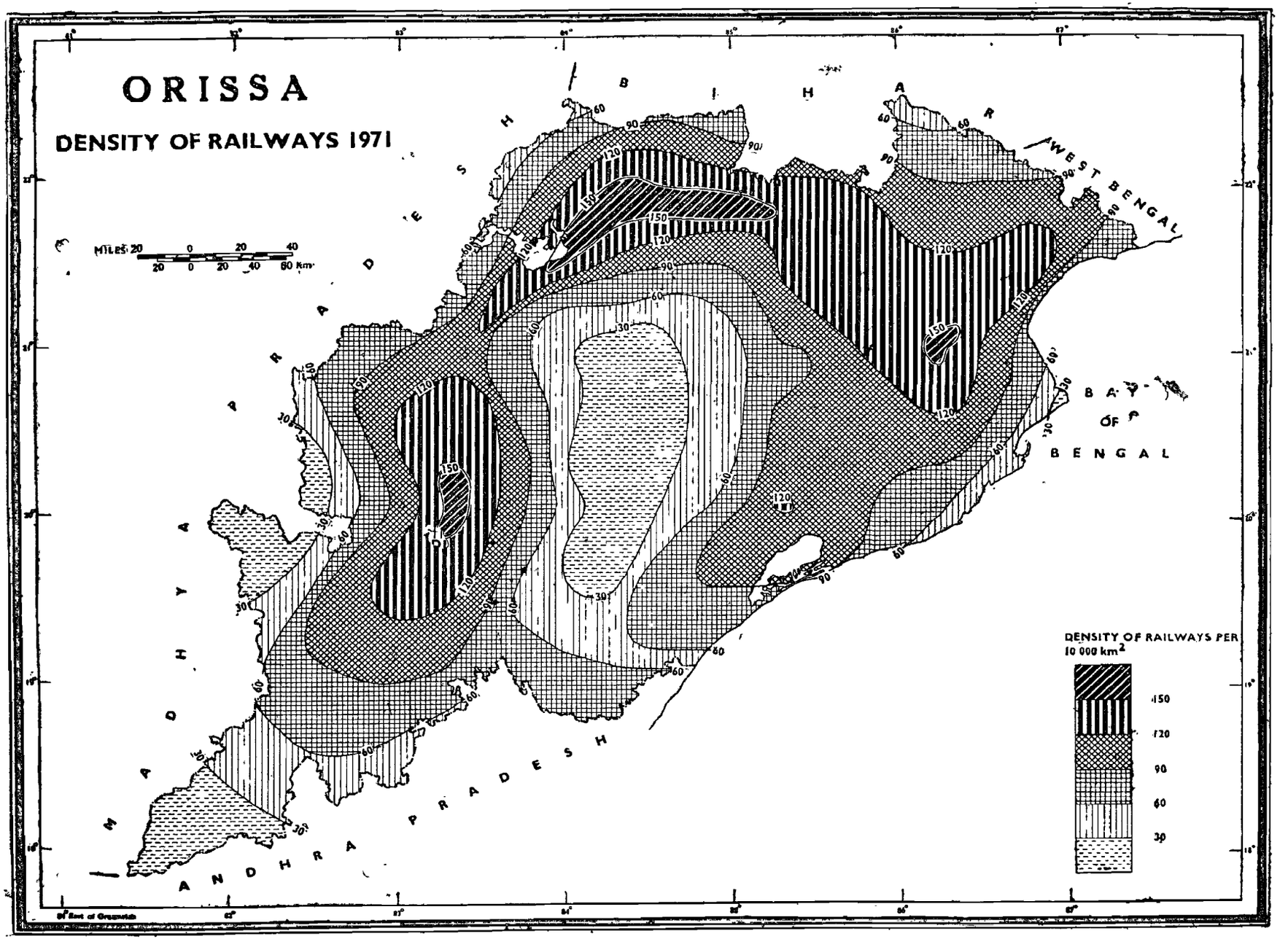
DENSITY OF RAILWAYS, 1971

This map presents the density of railway lines measured in kilometres per 10,000 Sq. Kms. of area in the state in 1971.

All the railway lines are plotted on the base map. The map is then divided into grids each covering an area of 10,000 Sq. Kms. Then the length of all the railway lines of each grid is measured. The figure showing the length of railway lines is plotted in the centre of the concerned grid. According to these values the isopleth lines are interpolated at suitable intervals. Railway lines and the grids alongwith its centre are removed from the map. The intervening space between two isopleth lines is shaded according to the ranges from high to low order showing density of railways as per the legend of the map.

Density of railway lines is noticed above 150 in the grids of border areas of Balasore, Cuttack, Sambalpur, Sundargarh and Kalahandi districts.

In the second range of density (150 to 120) the areas of Balasore, Cuttack, Mayurbhanj, Keonjhar, Sambalpur, Sundargarh, Bolangir, Kalahandi and Koraput are noticed. The lowest density of railway lines (0—30) is seen in the largest areas of Baudh-Khondmals and in bordering areas of Koraput district.


ORISSA
DENSITY OF RAILWAYS 1971
MILES 20 0 20 40
20 0 20 40 60 Km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
DENSITY OF RAILWAYS PER 10 000 km²
150
120
90
60
30

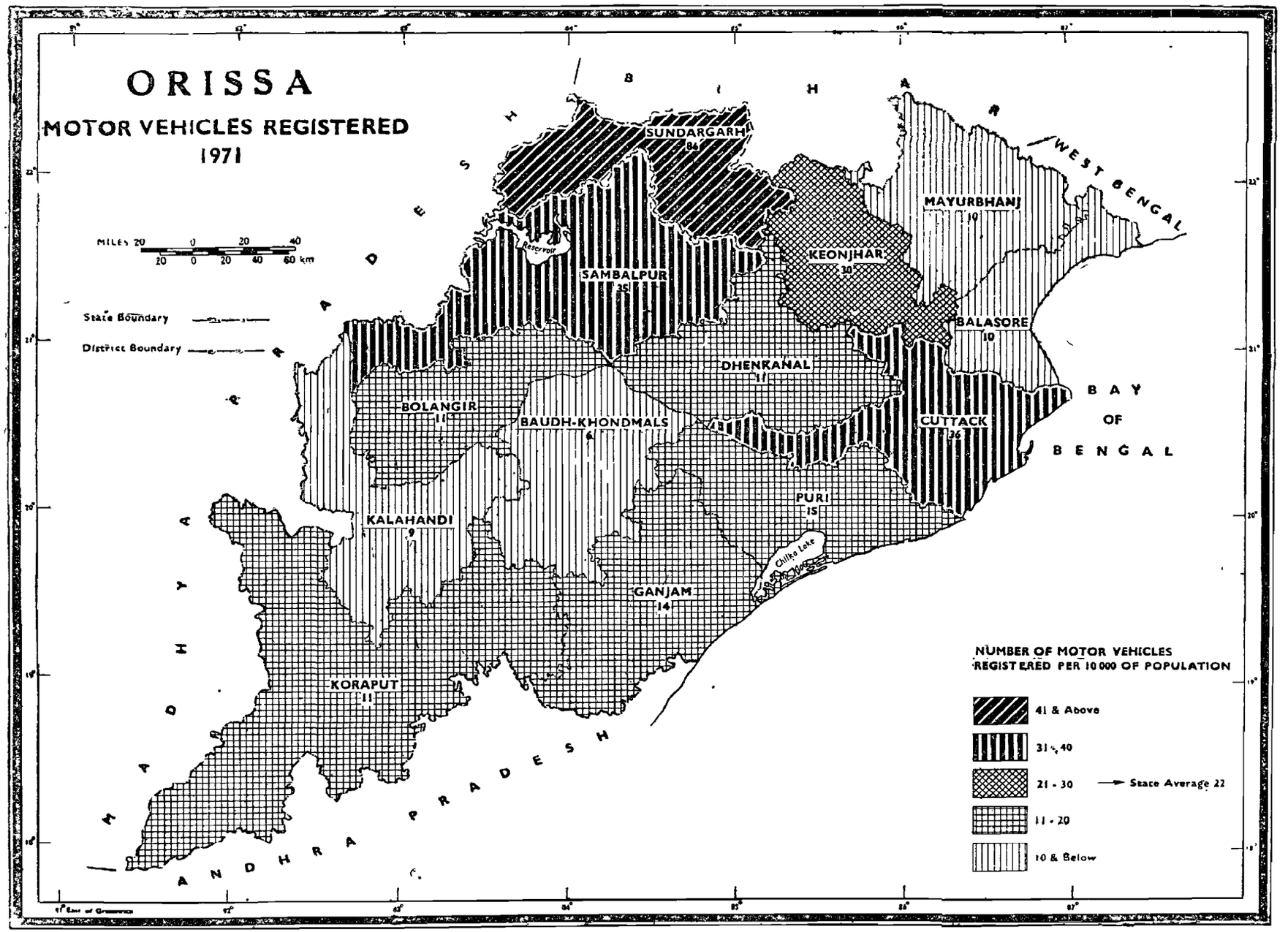
MAP No. 97

MOTOR VEHICLES REGISTERED, 1971

This map presents the ratios of motor vehicles registered per 10,000 of population in each district of the state in 1971.

The number of registered vehicles which include cars, taxies, buses, trucks, etc., per 10,000 population are calculated for each of the districts, and indices thus obtained are grouped into five suitable ranges—two above, one nearer to and two below the state average (22). All the districts are shaded by different grades of hatchings as shown in the legend.

Sundargarh district is shown in the map in which ratio of motor vehicles resgistered per 10,000 population is the highest (86). The districts of Sambalpur (35) and Cuttack (36) belong to the second range of ratio. Keonjhar district (30) falls in the central range (21—30) which embraces the state average (22). The ratios of five districts, namely, Dhenkanal, Puri, Ganjam, Koraput and Bolangir are shown under the lower range (11—20) whereas the lowest (10 and below) range embraces four districts, viz., Balasore, Mayurbhanj, Kalahandi and Baudh-Khondmals.


ORISSA
MOTOR VEHICLES REGISTERED
1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
SUNDARGARH
84
SAMBALPUR
35
KEONJHAR
30
MAYURBHANJ
10
BALASORE
10
DHENKANAL
11
BOLANGIR
11
BAUDH-KHONDMALS
6
CUTTACK
36
PURI
15
KALAHANDI
9
GANJAM
14
KORAPUT
11
Chilka Lake
Reservoir
BIHAR
WEST BENGAL
ORISSA
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
NUMBER OF MOTOR VEHICLES REGISTERED PER 10 000 OF POPULATION
41 & Above
31 - 40
21 - 30
State Average 22
11 - 20
10 & Below

MAP No. 98

PERCENTAGE OF WORKERS ENGAGED IN TRADE AND COMMERCE TO TOTAL WORKING POPULATION, 1971

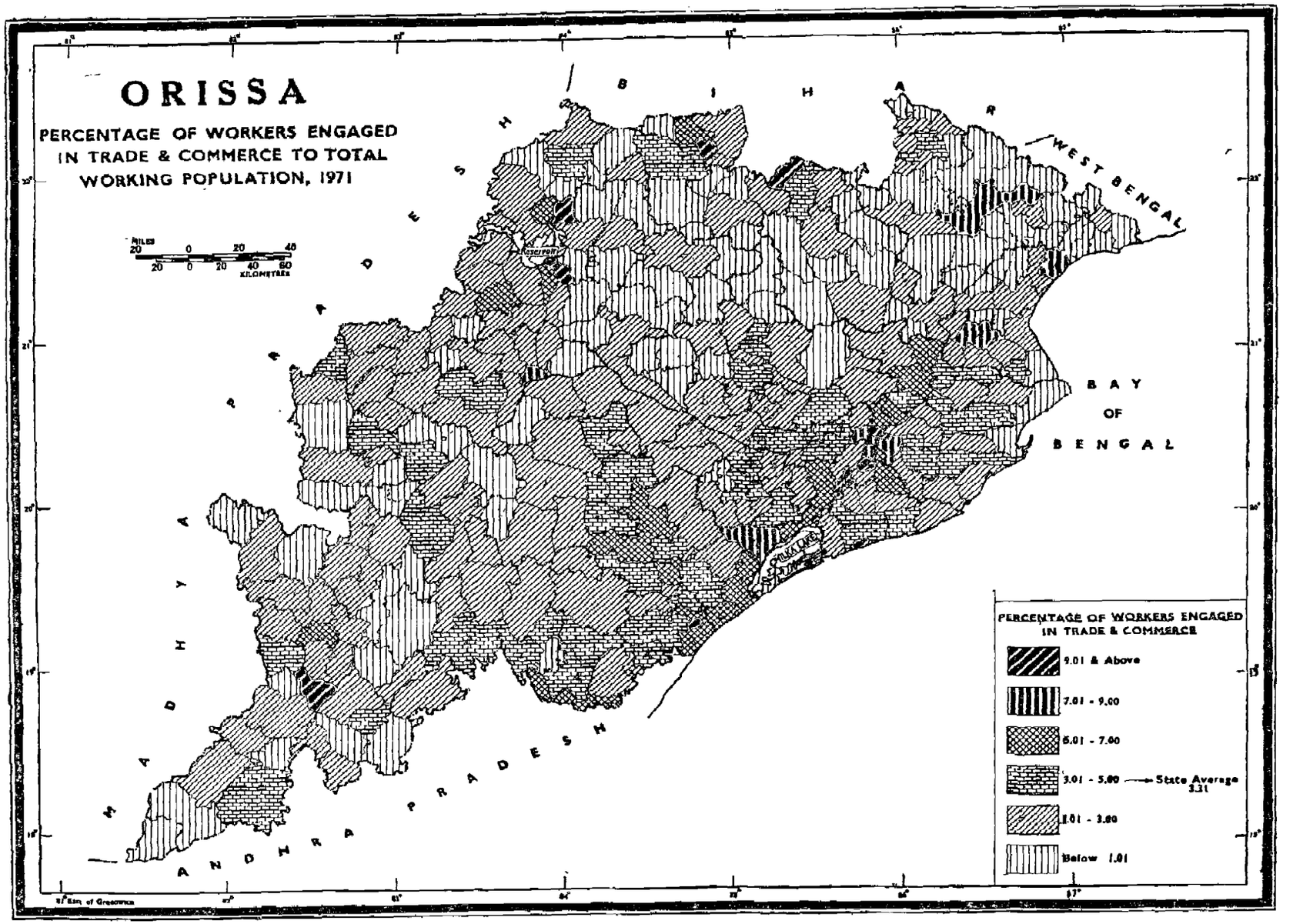
This map intends to show the percentage of workers engaged in the sector of economy, "Trade and Commerce" to the total working population of each of the police stations of the state in 1971.

Percentage of workers engaged in trade and commerce to the total workers is calculated for each of the police stations. The data thus obtained are grouped into six suitable ranges—three above, one nearer to and two below the state average (3·31 per cent). All the police stations are then shaded with the various grades of hatchings according to the ranges from high to low order by choropleth technique as per the index of the map.

In the state there are as many as 6,850,651 workers of whom 226,754 or 3·31 per cent are engaged in trade and commerce as per the 1971 Census.

There are six police stations, namely, Sambalpur Sadar P. S., Hirakud P. S. and Jharsuguda P. S. of Sambalpur district, Barbil P. S. of Keonjhar district, Jeypore P. S. of Koraput district and Jatni P. S. of Puri district are well known as the centre of trade and commerce activity. Besides, five urban police stations, viz., Rourkela city, Cuttack city, Berhampur city, Bhubaneswar city and Puri town are noted for the trade and commerce centres. The workers engaged in these centres constitute more then 9·00 per cent of the total number of workers of the respective police stations.

The second range (7·01 to 9·00 per cent) embraces only seven police stations—two each in Puri and Balasore districts and one each in Mayurbhanj, Cuttack and Bolangir districts. There are also four other ranges, viz., 7·00 to 5·01 per cent 5·00 to 3·01 per cent, 3·00 to 1·01 per cent and below 1·01 per cent and these ranges respectively include 20, 49, 136 and 83 police stations belonging to different districts of the state. In other words, persons engaged in the activities of trade and commerce in 288 police stations of the state constitute less than 7·01 per cent of the total number of workers of the concerned police station.


ORISSA
PERCENTAGE OF WORKERS ENGAGED IN TRADE & COMMERCE TO TOTAL WORKING POPULATION, 1971
MILES 20 0 20 40
KILOMETERS 20 0 20 40 60
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Hirakud Dam
Hirakud Reservoir
PERCENTAGE OF WORKERS ENGAGED IN TRADE & COMMERCE
9.01 & Above
7.01 - 9.00
5.01 - 7.00
3.01 - 5.00
State Average 3.31
1.01 - 3.00
Below 1.01

MAP No. 99

PERCENTAGE OF WORKERS ENGAGED IN SERVICES TO THE TOTAL WORKING POPULATION, 1971

This map presents the percentage of workers engaged in services to total working population in each of the police stations of the state in 1971.

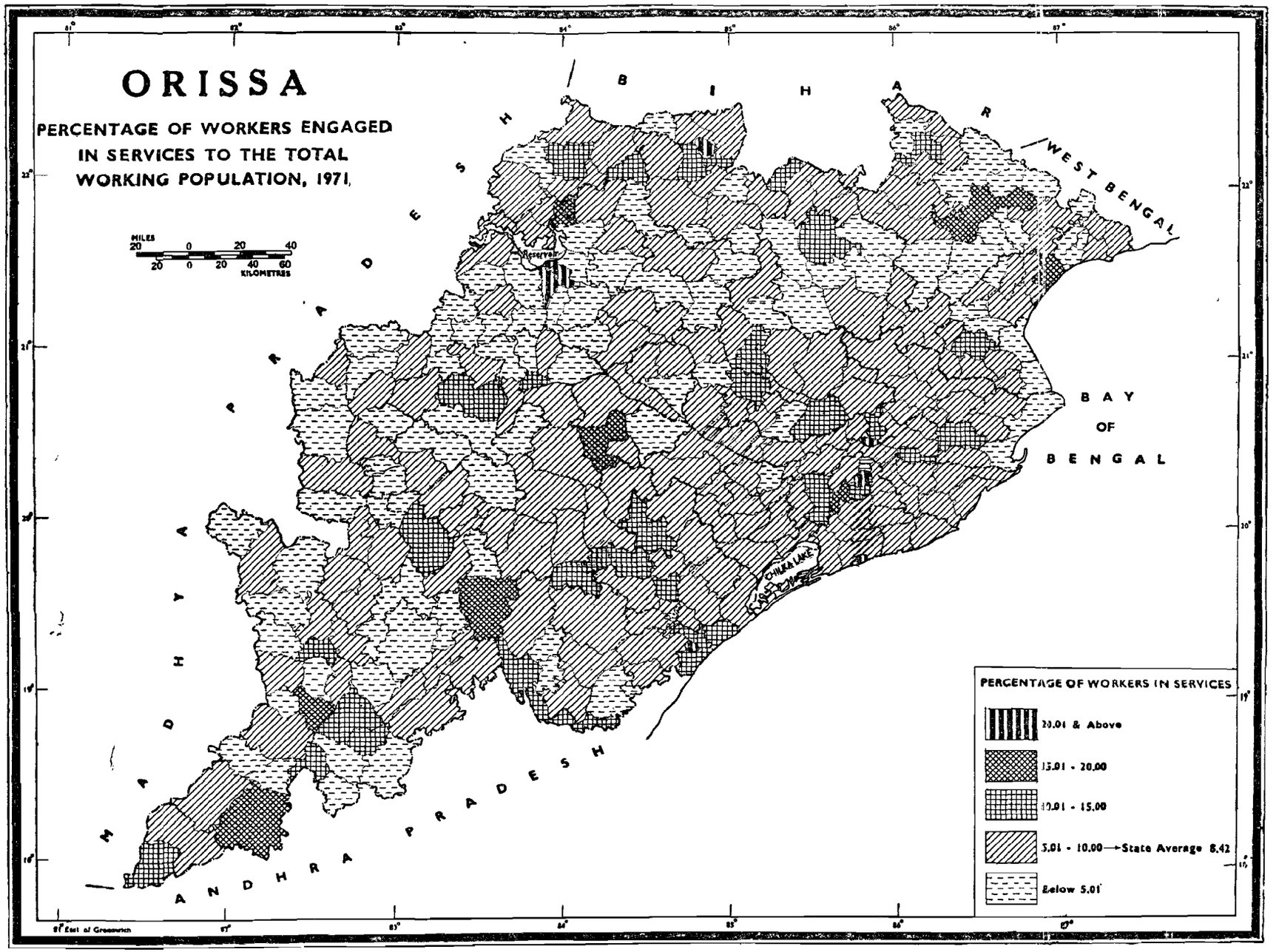
The technique of preparation of this map is the same as that of the Map No. 98.

As per the 1971 Census, 576,925 persons or 8·42 per cent of total workers of the state are engaged in the activity of services.

Workers engaged in services constitute more than 20·00 per cent of the total number of workers in each of the three police stations, namely, Sambalpur Sadar P. S., Hirakud P. S. and Burla P. S. of Sambalpur district. Besides, persons engaged in services constitute more than 20 per cent of the total workers in all the five urban units, viz., Bhubaneswar city (48·71 per cent), Puri town (43·34 per cent), Berhampur city (37·05 per cent), Cuttack city (35·63 per cent) and Rourkela city (34·00 per cent).

The second range (15·01 to 20·00 per cent) embraces eight police stations—three in Koraput and one each in Sambalpur, Mayurbhanj, Balasore, Baudh-Khondmals and Puri district.

As many as 33 police stations are found in the range of 10·01 to 15·00 per cent, 167 police stations in the range from 5·01 to 10·00 per cent and 90 police stations in the range below 5·01 per cent.


ORISSA
PERCENTAGE OF WORKERS ENGAGED IN SERVICES TO THE TOTAL WORKING POPULATION, 1971
MILES
20 0 20 40
20 0 20 40 60
KILOMETRES
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Reservoir
CHILKA LAKE
PERCENTAGE OF WORKERS IN SERVICES
20.01 & Above
15.01 - 20.00
10.01 - 15.00
5.01 - 10.00 → State Average 8.42
Below 5.01

MAP No. 100

WORKERS IN VARIOUS SERVICES, 1971

In this case four maps are presented in one plate to exhibit percentage of workers engaged in (i) Public services, (ii) Educational and scientific services, (iii) Medical and health services and (iv) Personal and other miscellaneous services to the total workers in services separately in each district.

Percentage figures of workers engaged in public services to the total workers in service (category IX) are calculated for each of the districts of the state and grouped into six convenient ranges—three above, one nearer to and two below the state average (22·67 per cent). All the districts are shaded with various grades of hatchings according to the ranges in descending order by choropleth technique as per the index of the map shown at the top left hand corner of the plate. The technique of preparation followed for this map is also adopted for the remaining three maps of this plate.

There are as many as 576,925 workers engaged in the activity of services (category IX) in this state as per the 1971 Census data. Of these workers 130,760 persons or 22·67 per cent are engaged in public services, 108,929 or 18·88 per cent in educational and scientific services, 30,253 persons or 5·24 per cent are in medical and health services and 245,415 workers or 42·54 per cent are employed in personal and other miscellaneous services.

In public services, there are 11,552 workers constituting the highest percentage (28·98) to total workers in services of Sundargarh district. Puri district stands second forming 26·36 per cent by 19,967 workers. These two districts are shown in the highest range (26·01 and above).

The second range (25·01—26·00) embraces three districts, namely, Balasore (25·91), Dhenkanal (25·31) and Koraput (25·20). Besides, there are four ranges of percentages, viz., 25·00—23·01, 23·00—20·01, 20·00-16·01 and below 16·01 and these ranges include eight districts of the state.

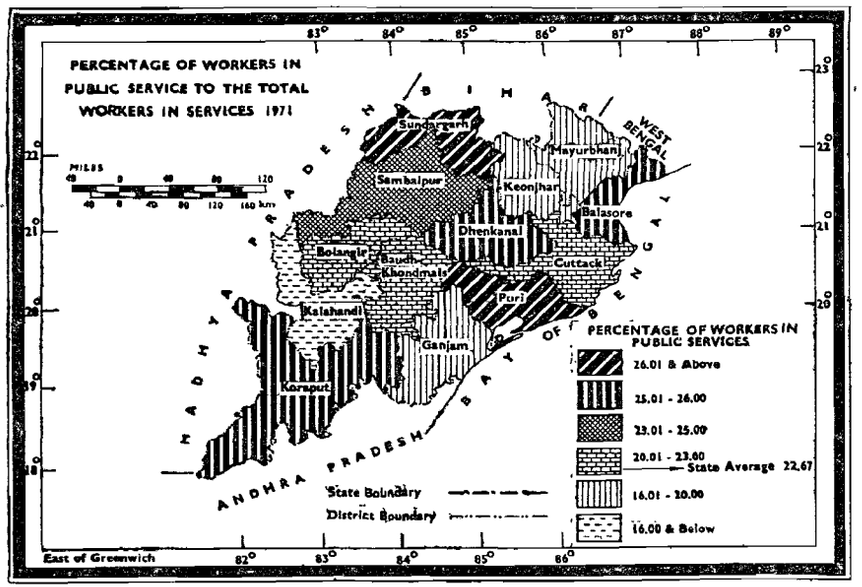
Workers engaged in education and scientific services form the highest percentage (29·87) of all workers of services in the district of Balasore.

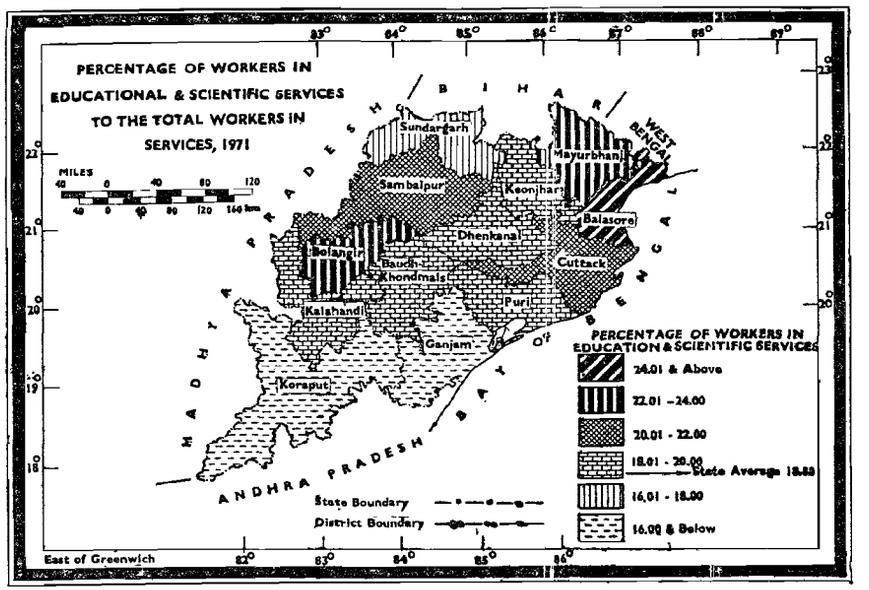
The map meant for showing the percentage of workers in medical and health services to the total workers in services reveals that Baudh-Khondmals and Balasore districts exhibit the highest range of percentages (6·51 and above) whereas Kalahandi and Koraput districts present the lowest range (below 4·51).

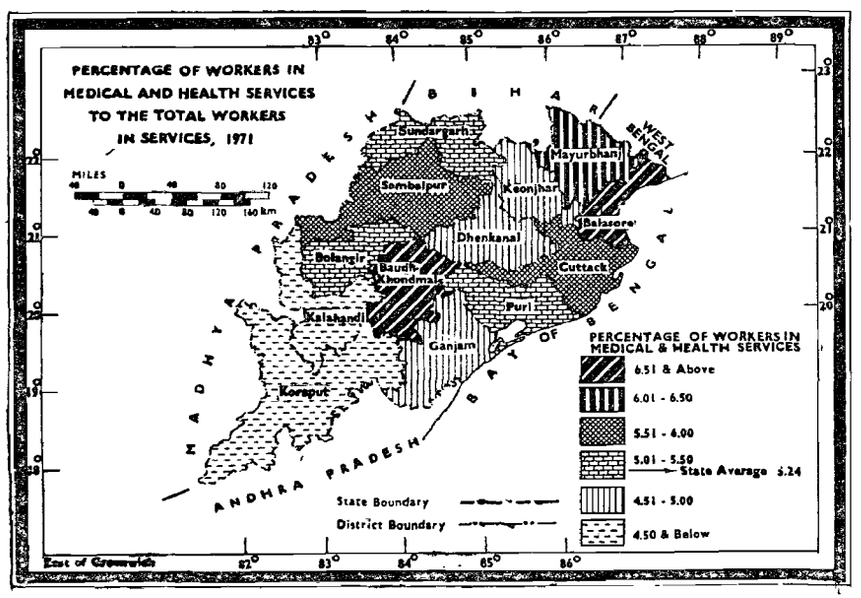
Kalahandi, Koraput and Ganjam are the three contiguous districts of the southern highlands of Orissa where the workers engaged in personal and other miscellaneous services constiture the highest per cent (50·01 and above) of total workers in services of the concerned district. The district of Balasore presents the lowest percentage value (below 30·01) in this catagory of services.

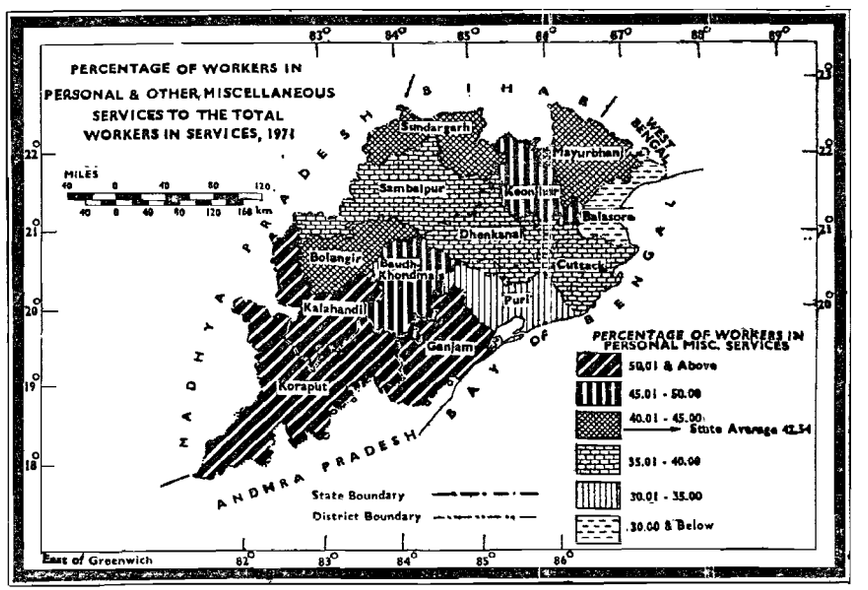
ORISSA

WORKERS IN VARIOUS SERVICES 1971









MAP No 101

SCHEDULED CASTES, 1971

This map depicts the proportion of Scheduled Castes population to the total population in each police station of the state in 1971.

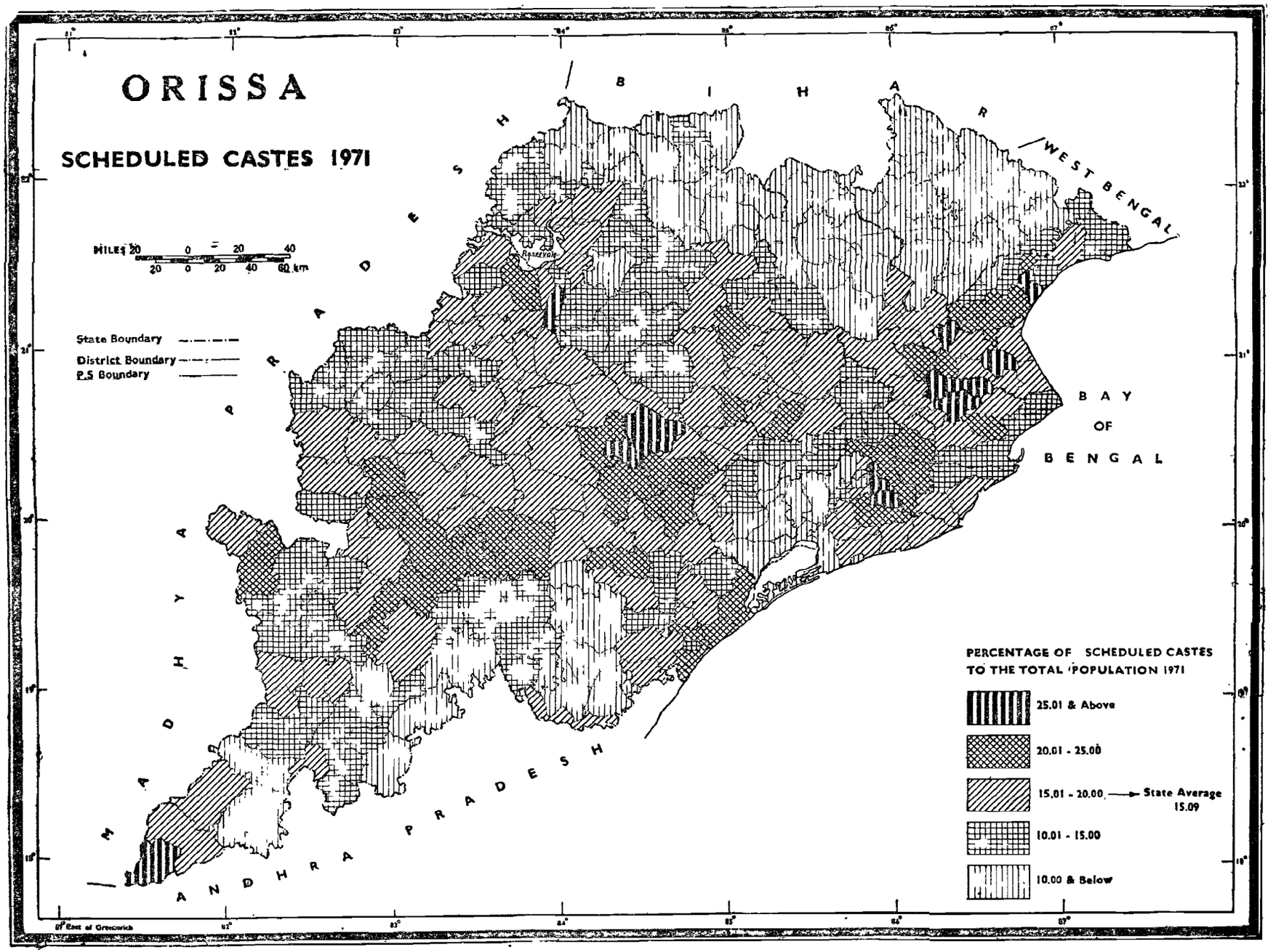
The percentages of Scheduled Castes to the total population of each of the police stations are calculated and grouped into five suitable ranges—two above, one nearer to and two below the state average (15·09). Each police station is hatched by choropleth technique as per the legend of the map.

The total population of the state as per the 1971 Census is 21,944,615 of whom 3,310,854 or 15·09 per cent are recorded as Scheduled Castes. Out of 306 police stations only 11 police stations have 25 and more Scheduled Castes for every one hundred population. Of these 11 police stations, three belong to Balasore district, two each to Cuttack, Baudh-Khondmals and Puri, and one each to Sambalpur and Koraput districts.

As many as 35 police stations are tagged to the second range (20·01—25·00) of the percentage values of Scheduled Castes. Six of these police stations lie in Cuttack district, five each in Balasore and Ganjam, four each in Baudh-Khondmals and Kalahandi, three each in Dhenkanal and Puri, two each in Bolangir and Koraput and only one in Sambalpur district.

The central range (15·01—20·00) of percentage values of Scheduled Castes embraces as many as 103 police stations spreading over all the districts of the state except Sundargarh and Mayurbhanj. The state average (15·09) belongs to this range.

There are as many as 81 police stations which belong to the range 10·01 to 15·00 per cent and 76 police stations to the lowest range (10·00 and below) of percentage values of Scheduled Castes. In the lowest range, 20 police stations are shown in Mayurbhanj district, 16 in Sundargarh, 12 in Puri, 10 in Keonjhar, eight in Koraput, four in Ganjam, two each in Cuttack and Sambalpur and one each in Bolangir and Baudh-Khondmals districts.


ORISSA
SCHEDULED CASTES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
P.S Boundary
Reservoir
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
PERCENTAGE OF SCHEDULED CASTES TO THE TOTAL POPULATION 1971
25.01 & Above
20.01 - 25.00
15.01 - 20.00
State Average 15.09
10.01 - 15.00
10.00 & Below
East of Greenwich

MAP No. 102

SCHEDULED TRIBES, 1971

This map shows the percentage values of Scheduled Tribes to the total population of each police station of the state in 1971.

The technique of presentation of this map is the same as that of map no. 101.

Of 21,944,615 persons of Orissa enumerated in the 1971 Census, 5,071,937 persons or 23·11 per cent are recorded as Scheduled Tribes. A glance at this map shows that the concentration of Scheduled Tribes is more in northern and southern highlands of Orissa. Scheduled Tribes constituting over 60·00 per cent of the total population of the concerned police stations are found in 53 police stations of which 15 are in Koraput district, 13 each in Mayurbhanj and Sundargarh, four in Keonjhar, three each in Baudh-Khondmals and Ganjam and one each in Sambalpur and Balasore districts.

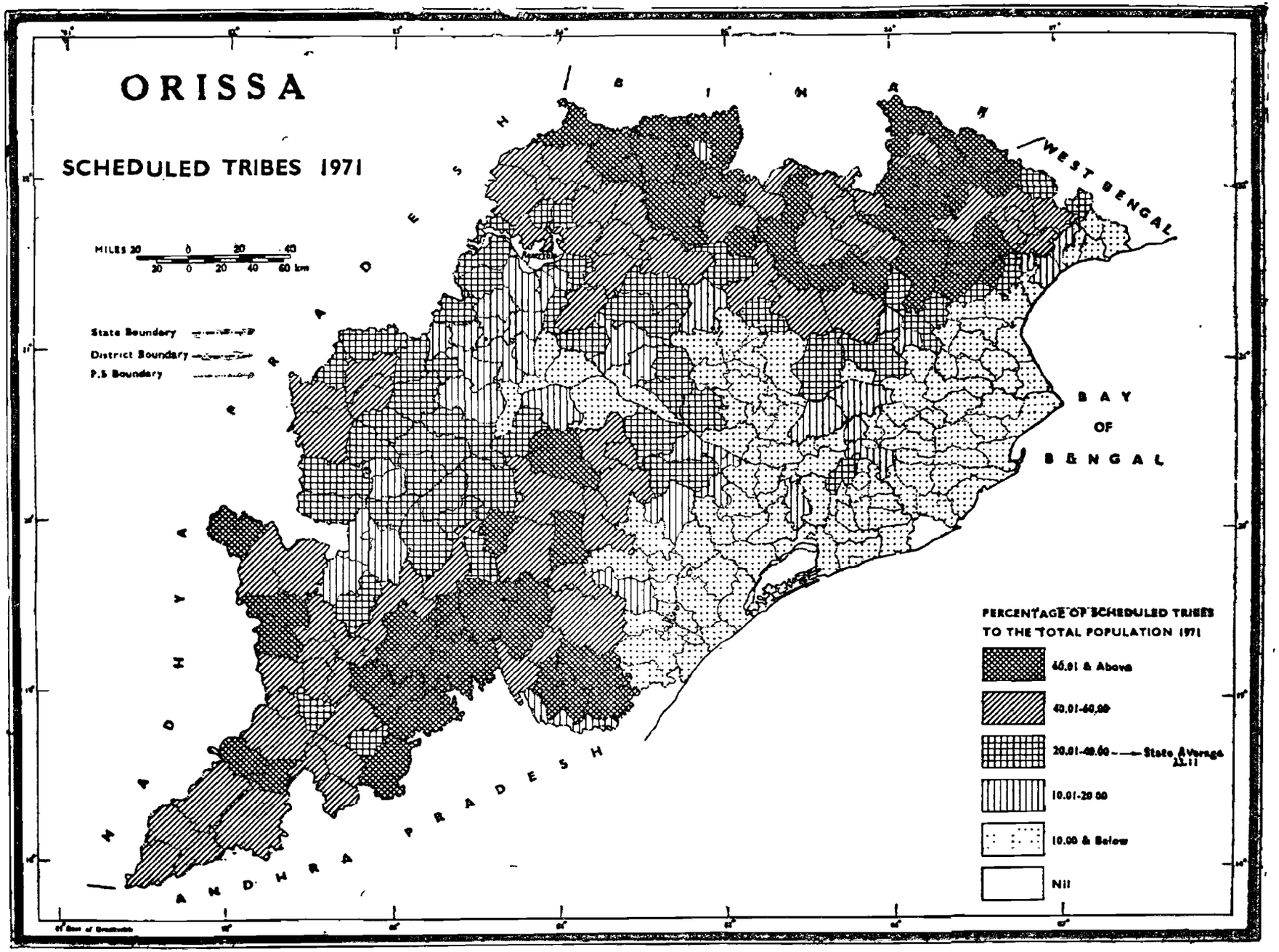
The next high range (40·01—60·00) of percentages of tribal population is seen in 63 police stations of the state. In this range 20 police stations are found in Koraput, nine in Sambalpur, seven each in Keonjhar, Mayurbhanj and Baudh-Khondmals, six in Sundargarh, four in Kalahandi and one each in Ganjam, Bolangir and Dhenkanal. None of the police stations of Balasore, Cuttack and Puri districts of the coastal area is found in this range.

The next range (20·01—40·00) embraces as many as 49 police stations of which 16 are in Sambalpur, nine in Kalahandi, six in Bolangir, five in Dhenkanal, three in Koraput, two each in Keonjhar, Balasore, Baudh-Khondmals and Puri and one each in Mayurbhanj and Cuttack district. The state average (23·11 per cent) also belongs to this range.

In the lower range (10·01—20·00) there are 36 police stations which are sparsely distributed among all the districts of the state excepting Koraput.

The lowest percentage range (10·00 and below) of tribal population is seen in as many as 104 police stations of seven districts of the state. Of these 104 police stations, 29 are in Cuttack, 25 in Puri, 16 in Balasore, 15 in Ganjam, 14 in Dhenkanal, four in Bolangir and one in Baudh-Khondmals.

Kakatpur P. S. of Puri district is the solitary case where no tribal people are enumerated in the 1971 Census.


ORISSA
SCHEDULED TRIBES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
P.S Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
PERCENTAGE OF SCHEDULED TRIBES TO THE TOTAL POPULATION 1971
40.01 & Above
40.01-60.00
20.01-40.00
State Average 22.11
10.01-20.00
10.00 & Below
Nil

MAP No. 103

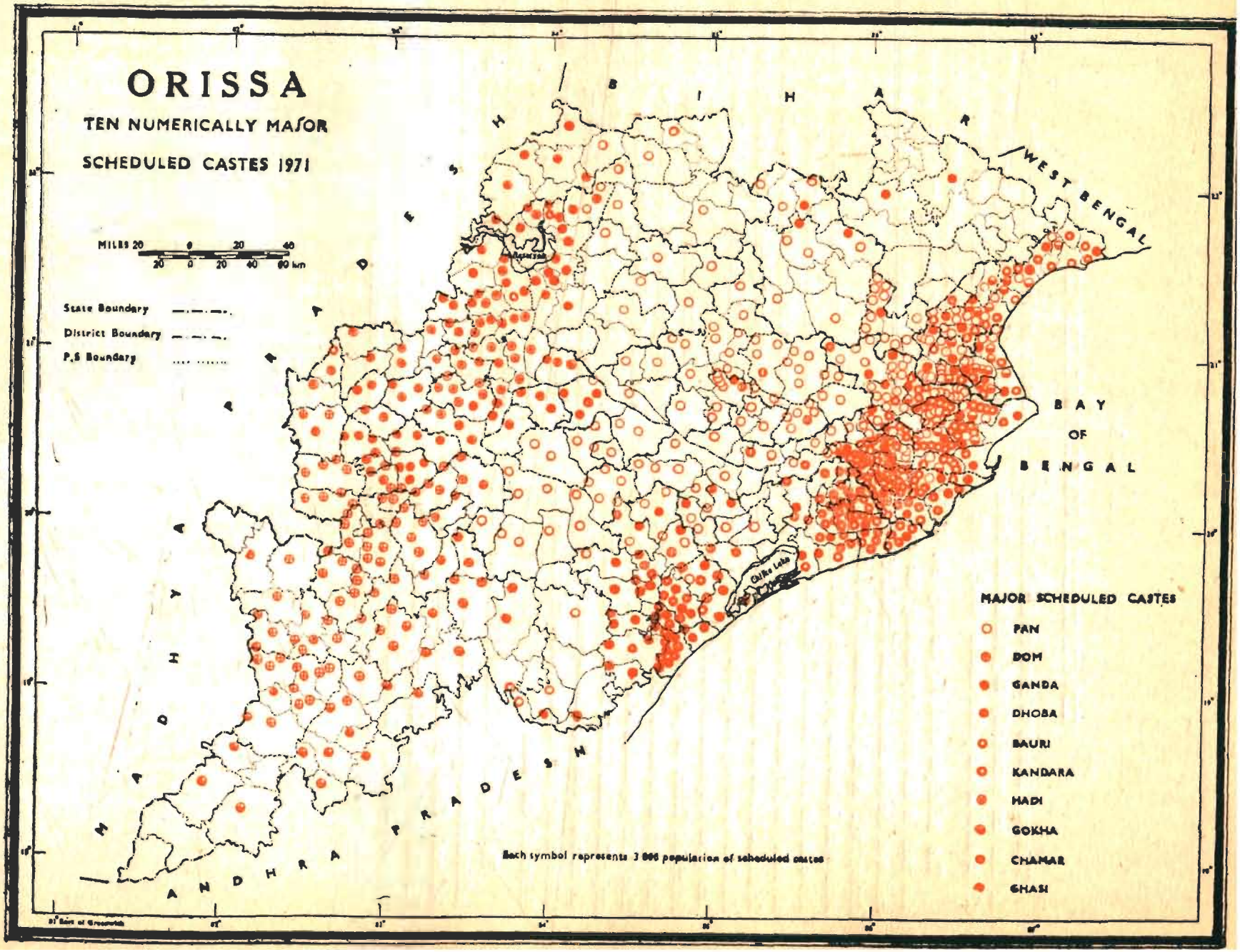
TEN NUMERICALLY MAJOR SCHEDULED CASTES, 1971

This map intends to show the distribution of ten numerically major Scheduled Castes of the state at police station level in 1971.

A major Scheduled Caste of this state is treated as such when it has the population strength of 50,000 and above as per the 1971 Census. This map presents the first ten numerically major Scheduled Castes of this state by different black symbols at police station level as indicated in the legend of the map. One symbol is used for 1,500 and above and less than 4,500 population of any one of the first major Scheduled Castes at the police station level. On an average, each symbol of this map represents 3,000 population of any one of the first major Scheduled Castes.

The ten major Scheduled Castes of Orissa as enumerated in the 1971 Census are shown as follows:—1. Pan or Pano; 2. Dom, Dombo or Duria Dom; 3. Gonda; 4. Dhoba or Dhobi; 5. Bauri; 6. Kandra or Kandara; 7. Haddi or Hadi or Hari; 8. Gokha; 9. Chamar, Mochi, Muchi or Satnami; 10. Ghasi or Ghasia. The total population of these Scheduled Castes is 2,563.153 which constitute more than three-fourth (77·42 per cent) of the total Scheduled Castes (3,310,854) of the state. The percentage share of the total population of Orissa is 11·68.

This map shows the higher concentration of the first ten major Scheduled Castes in the coastal areas of the state. Pan comes in the first rank of the Scheduled Castes having a population of 672,627 which spreads over almost all the police stations of the state. The symbols representing the second caste, "Dom, Dombo or Duria Dom" with a population of 370,236 are shown more in Kalahandi and Koraput districts of the state. Gonda is the third caste having population of 325,053 which is distributed symbolically more in the districts of Sambalpur and Bolangir. Likewise the map indicates the distribution and concentration of the first ten major Scheduled Castes in different police stations of the state.


ORISSA
TEN NUMERICALLY MAJOR
SCHEDULED CASTES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
P.S Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
Chilka Lake
Each symbol represents 3 000 population of scheduled castes
MAJOR SCHEDULED CASTES
PAN
DOM
GANDA
DHOBA
BAURI
KANDARA
HADI
GOKHA
CHAMAR
GHASI

MAP No. 104

TEN NUMERICALLY MAJOR SCHEDULED TRIBES, 1971

This map intends to show the distribution of the first ten numerically major Scheduled Tribes of the state at the police station level, 1971.

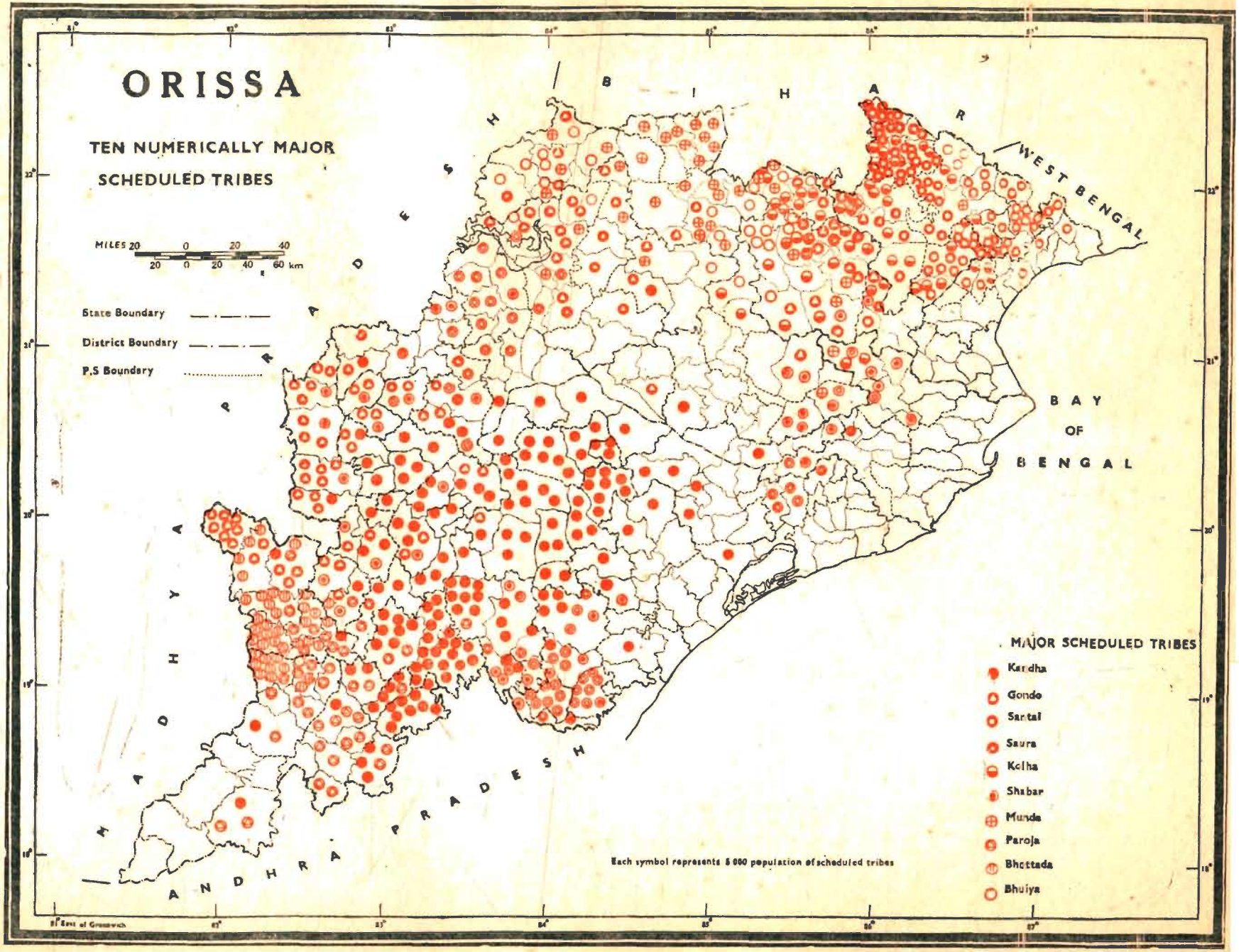
The technique used for the map no. 103 is also used for this map for presenting the concentration of the first ten Scheduled Tribes at the police station level. A major Scheduled Tribe is treated as such when it has the population of 150,000 and above in the 1971 Census of this state. Out of all such major tribes only the first ten major Scheduled Tribes are selected for presenting their distribution among the police stations of the state. Ten types of symbols are used for the first ten major Scheduled Tribes as per the index of the map. Each symbol represents 2,500 and above and less than 7,500 population of any one of the first ten major Scheduled Tribes at the police station level. On an average each symbol represents 5,000 population of any one of the first ten major Scheduled Tribes of the state.

The first ten major Scheduled Tribes as recorded in this state in the 1971 Census are shown as follows:— 1-Khond, Kond or Kandha, including Nanguli Kandha and Sitha Kandha ; 2-Gond, Gondo ; 3-Santal ; 4-Saora, Savar, Saura or Sahara ; 5-Kolha ; 6-Shabar or Lodha ; 7-Munda, Munda-Lohara or Munda-Mahalis ; 8-Paroja ; 9-Bhottada or Dhotada and 10-Bhuiya or Bhuyan. The total population of these ten tribes comes to 3,526,744 which constitutes 69·53 per cent of the total tribal population of the state. The percentage share of the first ten major tribal people to the total population of Orissa is 16·07.

The symbolical representation of this map reveals that the concentration of the tribal people of the first ten major tribes is more in the northern and southern highlands of the state. In the coastal areas the tribal concentration is of less significance.

The first ranking tribe, Khond or Kandha with a population 869,965 is found with high concentration in the police stations of Dasamantapur, Lakshmipur, Narayanapatna, Pottangi, Rayagada, Kalyansingpur, Kashipur, Gunupur, Gudari and Bissamcuttack of Koraput district, Kalahandi Sadar, Thuamul Rampur, Lanjigarh, Kesinga, Kegaon, Madanpur Rampur, Narla and Junagarh of Kalahandi district and all the police stations of Baudh-Khondmals district.

Similarly distribution and high concentration of population of the other nine major tribes have also been presented in the map in terms of symbols.


ORISSA
TEN NUMERICALLY MAJOR
SCHEDULED TRIBES
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
P.S Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
MAJOR SCHEDULED TRIBES
Kandha
Gondo
Santal
Saura
Kolha
Shabar
Munda
Paroja
Bhottada
Bhuiya
Each symbol represents 5 000 population of scheduled tribes

MAP No. 105

DISTRIBUTION OF MAJOR RELIGIONS, 1971

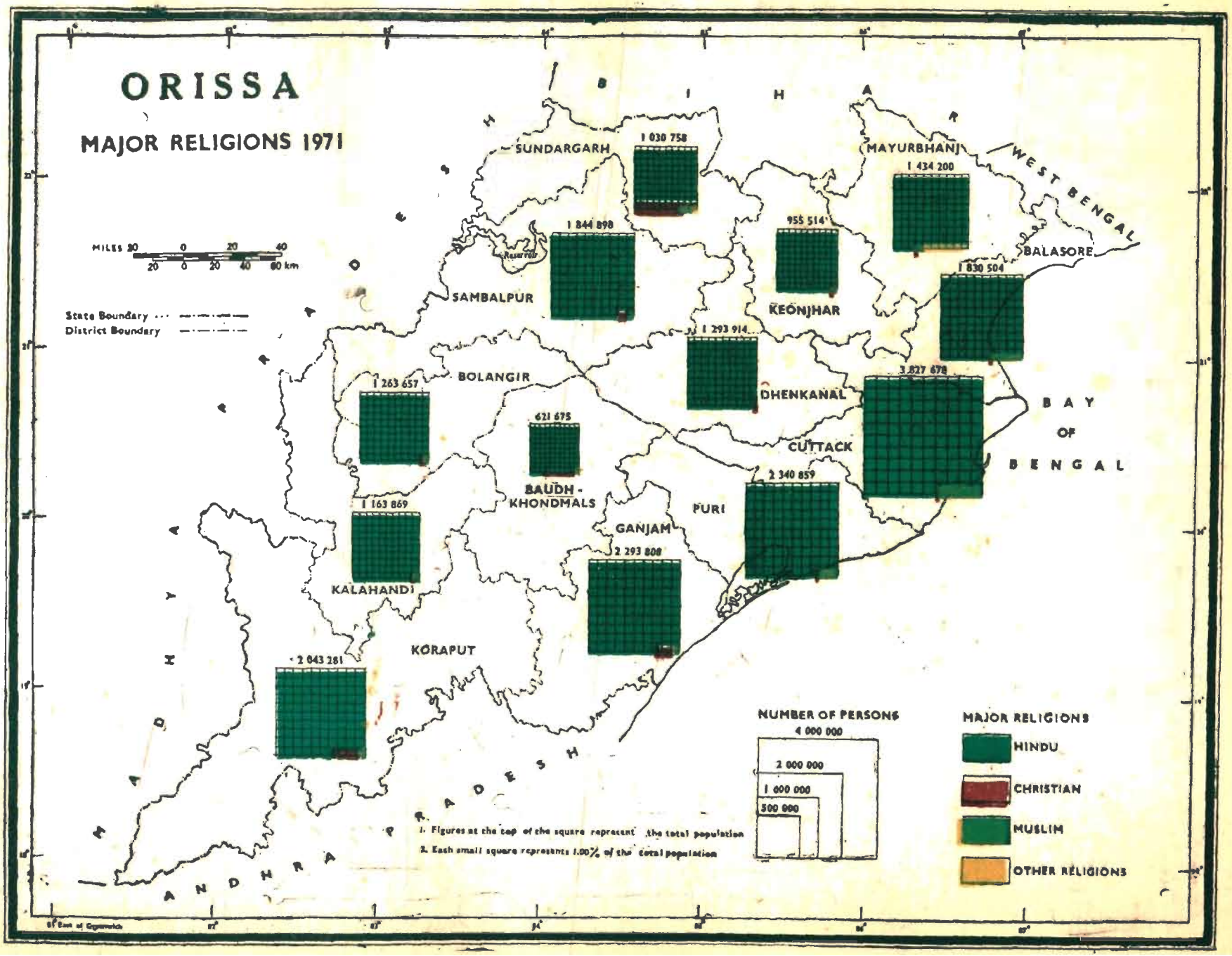
This map intends to show the percentage value of each of the major religions in each district of the state as per the 1971 Census counting.

A square proportionate to total population of each of the districts as per the 1971 census is drawn in each district of the state. The total population of each district is indicated at the top of the corresponding square. Further each square is divided into 100 small squares and each small square represents one per cent of the population of any one of the major religions. Four different colours are used for the squares of this map of which three colours are meant for the people of three major religions, viz., Hinduism, Islam and Christianity and one is for other religions as shown in the index of the map. The scale is enlarged in case of small squares showing more than one religion.

Of all the religions, Hinduism is the most predominant which embraces 21,121,056 persons or 96·25 per cent of total population (21,944,615) of this state. Next to it is the Christianity which represents 378,888 persons or 1·72 per cent of the state population. Islam is the third religion of the state in which 326,507 persons or 1·49 per cent of the state population have their strong faith.

This map shows that the percentage share of Hindus is the maximum in all the districts of the state. The district of Sundargarh accommodates the higher number (170,639) of Christians who constitute 16·55 per cent of the district population while Baudh-Khondmals has got 40,561 Christians who contribute 6·52 per cent to its total population. The districts of Koraput and Ganjam respectively have got 61,075 and 46,429 Christian population and these Christians respectively constitute 2·99 per cent and 2·02 per cent of the total population of the district. The Christians form less than 1 per cent of the total population in other districts excepting Sambalpur where Christians contribute 1·48 per cent to district population.

The percentage share of the Muslims is more than one in Balasore (3·77), Cuttack (3·48), Puri (1·98) and Sundargarh (2·19). In all other districts the percentage of the Muslims is less than one.


ORISSA
MAJOR RELIGIONS 1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
1 030 758
MAYURBHANJ
1 434 200
1 844 898
955 514
BALASORE
SAMBALPUR
KEONJHAR
1 830 504
1 293 914
BOLANGIR
1 263 657
DHENKANAL
3 827 678
621 675
CUTTACK
BAUDH - KHONDMALS
2 340 859
1 163 869
PURI
GANJAM
2 293 808
KALAHANDI
KORAPUT
2 643 281
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
Reservoir
NUMBER OF PERSONS
4 000 000
2 000 000
1 000 000
500 000
1. Figures at the top of the square represent the total population
2. Each small square represents 1.00% of the total population
MAJOR RELIGIONS
HINDU
CHRISTIAN
MUSLIM
OTHER RELIGIONS

MAP No. 106

LITERACY 1971

This map depicts the proportion of literate and educated persons to 100 of total population of age 5 and above. A literate is defined in the 1971 Census as "a person who can both read and write with understanding in any language. A person who can merely read but can not write is not a literate".

The percentage figures of literate and educated persons to the total population of age 5 and above have been calculated for each district of this state and grouped into six suitable ranges—two above, one nearer to and three below the state average (30·53 per cent). According to the ranges from high to low order the districts have been shaded by choropleth technique as shown in the index.

There are 18,819,069 population of the age of more than 4 years in Orissa, of which 5,745,399 or 30·53 per cent are literates.

A very high percentage of literacy (above 40·00 per cent) is found in the coastal areas in which socio-economic conditions of the people are comparatively better than those of other areas of the state. Of these coastal districts, Cuttack has the highest literacy having 42·56 per cent of literates followed by Puri district with 41·18 per cent of literates.

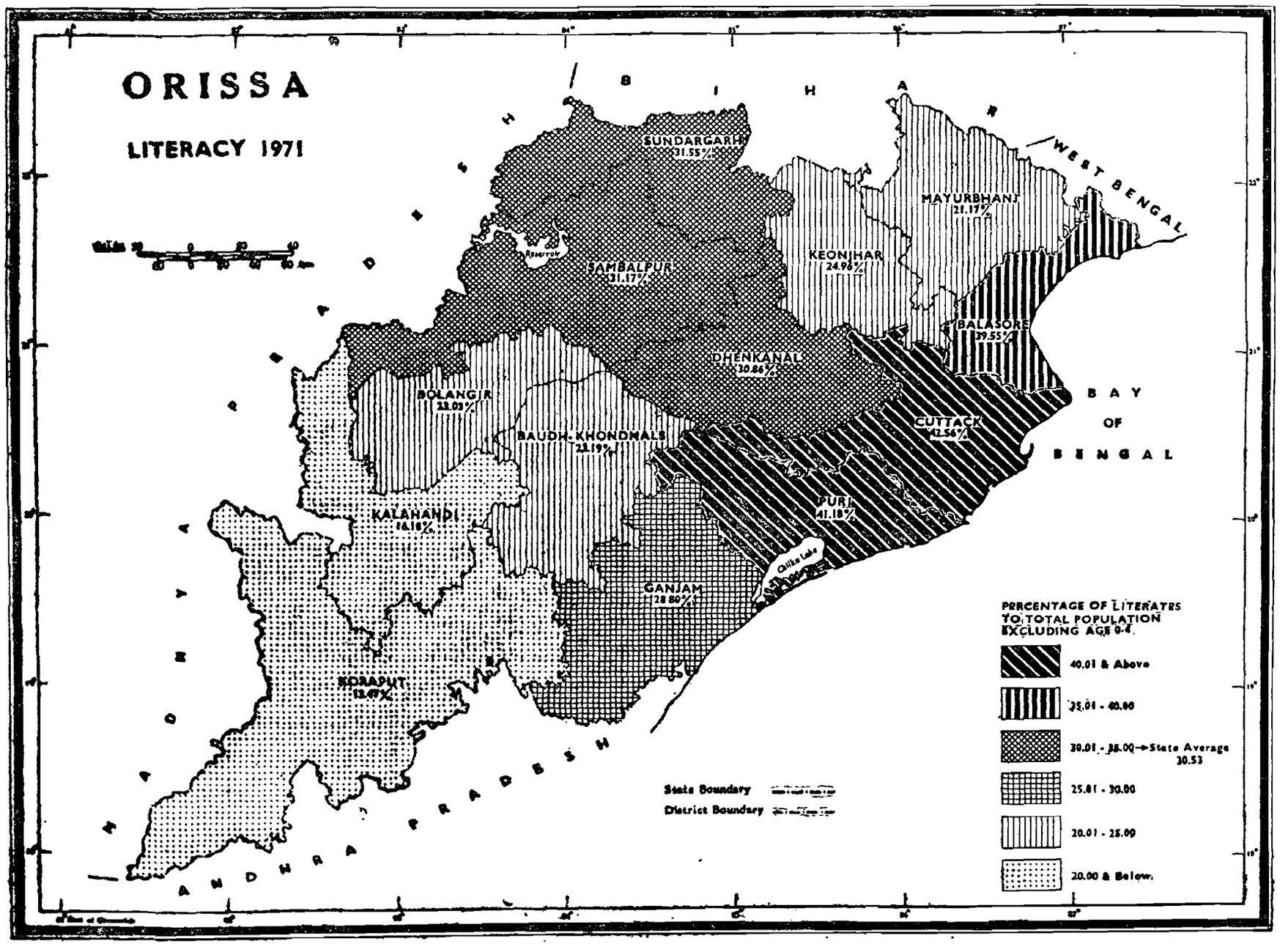
Balasore is the next coastal district with 39·56 per cent of literacy. This is the only district coming in the next higher grade of literacy range i.e., 35·01—40·00 per cent.

The third range of literates is 30·01—35·00 per cent which embraces the state average (30·53per cent) and the national average (34·45 per cent). Three districts of the northern highlands viz., Sundargarh (31·55 per cent), Sambalpur (31·17 per cent) and Dhenkanal (30·86 per cent) fall in this range of literacy.

Ganjam is the only district which has been placed in the range 25·01—30·00 per cent.

The lower range of 20·01—25·00 per cent literates is found in the districts of Keonjhar (24·96 per cent), Baudh-Khondmals (23·19 per cent), Bolangir (23·03 per cent) and Mayurbhanj (21·17 per cent).

The districts having the lowest level of literacy in the range below 20·01 per cent occur in southern highland of Orissa. These districts are Kalahandi (16·10 per cent) and Koraput (12·47 per cent).


ORISSA
LITERACY 1971
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 31.55%
SAMBALPUR 31.17%
MAYURBHANJ 21.17%
KEONJHAR 24.96%
BALASORE 39.55%
DHENKANAL 30.86%
BOLANGIR 23.03%
BAUDH-KHONDMALS 28.19%
CUTTACK 42.56%
PURI 41.18%
KALAHANDI 16.18%
GANJAM 28.80%
KORAPUT 13.67%
Chilka Lake
Reservoir
State Boundary
District Boundary
PERCENTAGE OF LITERATES TO TOTAL POPULATION EXCLUDING AGE 0-4
40.01 & Above
35.01 - 40.00
30.01 - 35.00 → State Average 30.53
25.01 - 30.00
20.01 - 25.00
20.00 & Below

MAP No. 107

CHANGE IN LITERACY, 1961—71

This map shows the increase in literacy rates during the decade 1961—71 in each district of Orissa.

The percentage values of total literates to total population excluding age group 0—4 for each district for 1971 and 1961 have been calculated. Subtracting the percentage of literates of 1961 from that of 1971 the increase in literacy rate during the decade 1961—71 is found out for each district. These figures of intercensal change in literacy have been grouped suitably into 5 ranges and the districts are hatched according to the values as given in the index.

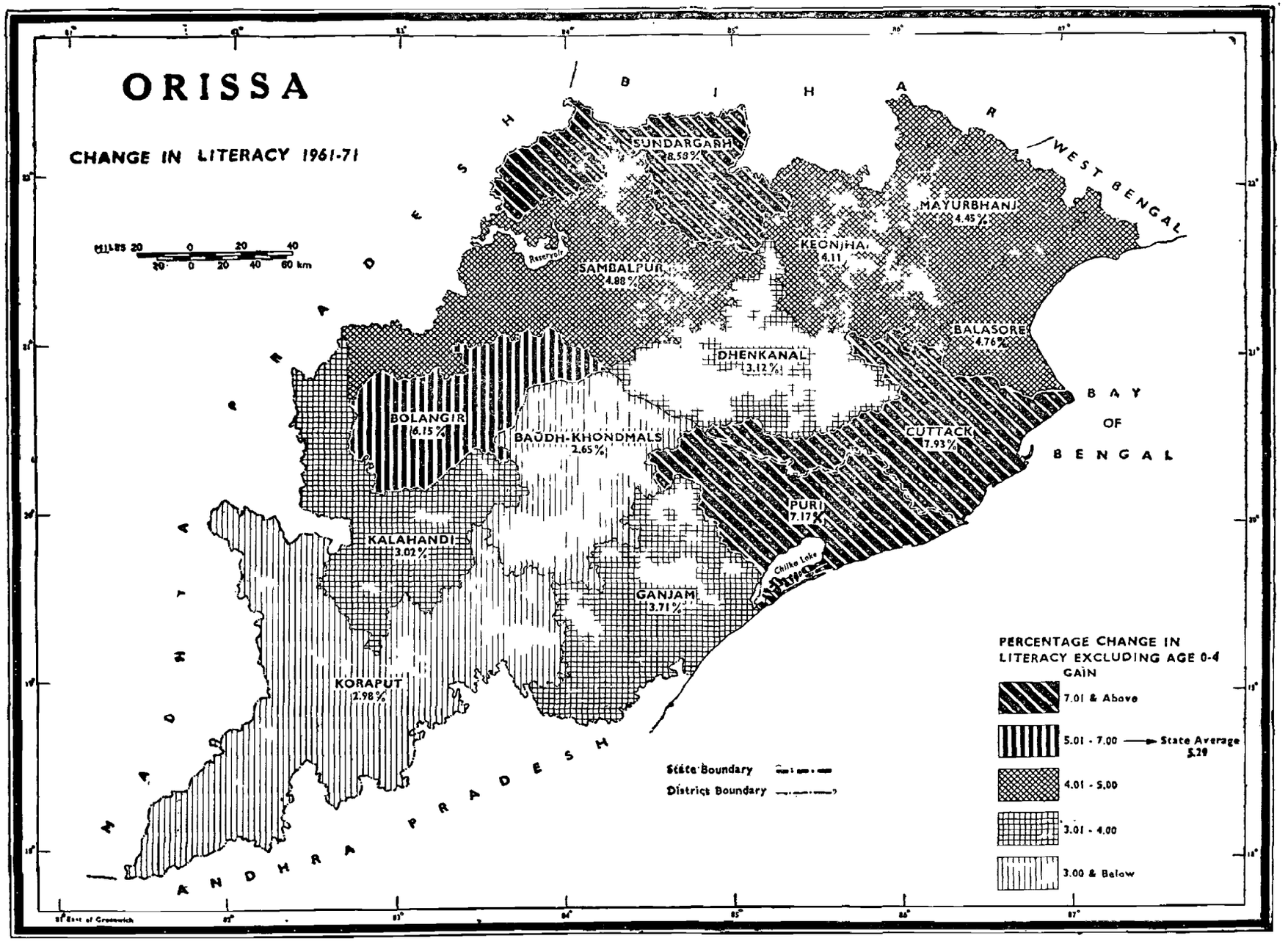
The literacy rate has increased by more than 7·00 per cent in three districts of Orissa within a span of ten years. These are Sundargarh (8·58 per cent), Cuttack (7·93 per cent) and Puri (7·17 per cent).

Bolangir is the only one district which has gained 6·15 per cent of literates over the 1961 Census and falls in the range of hatching 5·01—7·00 per cent. This range is nearer to state average of 5·29 per cent.

Four districts have recorded a gain in literacy rate between 4·01 per cent and 5·00 per cent during the decade 1961—71. Of these, three are from northern highlands, viz., Sambalpur, Keonjhar and Mayurbhanj and other one is Balasore from coastal area.

In three districts of Ganjam, Dhenkanal and Kalahandi literacy has increased in between 3·01 per cent and 4·00 per cent during the decade 1961—71.

Only two districts of southern highlands of the state namely, Koraput and Baudh-Khondmals exhibit very low literacy rate below 3·01 per cent during the decade 1961—71.


ORISSA
CHANGE IN LITERACY 1961-71
Miles 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 8.58%
SAMBALPUR 4.88%
KEONJHAR 4.11
MAYURBHANJ 4.45%
BALASORE 4.76%
DHENKANAL 3.12%
BOLANGIR 6.15%
BAUDH-KHONDMALS 2.65%
CUTTACK 7.93%
PURI 7.17%
KALAHANDI 3.02%
GANJAM 3.71%
KORAPUT 2.98%
Chilka Lake
State Boundary
District Boundary
PERCENTAGE CHANGE IN LITERACY EXCLUDING AGE 0-4
GAIN
7.01 & Above
5.01 - 7.00
State Average 5.29
4.01 - 5.00
3.01 - 4.00
3.00 & Below

MAP No. 108

MALE LITERACY, 1971

This map attempts to depict the percentage of literate and educated males to total males of age 5 and above.

Percentage figures of literate and educated males to total males of age 5 and above have been calculated for rural, urban and total areas separately. Male literacy of urban and that of rural areas are shown in two side lapping bars proportionate to their percentage figures. The bar of urban male literates has been shaded and that of rural males is kept blank in each district. Districtwise percentages of male literates of the total area has been shown by choropleth in 5 suitable ranges as indicated in the index.

Total male population excluding the population of age group 0—4 of the state is 9,501,641 of which 4,227,806 or 44·50 per cent are literates. The proportion of male literates is the highest in Cuttack district (58·03 per cent) and the lowest in Koraput district (18·91 per cent). All districts of coastal areas have the proportion of male literates above 50·00 per cent such as Cuttack (58·03 per cent), Puri (57·92 per cent) and Balasore (55·40 per cent).

The literacy rates falling under the second range of 40·01—50·00 per cent are recorded in four districts of which three are contiguous in the northern highlands—Dhenkanal (46·54 per cent), Sambalpur (46·42 per cent) and Sundargarh (43·42 per cent). This range embraces the state average of 44·50 per cent.

In the third range of 30·01– 40·00 per cent, the male literacy in four districts of Keonjhar (37·67 per cent), Mayurbhanj (32·73 per cent), Baudh-Khondmals (38·53 per cent) and Bolangir (37·13 per cent) are shown.

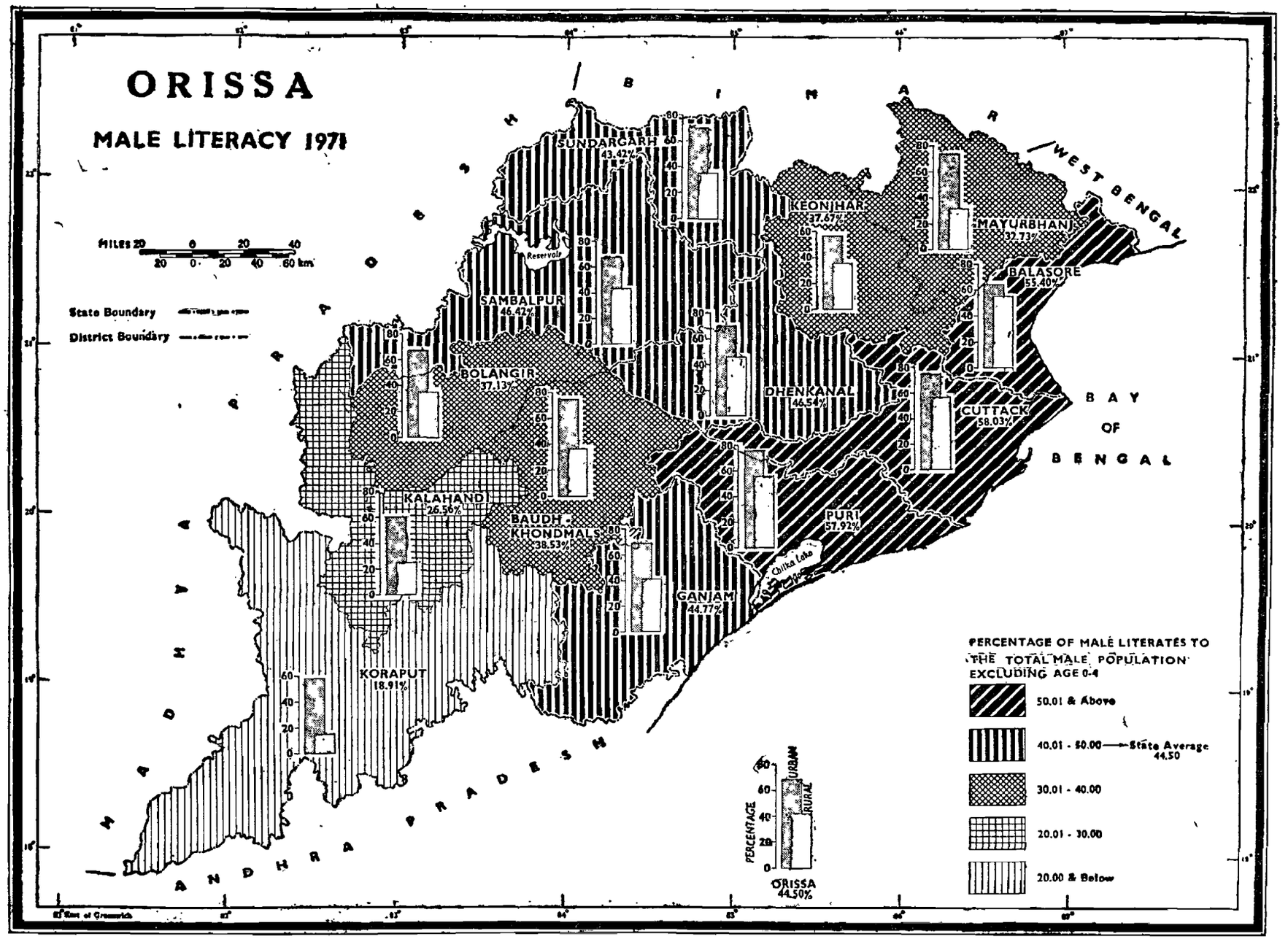
Kalahandi is the only one district which falls in the lower range of 20·01—30·00 per cent of male literacy.

The lowest male literacy is seen in Koraput which lies in the range of 20 per cent and below.

Further this map reveals that the proportion of male literates in urban areas is higher than that of in rural areas in each district of Orissa.

A very high proportion of urban male literacy in the category of above 70·00 per cent is found in the districts of Puri, Baudh-Khondmals, Cuttack and Mayurbhanj, whereas in seven districts, namely, Balasore, Sundargarh, Sambalpur, Dhenkanal, Ganjam, Bolangir and Kalahandi the percentage of urban male literates varies in between 60·00 per cent and 69·87 per cent. The state average (68·96 per cent) also falls in this range. Koraput and Keonjhar are the only districts of Orissa in which urban male literates account for 58·31 per cent and 56·77 per cent respectively.

In case of rural male literacy the highest percentage figure is exhibited in Cuttack district (56·38), next to it is Puri (55·72). These are followed by Balasore (54·83). Koraput again represents the lowest proportion of rural male literates to rural males (below 16·00 per cent) in the state.


ORISSA
MALE LITERACY 1971
WEST BENGAL
BIHAR
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
Reservoir
SUNDARGARH 43.42%
KEONJHAR 37.67%
MAYURBHANJ 32.73%
BALASORE 55.40%
SAMBALPUR 46.42%
BOLANGIR 37.13%
DHENKANAL 46.54%
CUTTACK 58.03%
KALAHANDI 26.56%
BAUDH-KHONDMALS 38.53%
PURI 57.92%
Chilka Lake
GANJAM 44.77%
KORAPUT 18.91%
PERCENTAGE
URBAN
RURAL
ORISSA 44.50%
PERCENTAGE OF MALE LITERATES TO THE TOTAL MALE POPULATION EXCLUDING AGE 0-4
50.01 & Above
40.01 - 50.00 State Average 44.50
30.01 - 40.00
20.01 - 30.00
20.00 & Below

MAP No. 109

CHANGE IN MALE LITERACY 1961—71

This map depicts the growth of male literacy during 1961—71.

The percentage value of male literates to total males of age 5 and above is calculated for each district of 1961 and 1971 Censuses separately. Thus calculated male literacy of 1961 Census is subtracted from that of 1971 to obtain the growth of male literacy during the decade 1961—71. These figures of intercensal change of male literacy have been grouped into 5 suitable ranges from high to low and districts are hatched by choropleth technique as indicated in the index.

Out of 5 ranges two above, one nearer to and two below the state average (4·24 per cent) is the criteria to fix up the range intervals on the map. In 1961 the male literacy was 40·26 per cent in the state excluding the population of age group 0—4. Within a span of 10 years this figure is increased to 44·50 per cent. Thus this state has experienced an overall increase of 4·24 per cent which falls below the national average (5·56 per cent).

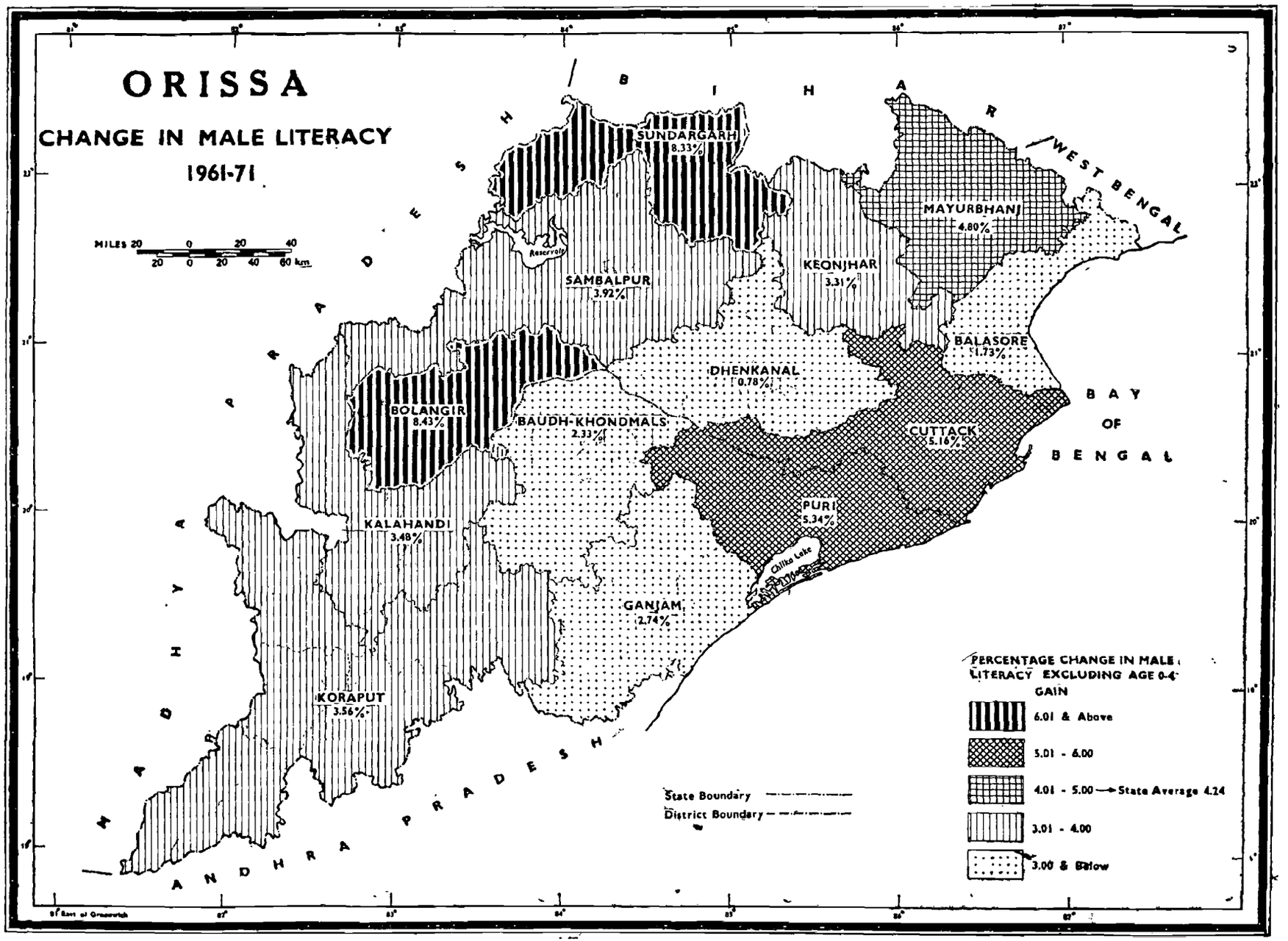
Only two districts of the state recorded an increase of male literacy by more than 6·00 per cent during the decade 1961—71. These two districts are Bolangir (8·43 per cent) and Sundargarh (8·33 per cent) which lie in the northern highlands and show an indication of development in literates during the decade 1961—71 due to industrial development.

The number of districts falling in the next below range of 5·01—6·00 per cent is also two in number. These districts lie in the coastal areas of the state, i. e., Puri (5·34 per cent) and Cuttack (5·16 per cent).

The third range of 4·01—5·00 per cent represents Mayurbhanj district (4·80 per cent) of the northern highlands which corresponds to state average of 4·24 per cent.

Only four districts recorded an increase of male literacy between 3·01—4·00 per cent during the decade 1961—71. Two of them are Sambalpur (3·92 per cent) and Keonjhar (3·31 per cent) of the northern highlands and other two are Koraput (3·56 per cent) and Kalahandi (3·48 per cent) of the southern highlands.

The lowest range of intercensal change in male literacy in 3·00 per cent and below shows 4 districts of various natural regions of the state. Balasore (1·73 per cent) of coastal area, Dhenkanal (0·78 per cent) of northern highlands and Baudh-Khondmals (2·33 per cent) and Ganjam (2·74 per cent) of southern high lands are shown under this range.


ORISSA
CHANGE IN MALE LITERACY
1961-71
MILES 20 0 20 40
20 0 20 40 60 km
SUNDARGARH
8.33%
SAMBALPUR
3.92%
MAYURBHANJ
4.80%
KEONJHAR
3.31%
BALASORE
1.73%
DHENKANAL
0.78%
BOLANGIR
8.43%
BAUDH-KHONDMALS
2.33%
CUTTACK
5.16%
PURI
5.34%
KALAHANDI
3.48%
GANJAM
2.74%
KORAPUT
3.56%
Chilka Lake
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
PERCENTAGE CHANGE IN MALE LITERACY EXCLUDING AGE 0-4
GAIN
6.01 & Above
5.01 - 6.00
4.01 - 5.00 → State Average 4.24
3.01 - 4.00
3.00 & Below

MAP No. 110

FEMALE LITERACY, 1971

This map seeks to depict the percentage of literate and educated females to total females excluding age group 0—4 in rural, urban and total separately for each district. Thet echnique of this map is the same as adopted in Map No. 108.

In Orissa as many as 9,317,428 females (excluding the age group 0—4) of which 1,517,593 or 16·29 per cent are literates. All the three districts (Cuttack, Puri and Balasore) of coastal areas of the state recorded the female literacy above 22·33 per cent.

Only two progressive districts of the northern high lands (Sundargarh and Sambalpur) show literacy of females in between 15·21 per cent and 22·33 per cent. This range of female literacy embraces the state average (16·29 per cent) and the national average (21·97 per cent).

In third range of 12·68—15·20 per cent female literacy, only two districts, namely, Dhenkanal (14·70 per cent) and Ganjam (13·64 per cent) are found.

Two contiguous districts of northern highlands, namely, Keonjhar and Mayurbhanj recorded the female literacy between 8·94 percent and 12·67 per cent.

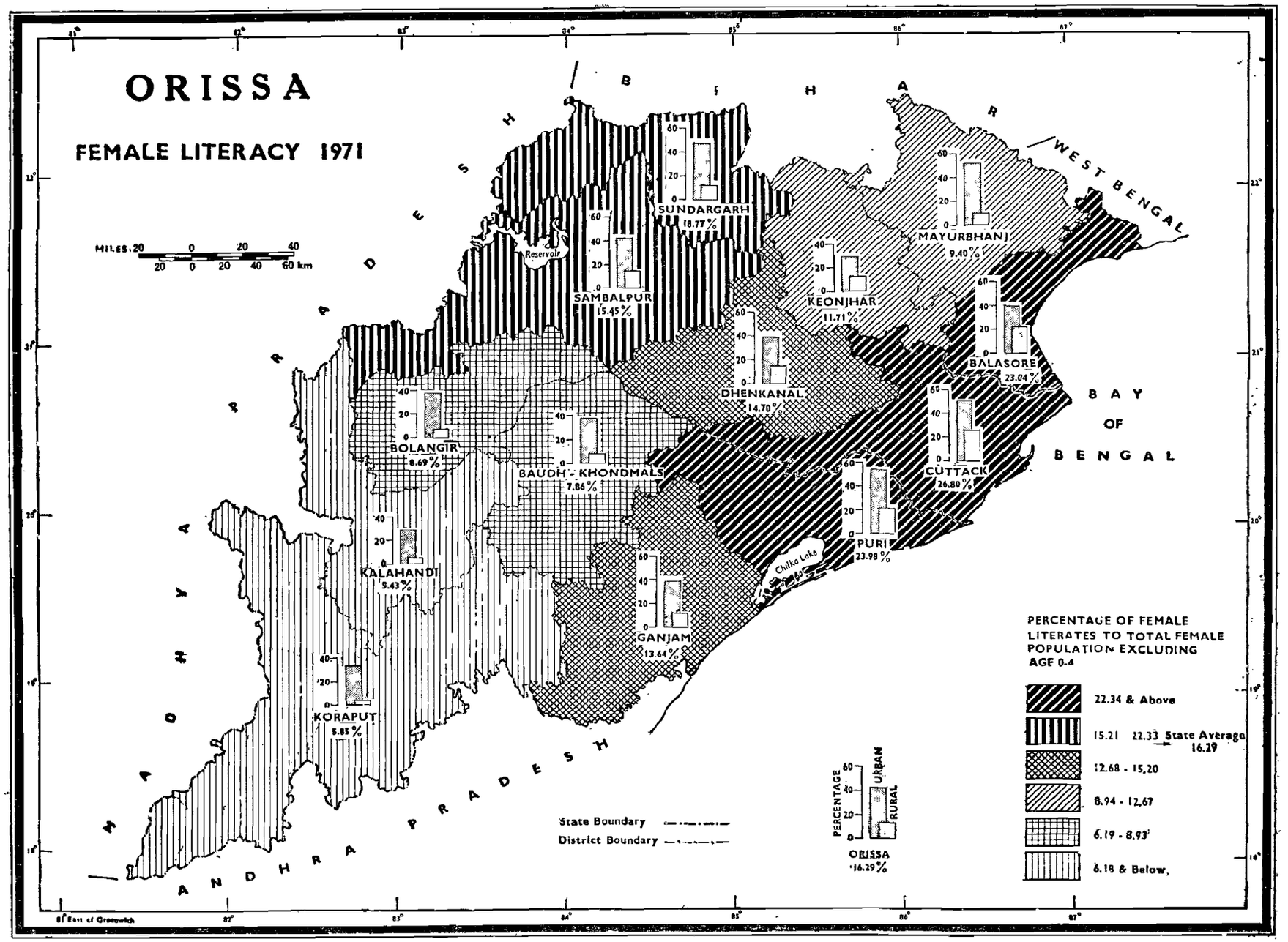
Another pair of districts, namely, Baudh-Khondmals and Bolangir have shown the low percentage of female literacy which varies from 6·19—8·93 per cent.

A very low percentage of female literacy of below 6·19 per cent is found in two districts of the southern highlands. Those districts are Kalahandi and Koraput.

Further this map shows that the districts of Puri, Mayurbhanj and Cuttack have the urban female literates whose proportion to the urban females of age 5 years and above are more than 50·00 per cent.

A large number of districts (8) recorded the urban female literacy between 30·00 per cent and 50·00 per cent. Only two districts, namely, Keonjhar and Kalahandi in which urban female literates constitute the proportion between 28·00 per cent and 29·00 per cent.

In case of rural female literates this map illustrates that all the three districts of coastal areas have the rural female literacy rate above 20·00 per cent. Out of other 10 districts, five have the literacy rate below 10 per cent and rest five have between 10·00 per cent and 20·00 per cent.


ORISSA
FEMALE LITERACY 1971
MILES 20 0 20 40
20 0 20 40 60 km
Reservoir
SUNDARGARH 18.77%
SAMBALPUR 15.45%
KEONJHAR 11.71%
MAYURBHANJ 9.40%
BALASORE 23.04%
DHENKANAL 14.70%
CUTTACK 26.80%
PURI 23.98%
BOLANGIR 8.69%
BAUDH - KHONDMALS 7.86%
KALAHANDI 9.43%
GANJAM 13.64%
KORAPUT 6.85%
Chilka Lake
BAY OF BENGAL
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
State Boundary
District Boundary
PERCENTAGE
URBAN
RURAL
ORISSA 16.29%
PERCENTAGE OF FEMALE LITERATES TO TOTAL FEMALE POPULATION EXCLUDING AGE 0-4
22.34 & Above
15.21 22.33 State Average 16.29
12.68 - 15.20
8.94 - 12.67
6.19 - 8.93
6.18 & Below,

MAP No. 111

CHANGE IN FEMALE LITERACY, 1961—71

This map intends to show the gain in female literacy rate in Orissa during the decade 1961—71. The technique of the map is same as for Map No. 107.

In the 1961 Census female literates were 10·12 per cent to total females excluding the age group 0—4. Within a span of 10 years, i. e., in the 1971 Census female literacy has gone up to 16·29 per cent. Thus the gain in female literacy of Orissa is 6·17 during the decade 1961—71.

Only three districts of the state have recorded the gain in female literacy by more than 8·49 per cent. Of these three districts two (Cuttack and Puri) are in the coastal areas and one (Sundargarh) in the northern highlands.

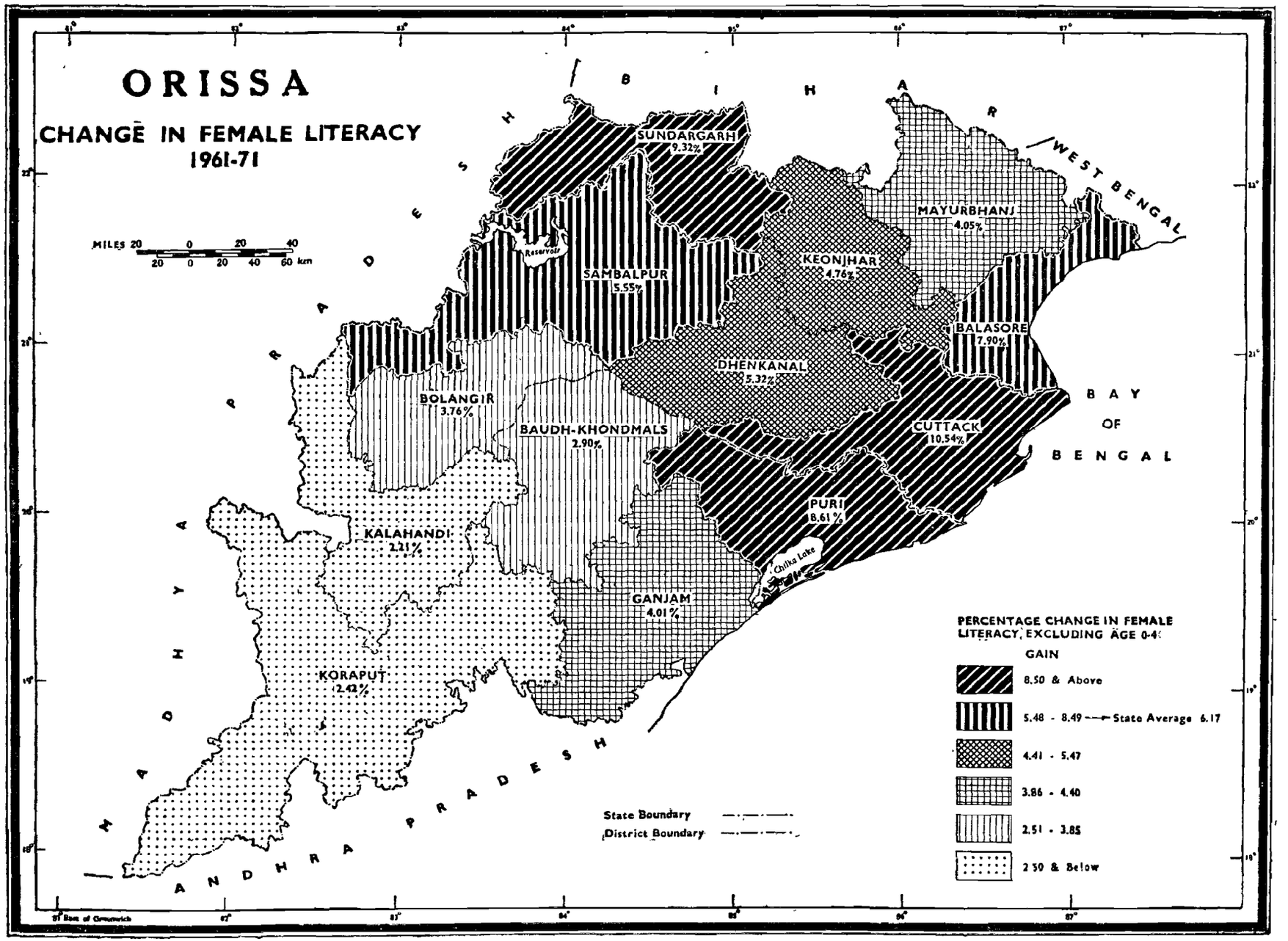
Balasore and Sambalpur represent an increase in female literacy in between 5·48 per cent and 8·49 per cent during the decade 1961—71. The state average (6·17 per cent) and the national average (6·64 per cent) also fall in this range of change in female literacy 1961—71.

Keonjhar and Dhenkanal are two contiguous districts of the northern highlands which have recorded the growth of female literacy between 4·41 per cent and 5·47 per cent.

In Mayurbhanj and Ganjam districts intercensal change in female literacy varies from 3·86 per cent to 4·40 per cent.

A low percentage of increase in female literacy during the decade 1961—71 is found in the district of Bolangir and Baudh-Khondmals in a range of 2·51—3·85 per cent.

The growth of female literacy is almost stationary in Kalahandi and Koraput to the tune of 2·51 per cent during the decade.


ORISSA
CHANGE IN FEMALE LITERACY
1961-71
MILES 20 0 20 40
20 0 20 40 60 km
Reservoir
SUNDARGARH
9.32%
SAMBALPUR
5.55%
KEONJHAR
4.76%
MAYURBHANJ
4.05%
BALASORE
7.90%
DHENKANAL
5.32%
BOLANGIR
3.76%
BAUDH-KHONDMALS
2.90%
CUTTACK
10.54%
PURI
8.61%
KALAHANDI
2.21%
Chilka Lake
GANJAM
4.01%
KORAPUT
2.42%
BIHAR
WEST BENGAL
ORISSA
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
PERCENTAGE CHANGE IN FEMALE LITERACY, EXCLUDING AGE 0-4
GAIN
8.50 & Above
5.48 - 8.49 — State Average 6.17
4.41 - 5.47
3.86 - 4.40
2.51 - 3.85
2.50 & Below

MAP No. 112

LITERATES PER 1,000 OF POPULATION IN AGE 5—14 OVER LITERATES PER 1,000 OF POPULATION IN AGE 15—34 IN RURAL AREAS, 1971

This map seeks to show the excess or deficit of proportion of literates per 1,000 population in the age 5—14 over that of in age 15—34 in rural areas of each district of Orissa.

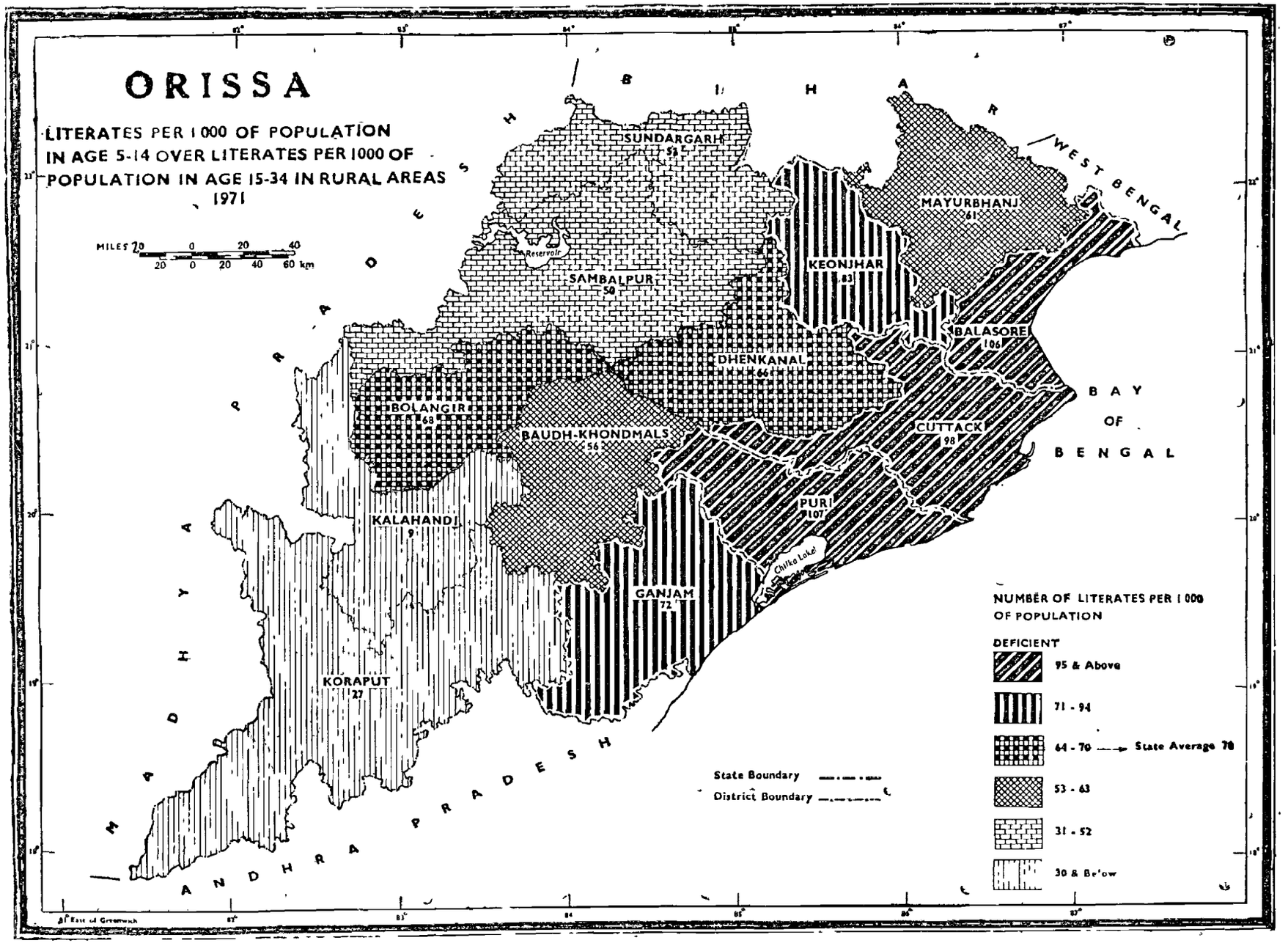
The proportionate figures of literate per 1,000 population in the age 5—14 and in the age 15—34 are calculated for the rural areas of each district. The excess or deficit of literate proportion has been calculated subtracting the proportion of literates in age 15—34 from that of in age 5—14. These resultant values showing deficit are grouped into six suitable ranges—two above, one nearer to and three below the state average of 70. All the districts are shaded according to these ranges using choropleth technique as given in the index.

In age 5—14 as many as 5,693,029 population of which 1,550,285 or 272 out of 1,000 population are literates in rural areas of Orissa. Similarly 1,984,423 of 5,801,039 population or 342 of every 1,000 population are literates in age 15—34 of rural areas of the state. It clearly indicates that the proportion of literates per 1,000 population in age 5—14 is deficit by 70 from that of in age 15—34 at the state level. There is no single district of Orissa in which excess value is found out in the 1971 Census on this concept.

All the three districts of coastal areas, namely, Balasore, Cuttack and Puri have recorded the deficit values by more than 95.

Only Ganjam and Keonjhar districts exhibited the deficit values in the range of 71—94. In the next range of 64—70 deficit two districts, namely, Dhenkanal and Bolangir are found. Below this range of deficit is 53—63 in which Mayurbhanj and Baudh-Khondmals are shown.

Two districts, namely, Sambalpur and Sundargarh show deficit values in between 31—52. The lowest range of deficit is below 31 in which there are also two contiguous districts of Kalahandi and Koraput lying in southern highlands.


ORISSA
LITERATES PER 1000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34 IN RURAL AREAS 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 53
SAMBALPUR 50
Reservoir
MAYURBHANJ 61
KEONJHAR 83
BALASORE 106
DHENKANAL 66
BOLANGIR 68
BAUDH-KHONDMALS 56
CUTTACK 98
PURI 107
Chilka Lake
KALAHANDI 9
GANJAM 72
KORAPUT 27
State Boundary
District Boundary
NUMBER OF LITERATES PER 1000 OF POPULATION
DEFICIENT
95 & Above
71 - 94
64 - 70 State Average 70
53 - 63
31 - 52
30 & Below

MAP No. 113

LITERATES PER 1,000 OF POPULATION IN AGE 5—14 OVER LITERATES PER 1,000 OF POPULATION IN AGE 15—34 IN URBAN AREAS, 1971

This map represents the increase or decrease of proportion of literates per 1,000 population in age 5—14 from that of in age 15—34 in urban areas of each district of Orissa.

The methods applied in this map are similar to the previous map No. 112.

In the 1971 Census the urban population of Orissa in age 5—14 is 475,989 of which 268,458 or 564 per 1,000 population are literates. In the age 15—34 population is 641,650 of which 417,111 or 650 for every 1,000 population are literates. The decrease of proportion of literates per 1,000 population in age 5—14 from that in age 15—34 is 86 in the state in general.

The proportion of literate per 1,000 of population in age 5—14 of urban areas is recorded as negative increase over that of in age 15—34 in the districts of Orissa.

More than 113 literates for every 1,000 persons in the age 15—34 are excess than that of in age 5—14 in three districts of Mayurbhanj, Puri and Dhenkanal of Orissa.

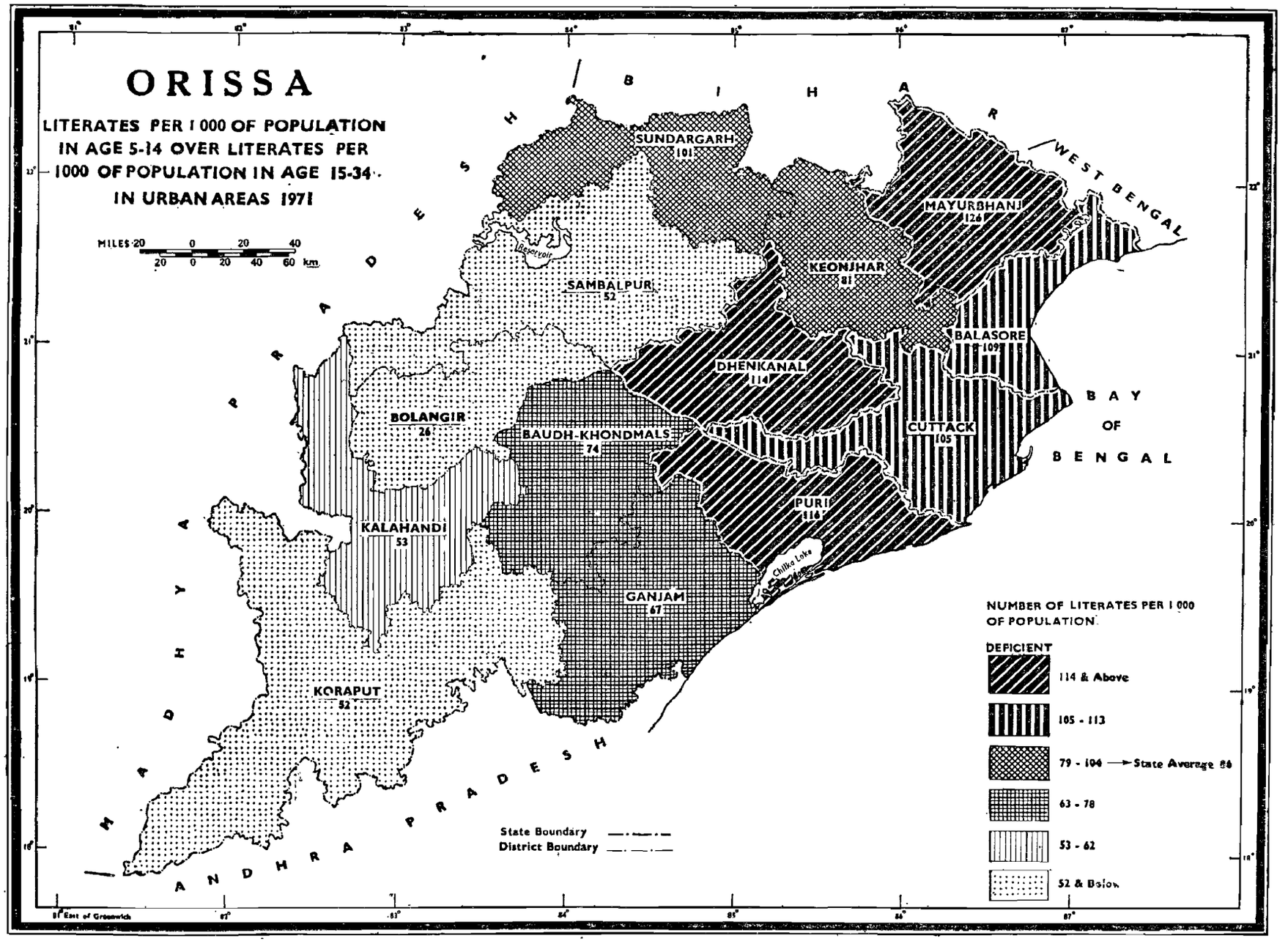
Out of three coastal districts only two districts Balasore and Cuttack in which the proportion of literates per 1,000 population is deficit in age 5—14 over that of 15—34. That deficit varies from 105 to 113.

In the third range of deficit values (79—104) only two districts Keonjhar and Sundargarh of the northern highlands are recorded. This range embraces the state average (86).

The deficient number of literates for every 1,000 population varies from 63 to 78 in the age 5—14 in the districts of Ganjam and Baudh-Khondmals of southern highlands.

Solely the district of Kalahandi recorded the deficient number of literates as 53 in the range of 53—62.

The rest three districts (Sambalpur, Bolangir and Koraput) have recorded the deficient number of literates per 1,000 population below 53.


ORISSA
LITERATES PER 1 000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34 IN URBAN AREAS 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 101
MAYURBHANJ 126
KEONJHAR 81
SAMBALPUR 52
BALASORE 109
DHENKANAL 114
BOLANGIR 26
BAUDH-KHONDMALS 74
CUTTACK 105
PURI 114
KALAHANDI 53
GANJAM 67
KORAPUT 52
Chilka Lake
State Boundary
District Boundary
NUMBER OF LITERATES PER 1 000 OF POPULATION
DEFICIENT
114 & Above
105 - 113
79 - 104 State Average 88
63 - 78
53 - 62
52 & Below
Reservoir

MAP No. 114

PRIMARY SCHOOL ENROLMENT OF BOYS, 1971

This map displays the percentage of boys attending primary schools to the total population of boys in the age 5—14 for each of the districts in Orissa.

The percentage figures of boys of age 5—14 attending primary schools to the total boys in the age 5—14 during the academic year beginning in 1971 have been calculated districtwise. The percentage figures have been classified into six suitable ranges—two above, one nearer to and three below the state average (43·94). Districts are hatched as per the intensities shown in the legend of the map.

As per the 1971 Census there are 3,129,330 boys in the age 5—14 of which 1,374,946 or 43·94 per cent are attending primary schools in the state of Orissa.

Two districts (Balasore and Cuttack) of coastal areas and one district (Keonjhar) of the northern highlands recorded more than 51·34 per cent of boys enrolled at the level of primary education.

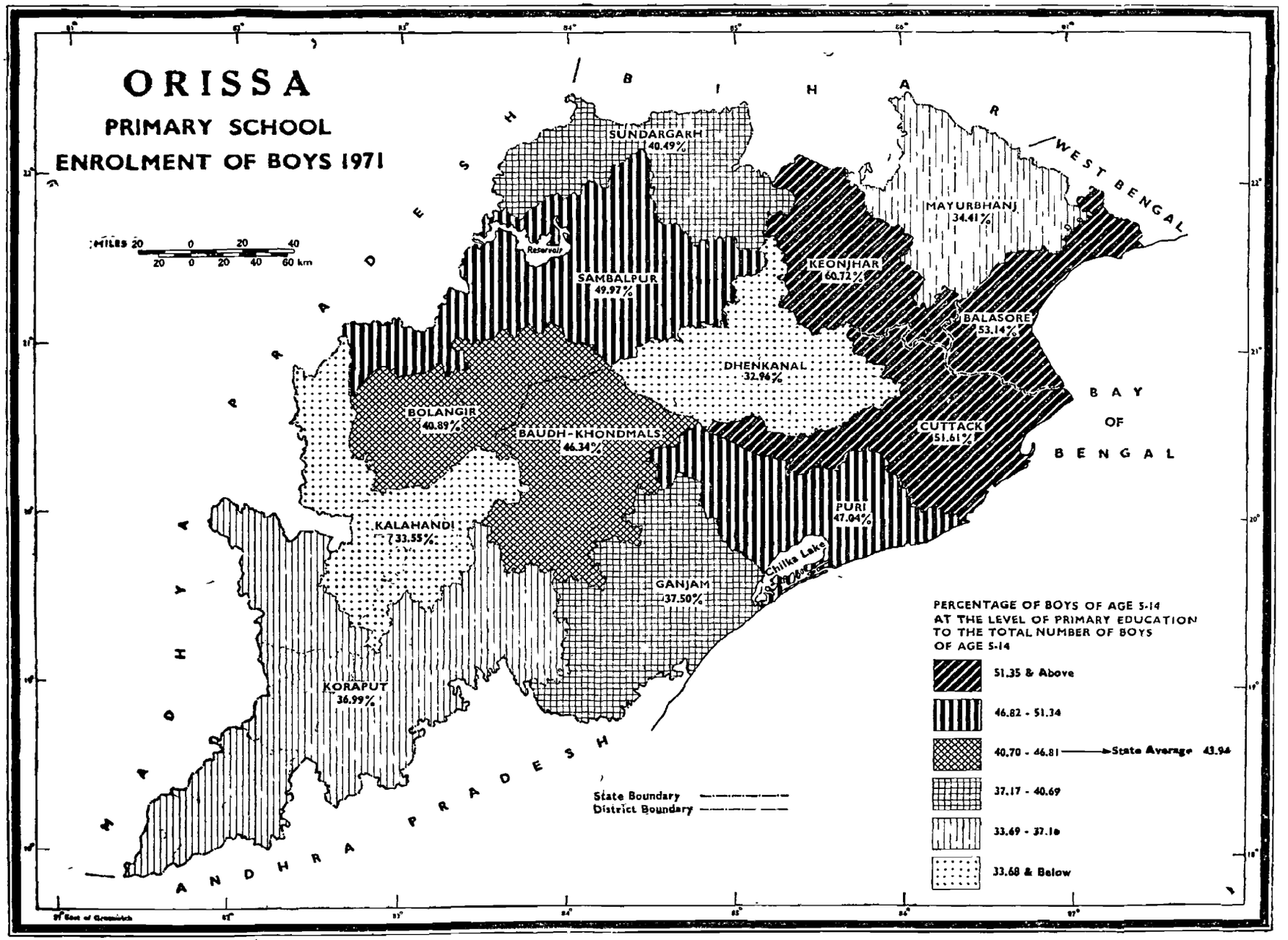
In the next range of 46·82—51·34 per cent only two districts Sambalpur and Puri are shaded on the map.

Two districts (Bolangir and Baudh-Khondmals) very nearer to each other have shown the percentage of enrolment of boys which varies from 40·70 per cent to 46·81 per cent. This is the range of proportion in which state average (43·94 per cent) falls.

The percentage of primary school enrolment in the next range (37·17—40·69 per cent) is found in two districts of Ganjam and Sundargarh which are under developed in Orissa.

Two districts—one in Mayurbhanj of the northern highlands and other is Korapur of southern highlands fall in the range (33·69—37·16 per cent) of the boys enrolled in primary schools.

The remaining two districts of Orissa, i. e., Kalahandi and Dhenkanal which have recorded the percentage figures of boys enrolled at the level of primary education below 33·69.


ORISSA
PRIMARY SCHOOL
ENROLMENT OF BOYS 1971
MILES 20 0 20 40
20 0 20 40 60 km
SUNDARGARH 40.49%
SAMBALPUR 49.97%
Reservoir
KEONJHAR 60.72%
MAYURBHANJ 34.41%
WEST BENGAL
BALASORE 53.14%
DHENKANAL 32.96%
BOLANGIR 40.89%
BAUDH-KHONDMALS 46.34%
CUTTACK 51.61%
PURI 47.04%
BAY OF BENGAL
KALAHANDI 33.55%
Chilka Lake
GANJAM 37.50%
KORAPUT 36.99%
MADHYA PRADESH
ANDHRA PRADESH
State Boundary
District Boundary
PERCENTAGE OF BOYS OF AGE 5-14 AT THE LEVEL OF PRIMARY EDUCATION TO THE TOTAL NUMBER OF BOYS OF AGE 5-14
51.35 & Above
46.82 - 51.34
40.70 - 46.81 ——→State Average 43.94
37.17 - 40.69
33.69 - 37.16
33.68 & Below

MAP No. 115

PRIMARY SCHOOL ENROLMENT OF GIRLS, 1971

This map brings out the percentage enrolment of girls in the age 5—14 at the level of primary education for each of the districts of Orissa in the year 1971.

The percentage figures of girls of age 5—14 attending primary schools to the total population of girls of age 5—14 during the academic year beginningin 1971 are calculated for each district of Orissa. Data thus obtained are arranged in six suitable ranges—two above one nearer to and three below the state average (22·52 per cent). The similar choropleth technique has been adopted here as the previous Map No. 114.

Total population of girls in age 5—14 of Orissa is 3,039,688 of which 684,467 or 22·52 per cent are attending schools at the level of primary education.

The highest proportion of above 27·42 per cent of enrolment of girls per 100 girls in age 5—14 is concentrated in all the coastal districts. Cuttack is the highest in recording 31·58 per cent of enrolment of girls followed by Balasore (31·25 per cent) and Puri (27·75 per cent).

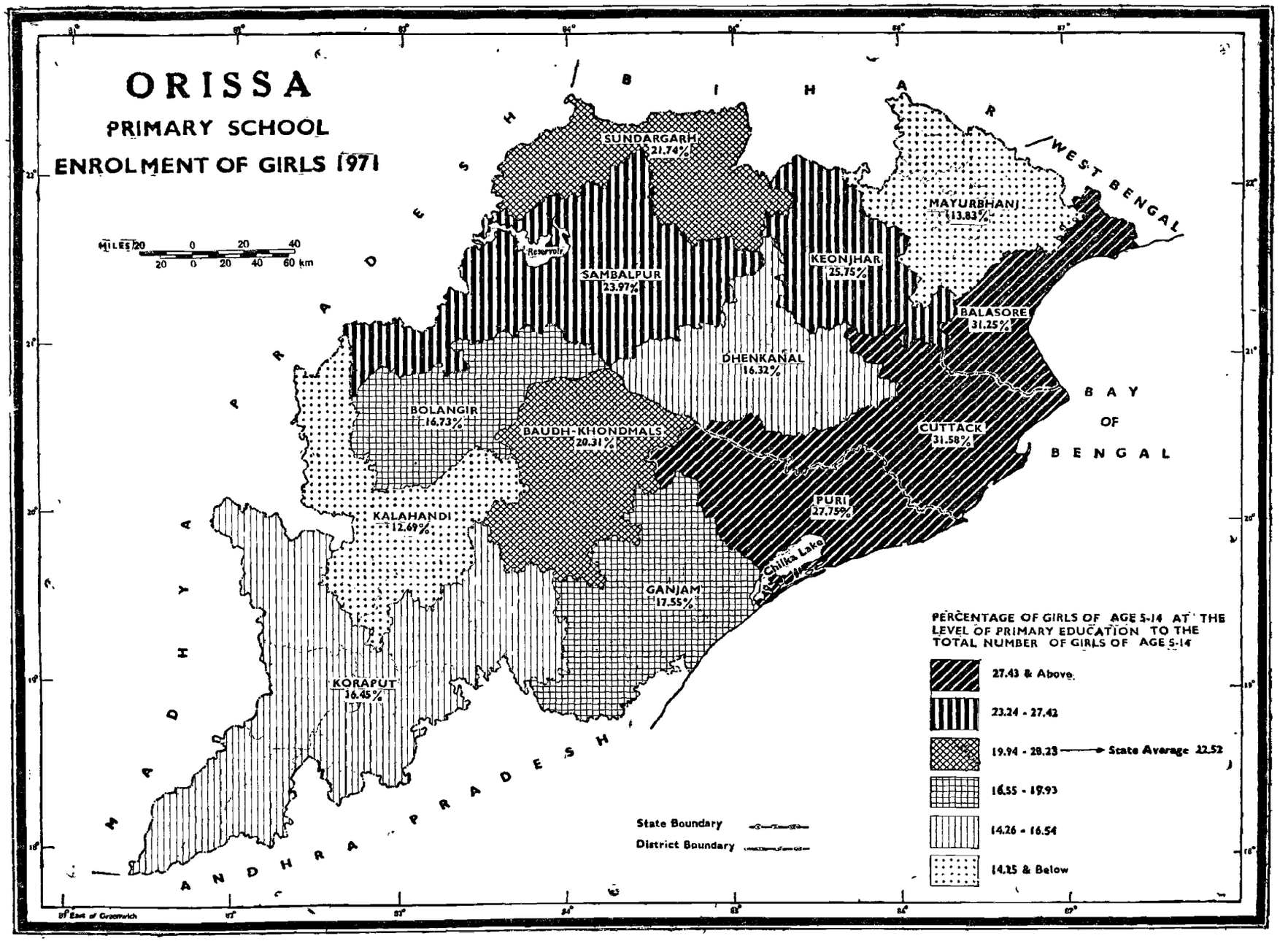
Districts exhibiting proportions in the range 23·24—27·42 per cent are Keonjhar (25·75 per cent) and Sambalpur (23·97 per cent) of northern highlands.

In the next range 19·94—23·23 per cent districts of Sundargarh (21·74 per cent) and Baudh-Khondmals (23·31 per cent) are shown which also indicate state average 22·52 per cent.

The next below range of 16·55—19·93 per cent only two districts, viz., Ganjam (17·55 per cent) and Bolangir (16·73 per cent) are hatched in the map.

The lower percentage of enrolment of girls in age 5—14 at the level of primary education is found in the district of Koraput (16·45 per cent) and Dhenkanal (16·32 per cent) which varies in the range 14·26—16·54 per cent.

Mayurbhanj and Kalahandi are two extreme cases exhibiting the lowest percentage figures below 14·26 per cent situated respectively in the northern highlands and the southern highlands.


ORISSA
PRIMARY SCHOOL
ENROLMENT OF GIRLS 1971
MILES 20 0 20 40
20 0 20 40 60 km
SUNDARGARH 21.74%
SAMBALPUR 23.97%
Reservoir
KEONJHAR 25.75%
MAYURBHANJ 13.83%
BALASORE 31.25%
DHENKANAL 16.32%
BOLANGIR 16.73%
BAUDH-KHONDMALS 20.31%
CUTTACK 31.58%
PURI 27.75%
KALAHANDI 12.69%
Chilka Lake
GANJAM 17.55%
KORAPUT 16.45%
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
PERCENTAGE OF GIRLS OF AGE 5-14 AT THE LEVEL OF PRIMARY EDUCATION TO THE TOTAL NUMBER OF GIRLS OF AGE 5-14
27.43 & Above
23.24 - 27.42
19.94 - 23.23 → State Average 22.52
16.55 - 19.93
14.26 - 16.54
14.25 & Below

MAP No. 116

SCHOOL GOING CHILDREN PER 1,000 OF CHILDREN IN AGE 5—14, 1971

This map attempts to show the proportion of school going children per 1,000 of children in age 5—14 for each of the districts of Orissa, 1971.

Number of proportion of school going children for every 1,000 children in age 5—14 during the academic year beginning in 1971 is calculated for each of the districts of Orissa. These number of proportion are grouped into six convenient ranges—two above, one nearer to and three below the state average (334). Districts in different intensity are shaded as shown in the legend of the map.

As many as 6,169,018 children are in the age 5—14 of Orissa of which 2,059,413 or 334 for every 1,000 are going to schools for primary education during academic year beginning 1971.

A group of three districts (Balasore and Cuttack) from coastal areas and one (Keonjhar) from the northern highlands have recorded the highest number (above 410) for every 1,000 children in age 5—14 who are attending primary schools.

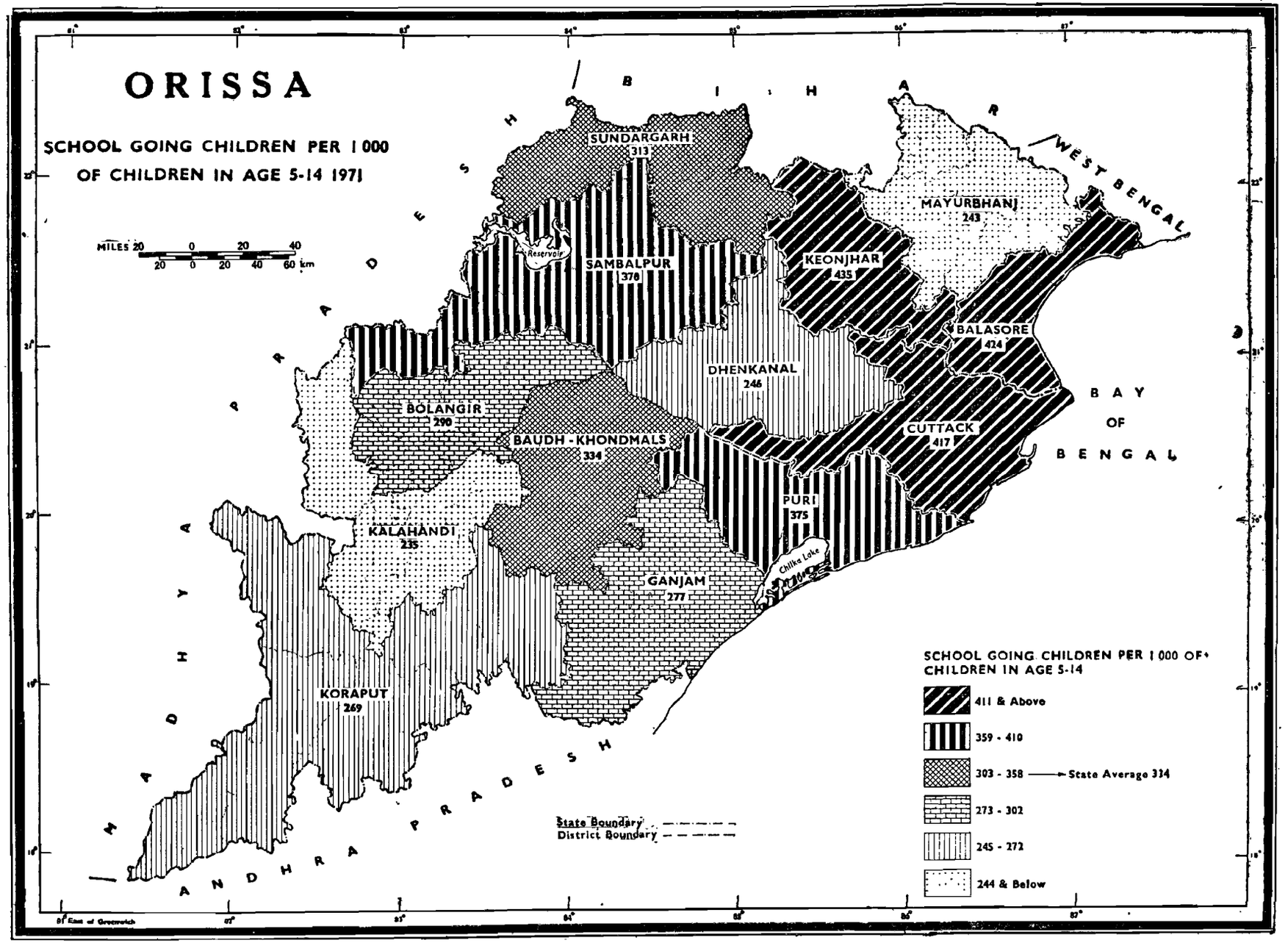
The next range (359—410) indicating high proportion of enrolment at the level of primary and middle schools comprises two districts, namely, Puri from coastal areas and Sambalpur from northern highlands.

The proportion in between 303 and 358 for every 1,000 children in the age 5—14 receive primary and middle school education in the districts of Sundargarh and Baudh-Khondmals. This is a range of proportion in which state average (334) also falls.

There are two districts (Ganjam and Bolangir) exhibit comparatively low proportion (273—302) of children of age 5—14 at the level of primary and middle school education.

The areas which show a further fall in this proportion (245—272) of children in age 5—14 in the primary and middle school comprise of two districts, namely, Koraput and Dhenkanal.

Two districts (Mayurbhanj and Kalahandi) accounting for 244 and below per 1,000 children in age 5—14 are enrolled in primary and middle schools.


ORISSA
SCHOOL GOING CHILDREN PER 1 000
OF CHILDREN IN AGE 5-14 1971
MILES 20 0 20 40
20 0 20 40 60 km
Reservoir
SUNDARGARH
313
SAMBALPUR
378
KEONJHAR
435
MAYURBHANJ
243
BALASORE
424
DHENKANAL
246
BOLANGIR
290
BAUDH - KHONDMALS
334
CUTTACK
417
PURI
375
KALAHANDI
235
GANJAM
277
Chilka Lake
KORAPUT
269
BIHAR
WEST BENGAL
ORISSA PRADESH
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
SCHOOL GOING CHILDREN PER 1 000 OF+ CHILDREN IN AGE 5-14
411 & Above
359 - 410
303 - 358 ——→ State Average 334
273 - 302
245 - 272
244 & Below

MAP No. 117

EDUCATIONAL ENROLMENT OF POPULATION AT HIGHER SECONDARY AND HIGHER LEVELS, 1971

This map presents the percentage of educational enrolment of population at the level of secondary and higher education to the total population in age 15—24 for each of the districts of Orissa.

The percentage values of population in age 15—24 who are enrolled at higher secondary and higher levels during the academic year beginning in 1971 to the total population in age 15—24 are calculated for each of the districts of Orissa. These percentage figures are grouped into six suitable ranges—two above, one nearer to and three below the state average (11·43 per cent). The districts of different ranges are shaded according to the hatchings of different intensities show in the legend of the map.

As many as 3,316,707 population in age 15—24 of which 378,988 or 11·43 per cent are attending higher secondary and higher education in Orissa during the academic year beginning in 1971.

All the three districts of coastal areas, viz., Cuttack, Puri and Balasore have recorded more than 13·29 per cent of students of age 15—24 who are at the level of secondary and higher education.

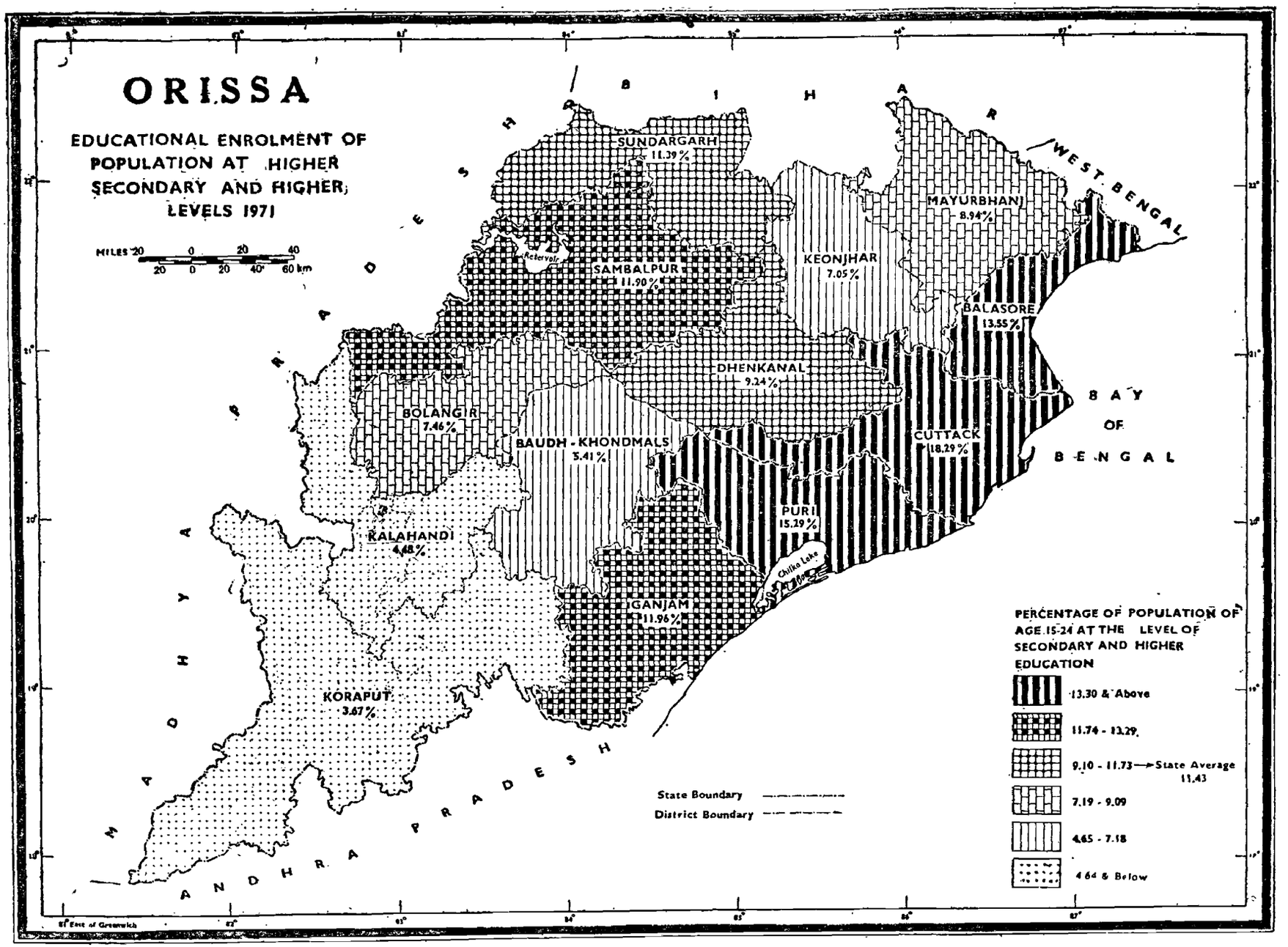
Sambalpur (11·90 per cent) and Ganjam (11.96 per cent) show their position in the range of 11·74 per cent to 13·29 per cent.

In third range (9·10—11·73) of percentages only two districts Dhenkanal and Sundargarh of the northern highlands are found. The state average (11·43 per cent) falls in this range.

The low range (7·19—9·09 per cent) of percentage prevails in the district of Mayurbhanj and Bolangir.

Keonjhar and Baudh-Khondmals are grouped together in the range 4·65 per cent to 7·18 per cent.

The lowest range (below 4·65 per cent) indicates enrolment of students attending the higher secondary and higher education is experienced in two neighbouring districts Kalahandi and Koraput of southern highlands.


ORISSA
EDUCATIONAL ENROLMENT OF POPULATION AT HIGHER SECONDARY AND HIGHER LEVELS 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 11.39%
SAMBALPUR 11.90%
Hirakud Reservoir
KEONJHAR 7.05%
MAYURBHANJ 8.94%
BALASORE 13.55%
DHENKANAL 9.24%
BOLANGIR 7.46%
BAUDH - KHONDMALS 5.41%
CUTTACK 18.29%
PURI 15.29%
Chilka Lake
KALAHANDI 4.48%
GANJAM 11.96%
KORAPUT 3.67%
State Boundary
District Boundary
PERCENTAGE OF POPULATION OF AGE 15-24 AT THE LEVEL OF SECONDARY AND HIGHER EDUCATION
13.30 & Above
11.74 - 13.29
9.10 - 11.73 → State Average 11.43
7.19 - 9.09
4.65 - 7.18
4.64 & Below
81° East of Greenwich

MAP No. 118

EDUCATIONAL ENROLMENT OF MALES AT HIGHER SECONDARY AND HIGHER LEVELS, 1971

This map depicts the percentage of male population reading at the level of secondary and higher education to the total male population in age 15-24 for each district of Orissa.

The percentage values of male population in the age 15—24 who are reading at the level of higher secondary and higher education during the academic year beginning in 1971 to the total population in age 15—24 are calculated for each district of Orissa. These percentage figures are grouped in the six suitable ranges—two above, one nearer to and three below the state average (18·45 per cent). In accordance with the hatchings of different intensities as shown in the legend of the map all the districts are shaded.

In the age 15—24 as many as 1,660,801 male population are in Orissa, of which 306,384 or 18·45 per cent are enrolled at higher secondary and higher levels in 1971.

Balasore, Cuttack and Puri the three districts of coastal areas of the state represent enrolment above 22·01 per cent.

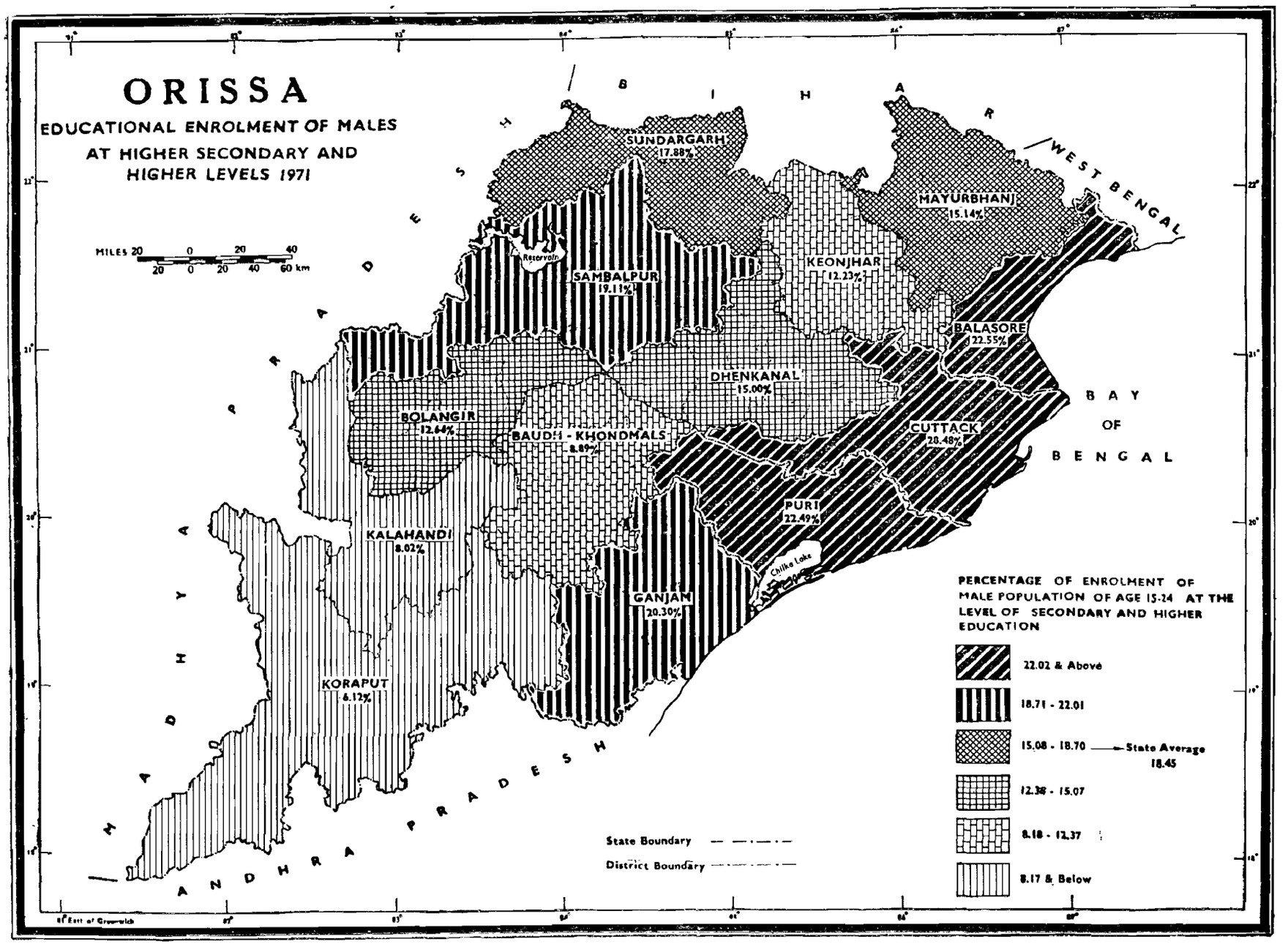
There are two districts Sambalpur and Ganjam in which the percentage of male population enrolled in higher secondary and higher levels falls in the next higher range (18·71—22·01 per cent).

In the third range (15·08—18·70 per cent) which is nearer to the state average (18·45 per cent) two districts, viz., Sundargarh and Mayurbhanj of northern highlands are covered.

In Bolangir and Dhenkanal districts the percentage of enrolment varies between 12·38 per cent and 15·07 per cent.

A lower percentage range (8·18—12·37 per cent) of enrolment of male population prevails in two districts, viz., Baudh-Khondmals (8·89 per cent) and Keonjhar (12·23 per cent).

In the districts of Kalahandi and Koraput of southern highlands the lowest percentage (below 8·18 per cent) of enrolment of males in the age 15—24 is shown.


ORISSA
EDUCATIONAL ENROLMENT OF MALES
AT HIGHER SECONDARY AND
HIGHER LEVELS 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 17.88%
MAYURBHANJ 15.14%
Reservoir
SAMBALPUR 19.11%
KEONJHAR 12.23%
BALASORE 22.55%
DHENKANAL 15.00%
BOLANGIR 12.64%
BAUDH - KHONDMALS 8.89%
CUTTACK 28.48%
PURI 22.49%
KALAHANDI 8.02%
Chilka Lake
GANJAM 20.30%
KORAPUT 6.12%
State Boundary
District Boundary
PERCENTAGE OF ENROLMENT OF MALE POPULATION OF AGE 15-24 AT THE LEVEL OF SECONDARY AND HIGHER EDUCATION
22.02 & Above
18.71 - 22.01
15.08 - 18.70
State Average 18.45
12.38 - 15.07
8.18 - 12.37
8.17 & Below

MAP No. 119

EDUCATIONAL ENROLMENT OF FEMALES AT HIGHER SECONDARY AND HIGHER LEVELS, 1971

This map exhibits the percentage of female population reading at the level of higher secondary and higher level to total female population in age 15—24 for each district of Orissa.

The percentage figure of females of age 15—24 who are reading at the level of secondary and higher education to the total female population in age 15—24 is calculated for each district of the state. The results are arranged into six suitable ranges—one above, one nearer to and four below the state average (4·38 per cent) by choropleth technique as per the legend of the map.

In Orissa the total female population in age 15—24 is 1,655,906 of which 72,604 or 4·38 per cent are enrolled at the level of secondary and higher education.

The highest range (above 4·95 per cent) of educational enrolment of females at higher secondary and higher level comprises three districts—Cuttack and Puri of coastal areas and Sundargarh district of northern highlands.

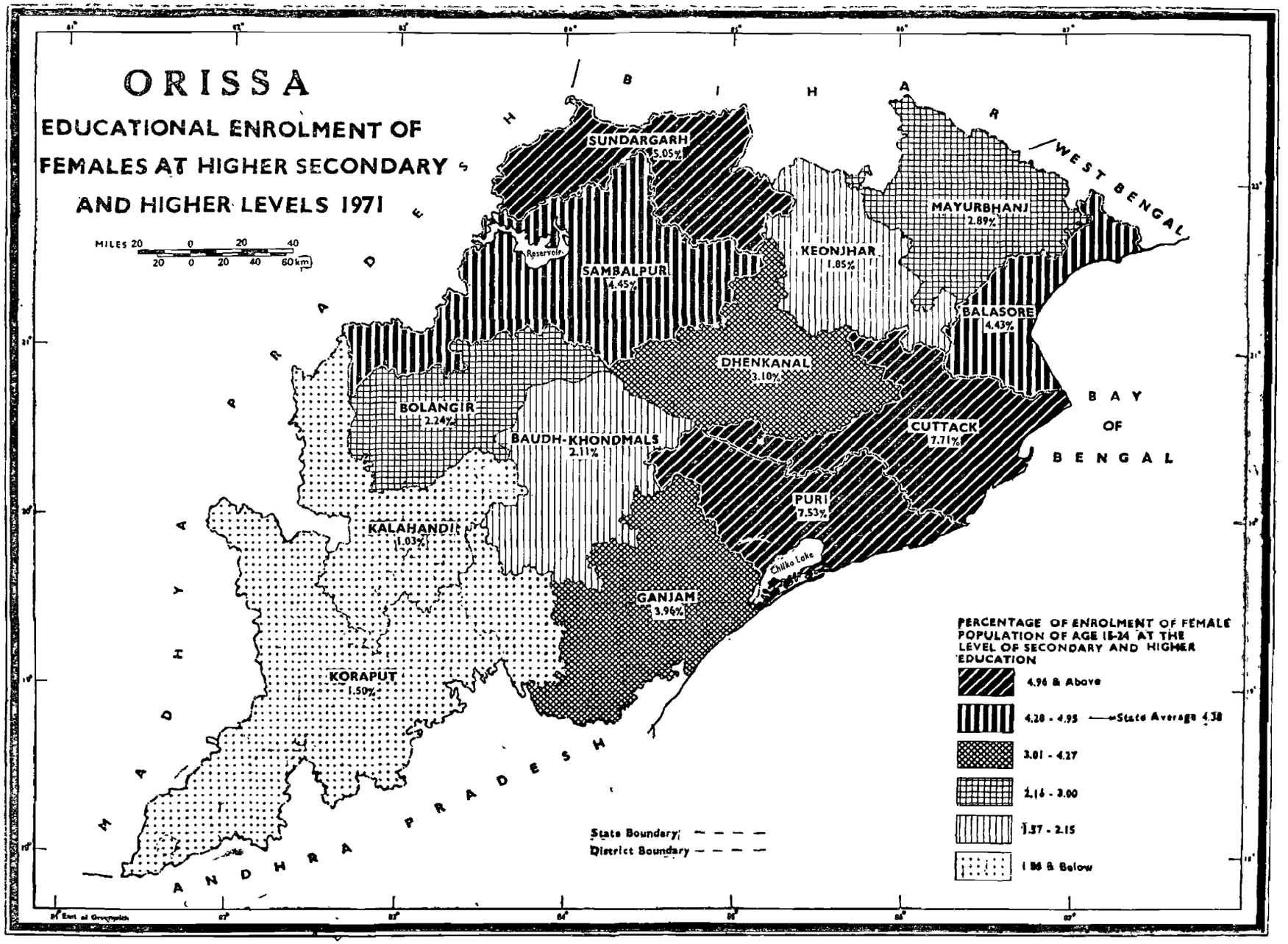
In the range (4·28—4·95 per cent) enrolment of females is conspicuous in Balasore and Sambalpur. The state average (4·38 per cent) is also shown in this range.

In the third range (3·01—4·27 per cent) of educational enrolment of females at the level of higher secondary lie only in two districts—Dhenkanal and Ganjam.

Mayurbhanj and Bolangir exhibit the percentage value of education enrolment of females in age 15—24 within the range of 2·16—3·00 per cent.

The lower range (1·57—2·15 per cent) consists of two districts, namely, Keonjhar and Baudh-Khondmals.

Kalahandi and Koraput districts of southern highlands fall in the lowest range (below 1·57 per cent) of enrolment of female in age 15—24.


ORISSA
EDUCATIONAL ENROLMENT OF FEMALES AT HIGHER SECONDARY AND HIGHER LEVELS 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 5.05%
SAMBALPUR 4.45%
Reservoir
KEONJHAR 1.85%
MAYURBHANJ 2.89%
BALASORE 4.43%
DHENKANAL 3.10%
BOLANGIR 2.24%
BAUDH-KHONDMALS 2.11%
CUTTACK 7.71%
PURI 7.53%
KALAHANDI 1.03%
Chilka Lake
GANJAM 3.96%
KORAPUT 1.50%
State Boundary
District Boundary
PERCENTAGE OF ENROLMENT OF FEMALE POPULATION OF AGE 15-24 AT THE LEVEL OF SECONDARY AND HIGHER EDUCATION
4.96 & Above
4.28 - 4.95 State Average 4.38
3.01 - 4.27
2.16 - 3.00
1.37 - 2.15
1.36 & Below

MAP No. 120

TEACHERS PER 1,000 OF STUDENTS AT PRIMARY, SECONDARY, UNIVERSITY LEVEL AND OF ALL GRADES PER 100 SCHOOLS IN ALL AREAS, 1971

Four maps on one plate present the ratios of teachers per 1,000 students at primary, secondary and university level of education and ratios of teachers of all grades per 100 schools and other educational institutions in 1971.

The ratios of teachers per 1,000 students at the primary level of education are calculated for each district and depicted in the map shown at the left hand top by choropleth method by grouping the data into six suitable ranges—three above, one nearer fo and two below the state average (34) as shown in the legend. Similar method of technique is adopted in the case of teacher per student ratio at the level of secondary education shown in the map at the right hand top and at the university level of education shown in the map at the left hand bottom. But in the map shown at the right hand bottom, the ratios of teachers of all grades per 100 (not 1,000) schools and other educational institutions of each district are presented through choropleth technique as per the legend of the map.

According to the 1971 Census, there are 70,661 teachers in primary schools. There are 16,525 and 4,006 teachers respectively in the secondary schools and universities of this state. There are as many as 2,059,413 students at the primary schools of the state. The secondary schools and universities respectively have 320,374 and 58,614 students. This map depicts that there are 34 teachers for every 1,000 students at the primary level of education in this state. This teacher per student ratio has increased to 52 at the secondary level of education. Further it increased to 68 at the university level of education of this state. In other words one teacher takes care of 30 students at the primary level, 20 students at the secondary level and 15 students at the university level of education of this state.

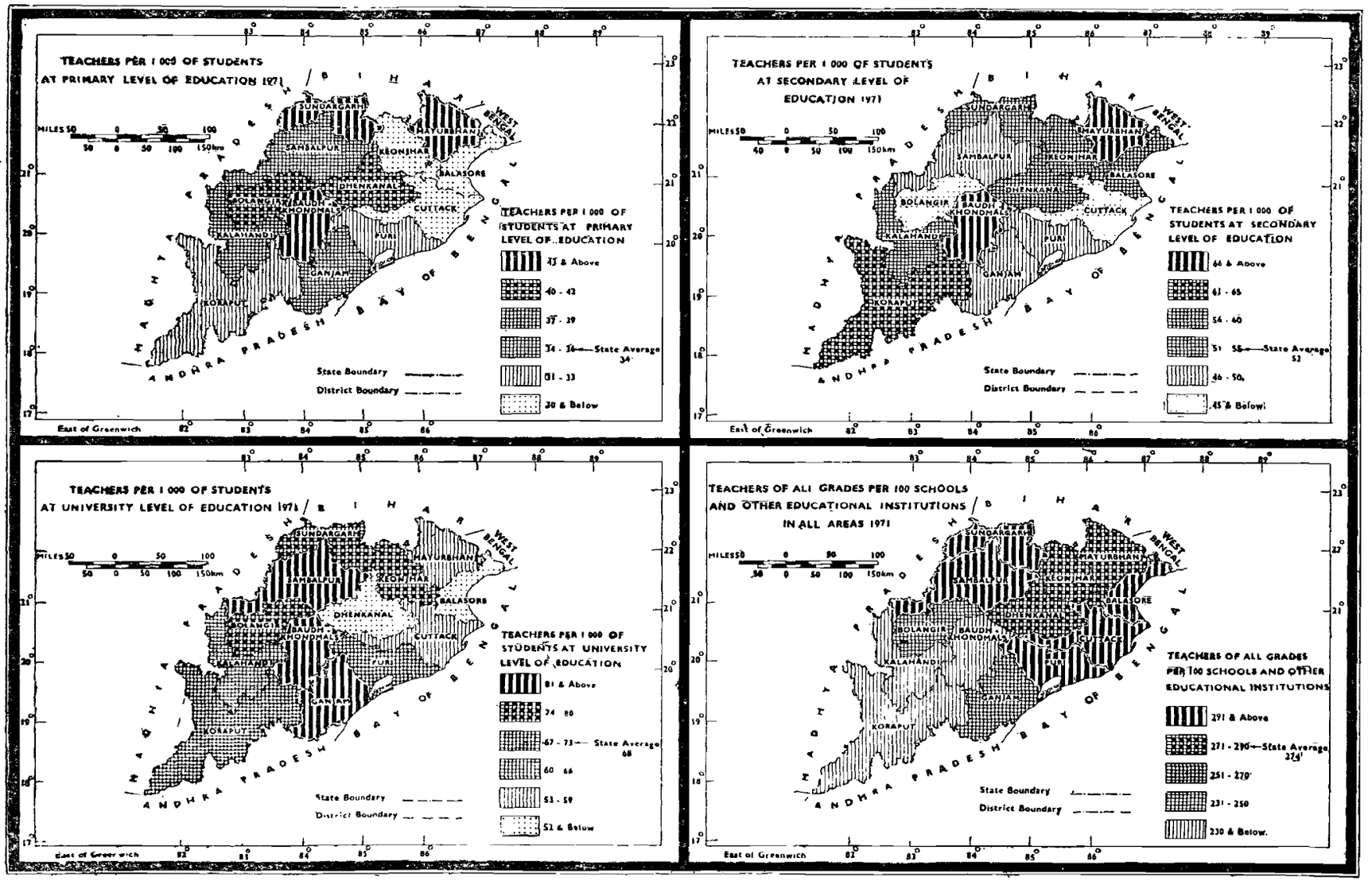
Only five districts, viz., Mayurbhanj, Sundargarh, Baudh-Khondmals, Dhenkanal and Bolangir of highlands of Orissa exhibit a high teacher per students ratio (above 39) at the primary level of education. At the secondary level of education Mayurbhanj of northern highlands and Baudh-Khondmals of southern highland of Orissa show a very high ratio (66 and above) of teacher per 1,000 students. Similarly Sambalpur of northern highland and Baudh-Khondmals and Ganjam of southern highlands of this state bring out a very high ratio (81 and above) at the university level of education. The high ratios of teachers per 1,000 of students are generally visible in sparsely populated areas of the state. The low teacher per students ratios are seen in coastal districts which are densely populated areas of the state.

In all, there are 33,322 schools and other educational institutions in Orissa with 91,192 teachers of all grades. Ratio of teachers of all grades per 100 schools and other educational institutions is 274. This map reveals that there are three districts, namely, Puri, Cuttack and Balasore of coastal belt and two districts, namely, Sundargarh and Sambalpur of northern highland of Orissa which lie in higher ranges of the ratios (291 and above). Top-sided distribution of ratios may be seen in this map.

The lowest range (below 231) embraces only three districts, namely, Baudh-Khondmals, Kalahandi and Koraput of Southern highlands of Orissa which are noted for hilly and forest areas of the state.

ORISSA

TEACHERS PER 1000 OF STUDENTS AT PRIMARY, SECONDARY, UNIVERSITY LEVEL AND OF ALL GRADES PER 100 SCHOOLS IN ALL AREAS 1971



MAP No. 121

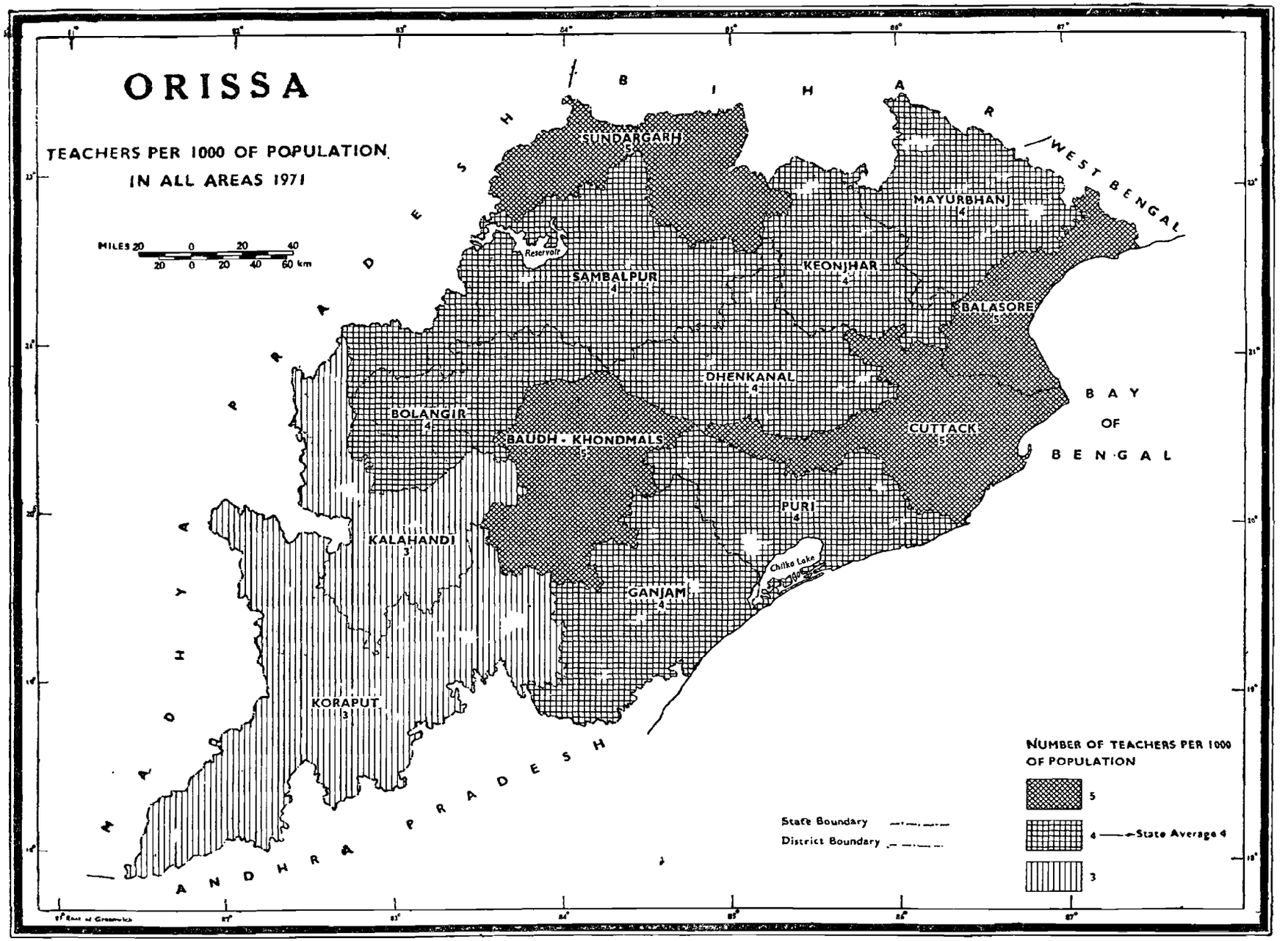
TEACHERS PER 1,000 OF POPULATION IN ALL AREAS, 1971

This map intends to show the proportion of teachers per 1,000 of population in all areas of each of the districts of Orissa.

Proportion of teachers per 1,000 population is calculated for all areas of each of the districts. The figures thus obtained for all districts are grouped in three ranges—one above, one nearer to and one below the state average (4). Each district is shaded using the choropleth technique as per the legend of the map.

In the 1971 Census 21,944,615 persons are enumerated of which 91,192 are teachers. Thus the teachers constitute the proportion of four per 1,000 population of Orissa.

In every 1,000 population only five are enumerated as teachers in the district of Balasore, Cuttack, Sundargarh and Baudh-Khondmals. There are only three teachers available among every 1,000 population counted in the districts of Kalahandi and Koraput. The remaining seven districts exhibit the state average (4) for every 1,000 population.


ORISSA
TEACHERS PER 1000 OF POPULATION
IN ALL AREAS 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 5
MAYURBHANJ 4
Reservoir
SAMBALPUR 4
KEONJHAR 4
BALASORE
DHENKANAL 4
BOLANGIR 4
BAUDH - KHONDMALS 5
CUTTACK 5
PURI 4
KALAHANDI 3
Chilka Lake
GANJAM 4
KORAPUT 3
NUMBER OF TEACHERS PER 1000 OF POPULATION
5
4 State Average 4
3
State Boundary
District Boundary

MAP No. 122

LITERATES HOLDING NON-TECHNICAL AND TECHNICAL DIPLOMAS OR CERTIFICATES, 1971

This map depicts the proportion of non-technical and technical diplomas or certificates not equal to degree-holders to 10,000 of total literate and educated persons in each district and percentage values of technical and non-technical diploma or certificate holders in the district.

A circle proportionate to the total number of literate and educated persons holding non-technical and technical diplomas or certificates not equal to degree is drawn in each of the districts. Each circle is divided into two sectors. The sector proportionate to the persons holding technical diplomas or certificates not equal to degree is kept blank, whereas the other sector proportionate to non-technical diplomas or certificates not equal to degree is shaded with black and white stripes. The absolute figures of persons holding technical and non-technical diplomas or certificates not equal to degree are written at the top of each circle. The percentage values of technical diplomas or certificates not equal to degree-holders to total of technical and non-technical diplomas or certificates not equal to degree-holders are calculated and written inside or against the respective sector of each circle. The percentage value of other part, i. e., of non-technical diplomas or certificates not equal to degree-holders is also written in the concerned sector shaded with black and white stripes of each circle.

The proportions of technical and non-technical diplomas or certificates not equal to degree-holders to 10,000 of total literates and educated persons of each of the district are calculated and grouped into five suitable ranges—two above, one nearer to and two below the state average (38). The area of each district outside the circle is shaded with different hatchings using the choropleth technique as indicated in the legend of the map.

There are as many as 5,745,399 literateand educated persons of which 21,877 are technical and non-technical diploma or certificate not equal to degree-holders in Orissa. Of these, 8,203 are technical diploma or certificate not equal to degree-holders and 13,674 are non-technical diploma or certificate not equal to degree-holders. The map reveals that there are 38 technical and non-technical diploma or certificate not equal to degree-holders among every 10,000 literate and educated persons of the state.

Kalahandi, Koraput and Dhenkanal are three districts of highlands of Orissa in which more than 60 persons are diploma or certificate not equal to degree-holders among every 10,000 of literate and educated persons.

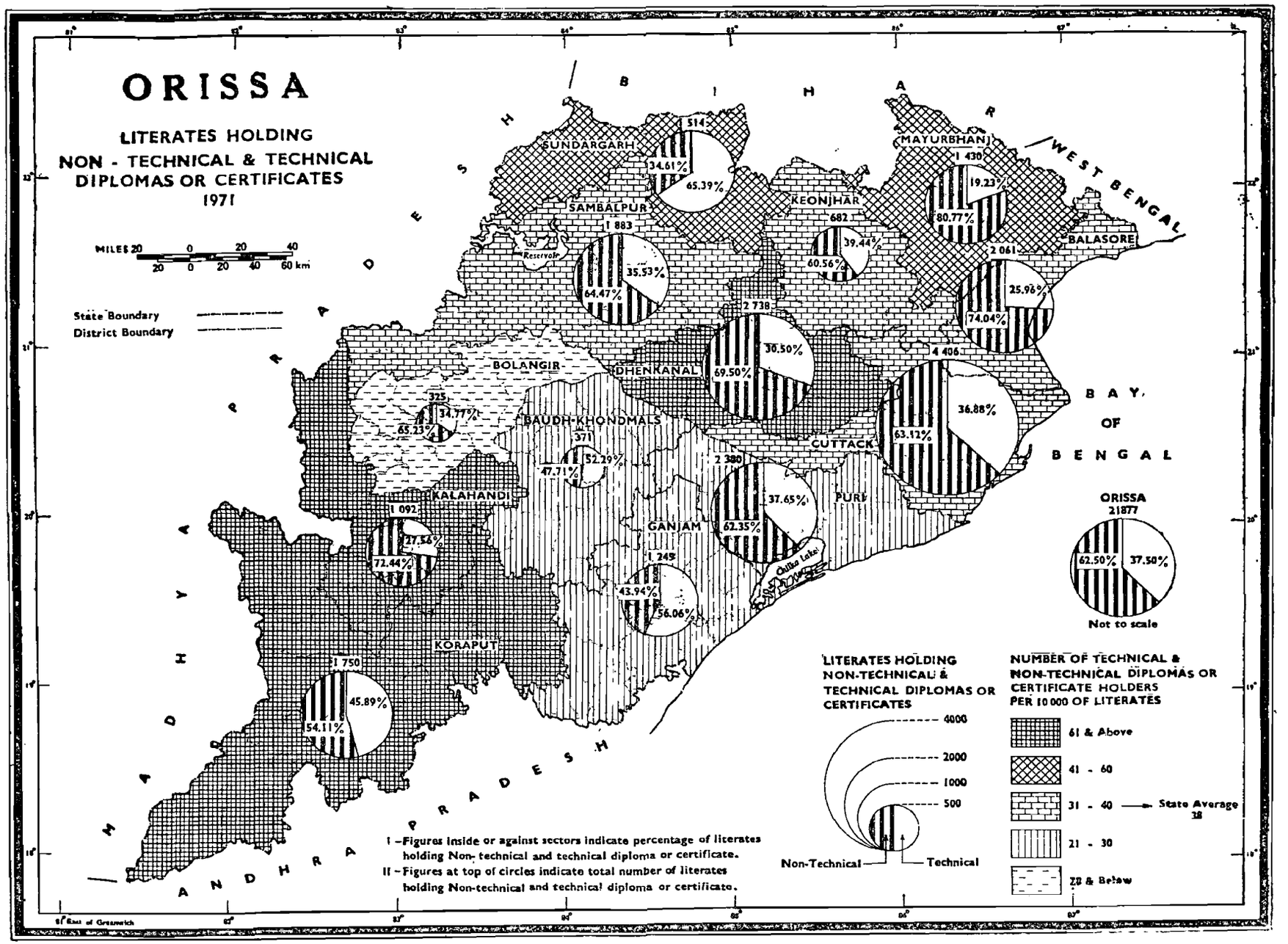
In the next high range (41—60) includes two districts, namely, Sundargarh and Mayurbhanj of northern highlands of Orissa.

Two districts (Balasore & Cuttack) of coastal areas and two districts (Sambalpur & Keonjhar) of northern highlands of Orissa have been shown in the range (31—40) in which state average 38 lies.

The state average is followed by the range 21—30 in which three districts, namely, Baudh-Khondmals, Ganjam and Puri are exhibited.

In the lowest range (20 and below) only one district namely, Bolangir has been hatched in which there are only 325 persons who are diploma or certificate not equal to degree-holders.

This map further presents that technical diploma or certificate not equal to degree-holders constitute more than 65 per cent of the total number of technical and non-technical diplomas or certificates not equal to degree-holders in the district of Sundargarh. On the other side Mayurbhanj, a hilly area of the state contributes the lowest percentage (19·23) of technical diploma or certificate not equal to degree-holders.


ORISSA
LITERATES HOLDING
NON - TECHNICAL & TECHNICAL
DIPLOMAS OR CERTIFICATES
1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
514
34.61%
65.39%
SAMBALPUR
1 883
35.53%
64.47%
Reservoir
KEONJHAR
682
39.44%
60.56%
MAYURBHANJ
1 430
19.23%
80.77%
BALASORE
2 061
25.96%
74.04%
2 738
30.50%
69.50%
DHENKANAL
4 406
36.88%
63.12%
CUTTACK
BOLANGIR
325
34.77%
65.23%
BAUDH-KHONDMALS
371
52.29%
47.71%
2 380
37.65%
62.35%
PURI
KALAHANDI
1 092
27.56%
72.44%
GANJAM
1 245
43.94%
56.06%
Chilka Lake
KORAPUT
1 750
45.89%
54.11%
ORISSA
21877
62.50%
37.50%
Not to scale
LITERATES HOLDING NON-TECHNICAL & TECHNICAL DIPLOMAS OR CERTIFICATES
4000
2000
1000
500
Non-Technical
Technical
NUMBER OF TECHNICAL & NON-TECHNICAL DIPLOMAS OR CERTIFICATE HOLDERS PER 10 000 OF LITERATES
61 & Above
41 - 60
31 - 40
State Average 38
21 - 30
20 & Below
I – Figures inside or against sectors indicate percentage of literates holding Non- technical and technical diploma or certificate.
II – Figures at top of circles indicate total number of literates holding Non-technical and technical diploma or certificate.

MAP No. 123

LITERATES HOLDING UNIVERSITY DEGREES/DIPLOMAS OF THE GRADUATE LEVEL AND ABOVE, 1971

This map illustrates the proportion of literate and educated persons holding university degrees and diplomas equal to degree and above to total of literate and educated persons in each of the districts of the state in 1971. All persons holding degrees of graduate level and above are shown in two sectors of a circle representing rural and urban areas of each district.

A circle proportionate to total number of literate and educated persons holding university degrees and diplomas of the graduate level and above is drawn in each of the districts of Orissa. Each circle is divided into two sectors. The sector of rural areas is screened, whereas that of the urban areas is left blank. Other procedure of technique is the same as that of Map No. 122.

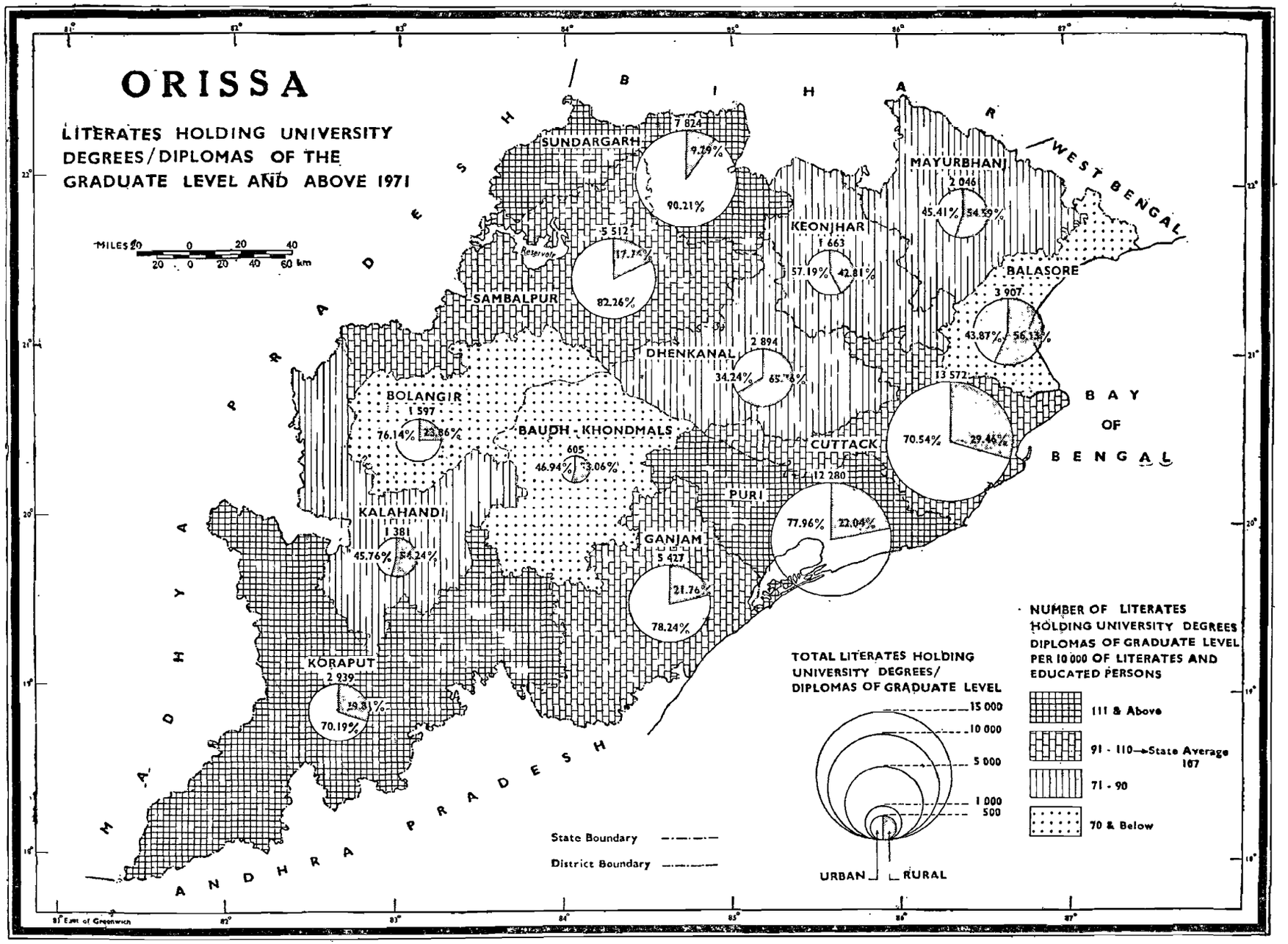
In the 1971 Census, 5,745,399 persons are enumerated as literate and educated in Orissa. As many as 61,647 of these persons are found to have diplomas of graduate level and above. This map exhibits that there are 107 persons holding university degrees and diplomas of the graduate level and above among every 10,000 literate and educated persons of Orissa.

The highest range of proportion (111 and above) of graduates and above is seen in three districts, namely, Sundargarh, Koraput and Puri.

In next high range (91—110) there are only three districts, viz., Cuttack, Sambalpur and Ganjam, The number of colleges in these districts is more when compared with other districts of the state. Two universities, viz, Jyoti Vihar and Bhanja Vihar are also in Sambalpur and Ganjam districts respectively. This range also embraces the state average (107).

There are four districts, namely, Mayurbhanj, Keonjhar, Dhenkanal and Kalahandi of northern highlands of Orissa fall in the low range (71—90) of proportion of persons holding university degrees and diplomas of graduate level and above to the total lietrate and educated persons of the concerned district.

As many as three districts (Balasore, Bolangir and Baudh-Khondmals) present the lowest range (70 and below) of proportion which requires more attention in higher educational facilities.


ORISSA
LITERATES HOLDING UNIVERSITY DEGREES/DIPLOMAS OF THE GRADUATE LEVEL AND ABOVE 1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
7 824
9.79%
90.21%
SAMBALPUR
5 512
17.74%
82.26%
KEONJHAR
1 663
57.19%
42.81%
MAYURBHANJ
2 046
45.41%
54.59%
BALASORE
3 907
43.87%
56.13%
DHENKANAL
2 894
34.24%
65.76%
BOLANGIR
1 597
76.14%
23.86%
BAUDH-KHONDMALS
605
46.94%
53.06%
CUTTACK
13 572
70.54%
29.46%
PURI
12 280
77.96%
22.04%
KALAHANDI
1 381
45.76%
54.24%
GANJAM
5 427
21.76%
78.24%
KORAPUT
2 939
29.81%
70.19%
State Boundary
District Boundary
TOTAL LITERATES HOLDING UNIVERSITY DEGREES/ DIPLOMAS OF GRADUATE LEVEL
15 000
10 000
5 000
1 000
500
URBAN
RURAL
NUMBER OF LITERATES HOLDING UNIVERSITY DEGREES DIPLOMAS OF GRADUATE LEVEL PER 10 000 OF LITERATES AND EDUCATED PERSONS
111 & Above
91 - 110→State Average 107
71 - 90
70 & Below

MAP No. 124

RURAL POPULATION LIVING IN VILLAGES CONTAINING 25 AND BELOW, 26—50, 51—100 AND ABOVE 100 HOUSES, 1971

This map presents the percentage distribution of rural population among the different group of villages classified by houses.

The villages are classified into four groups in accordance with the number of census houses therein. Such as 25 and below, 26—50, 51—100 and above 100 houses. Bar proportionate to the population of each of the groups of villages is drawn for each district. The number of total rural population of each district is written at the top of the concerned bar diagram. The abosolute scale and percentage scale are drawn on the left and right side of the bar diagram respectively. Bars of the district are shaded by different hatchings as shown in the diagram of Orissa.

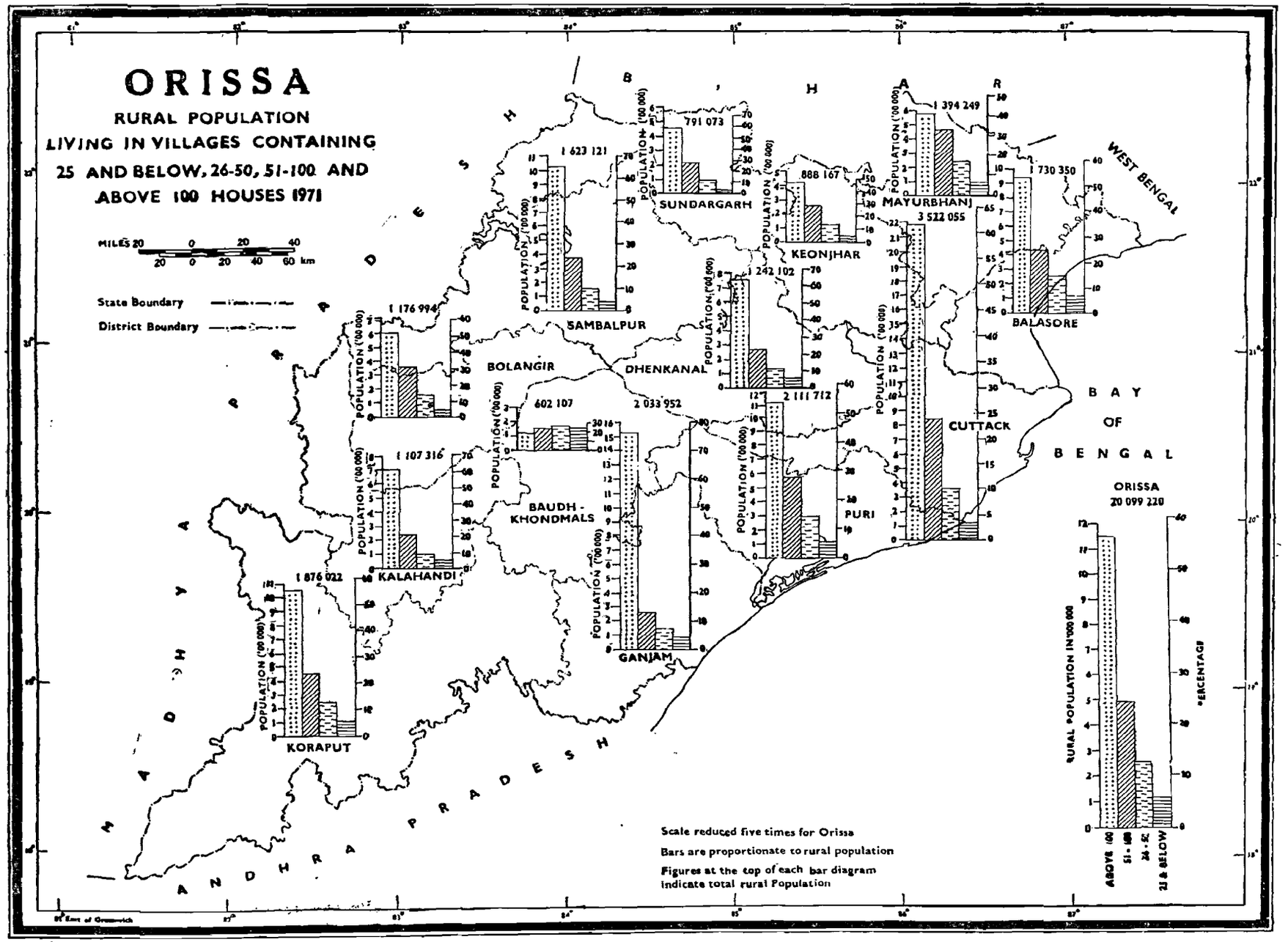
1971 Census reveals that as many as 20,099,220 population are enumerated in rural areas of Orissa. Out of which 11,529,495 or 57·36 per cent are living in the villages having more than 100 census houses.

Nearly one fourth of total rural population are living in the villages having houses 51 to 100 in number. Again half of which are residing in the villages having houses 26—50. In the last group (25 and below houses) of village, only 1,094,081 persons are recorded which constitute 5·45 per cent of total rural population.

This map further reveals that more than 50·00 per cent of rural population are residing in the villages having more than 100 houses in all districts except Keonjhar (49·01), Mayurbhanj (42·00) and Baudh-Khondmals (19·73) which are situated in highlands of Orissa. In Ganjam as many as 1,536,640 or 75·55 per cent of rural population are found in this category of villages which is earmarked. Only 24·45 per cent of rural population are distributed among other three groups of villages in this district.

In the second range (51—100 houses) of villages it is found that neary 25·00 per cent of rural population are residing in all districts except Ganjam.

Baudh-Khondmals is the only district of Orissa in which more than 25·00 per cent of rural population are residing in the village groups having houses 25 and below and 26—50. In all other districts less than 7 per cent of rural population are found in the villages having houses 25 and below and less than 15·50 per cent and more than 6·50 per cent of rural population in the villages having houses 26—50.


ORISSA
RURAL POPULATION
LIVING IN VILLAGES CONTAINING
25 AND BELOW, 26-50, 51-100 AND
ABOVE 100 HOUSES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
SUNDARGARH
1 623 121
791 073
SAMBALPUR
1 176 994
BOLANGIR
DHENKANAL
602 107
2 033 952
KEONJHAR
888 167
1 242 102
MAYURBHANJ
1 394 249
3 522 055
BALASORE
1 730 350
CUTTACK
2 111 712
PURI
BAUDH-KHONDMALS
1 107 316
KALAHANDI
1 876 022
KORAPUT
GANJAM
WEST BENGAL
BAY OF BENGAL
ORISSA
20 099 220
RURAL POPULATION IN '000 000
PERCENTAGE
ABOVE 100
51 - 100
26 - 50
25 & BELOW
Scale reduced five times for Orissa
Bars are proportionate to rural population
Figures at the top of each bar diagram indicate total rural Population

MAP No. 125

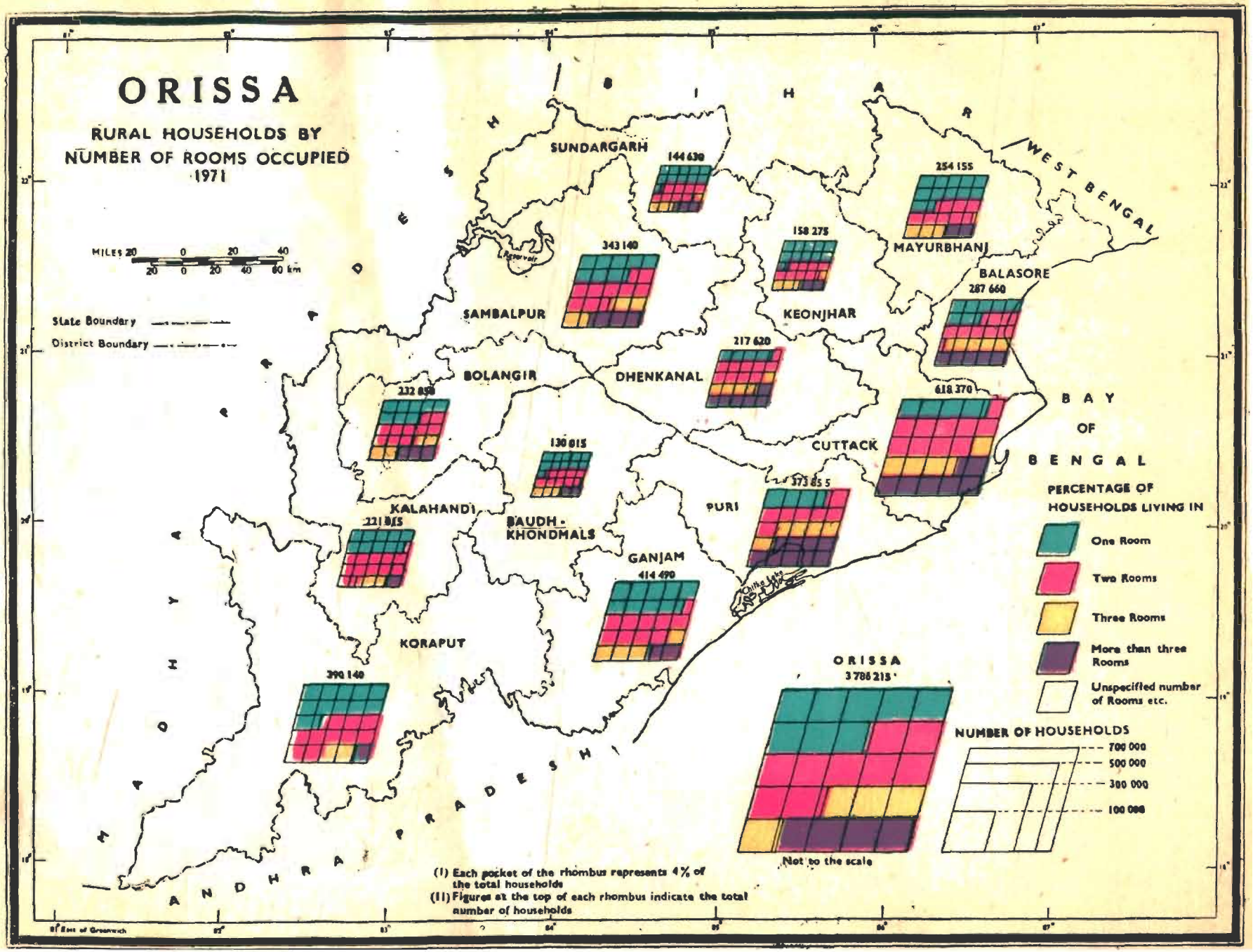
RURAL HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED, 1971

This map depicts the percentage distribution of rural households among the different group of households classified by number of rooms occupied, 1971.

At the 1971 Census, 'household' was defined as a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. All rural households of each district are grouped into four categories, viz., Households having one room, two rooms, three rooms and more than three rooms. Percentage figures of households of each group mentioned above to total rural households are calculated for each district. Rhombus proportionate to total rural households is drawn for each of the districts. Total number of rural households of each district is written at the top of the respective rhombus. Further each rhombus is subdivided into 25 equal pockets each of which represents four per cent of the rural households. Pockets and parts thereof are shaded with different colours in accordance with the percentage values of rural households occupying one, two, three or more than three rooms as per the legend of the map. Percentage share of households with unspecified number of rooms is kept blank.

This map reveals that there are as many as 3,786,215 rural households in Orissa as per the 1971 Census. Out of these 1,407,015 or 37·16 per cent are two roomed households which is the largest share among four groups of households. Next to it is one roomed households whose percentage share is 31·62 followed by three roomed households (15·64) and more than three roomed households (15·55).

Sundargarh, Keonjhar, Mayurbhanj, Baudh-Khondmals, Koraput and Ganjam are six districts of highlands of Orissa in which percentage share of one roomed rural households is the maximum. In each of these six districts the percentage share is above 38·00 per cent. In case of all other districts except Puri the percentage share of two roomed households is the largest (above 31·00 per cent). Puri is the only district of Orissa in which three roomed households constitute largest percentage share (34·67) of rural households.


ORISSA
RURAL HOUSEHOLDS BY
NUMBER OF ROOMS OCCUPIED
1971
MILES 20 0 20 40
20 0 20 40 60 Km
State Boundary
District Boundary
SUNDARGARH
144 630
254 155
WEST BENGAL
MAYURBHANJ
158 275
343 140
BALASORE
287 660
SAMBALPUR
KEONJHAR
217 620
BOLANGIR
DHENKANAL
232 850
618 370
BAY
OF
BENGAL
CUTTACK
130 815
373 855
PURI
KALAHANDI
221 815
BAUDH-
KHONDMALS
GANJAM
414 490
KORAPUT
390 140
ORISSA
3 788 215
Not to the scale
PERCENTAGE OF
HOUSEHOLDS LIVING IN
One Room
Two Rooms
Three Rooms
More than three
Rooms
Unspecified number
of Rooms etc.
NUMBER OF HOUSEHOLDS
700 000
500 000
300 000
100 000
(I) Each pocket of the rhombus represents 4% of
the total households
(II) Figures at the top of each rhombus indicate the total
number of households

MAP No. 126

URBAN HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED, 1971

This map presents the percentage distribution of urban households among different group of households classified by number of rooms occupied, 1971.

The technique of preparation of this map is same as that of Map No. 125.

This map reveals that 363,670 households are enumerated in urban areas of the state in the 1971 Census. Of these one roomed households are 147,655 or 40·47 per cent, two roomed households are 116,080 or 31·92 per cent, three roomed households are 49,190 or 13·52 per cent and above three roomed households are 50,835 or 13·95 per cent.

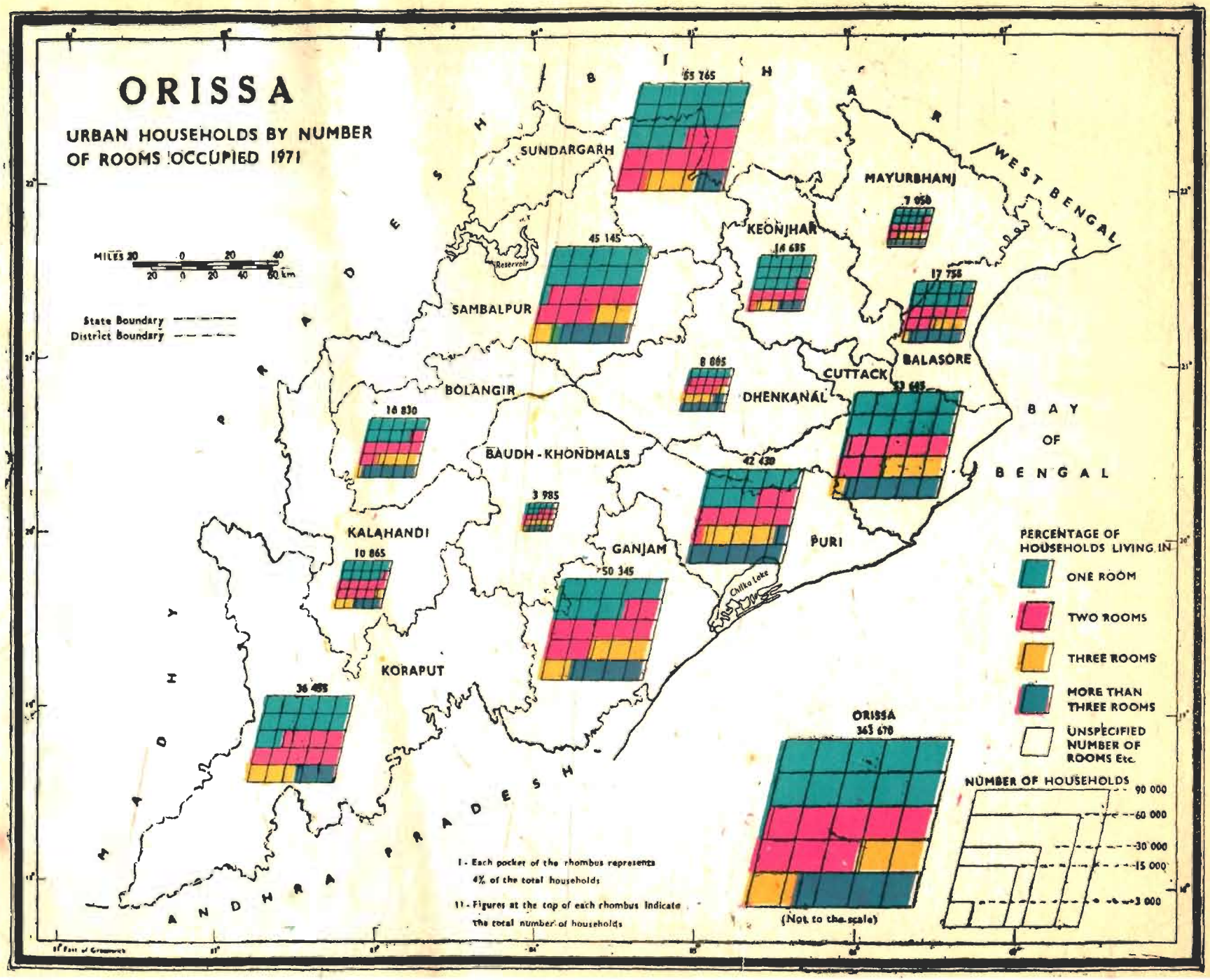
Percentage share of one-roomed households is the maximum in all districts except four, viz., Dhenkanal, Baudh-Khondmals, Kalahandi and Ganjam in which two roomed households exhibit the higher percentage share than any other group of households.

Keonjhar district has the highest percentage value (56·00) of one roomed households followed by Sundargarh (51·00) and Koraput (46·00). Dhenkanal has the lowest percentage (21·00) of the urban households with one room accommodation.

Above 30·00 per cent and below 35·00 per cent of urban households occupy two rooms in all the districts except Kalahandi (38·93), Ganjam (35·30). Mayurbhanj (29·57), Cuttack (27·41) and Keonjhar (27·02).

Percentage share of three roomed households varies from 8·00 to 16·00 in all except Baudh-Khondmals (20·07), Dhenkanal (19·31), Ganjam (17·22) and Mayurbhanj (16·67).

Above 16·00 per cent of households occupying accommodation of more than three rooms is observed in the districts of Dhenkanal (24·70), Puri (22·21), Mayurbhanj (18·16), Bolangir (17·94), Balasore (17·49), Cuttack (17·41), and Baudh-Khondmals (16·06). Sundargarh district has the lowest percentage value (5·04) of households having more than three rooms. All other districts in which percentage share of four and above roomed households lies between 8·00 per cent to 16·00 per cent.


ORISSA
URBAN HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
65 765
MAYURBHANJ
7 950
KEONJHAR
14 695
45 145
Reservoir
SAMBALPUR
17 758
BALASORE
CUTTACK
8 885
DHENKANAL
BOLANGIR
18 830
BAUDH-KHONDMALS
42 430
3 985
KALAHANDI
10 865
GANJAM
PURI
50 345
Chilka Lake
KORAPUT
36 495
PERCENTAGE OF HOUSEHOLDS LIVING IN
ONE ROOM
TWO ROOMS
THREE ROOMS
MORE THAN THREE ROOMS
UNSPECIFIED NUMBER OF ROOMS Etc.
NUMBER OF HOUSEHOLDS
90 000
60 000
30 000
15 000
3 000
ORISSA
363 670
(Not to the scale)
I - Each pocket of the rhombus represents 4% of the total households
II - Figures at the top of each rhombus indicate the total number of households

MAP No. 127

CENSUS HOUSES ACCORDING TO THEIR USES, 1971

This map depicts the percentage of occuiped census houses according to their uses.

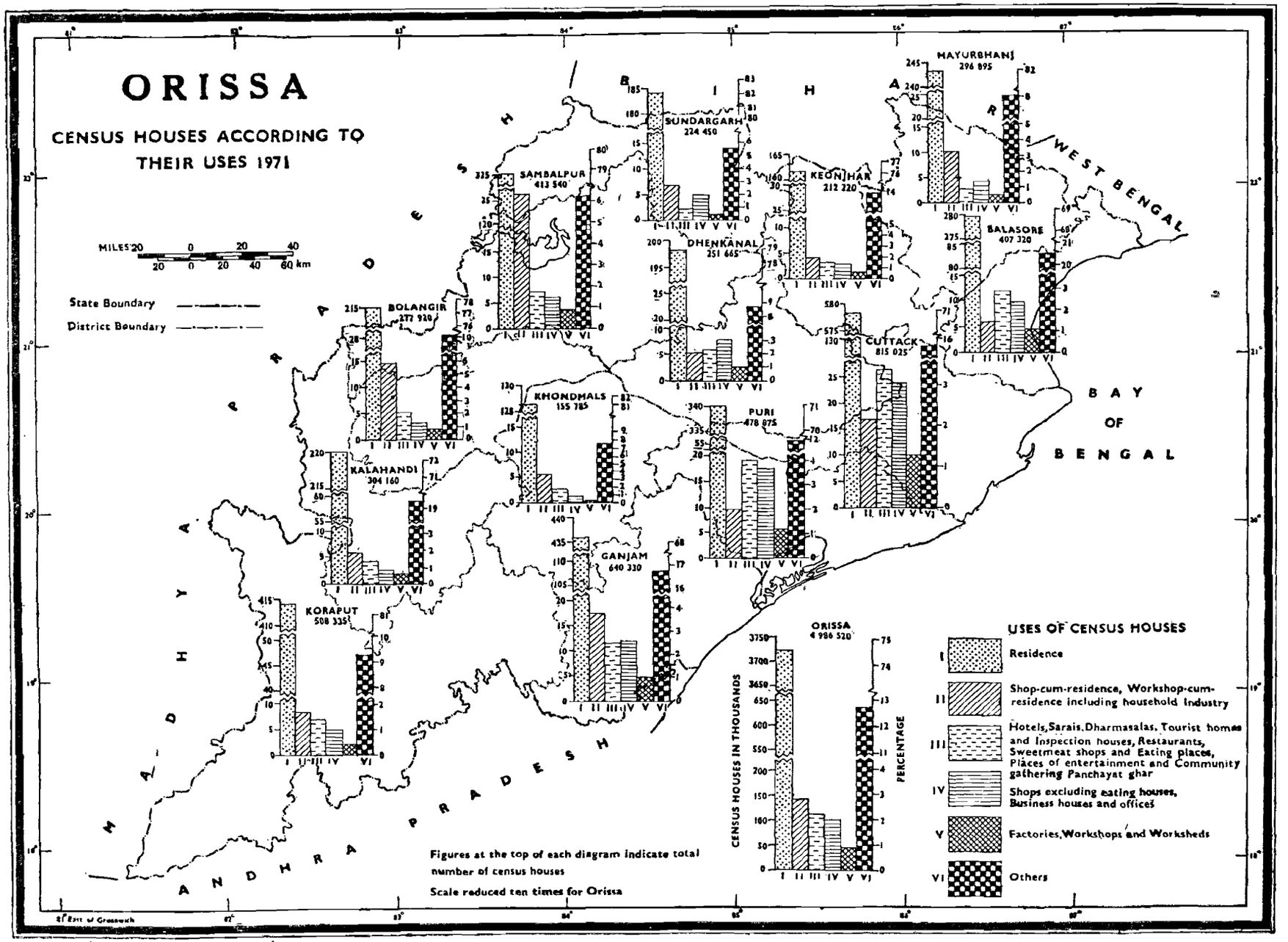
Percentage values of houses of different uses to total number of houses are calculated for each district. Bars proportionate to the number of census houses of different uses are drawn for each district at the appropriate place. The total number of census houses of each district is written at the top of the concerned bar diagram.

Each bar is shaded with suitable hatching as per the index of the map to differentiate one with another. Absolute scales and percentage scales are drawn on the left and right hand side of the bar diagram respectively.

All the census houses are grouped into six categories as indicated in the legend of the map. This map reveals that as many as 4,986,520 are occupied census houses in the state. Out of which 3,721,390 or 74·63 per cent are used for residential purpose in 1971 Census.

Out of all occupied census houses more than 68·00 per cent are used only for residential purpose in each of the districts of Orissa. In Sambalpur district 6·44 per cent of houses are used as shop-cum-residence, workshop-cum-residence including household industry followed by Bolangir (5·28 per cent), Mayurbhanj (3·56 percent), Baudh-Khondmals (3·46 per cent) and Sundargarh (3·18 per cent).

Percentage share of hotels, sarais, dharmasalas, etc., in Puri district is 4·05 which is the highest of all districts followed by Cuttack (3·25 per cent) and Balasore (2·91 per cent). Census houses used as shops excluding eating houses, business houses and Offices constitute less than 3·00 per cent in all districts except Puri (3·71). Similarly houses used as factories, workshops and worksheds constitute less than one per cent in all districts except Puri (1·18), Cuttack (1·24), Balasore (1·10), and Dhenkanal (1·07)


ORISSA
CENSUS HOUSES ACCORDING TO THEIR USES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BOLANGIR 277 930
SAMBALPUR 413 540
SUNDARGARH 224 450
DHENKANAL 251 665
KEONJHAR 212 220
MAYURBHANJ 296 895
BALASORE 407 320
CUTTACK 815 025
PURI 478 875
KHONDMALS 155 785
KALAHANDI 304 160
GANJAM 640 330
KORAPUT 508 335
ORISSA 4 996 520
CENSUS HOUSES IN THOUSANDS
PERCENTAGE
Figures at the top of each diagram indicate total number of census houses
Scale reduced ten times for Orissa
USES OF CENSUS HOUSES
I Residence
II Shop-cum-residence, Workshop-cum-residence including household industry
III Hotels, Sarais, Dharmasalas, Tourist homes and Inspection houses, Restaurants, Sweetmeat shops and Eating places, Places of entertainment and Community gathering Panchayat ghar
IV Shops excluding eating houses, Business houses and offices
V Factories, Workshops and Worksheds
VI Others
BAY OF BENGAL
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BIHAR

MAP No. 128

URBAN HOUSEHOLDS IN RENTED HOUSES, 1971

This map provides the percentage of census households living in rented houses to total number of census households in urban areas of each district, 1971.

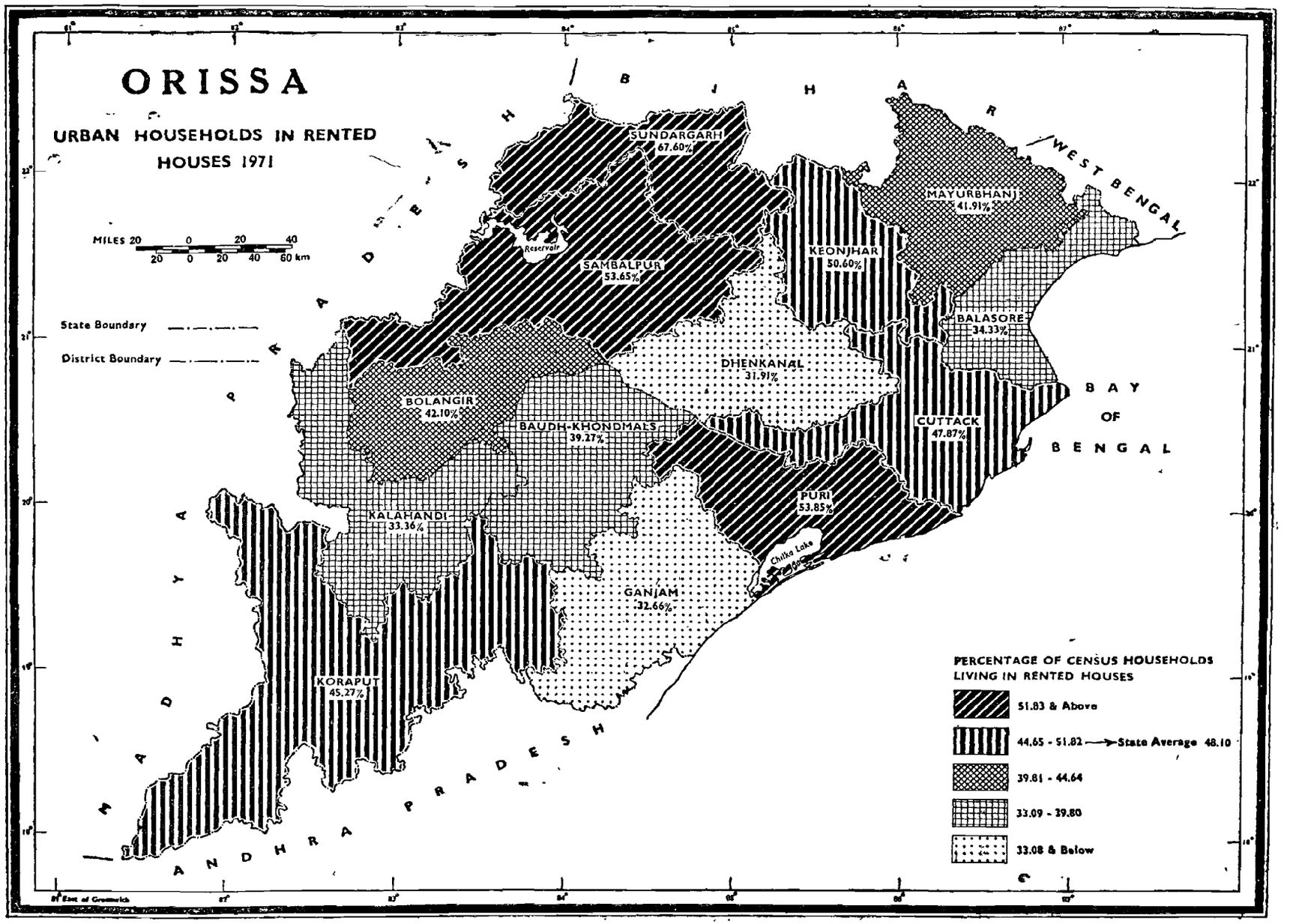
Percentage values of urban census households living in rented houses as per the tenure status to total urban census households are calculated for each of the districts taking data from H-IV table of 1971 Census. The data thus obtained are grouped into five suitable ranges—one above, one nearer to and three below the state average (48·10). Each district is shaded with appropriate hatching as per the index of the map and percentage values are written therein.

There are 363,670 urban census households excluding institutional and houseless households of which 174,915 or 48·18 per cent are living in rented houses in the state.

Above 51·82 per cent households are living in rented houses of the urban parts of three districts, namely, Sundargarh, Puri and Sambalpur whereas in the districts of Keonjhar, Cuttack and Koraput the percentage of urban households lies in the range 44·65 to 51·82 in which state average (48·10) also falls.

In the third range (39·81—44·64) only Mayurbhanj and Bolangir districts are exhibited. Three districts such as Balasore, Baudh-Khondmals and Kalahandi in which urban households living in rented houses constitute the percentage values which lie in the range 33·09 to 39·80. Ganjam and Dhenkanal are two districts in which percentage of hosuseholds living in rented houses falls in the lowest range 33·08 and below.

MAP No. 128


ORISSA
URBAN HOUSEHOLDS IN RENTED HOUSES 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 67.60%
SAMBALPUR 53.65%
Reservoir
MAYURBHANJ 41.91%
KEONJHAR 50.60%
BALASORE 34.33%
DHENKANAL 31.91%
BOLANGIR 42.10%
BAUDH-KHONDMALS 39.27%
CUTTACK 47.87%
PURI 53.85%
KALAHANDI 33.36%
Chilka Lake
GANJAM 32.66%
KORAPUT 45.27%
PERCENTAGE OF CENSUS HOUSEHOLDS LIVING IN RENTED HOUSES
51.83 & Above
44.65 - 51.82 → State Average 48.10
39.81 - 44.64
33.09 - 39.80
33.08 & Below

MAP No. 129

MEDICAL INSTITUTIONS PER 10,000 OF CENSUS HOUSES, 1971

This map exhibits the proportion of medical institutions per 10,000 census houses in each of the districts of Orissa.

A census house is a building or part of a building having a separate main entrance from the road or common courtyard or staircase etc., used or recognised as a separate unit. It may be inhabited or vacant. It may be used for a residential or non-residential purpose or both. Medical institution includes hospitals, doctors' clinics, dispensaries, primary health centres, maternity and child welfare centres, etc. The number of such medical institutions per 10,000 of census houses is calculated for each of the district of Orissa. These calculated figures are grouped into five suitable ranges—two above, one nearer to and two below the state average (1·75). Districts under different ranges are shaded by choropleth method as shown in the legend of the map.

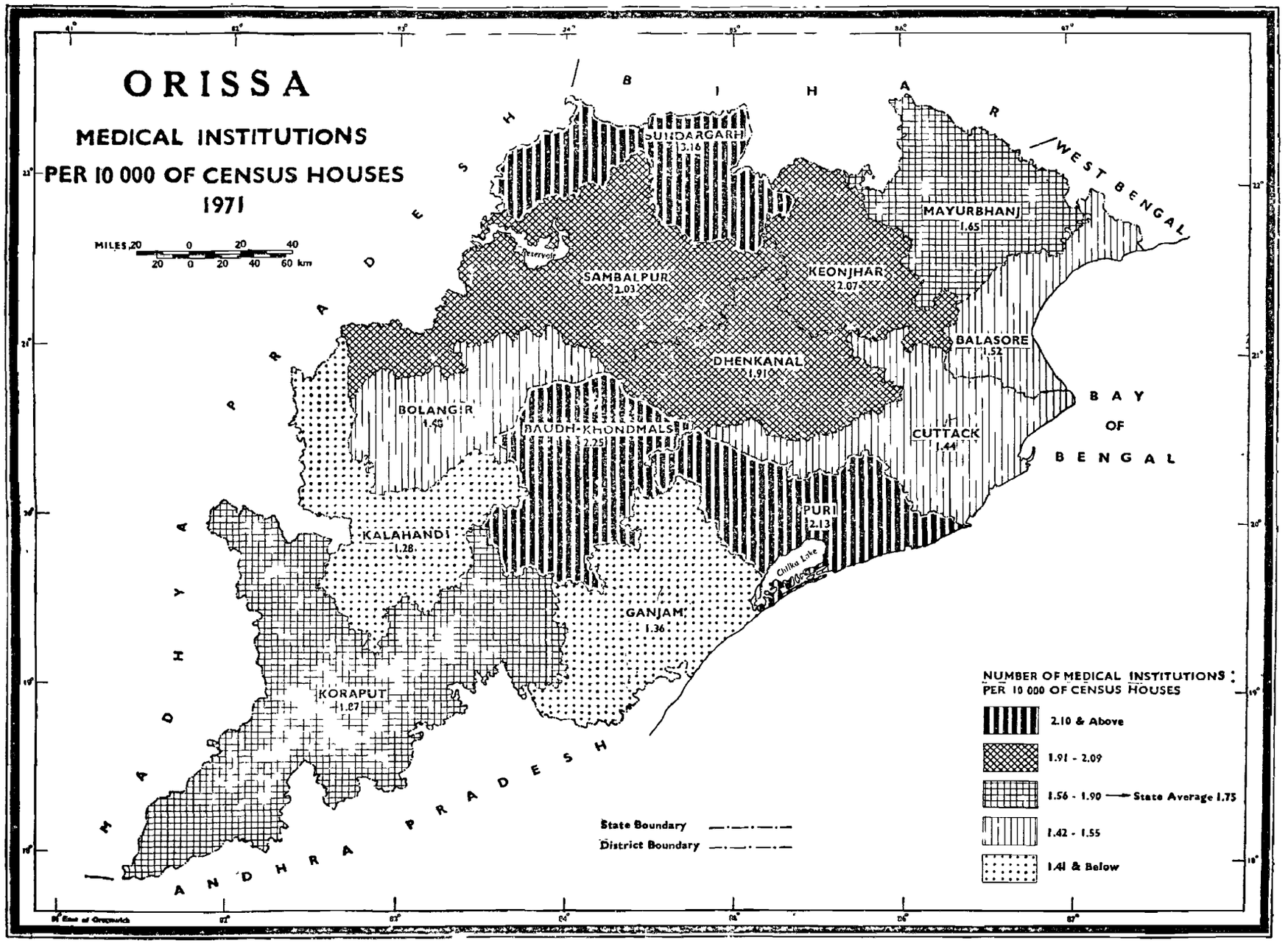
Out of 4,986,520 census houses in the state 874 or 1·75 per 10,000 census houses are used for medical institutions.

The statement shows the number of census houses, medical institutions as well as the proportions of medical institutions available per 10,000 of census houses in each of the districts of the state. This proportion varies in the districts.

Sundargarh maintains the highest proportions having about 3 medical institutions for every 10,000 census houses.

Ganjam district has the lowest proportion having one medical institution for every 10,000 census houses.

State/District	Census houses	No. of medical Institutions	Medical Institution per 10,000 of Census houses
1	2	3	4
ORISSA ..	**4,986,520**	**874**	**1·75**
Sambalpur ..	413,540	84	2·03
Sundargarh ..	224,450	71	3·16
Keonjhar ..	212,220	44	2·07
Mayurbhanj ..	296,895	49	1·65
Balasore ..	407,320	62	1·52
Cuttack ..	815,025	117	1·44
Dhenkanal ..	251,665	48	1·91
Baudh-Khondmals ..	155,785	35	2·25
Bolangir ..	277,920	41	1·48
Kalahandi ..	304,160	39	1·28
Koraput ..	508,335	95	1·87
Ganjam ..	640,330	87	1·36
Puri ..	478,875	102	2·13


ORISSA
MEDICAL INSTITUTIONS
PER 10 000 OF CENSUS HOUSES
1971
MILES 20 0 20 40
20 0 20 40 60 km
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 3.16
SAMBALPUR 2.03
KEONJHAR 2.07
MAYURBHANJ 1.65
BALASORE 1.52
DHENKANAL 1.91
BOLANGIR 1.45
BAUDH-KHONDMALS 2.25
CUTTACK 1.44
PURI 2.13
KALAHANDI 1.28
GANJAM 1.36
KORAPUT 1.87
Chilka Lake
State Boundary
District Boundary
NUMBER OF MEDICAL INSTITUTIONS PER 10 000 OF CENSUS HOUSES
2.10 & Above
1.91 - 2.09
1.56 - 1.90 State Average 1.75
1.42 - 1.55
1.41 & Below

MAP No. 130

HOSPITAL BEDS PER 100,000 OF POPULATION, 1971

This map presents the number of hospital beds available per 100,000 of population in each district in 1971.

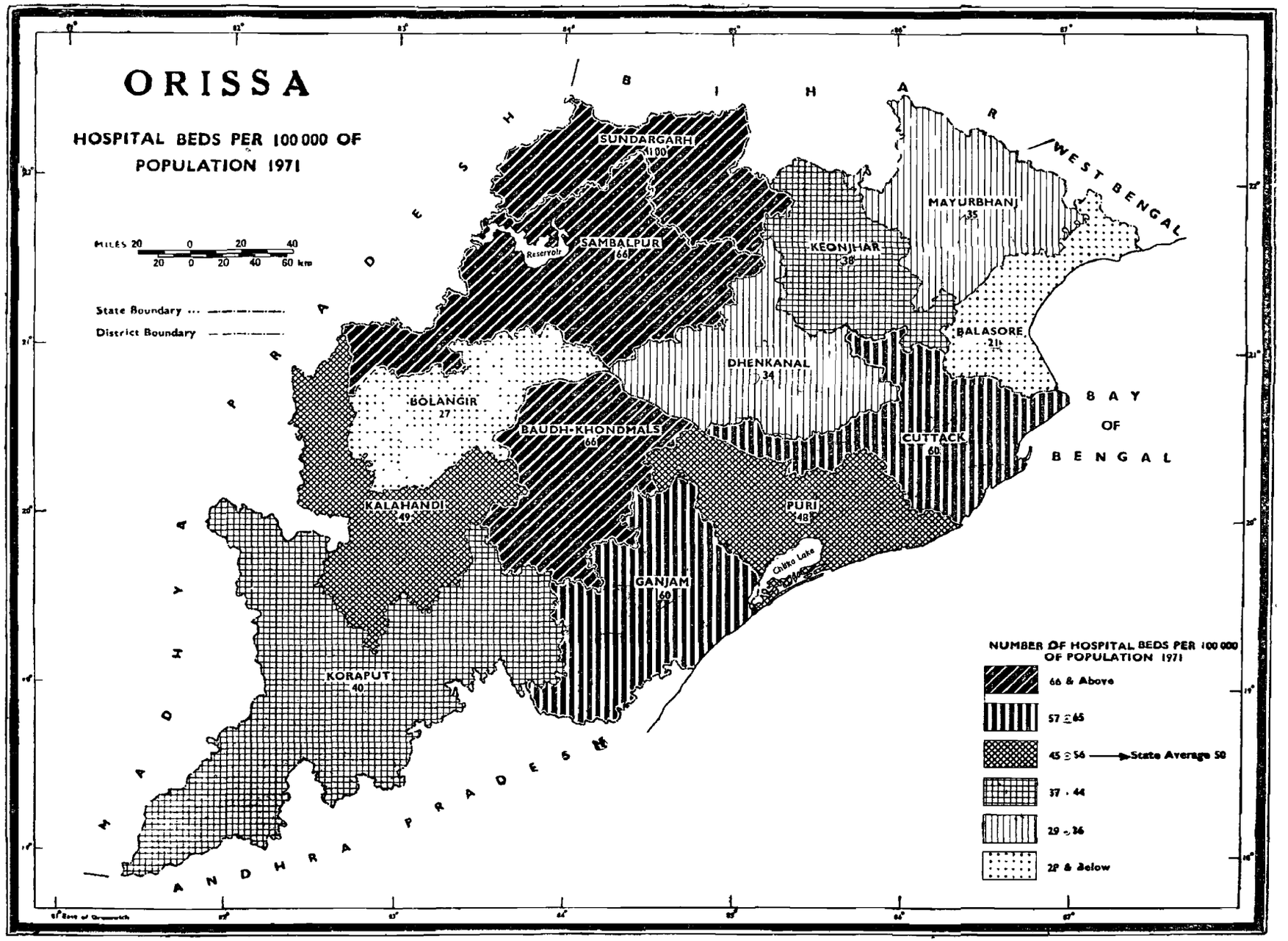
Information with regard to the number of beds has been obtained from the Director of Health Services, Orissa. Number of hospital beds available for one lakh population of each of the 13 districts of the state has been worked out and grouped into six suitable ranges, viz, 66 and above, 57—65, 45—56, 37—44, 29—36 and 28 and below and the districts have been hatched as shown in the legend of the map.

The state has got as many as 10,865 hospital beds for 21,944,615 population as per the 1971 Census. In otherwords, there are about 50 hospital beds in the state for every 100,000 of population.

The districts of Sundargarh, Sambalpur and Baudh-Khondmals have got larger number of beds while Balasore district has the lowest number, i. e., 21 beds per one lakh of population. Bolangir district has got the lowest number of hospital beds (338).

The number of hospital beds per 100,000 of population in every district in 1971 is given below.

State/District		Total No. of hospital beds	No. of beds per 100,000 population
1		2	3
ORISSA	..	***10,865***	***50***
Sambalpur	..	1,226	66
Sundargarh	..	1,034	100
Keonjhar	..	363	38
Mayurbhanj	..	505	35
Balasore	..	378	21
Cuttack	..	2,284	60
Dhenkanal	..	442	34
Baudh-Khondmals	..	410	66
Bolangir	..	338	27
Kalahandi	..	576	49
Koraput	..	827	40
Ganjam	..	1,368	60
Puri	..	1,114	48


ORISSA
HOSPITAL BEDS PER 100 000 OF POPULATION 1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 100
SAMBALPUR 66
Reservoir
KEONJHAR 38
MAYURBHANJ 35
BALASORE 21
DHENKANAL 34
BOLANGIR 27
BAUDH-KHONDMALS 66
CUTTACK 60
KALAHANDI 49
PURI 48
GANJAM 60
Chilka Lake
KORAPUT 40
NUMBER OF HOSPITAL BEDS PER 100 000 OF POPULATION 1971
66 & Above
57 - 65
45 - 56
State Average 50
37 - 44
29 - 36
28 & Below

MAP No. 131

REGISTERED MEDICAL PRACTITIONERS PER 100,000 OF POPULATION, 1971

This map presents the number of registered medical practitioners available per 100,000 of population in 1971.

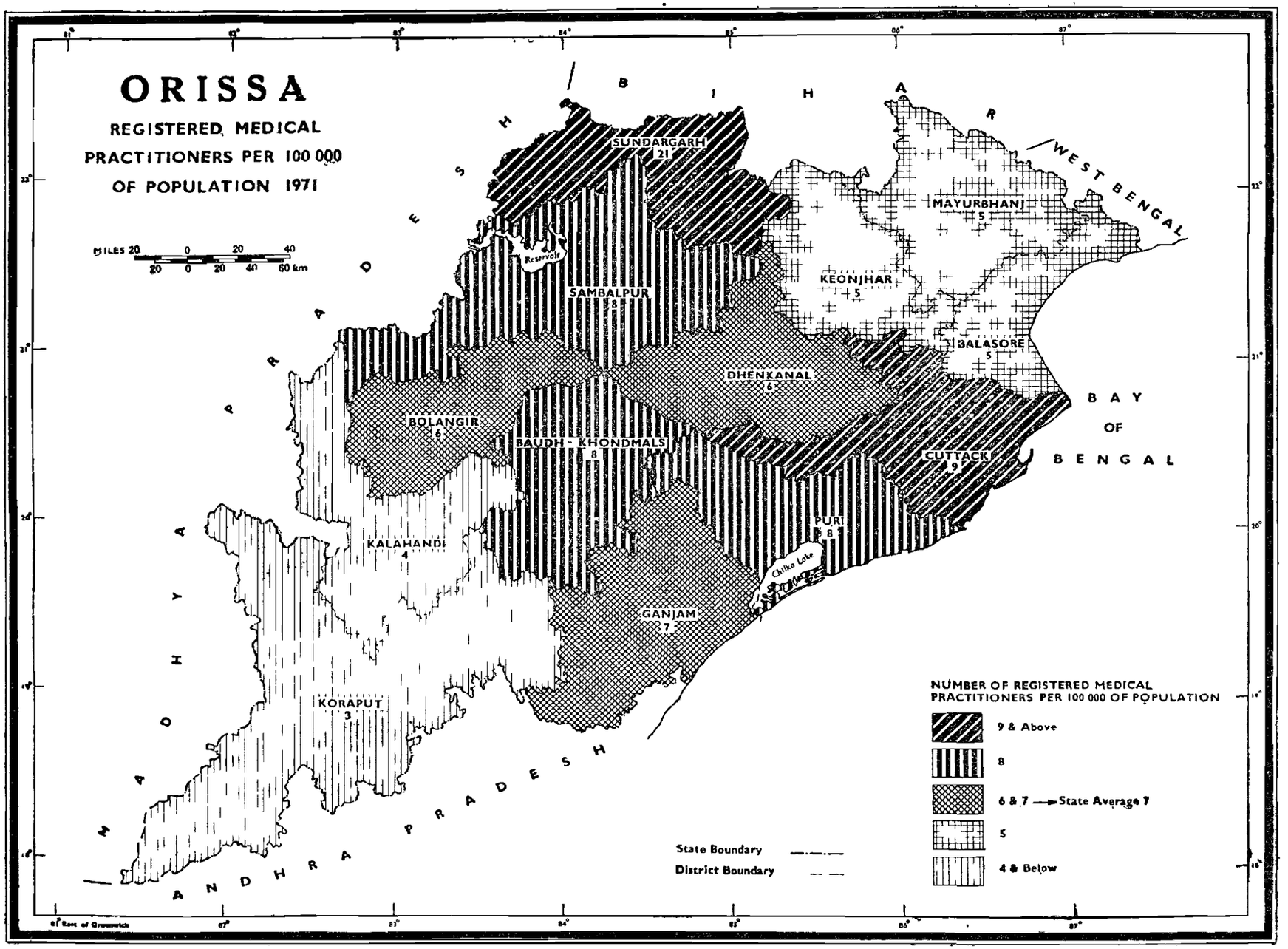
The information with regard to number of medical practitioners in medical institutions (Allopathic) available all over the state is ascertained from the Director of Health Services, Orissa and their proportion to 100,000 population is worked out for each district. The data thus calculated are grouped into 5 suitable ranges, namely, 9 and above, 8, 6 and 7, 5 and 4 and below. All the districts have been hatched in accordance with these ranges as shown in the legend of the map.

Orissa with her population of 21,944,615 has only 1,820 medical practitioners in medical institutions (Allopathic). This shows that only eight doctors are available to serve one lakh of population of the state.

A review discloses that doctors numbering from 3—20 are serving in different districts for a population of one lakh.

Sundargarh district has the highest number of doctors (20) per one lakh of population whereas Koraput district occupies the lowest (3) proportion in this regard.

Name of state/ district		Total population	Regd. Medical practitioners (Allopathic)	Doctor per 100 000 of population
1		2	3	4
ORISSA	..	**21,944,615**	**1,820**	8
Sambalpur	..	1,844,898	245	13
Sundargarh	..	1,030,758	209	20
Keonjhar	..	955,514	32	3
Mayurbhanj	..	1,434,200	66	5
Balasore	..	1,830,504	81	4
Cuttack	..	3,827,678	507	13
Dhenkanal	..	1,293,914	68	5
Baudh-Khondmals	..	621,675	43	7
Bolangir	..	1,263,657	59	5
Kalahandi	..	1,163,869	42	4
Koraput	..	2,043,281	56	3
Ganjam	..	2,293,808	254	11
Puri	..	2,340,859	158	7


ORISSA
REGISTERED MEDICAL PRACTITIONERS PER 100 000 OF POPULATION 1971
MILES 20 0 20 40
20 0 20 40 60 km
SUNDARGARH 21
SAMBALPUR 8
MAYURBHANJ 5
KEONJHAR 5
BALASORE 5
DHENKANAL 6
BOLANGIR 6
BAUDH - KHONDMALS 8
CUTTACK 9
PURI 8
KALAHANDI 4
GANJAM 7
KORAPUT 3
Chilka Lake
BIHAR
WEST BENGAL
ORISSA
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
State Boundary
District Boundary
NUMBER OF REGISTERED MEDICAL PRACTITIONERS PER 100 000 OF POPULATION
9 & Above
8
6 & 7 → State Average 7
5
4 & Below

MAP No. 132

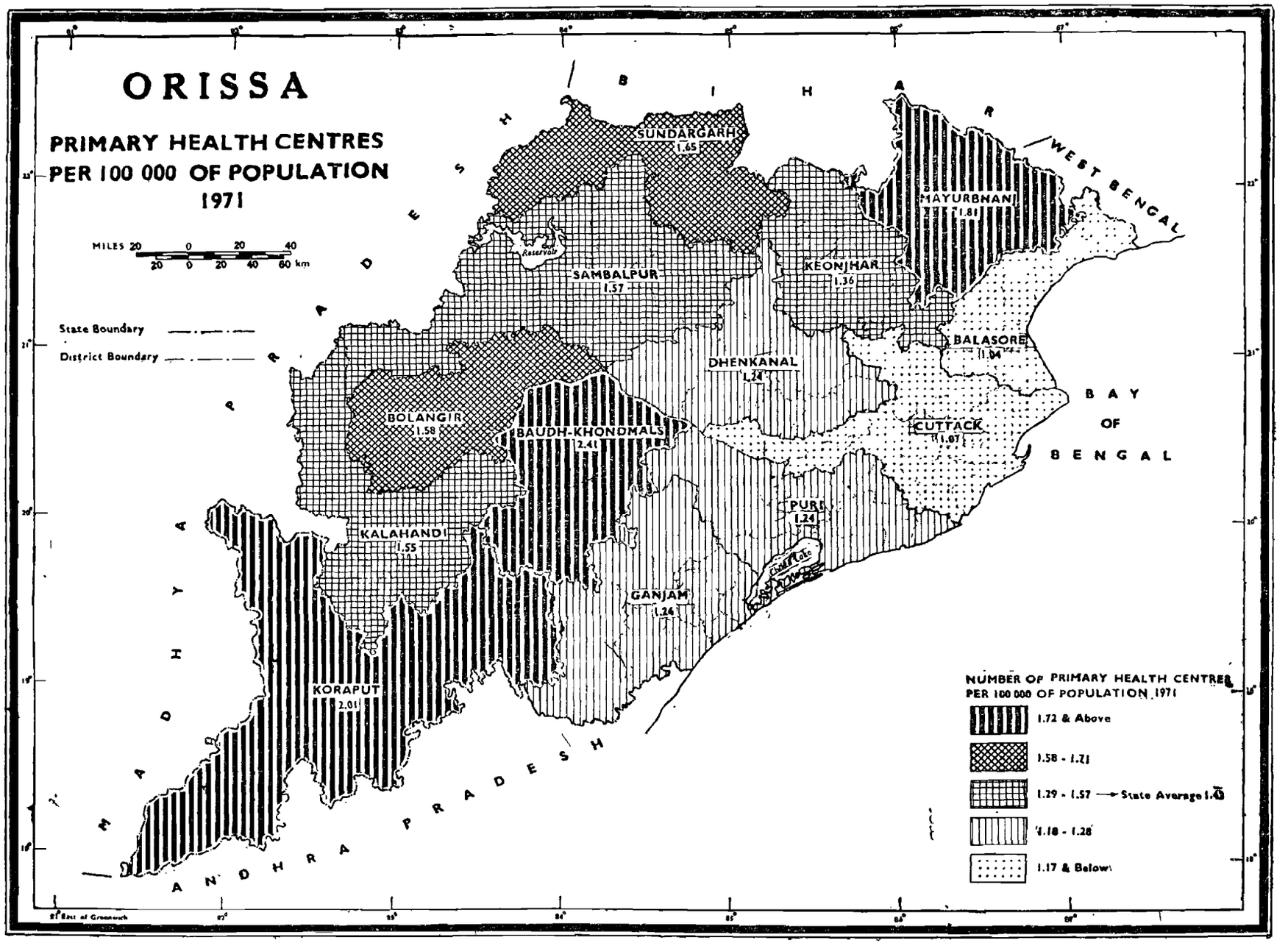
PRIMARY HEALTH CENTRES PER 100,000 OF POPULATION, 1971

This map exhibits the number of primary health centres available per one lakh of population for the state and districts.

The ratios between the number of primary health centres and every 100,000 population in each of the 13 districts of the state have been worked out and arranged in five suitable ranges, viz., 1·72 and above, 1·58—1·71, 1·29—1·57, 1·18—1·28 and 1·17 and below. All the 13 districts of the state have been hatched in accordance with these five ranges as shown in the index and the corresponding proportions depicted against the districts.

The state has got as many as 313 primary health centres for 21,944,615 population and accordingly the number of primary health centres per 100,000 population of the state comes to one.

Districts of Baudh-Khondmals, Koraput and Mayurbhanj come under the highest range while the districts of Balasore and Cuttack come within the lowest range. The average number of Primary Health centres per one lakh of population of these 13 districts lies between one and three, Baudh-Khondmals has got the highest ratio having about 3 public health centres per 100,000 of population while Balasore has the lowest position having about one public health centre for the same size of population.


ORISSA
PRIMARY HEALTH CENTRES
PER 100 000 OF POPULATION
1971
MILES 20 0 20 40
20 0 20 40 60 km
State Boundary
District Boundary
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH 1.65
SAMBALPUR 1.57
KEONJHAR 1.36
MAYURBHANJ 1.81
BALASORE 1.84
DHENKANAL 1.74
CUTTACK 1.87
BOLANGIR 1.58
BAUDH-KHONDMALS 2.41
PURI 1.24
KALAHANDI 1.55
GANJAM 1.24
KORAPUT 2.01
Chilka Lake
Reservoir
NUMBER OF PRIMARY HEALTH CENTRES PER 100 000 OF POPULATION 1971
1.72 & Above
1.58 - 1.71
1.29 - 1.57 → State Average 1.43
1.18 - 1.28
1.17 & Below