# CENSUS OF INDIA 1981

SERIES - 16

# ORISSA

PART XII

# CENSUS ATLAS

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*of the Indian Administrative Service*
Director of Census Operations, Orissa

CENSUS OF INDIA 1981

## A—CENTRAL GOVERNMENT PUBLICATIONS

### THE PUBLICATION RELATING TO ORISSA

| | | |
|---|---|---|
| Part I-A | — | Administration Report on Enumeration |
| Part I-B | — | Administration Report on Tabulation |
| Part II-A | — | General Population Tables |
| Part II-B | — | Primary Census Abstract |
| Part III | — | General Economic Tables |
| Part IV | — | Social and Cultural Tables |
| Part V | — | Migration Tables |
| Part VI | — | Fertility Tables |
| Part VII | — | Tables on Houses and Disabled Population |
| Part VIII | — | Household Tables |
| Part IX | — | Special Tables on Scheduled Castes and Scheduled Tribes |
| Part X-A | — | Town Directory |
| Part X-B | — | Survey Reports on Selected Towns |
| Part X-C | — | Survey Reports on Selected Villages |
| Part XI | — | Ethnographic Notes and special studies on Scheduled Castes and Scheduled Tribes |
| Part XII | — | Census Atlas (Present Volume) |
| Series 1, Vol.XVI | — | Regional Divisions of India A Cartographic analysis |

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- Maps in this atlas are based on Survey of India map with the permission of the Surveyor General of India
- The boundary of Meghalayas shown on the map of India is as interpreted from the North-eastern areas (Reorganisation) Act, 1971, but has yet to be verified (Applicable to India map only).
- The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.
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- The age-groupwise data used in the preparation of some maps were processed on computer broadly conform to the relevant figures published in the Primary Census Abstract but there may be some marginal difference in totals due to rounding off.

## FOREWORD

The Indian Census enjoys the reputation of being the richest single source for giving information about the people of the country. The Census Organisation furnishes information regarding distribution of population, sex, age, working population and several other dimensions of data on castes and tribes. The Census of India also to some extent undertakes the collection of non-census statistics on useful variables, such as, land uses at tahsil and taluk levels, basic amenities in rural and urban areas, distances of settlements with reference to nearest urban areas which are published in various publications in conjunction with Census data. It was three decades ago that the 1961 Census for the first time organised a special programme of the Census Atlas mapping and a series of Census Atlases of States/Union Territories, and for the nation as a whole were brought out. This programme was appreciated by the scholars, data users and the academicians, and hence it became one of the regular features of the post censal research programme of the Census Organisation. The volumes under this programme were published as Part IX (A) of various series during 1961 and 1971 Censuses and stand included as Part XII of the general census publication plan for the 1981 Census.

During these decades, the Census has not confined itself to the producing of mere stray maps for various publications but has undertaken much detailed mapping of the local and regional areas having relevance to the production of specific tables and special studies. This has added to the usefulness of Census statistics besides, making them more appealing and contributive to the assessment of the distribution of population at various levels! Special maps like urban land uses of towns and urban agglomerations and standard urban area maps enriched the State Volumes namely part II (A) dealing with population and area figures, town directories etc. Such publications are well known as source materials produced by the Census for the people and the country. Besides these, the district Census hand books dealing with detailed village and townwise population characteristics, contain basic maps of Districts/Tahsils/Taluks and equivalent administrative areas of the various parts of the country showing boundaries, locations of villages and urban spread. In addition, these important basic maps contain information, such as, population sizes of each Census village and town with the Census Location Codes, amenities like post and telegraph offices, family health programme centres (Primary Health Centres, Dispensaries, Maternity and Child Welfare Centres), Schools and other educational institutions, important village markets etc. Infrastructural facilities like roads duly classified and including important cart-tracks and railways are also shown. Thus, the Census Organisation has been striving to furnish a variety of cartographic information directly concerned with the Census activities and even beyond.

The Census Atlas programme has been formulated to record through maps the demographic characteristics to project a holistic approach to measure and assess population patterns. The mapping is conducted for atlas maps embracing more or less the entire 1981 Census tables at Tahsil/Taluk/Town/UA level, through districts and States. The population situation is changing from decade to decade due to various economic developments, and one may glean through these maps the contemporary human problems and patterns for spatial planning and related purposes.

This programme has been worked out at two levels, viz., (i) State/Union Territory Atlas Volumes, and (ii) the National Volume. The techniques of presentation should be versatile and thought provoking and, therefore, the technical planning of the Atlas has been undertaken in a manner so that the maps dealing with the patterns of population distribution, characteristics and dispersals portray contemporary trends and issues. The Atlases include a few general maps on administrative and physical aspects to introduce the region, followed by detailed maps on demographic, economic and socio-cultural aspects consisting of distribution, density and growth of population, age and sex, urban trends, census industrial categories, migration, literacy, religion, physically handicapped, scheduled castes and scheduled tribes, education and health. In all, the programme envisages to publish 31 volumes for the country. The leading volume is the all-India one in the series. A standard list of themes has been generated for presentation of maps according to census data for each State/Union Territory and by-cross-classification of data, the number of maps in these Atlases are kept at a minimum to make each volume handy. The Atlas volumes of the major states of the country may contain 114 maps, such as in the volume of Uttar Pradesh, while for smaller States/Union Territories there will be a minimum of 50 sheets as in the case of Pondicherry. The all-India (National) volume contains 93 map plates and interpretations with diagrams and short statistical tables.

This Atlas programme has been executed under the planning and direction of Dr. B.K. Roy, Deputy Registrar General (Map). Well knit teams worked in the Map Division in my office and the Map Units of the Offices of the Directors of Census Operations of States and Union Territories in the implementation of the programme. A list of all those who have contributed to the completion of the work is given separately in this volume. I congratulate the members of all teams and officers associated with the project on their excellent work and their dedication which contributed to the success of this venture. I hope the volumes will answer the needs and get the approval of scholars, planners, administrators, travellers and the general readers.

New Delhi,
10th March, 1988

V.S. VERMA
REGISTRAR GENERAL, INDIA
&
CENSUS COMMISSIONER INDIA

## PREFACE

The Indian Census is not only confined itself to present information regarding population either in numerical form or inliterary form but also undertakes to provide pictorial presentation of these information in different Census publications. It was for the first time, in 1961 Census, a special programme for preparing Census Atlas was organised and a volume for this State was published. This publication was found to be useful by data users, scholars as well as the planners also. Since then that programme is continuing.

This volume presents a pictorial analyis of demographic, economic and socio-cultural aspects of Orissa. This also attempts to project both Census and non-Census statistics in thematic maps against geographic back-ground. Besides, the Atlas includes a few general maps on administrative and physical aspects of the State. Maps have been supplemented by suitable explanatory notes, relatively simple designed to lead to reader's eye to some salient cartographic areal groups which explain also the purpose, method and structure of emerging pattern of the project themes.

As many as 87 maps of this volume are based on data obtained through the Census and the rest 14 maps are drawn to present the data obtained from different departments of the Central and State Government. This Atlas in to contains 101 maps which have been divided into four sections. Nine plates come orientation and physical condition while 40 plates relate to demographic structure and trend and 24 plates belong to economic aspects. The Socio-culture section includes the rest 28 plates.

A good many administrative offices of both the State and Central Government have made generous contribution for the success of the venture. I am grateful to them for their co-operation and assistance.

I wish to express my gratefulness to Shri V.S. Verma, the 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, Deputy Registrar General, India (Map) for his effective scrutiny and technical guidance for preparation of the maps. I owe a special debt of gratitude to Mrs. Minati Ghosh, Assistant Registrar General (Map) and staff of Map Division of the Office of the Registrar Genera, India for their timely assistance and co-operation. In my Office my thanks go to Shri Jayaprakash Rout, Research Officer (Map), Shri K.C. Bhagabati, Senior Geographer, Shri Chittaranjan Mohanty, Assistant Director, Census (Technical), Shri Madhabananda Naik, Senior Stenographer and staff of Map Section for the immense care they have taken at every stage for bringing out this volume.

S.K. SWAIN
DEPUTY DIRECTOR OF CENSUS OPERATIONS,
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**CENSUS ATLAS PROJECT**

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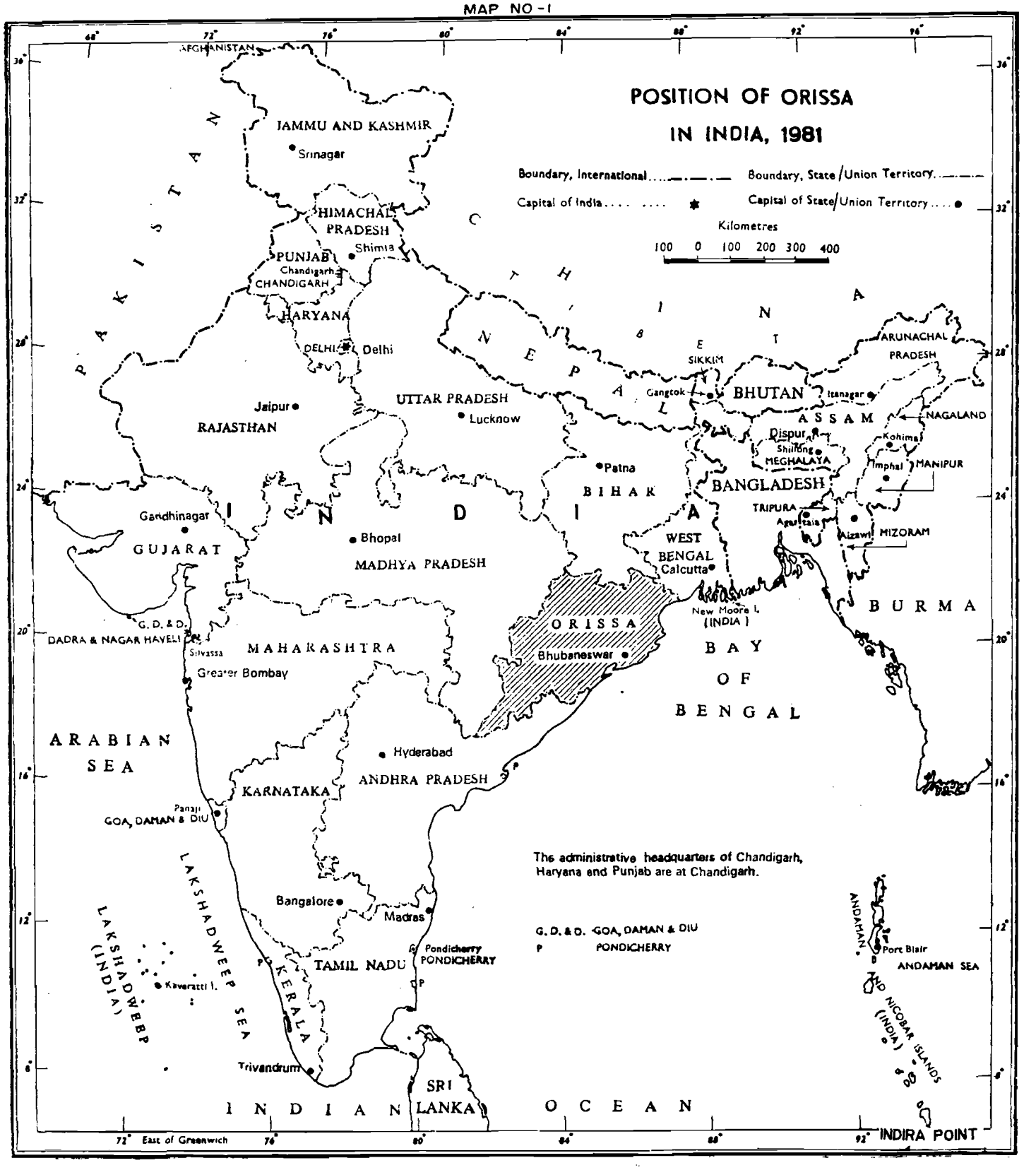
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# ORIENTATION

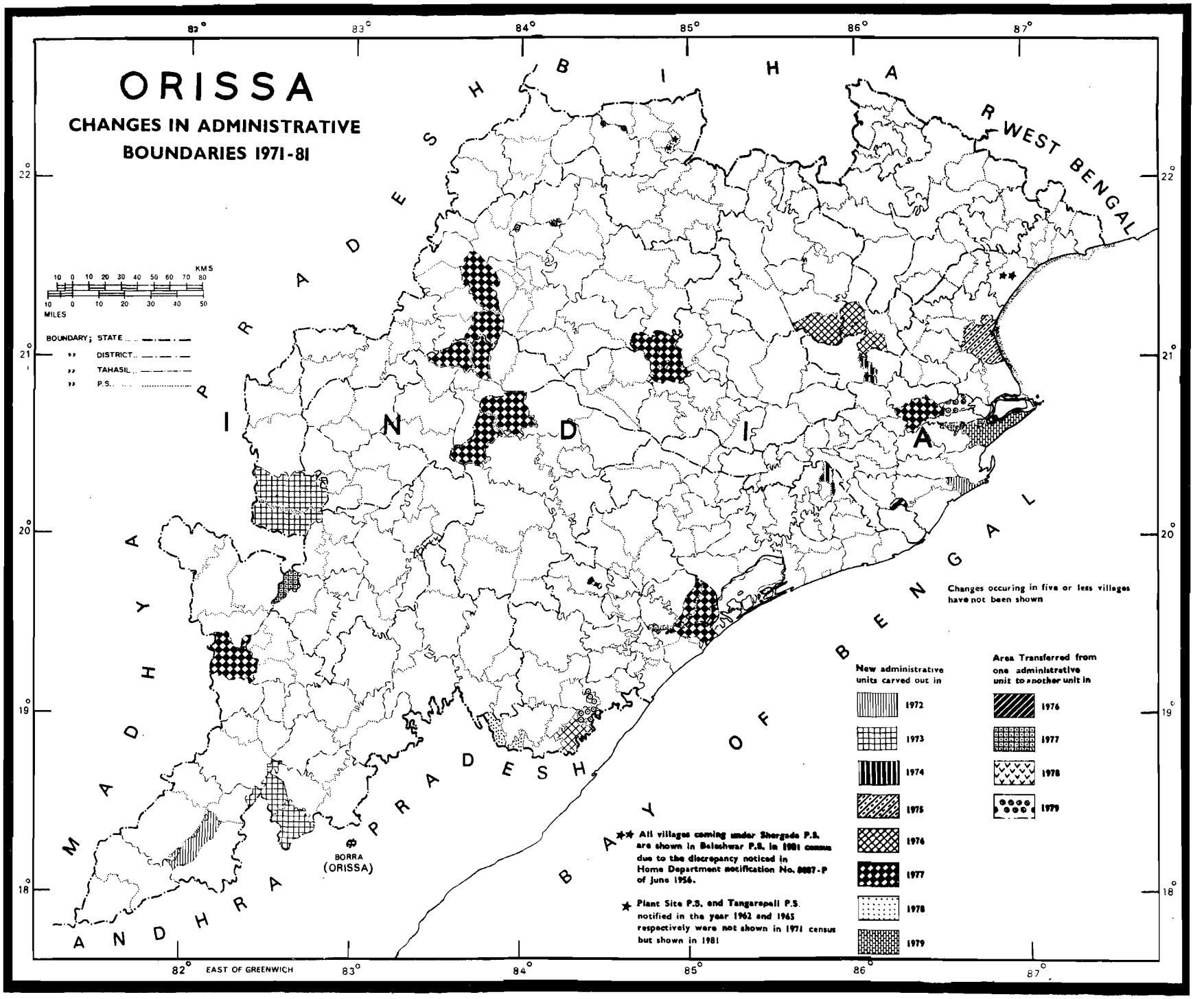
MAP NO - I


POSITION OF ORISSA
IN INDIA, 1981
Boundary, International
Boundary, State/Union Territory
Capital of India
Capital of State/Union Territory
Kilometres
100 0 100 200 300 400
AFGHANISTAN
PAKISTAN
JAMMU AND KASHMIR
Srinagar
HIMACHAL PRADESH
Shimla
PUNJAB
Chandigarh
CHANDIGARH
HARYANA
DELHI
Delhi
Jaipur
RAJASTHAN
UTTAR PRADESH
Lucknow
NEPAL
SIKKIM
Gangtok
BHUTAN
Itanagar
ARUNACHAL PRADESH
ASSAM
NAGALAND
Dispur
Shillong
MEGHALAYA
Kohima
Imphal
MANIPUR
Patna
BIHAR
BANGLADESH
TRIPURA
Agartala
Aizawl
MIZORAM
Gandhinagar
GUJARAT
Bhopal
MADHYA PRADESH
WEST BENGAL
Calcutta
BURMA
G. D. & D.
DADRA & NAGAR HAVELI
Silvassa
MAHARASHTRA
Greater Bombay
ORISSA
Bhubaneswar
New Moore I. (INDIA)
BAY OF BENGAL
ARABIAN SEA
Hyderabad
ANDHRA PRADESH
KARNATAKA
Panaji
GOA, DAMAN & DIU
Bangalore
Madras
Pondicherry
PONDICHERRY
TAMIL NADU
KERALA
LAKSHADWEEP SEA
LAKSHADWEEP (INDIA)
Kavaratti I.
Trivandrum
SRI LANKA
INDIAN OCEAN
ANDAMAN
Port Blair
ANDAMAN SEA
NICOBAR ISLANDS (INDIA)
INDIRA POINT
East of Greenwich
The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.
G. D. & D. GOA, DAMAN & DIU
P PONDICHERRY

MAP No.2

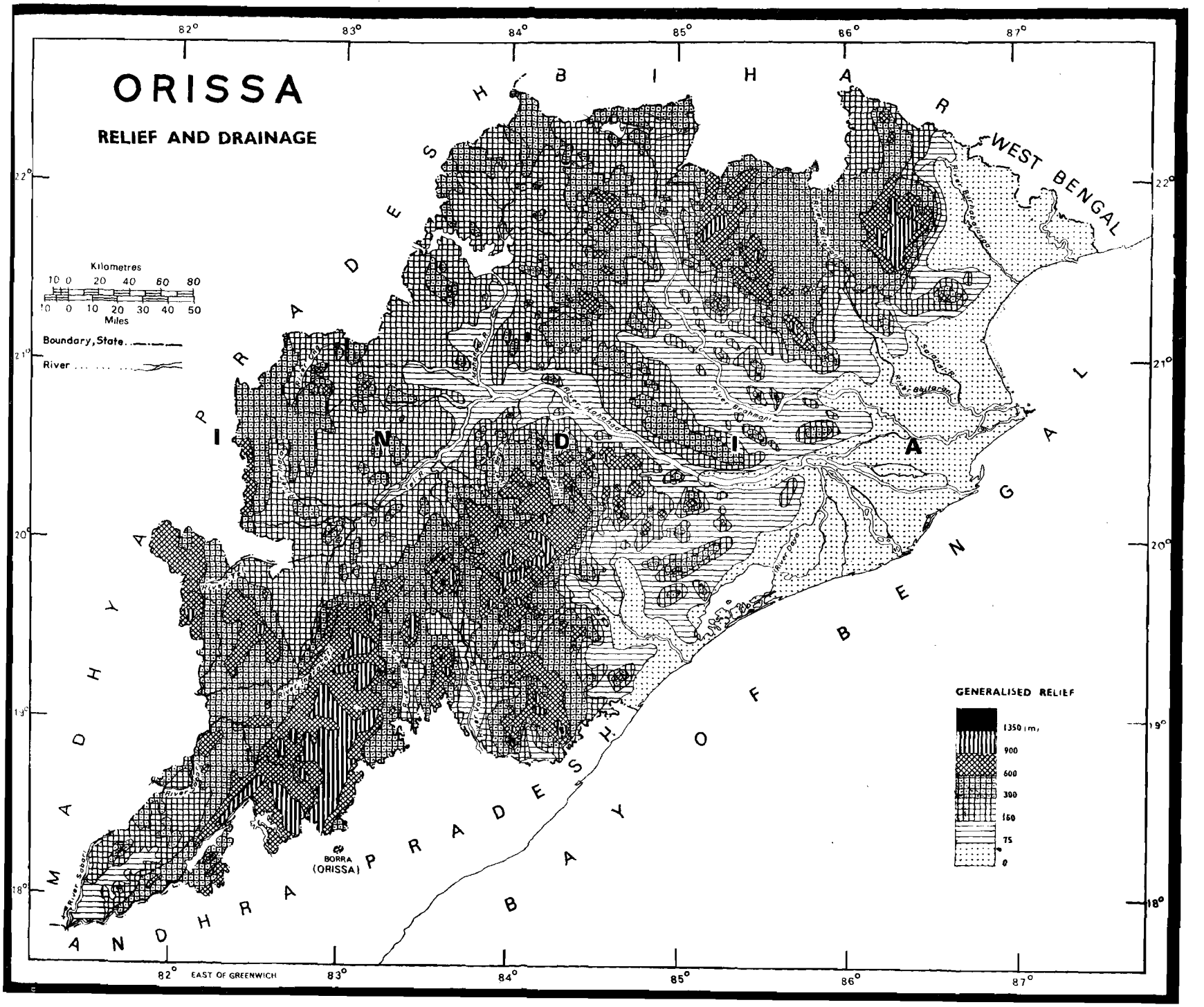

ORISSA
ADMINISTRATIVE DIVISIONS
1981
KMS
MILES
WEST BENGAL
BIHAR
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
BARIPADA
MAYURBHANJ
KENDUJHAR
BALESHWAR
BALANGIR
PHULABANI
(Kandhamal)
DHENKANAL
ATHAGADA
BHAWANIPATNA
(KALAHANDI)
KORAPUT
BORRA
(ORISSA)
CHHATRAPUR
PURI
BHUBANESWAR
TALCHER
The Headquarters of the following police stations are located outside their respective jurisdiction:
Police station
Headquarters located in
Sadar (Sambalpur)
Sambalpur Town
Raghunathapali
Tangarapali
Raurkela Civil & Steel Townships
Cuttack Sadar
Cuttack Town
Brahmapur Sadar
Brahmapur Town
Bhubaneswar
Saheed Nagar
Bhubaneswar Town
Sadar (Puri)
Puri Town
REFERENCES
BOUNDARY, STATE
" DISTRICT
" TAHASIL
" POLICE STATION
HEADQUARTERS, STATE
" DISTRICT
" TAHASIL
" POLICE STATION
The following six units are entirely urban
Sambalpur
Raurkela
Cuttack
Puri
Bhubaneswar
Brahmapur
1. Raurkela Civil & Steel Townships
2. Kendrapara
3. Kesannagar
4. Gobindpur
5. Cuttack Sadar
6. Choudwar
7. Baidyeswar
8. Gangapur
9. Kashinagara
10. Hinjili
11. Bhubaneswar
12. Jatani
13. Chandaka
14. Saheed Nagar
Where the name of the districts Tahasil or Police station differs from the headquarts name the former is given in bracket.
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

MAP No.3

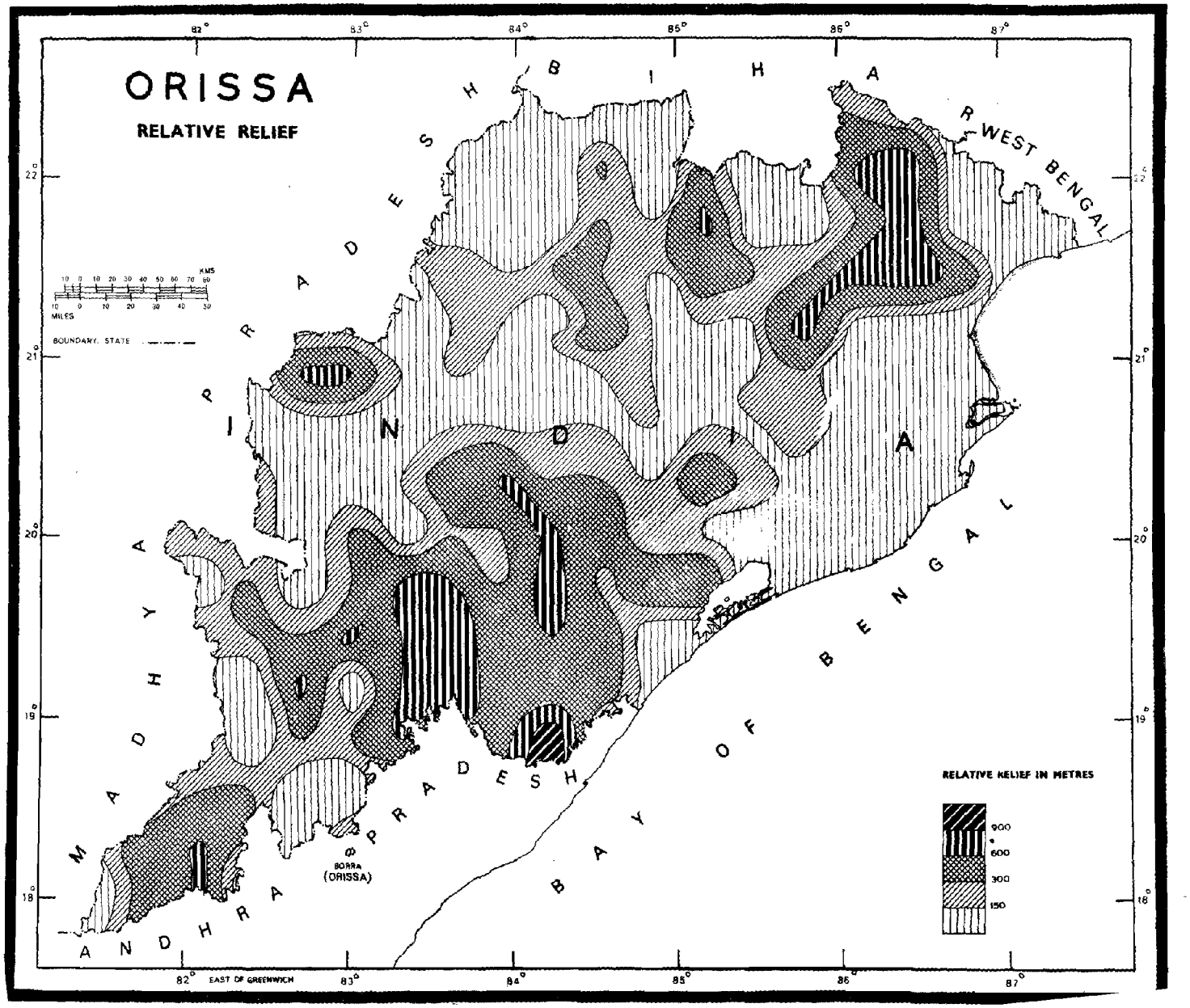

ORISSA
CHANGES IN ADMINISTRATIVE BOUNDARIES 1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY; STATE
DISTRICT
TAHASIL
P.S.
BORRA (ORISSA)
Changes occuring in five or less villages have not been shown
New administrative units carved out in
1972
1973
1974
1975
1976
1977
1978
1979
Area Transferred from one administrative unit to another unit in
1976
1977
1978
1979
** All villages coming under Shergada P.S. are shown in Baleshwar P.S. in 1981 census due to the discrepancy noticed in Home Department notification No. 8887-P of June 1956.
* Plant Site P.S. and Tangarapali P.S. notified in the year 1962 and 1965 respectively were not shown in 1971 census but shown in 1981
82° EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

# PHYSICAL ASPECTS

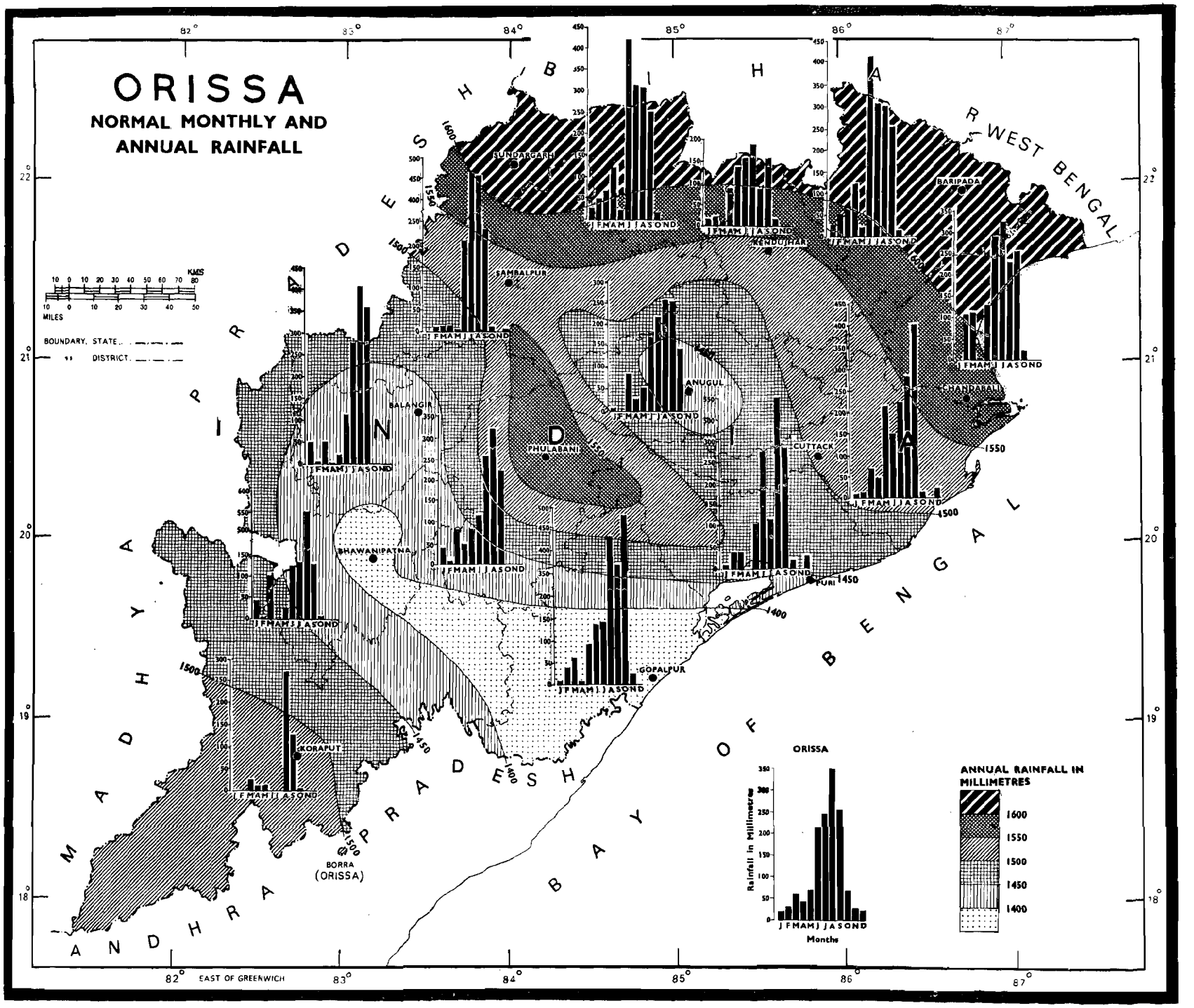
MAP No.4


ORISSA
RELIEF AND DRAINAGE
Kilometres
10 0 20 40 60 80
10 0 10 20 30 40 50
Miles
Boundary, State
River
GENERALISED RELIEF
1350 (m.)
900
600
300
160
75
0
BORRA (ORISSA)
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
MADHYA PRADESH
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
INDIA

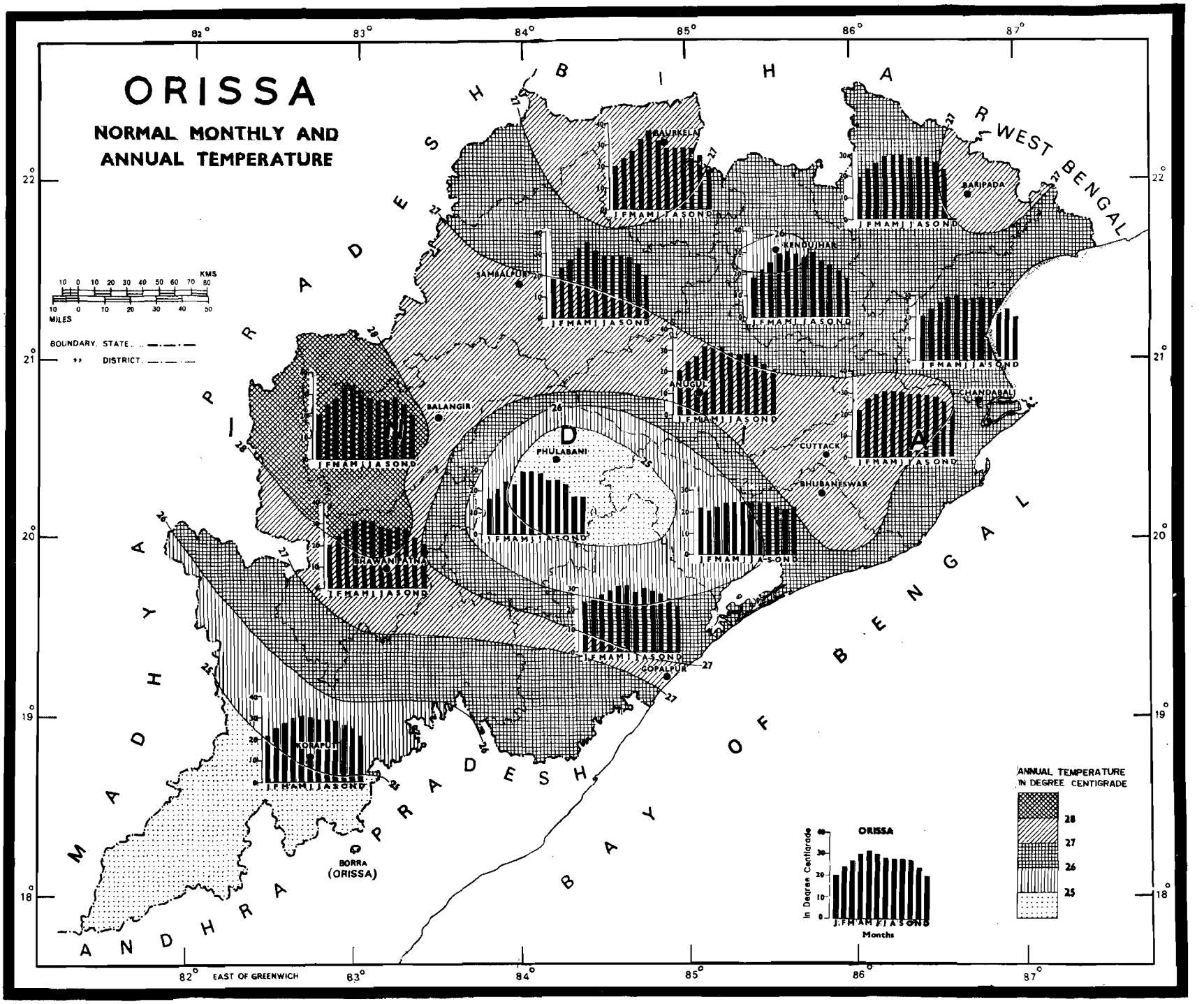
MAP No.5


ORISSA
RELATIVE RELIEF
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
BORRA (ORISSA)
BOUNDARY, STATE
MILES
KMS
RELATIVE RELIEF IN METRES
900
600
300
150
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

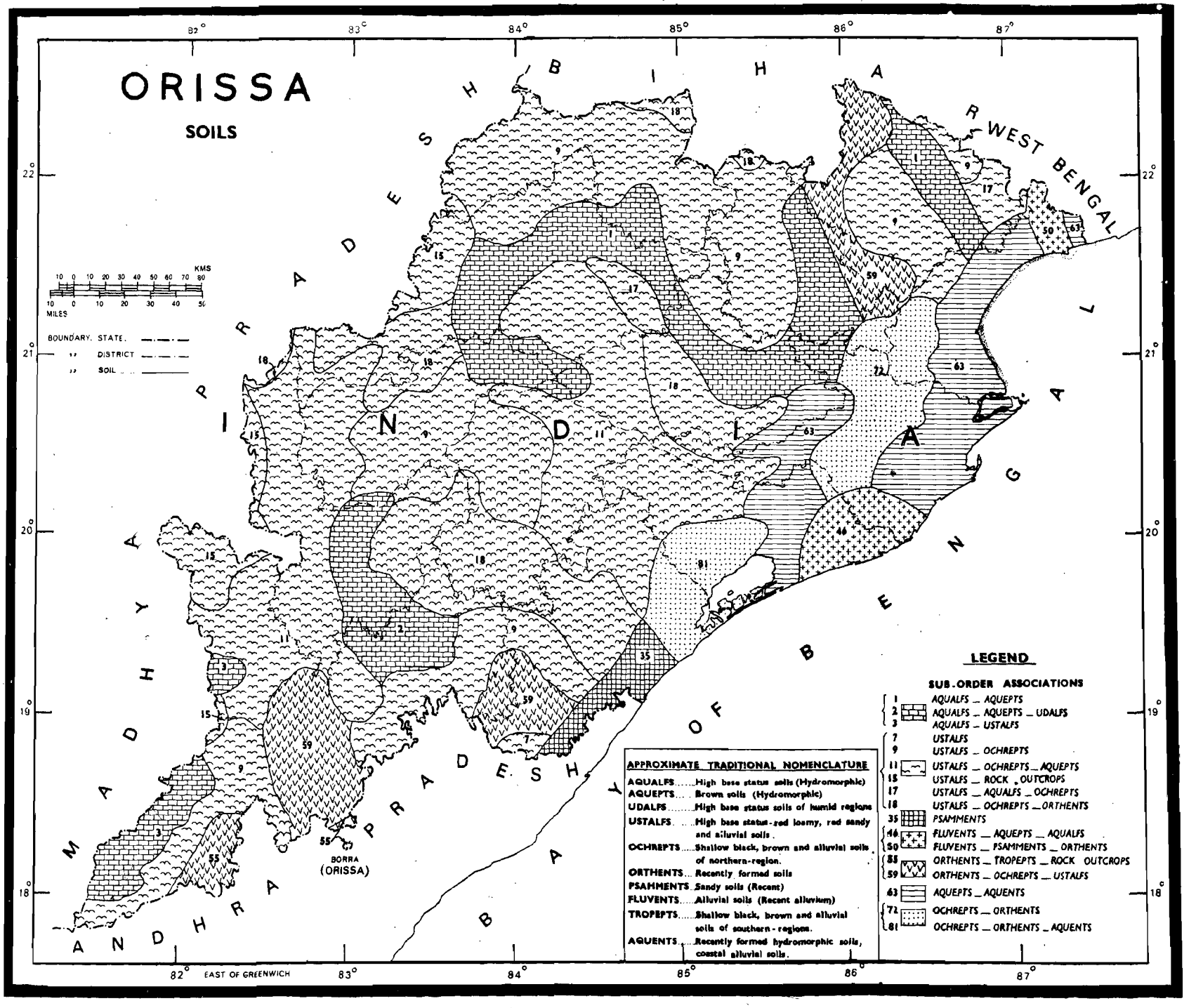
MAP No.6


ORISSA
NORMAL MONTHLY AND
ANNUAL RAINFALL
WEST BENGAL
BIHAR
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
BARIPADA
KEONJHAR
ANUGUL
BALANGIR
PHULABANI
CUTTACK
CHANDBALI
BHAWANIPATNA
PURI
GOPALPUR
KORAPUT
BORRA
(ORISSA)
J F M A M J J A S O N D
Months
Rainfall in Millimetres
ANNUAL RAINFALL IN MILLIMETRES
1600
1550
1500
1450
1400
BOUNDARY, STATE
DISTRICT
MILES
KMS
EAST OF GREENWICH

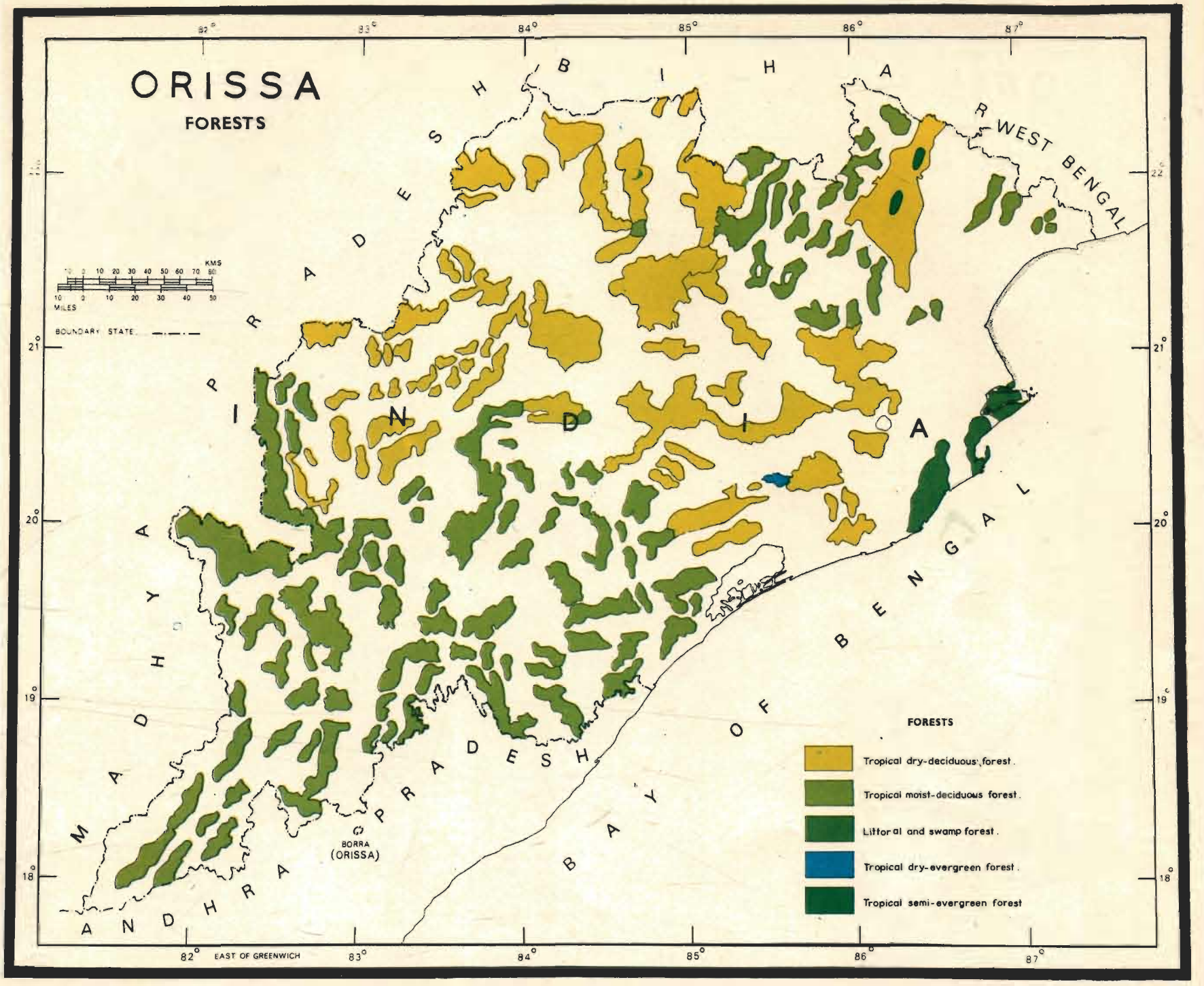
MAP No.7


ORISSA
NORMAL MONTHLY AND ANNUAL TEMPERATURE
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
RAURKELA
BARIPADA
SAMBALPUR
KENDUJHAR
BALANGIR
ANUGUL
CHANDABALI
PHULABANI
CUTTACK
BHUBANESWAR
BRAHMANPATNA
GOPALPUR
KORAPUT
BORRA (ORISSA)
J F M A M J J A S O N D
KMS
MILES
BOUNDARY, STATE
DISTRICT
ANNUAL TEMPERATURE IN DEGREE CENTIGRADE
28
27
26
25
ORISSA
In Degree Centigrade
Months
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
18°
19°
20°
21°
22°

MAP No. 8

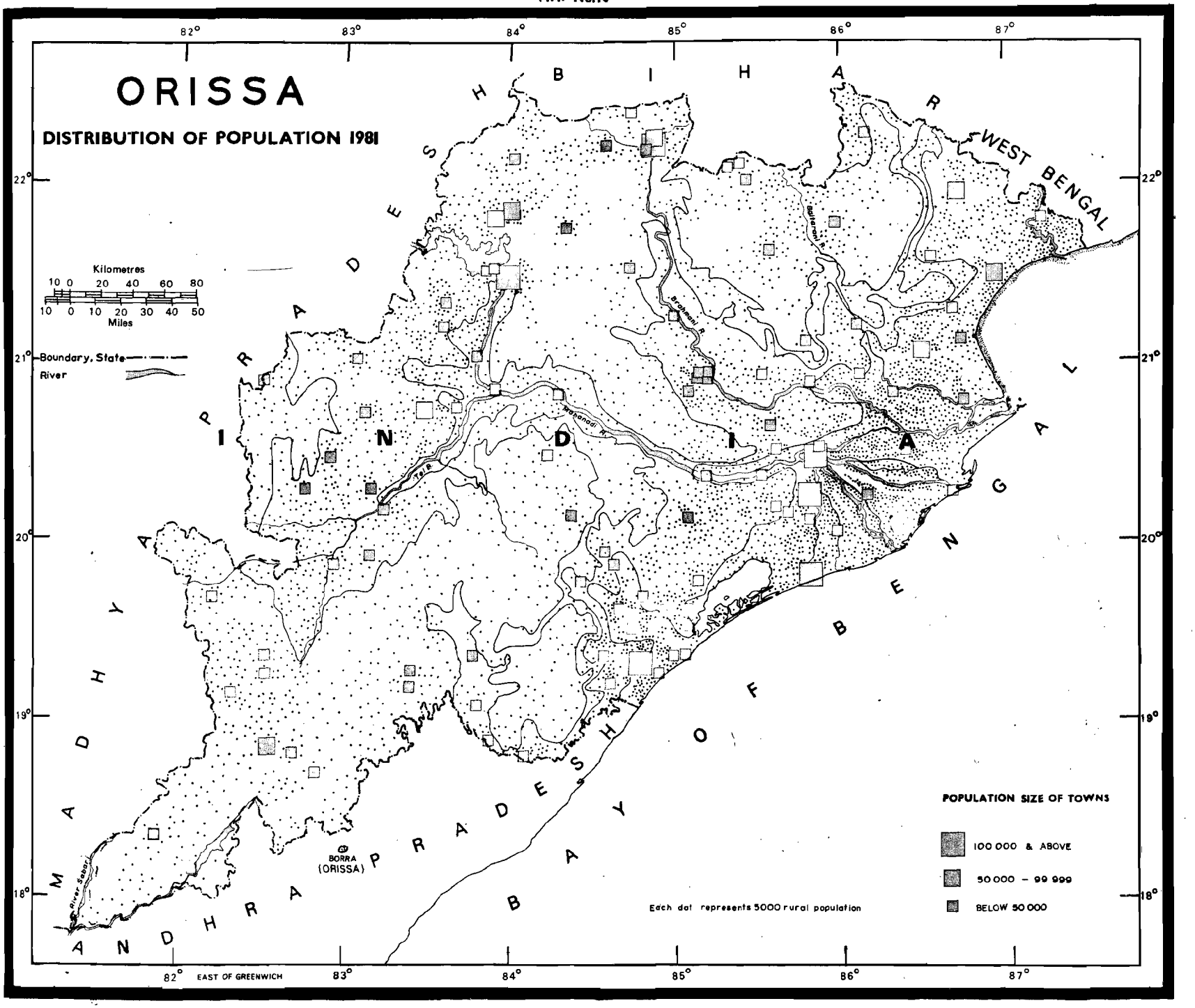

ORISSA
SOILS
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY, STATE
DISTRICT
SOIL
BORRA (ORISSA)
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
LEGEND
SUB-ORDER ASSOCIATIONS
1 AQUALFS _ AQUEPTS
2 AQUALFS _ AQUEPTS _ UDALFS
3 AQUALFS _ USTALFS
7 USTALFS
9 USTALFS _ OCHREPTS
11 USTALFS _ OCHREPTS _ AQUEPTS
15 USTALFS _ ROCK OUTCROPS
17 USTALFS _ AQUALFS _ OCHREPTS
18 USTALFS _ OCHREPTS _ ORTHENTS
35 PSAMMENTS
46 FLUVENTS _ AQUEPTS _ AQUALFS
50 FLUVENTS _ PSAMMENTS _ ORTHENTS
55 ORTHENTS _ TROPEPTS _ ROCK OUTCROPS
59 ORTHENTS _ OCHREPTS _ USTALFS
63 AQUEPTS _ AQUENTS
72 OCHREPTS _ ORTHENTS
81 OCHREPTS _ ORTHENTS _ AQUENTS
APPROXIMATE TRADITIONAL NOMENCLATURE
AQUALFS ..... High base status soils (Hydromorphic)
AQUEPTS ..... Brown soils (Hydromorphic)
UDALFS ..... High base status soils of humid regions
USTALFS ..... High base status-red loamy, red sandy and alluvial soils.
OCHREPTS ..... Shallow black, brown and alluvial soils of northern-region.
ORTHENTS ..... Recently formed soils
PSAMMENTS ..... Sandy soils (Recent)
FLUVENTS ..... Alluvial soils (Recent alluvium)
TROPEPTS ..... Shallow black, brown and alluvial soils of southern-regions.
AQUENTS ..... Recently formed hydromorphic soils, coastal alluvial soils.

MAP No.9

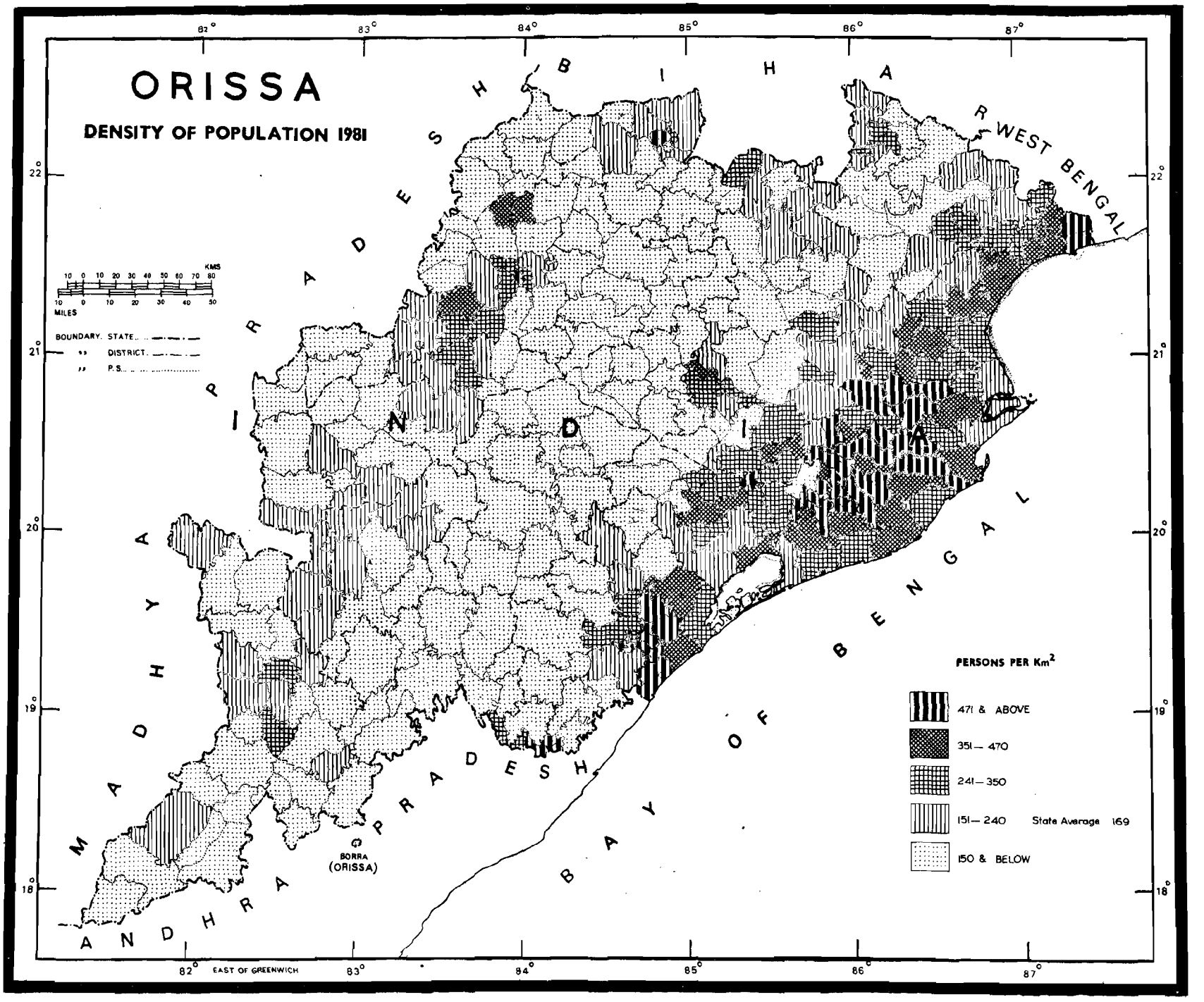

ORISSA
FORESTS
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
INDIA
BAY OF BENGAL
BORRA (ORISSA)
KMS
MILES
BOUNDARY STATE
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
18°
19°
20°
21°
FORESTS
Tropical dry-deciduous forest.
Tropical moist-deciduous forest.
Littoral and swamp forest.
Tropical dry-evergreen forest.
Tropical semi-evergreen forest

# DEMOGRAPHIC STRUCTURE AND TRENDS

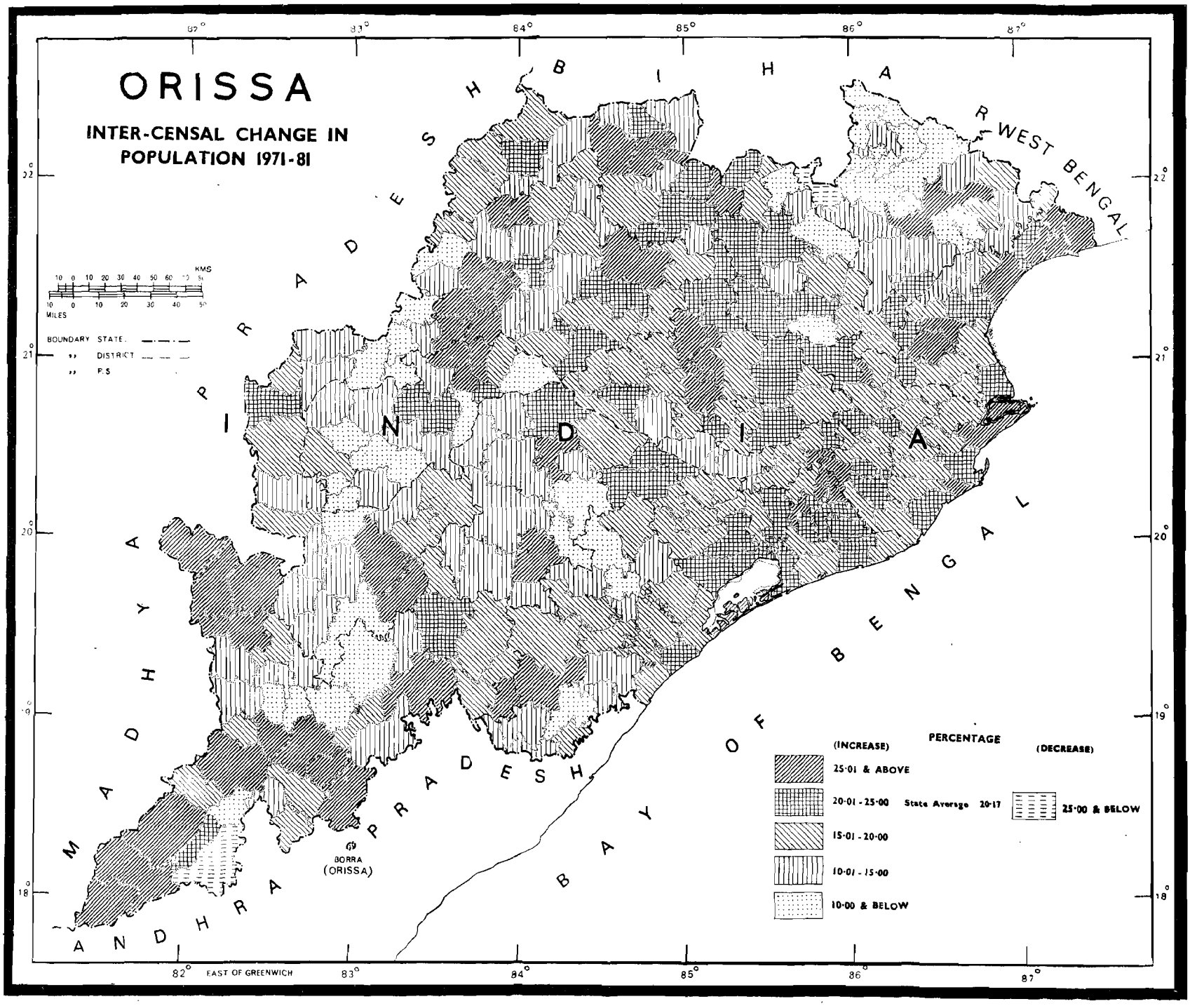
MAP No.10


ORISSA
DISTRIBUTION OF POPULATION 1981
Kilometres
10 0 20 40 60 80
10 0 10 20 30 40 50
Miles
Boundary, State
River
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
INDIA
BAY OF BENGAL
Subarnarekha R.
Brahmani R.
Mahanadi R.
Indravati R.
Godavari R.
BORRA (ORISSA)
POPULATION SIZE OF TOWNS
100 000 & ABOVE
50 000 - 99 999
BELOW 50 000
Each dot represents 5000 rural population
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

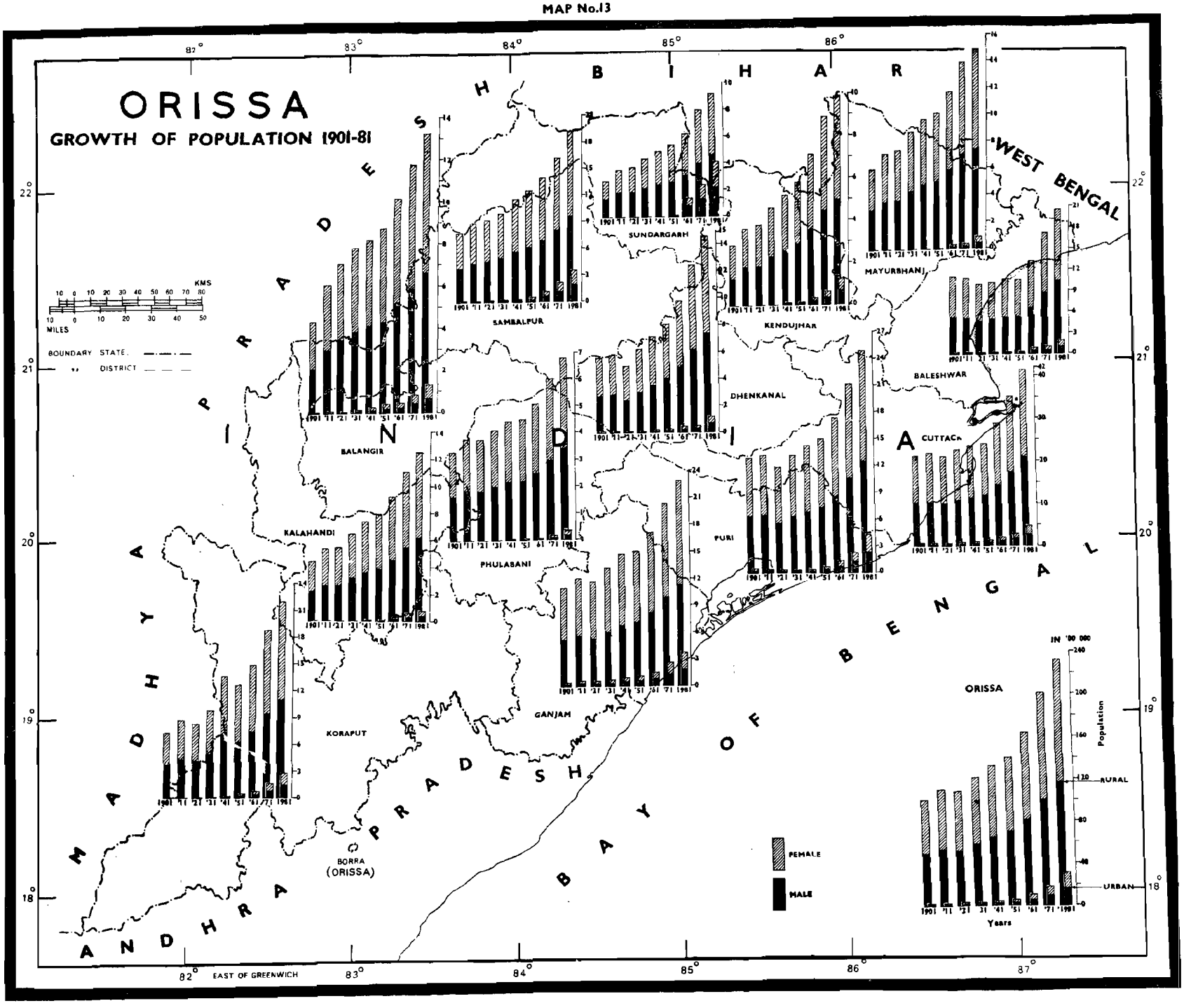
MAP No.11

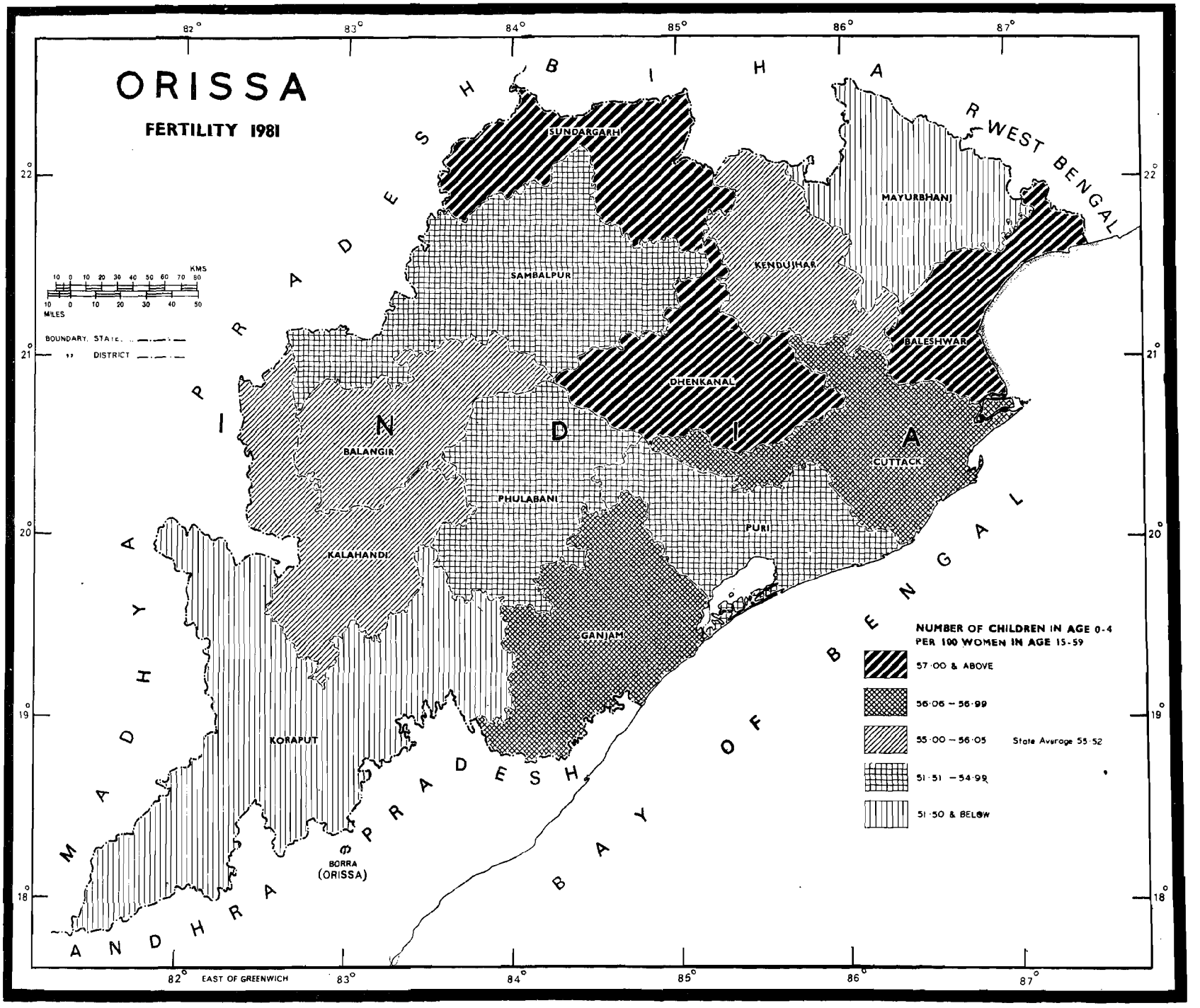

ORISSA
DENSITY OF POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
BORRA (ORISSA)
KMS
MILES
BOUNDARY. STATE
DISTRICT
P.S.
PERSONS PER Km²
471 & ABOVE
351 — 470
241 — 350
151 — 240
State Average 169
150 & BELOW
82° EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

MAP No. 12

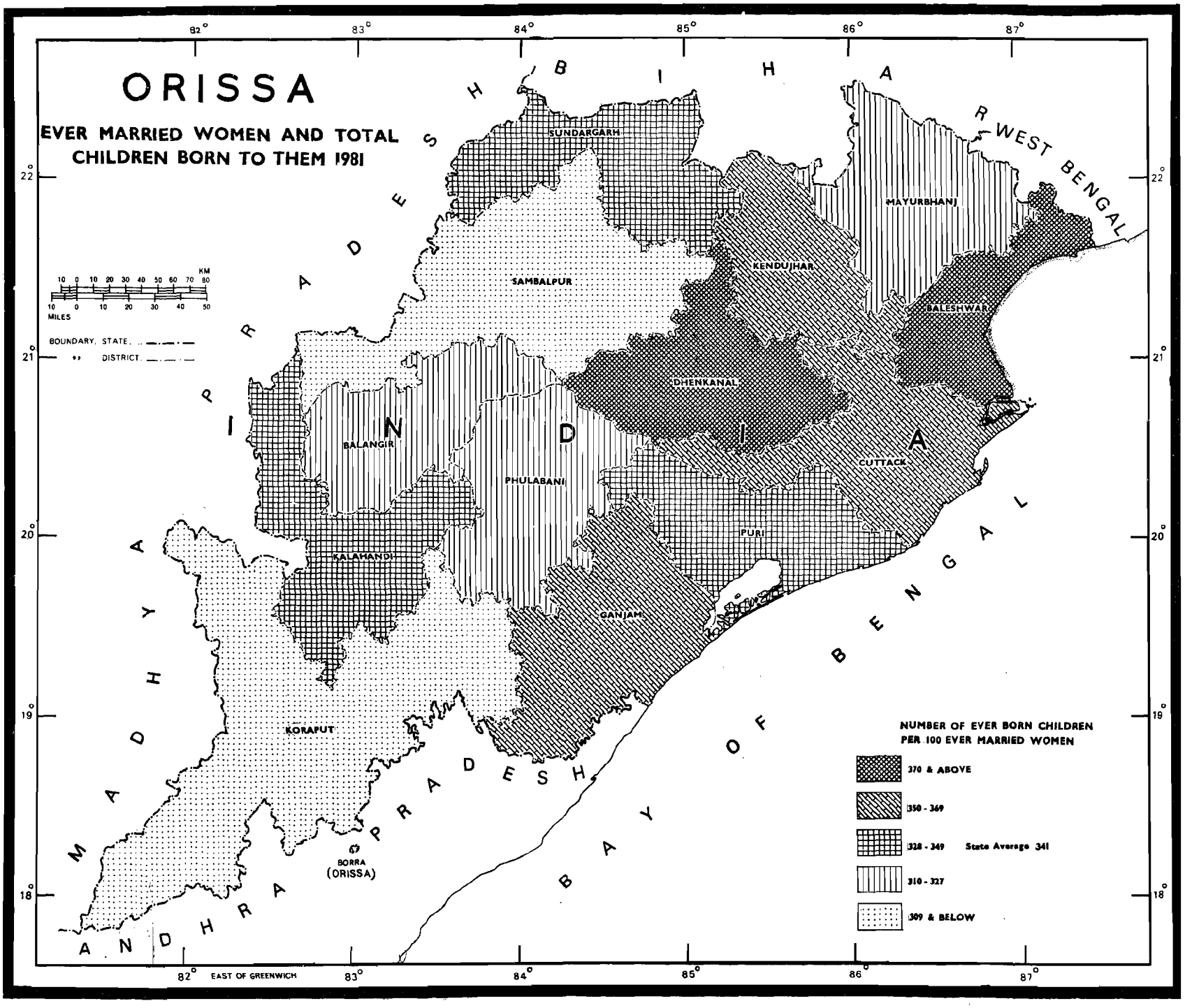

ORISSA
INTER-CENSAL CHANGE IN POPULATION 1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY STATE
DISTRICT
P.S
BORRA (ORISSA)
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
PERCENTAGE
(INCREASE)
25·01 & ABOVE
20·01 - 25·00
15·01 - 20·00
10·01 - 15·00
10·00 & BELOW
State Average 20·17
(DECREASE)
25·00 & BELOW

MAP No.13

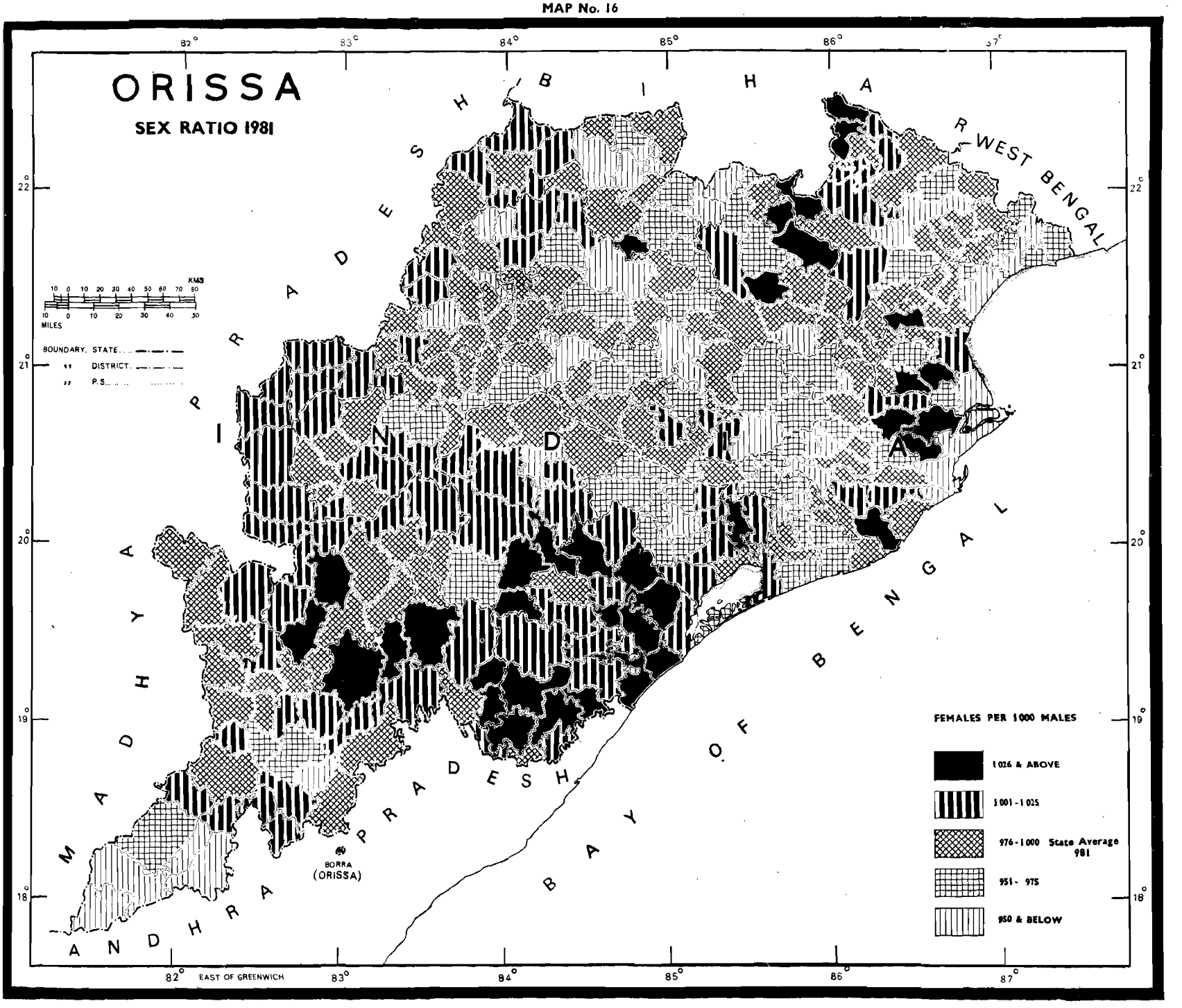

ORISSA
GROWTH OF POPULATION 1901-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
KALAHANDI
PHULABANI
PURI
KORAPUT
GANJAM
BORRA (ORISSA)
BOUNDARY STATE
DISTRICT
KMS
MILES
FEMALE
MALE
ORISSA
RURAL
URBAN
Population
Years
EAST OF GREENWICH


ORISSA
FERTILITY 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
NUMBER OF CHILDREN IN AGE 0-4 PER 100 WOMEN IN AGE 15-59
57·00 & ABOVE
56·06 – 56·99
55·00 – 56·05
State Average 55·52
51·51 – 54·99
51·50 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

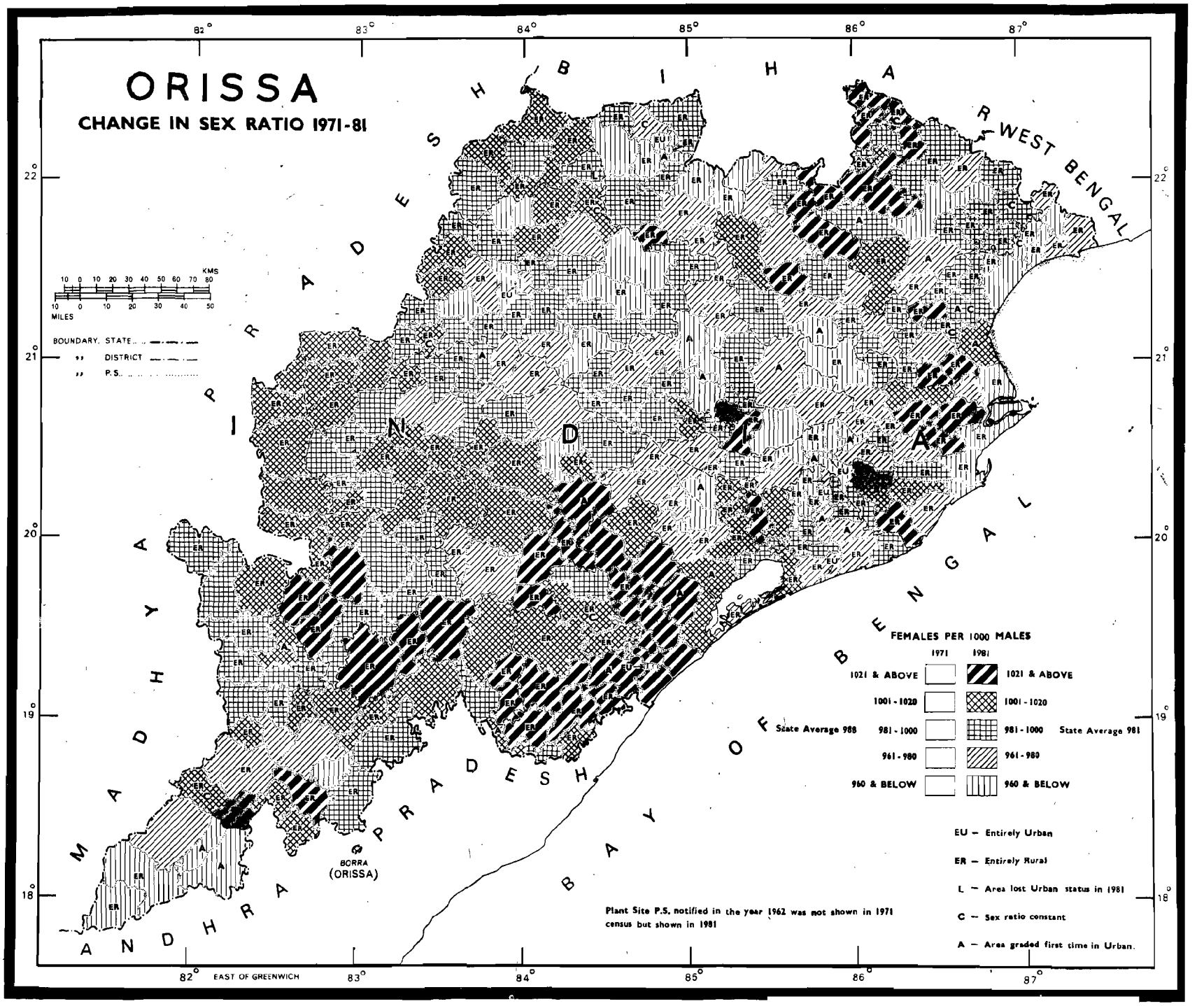
MAP No.15


ORISSA
EVER MARRIED WOMEN AND TOTAL CHILDREN BORN TO THEM 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KM
MILES
BOUNDARY, STATE
DISTRICT
NUMBER OF EVER BORN CHILDREN PER 100 EVER MARRIED WOMEN
370 & ABOVE
350 - 369
328 - 349
State Average 341
310 - 327
309 & BELOW
82° EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

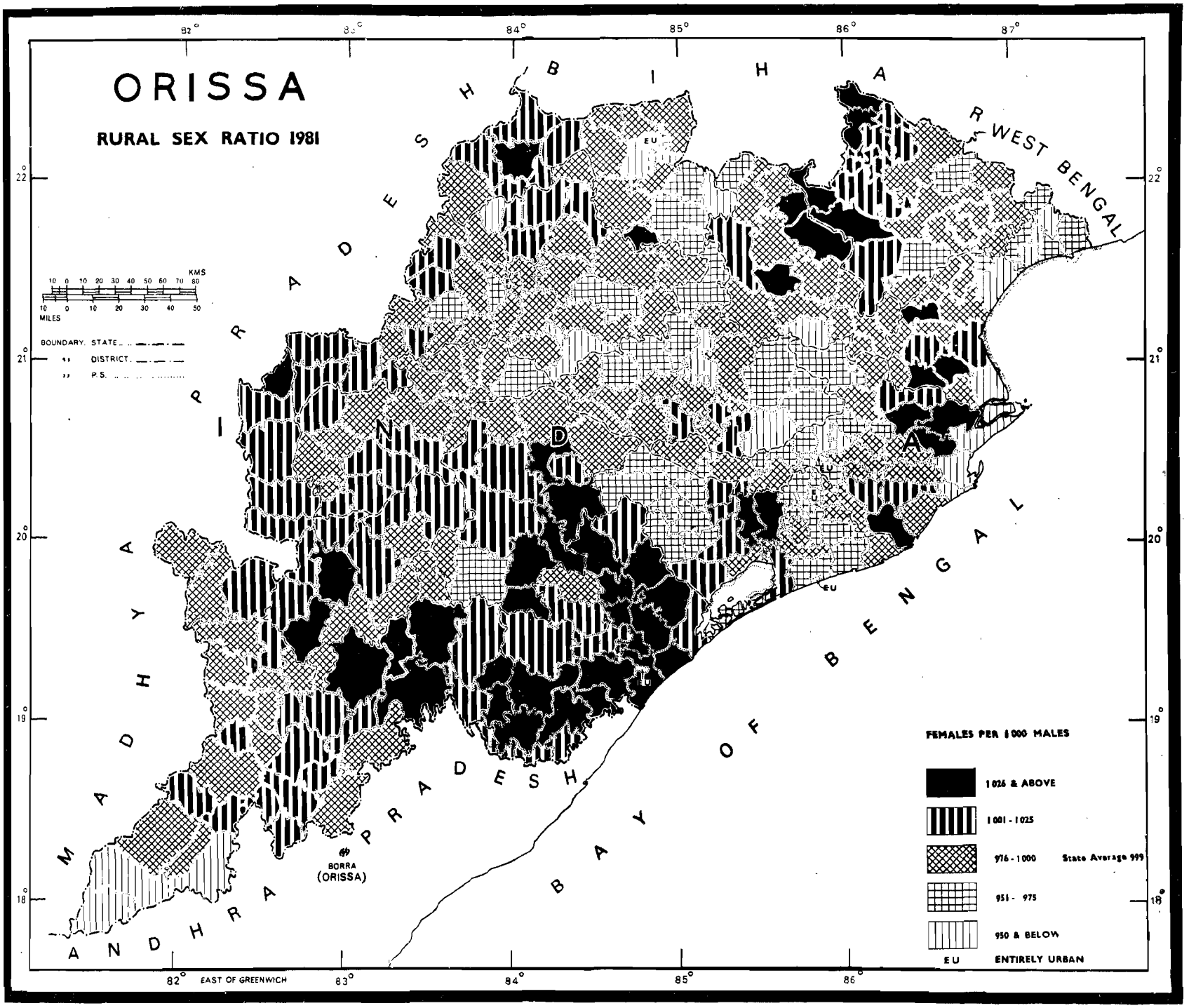
MAP No. 16


ORISSA
SEX RATIO 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
P.S.
FEMALES PER 1000 MALES
1026 & ABOVE
1001 - 1025
976 - 1000 State Average 981
951 - 975
950 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

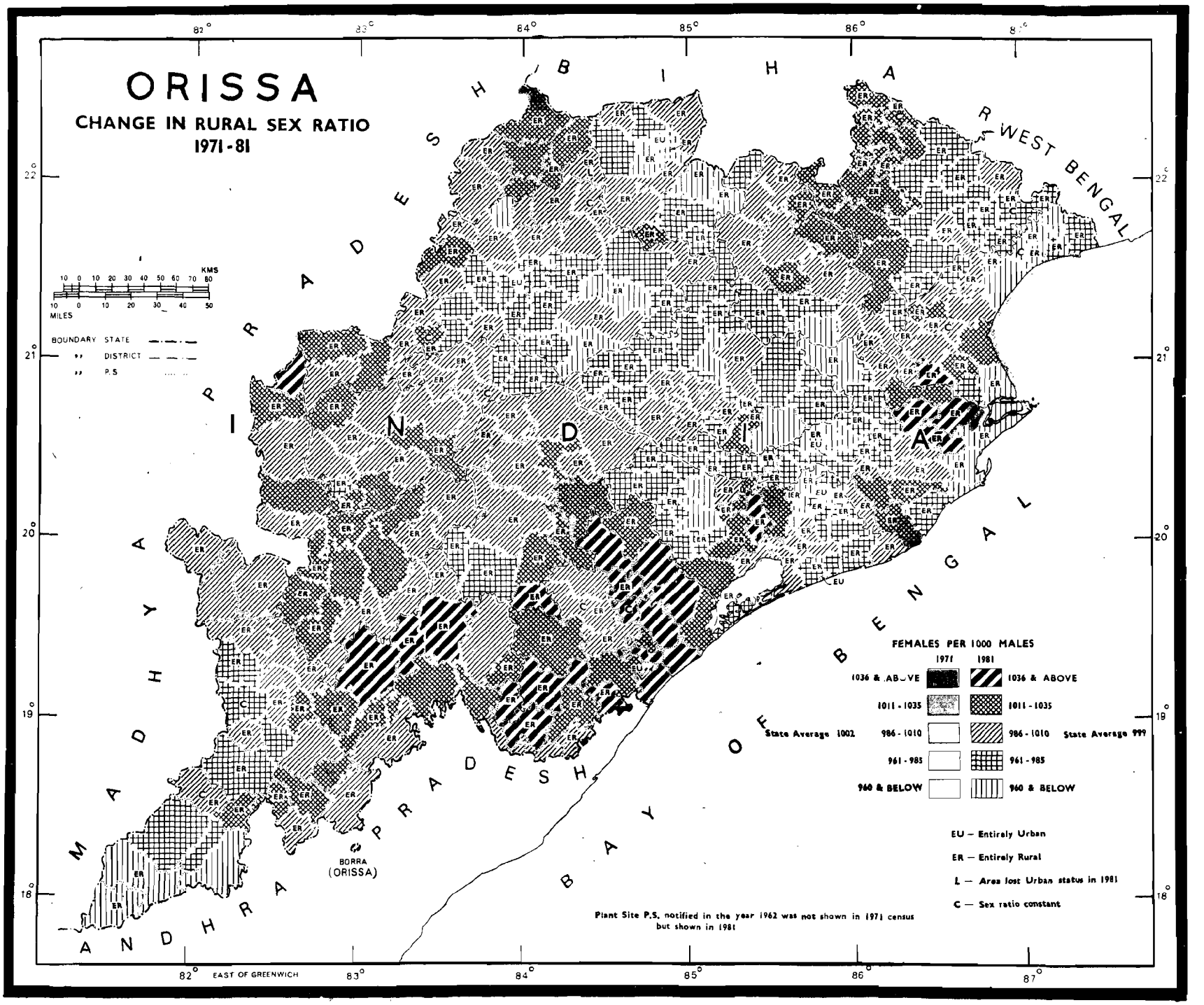
MAP No.17


ORISSA
CHANGE IN SEX RATIO 1971-81
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
KMS
MILES
BOUNDARY, STATE
DISTRICT
P.S.
BORRA (ORISSA)
EAST OF GREENWICH
FEMALES PER 1000 MALES
1971
1981
1021 & ABOVE
1001 - 1020
981 - 1000
961 - 980
960 & BELOW
State Average 988
State Average 981
EU — Entirely Urban
ER — Entirely Rural
L — Area lost Urban status in 1981
C — Sex ratio constant
A — Area graded first time in Urban.
Plant Site P.S. notified in the year 1962 was not shown in 1971 census but shown in 1981

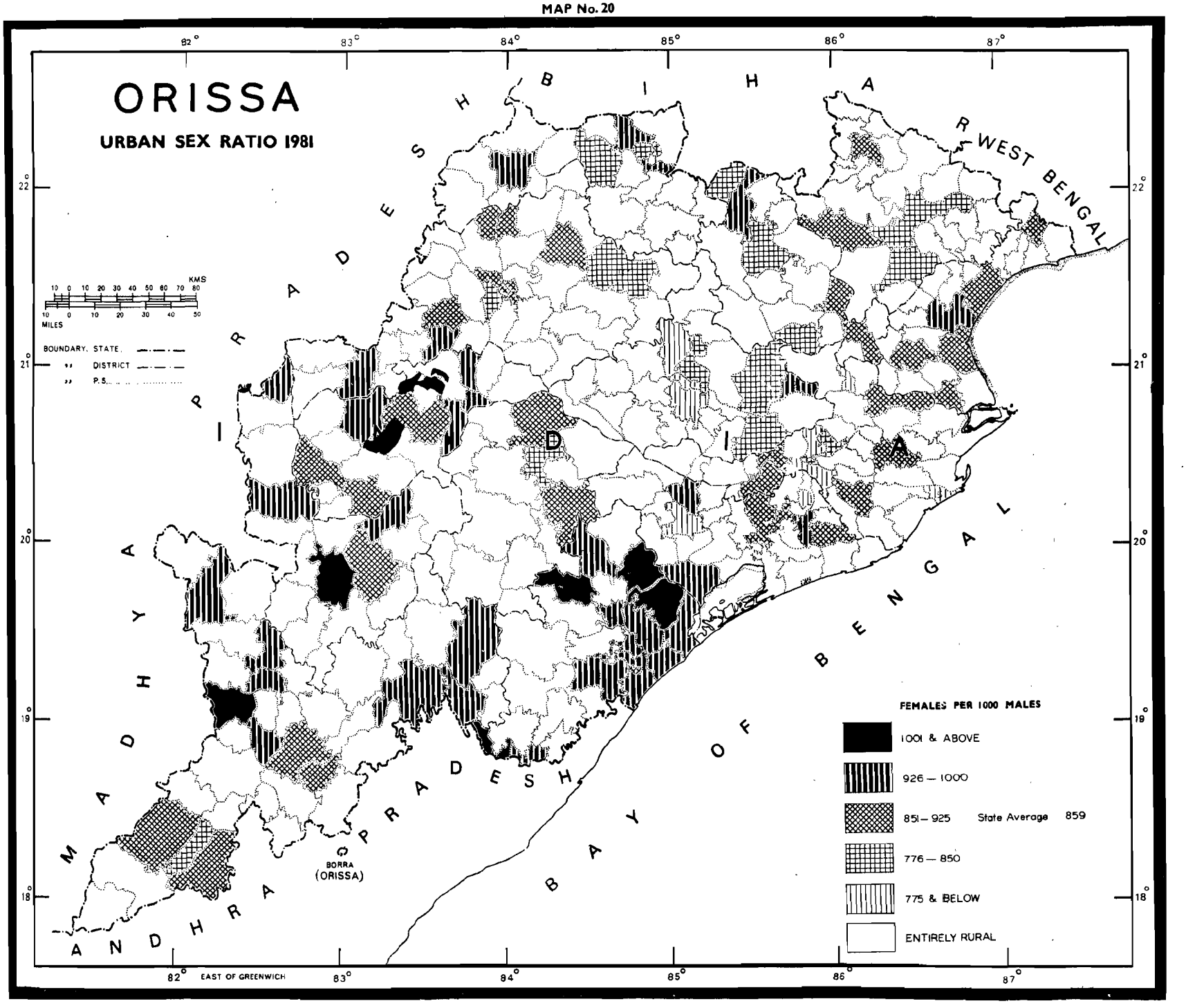
MAP No. 18


ORISSA
RURAL SEX RATIO 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
KMS
MILES
BOUNDARY: STATE
DISTRICT
P.S.
BORRA (ORISSA)
EAST OF GREENWICH
FEMALES PER 1000 MALES
1026 & ABOVE
1001 - 1025
976 - 1000
State Average 999
951 - 975
950 & BELOW
EU
ENTIRELY URBAN

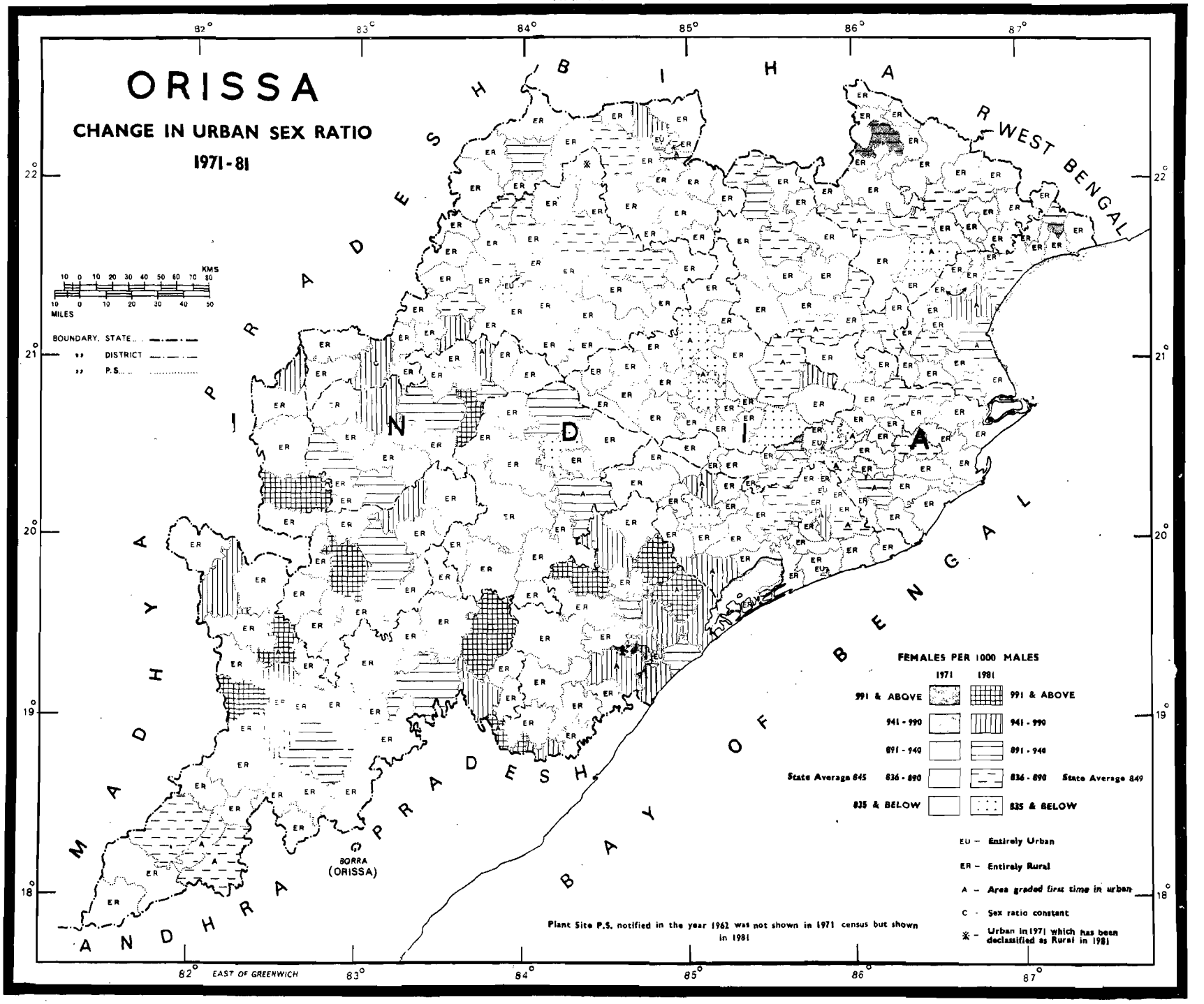
MAP No.19


ORISSA
CHANGE IN RURAL SEX RATIO
1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY STATE
DISTRICT
P.S
FEMALES PER 1000 MALES
1971
1981
1036 & ABOVE
1011 - 1035
986 - 1010
961 - 985
960 & BELOW
State Average 1002
State Average 999
EU — Entirely Urban
ER — Entirely Rural
L — Area lost Urban status in 1981
C — Sex ratio constant
BORRA (ORISSA)
Plant Site P.S. notified in the year 1962 was not shown in 1971 census but shown in 1981
EAST OF GREENWICH

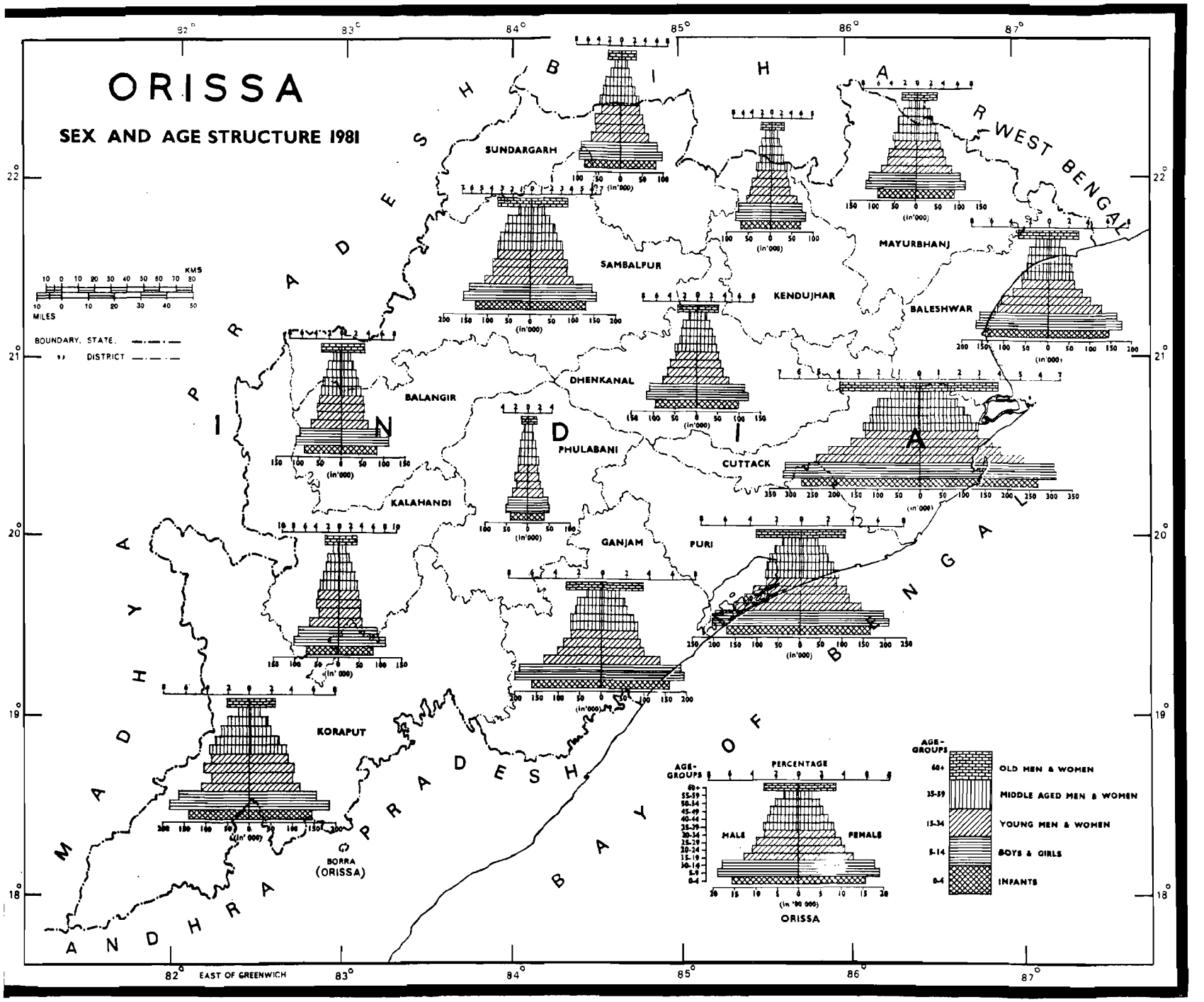
MAP No. 20


ORISSA
URBAN SEX RATIO 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
ORISSA
KMS
10 0 10 20 30 40 50 60 70 80
MILES
10 0 10 20 30 40 50
BOUNDARY, STATE
" DISTRICT
" P.S.
BORRA
(ORISSA)
EAST OF GREENWICH
FEMALES PER 1000 MALES
1001 & ABOVE
926 — 1000
851 — 925
State Average 859
776 — 850
775 & BELOW
ENTIRELY RURAL

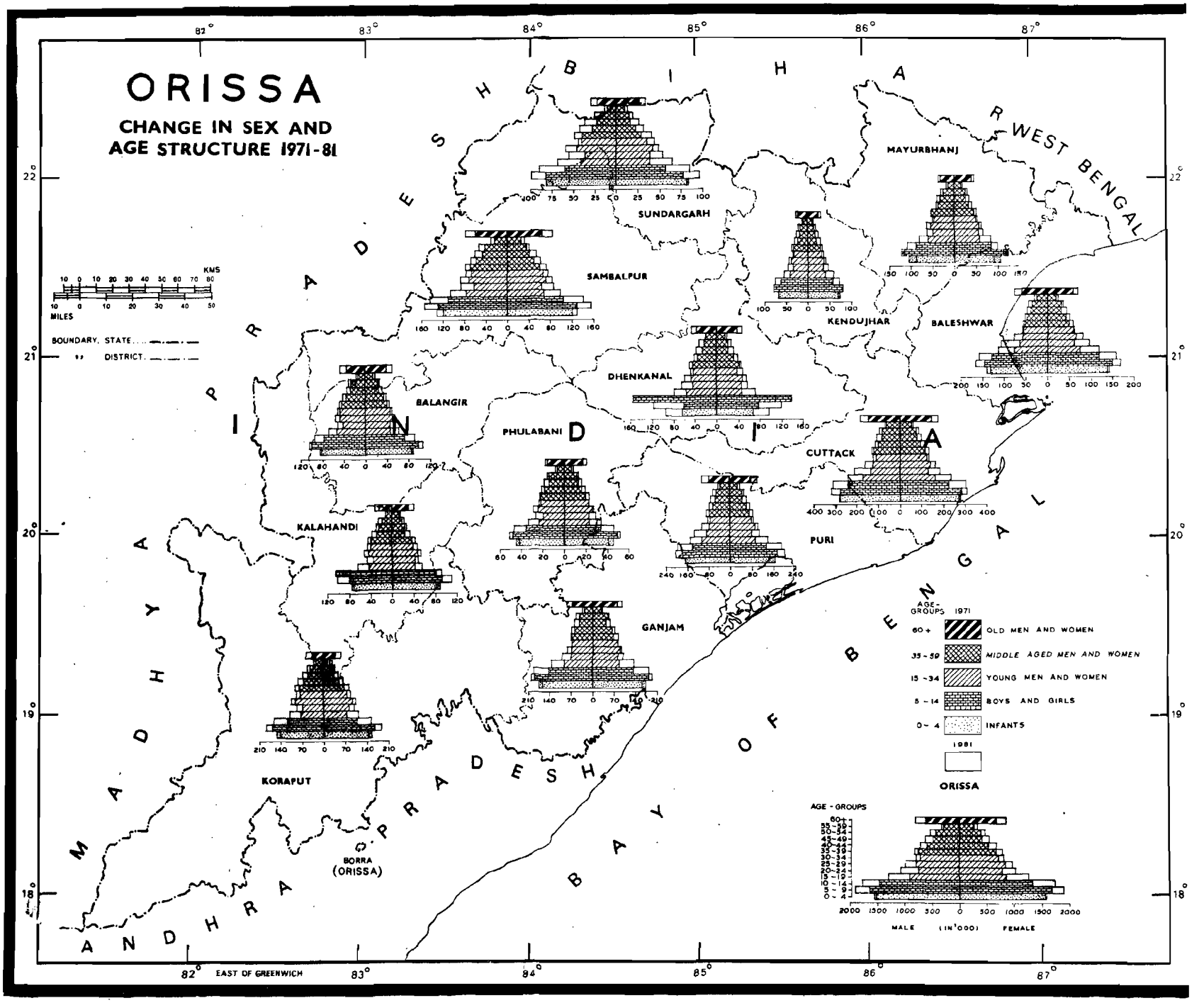
MAP No.21


ORISSA
CHANGE IN URBAN SEX RATIO
1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY, STATE
DISTRICT
P.S.
BORRA (ORISSA)
FEMALES PER 1000 MALES
1971
1981
991 & ABOVE
941 - 990
891 - 940
State Average 845
836 - 890
835 & BELOW
State Average 849
EU – Entirely Urban
ER – Entirely Rural
A – Area graded first time in urban
C – Sex ratio constant
※ – Urban in 1971 which has been declassified as Rural in 1981
Plant Site P.S. notified in the year 1962 was not shown in 1971 census but shown in 1981
EAST OF GREENWICH

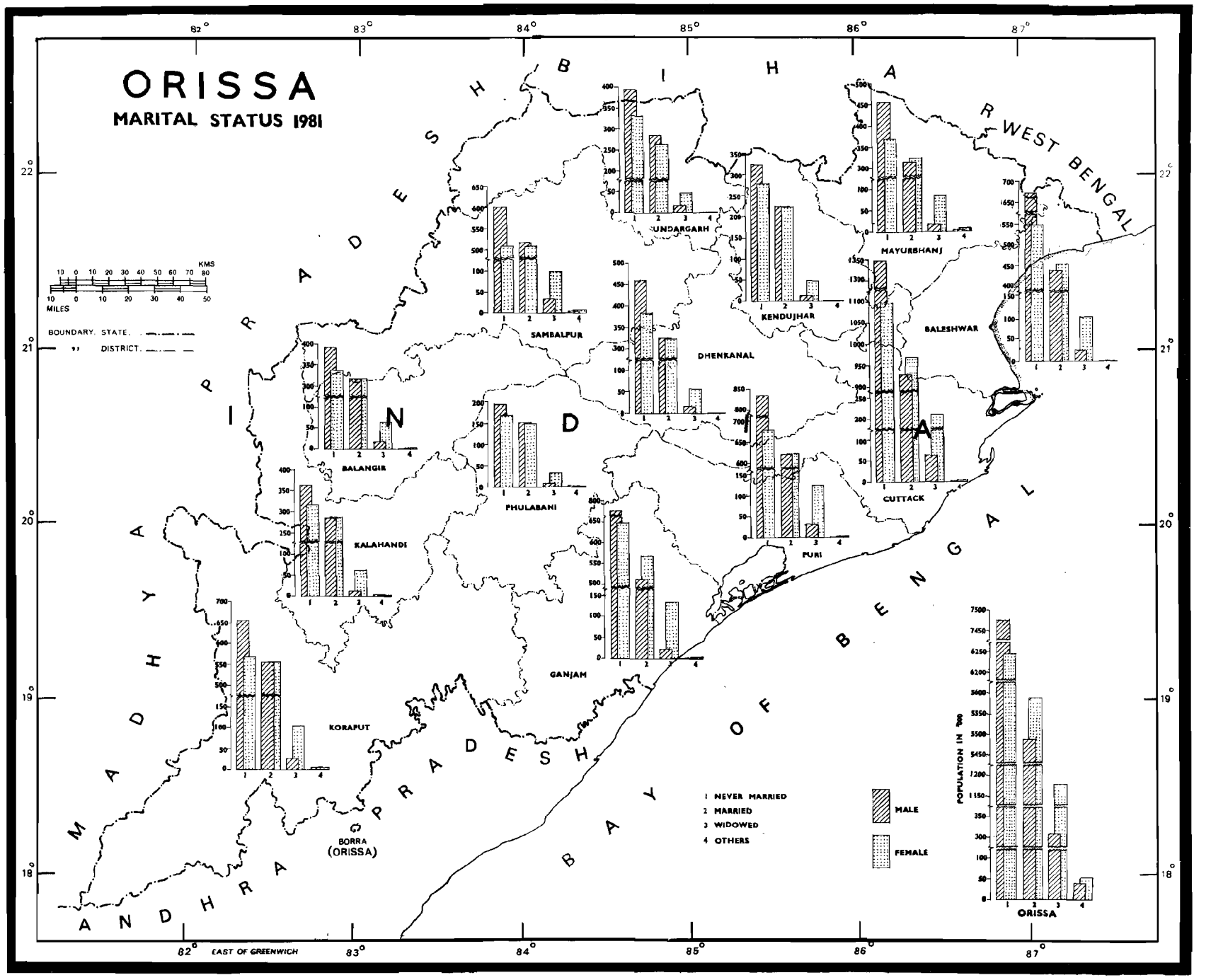
MAP No. 22


ORISSA
SEX AND AGE STRUCTURE 1981
92°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
82° EAST OF GREENWICH
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
BALANGIR
DHENKANAL
PHULABANI
CUTTACK
KALAHANDI
GANJAM
PURI
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
(in'000)
AGE-GROUPS
PERCENTAGE
MALE
FEMALE
(in '00 000)
ORISSA
OLD MEN & WOMEN
MIDDLE AGED MEN & WOMEN
YOUNG MEN & WOMEN
BOYS & GIRLS
INFANTS

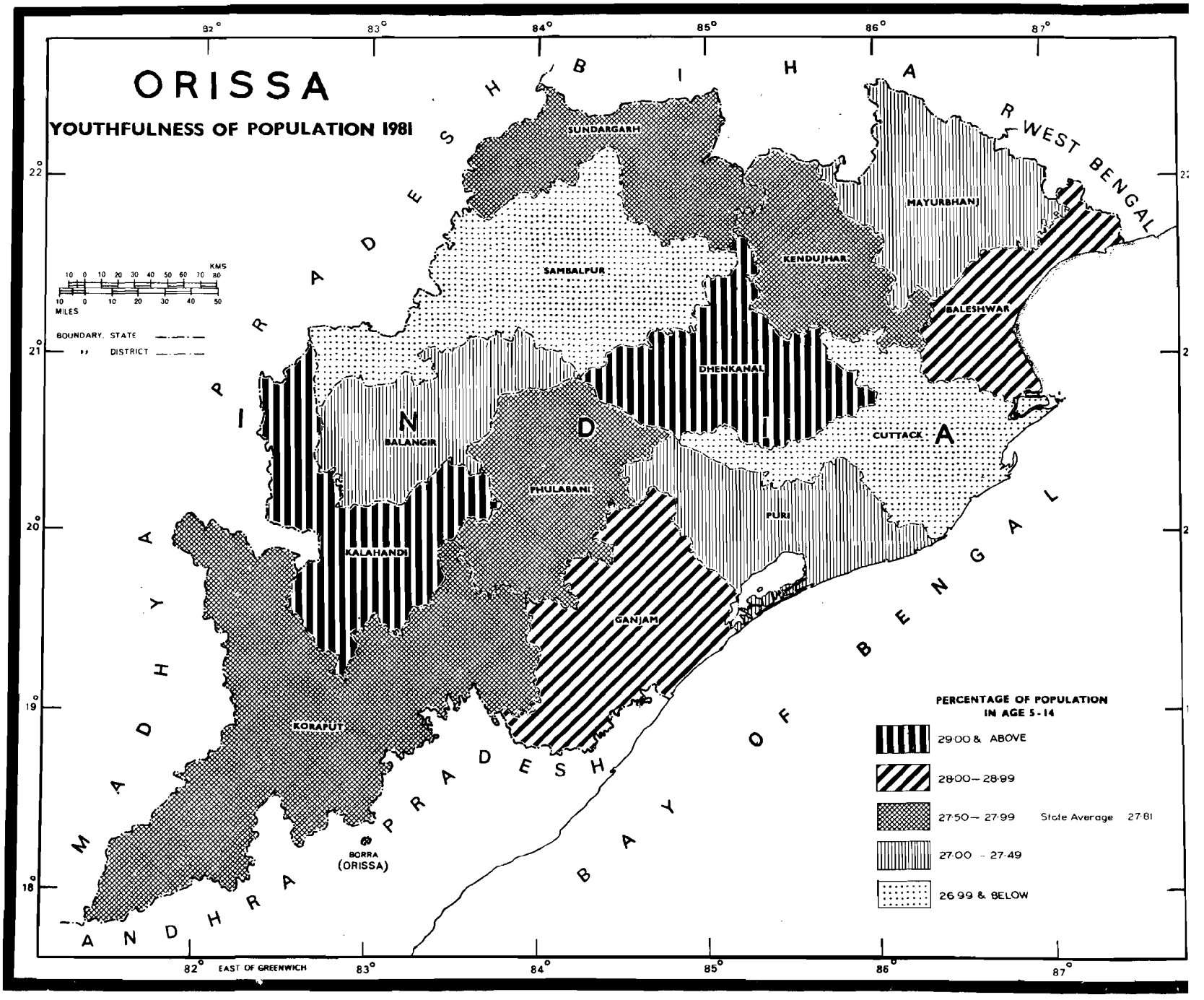
MAP No. 23

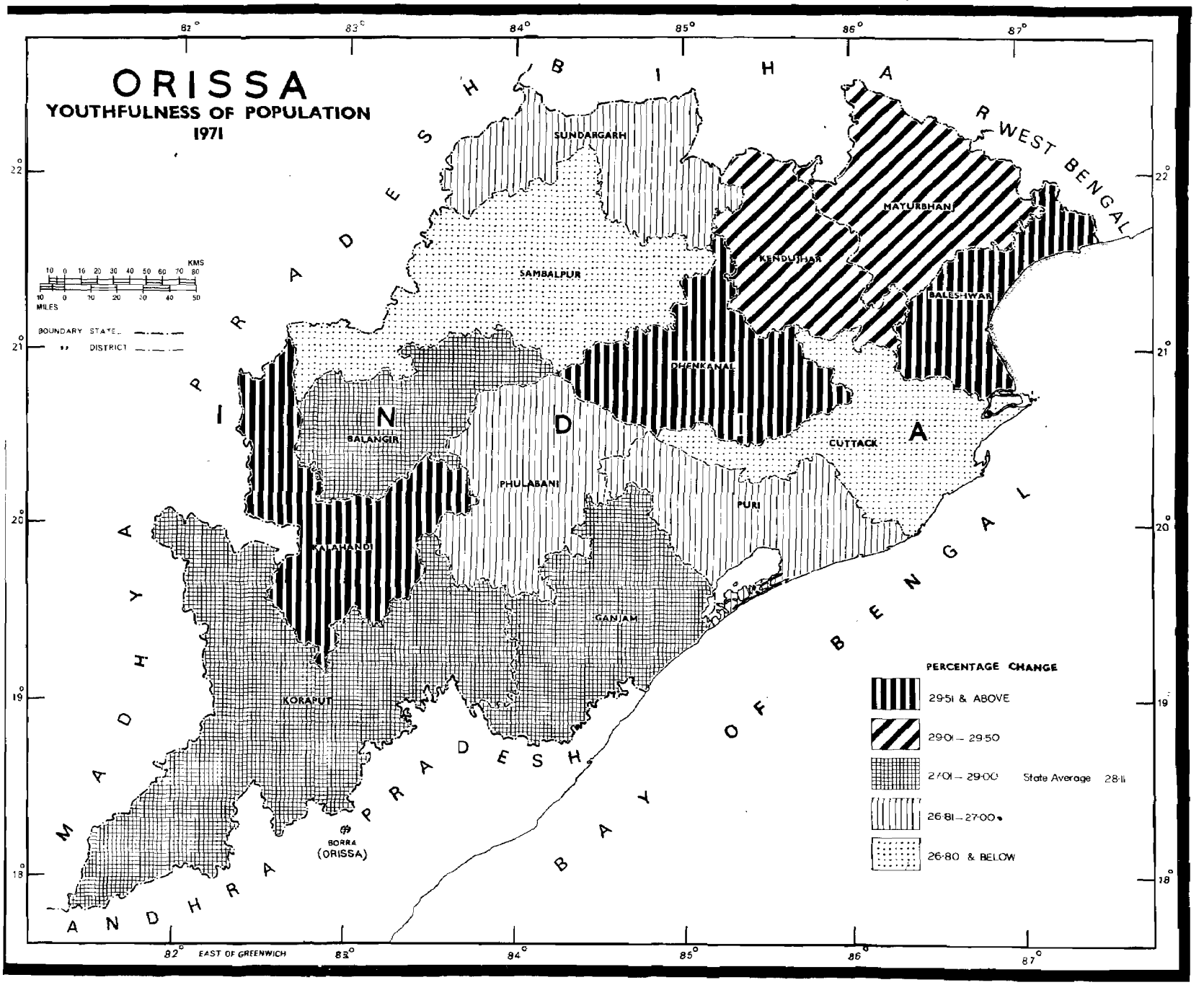

ORISSA
CHANGE IN SEX AND AGE STRUCTURE 1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
MAYURBHANJ
SUNDARGARH
SAMBALPUR
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
KALAHANDI
PURI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
AGE-GROUPS 1971
60+ OLD MEN AND WOMEN
35-59 MIDDLE AGED MEN AND WOMEN
15-34 YOUNG MEN AND WOMEN
5-14 BOYS AND GIRLS
0-4 INFANTS
1981
ORISSA
AGE-GROUPS
MALE (IN '000) FEMALE
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

MAP No. 24

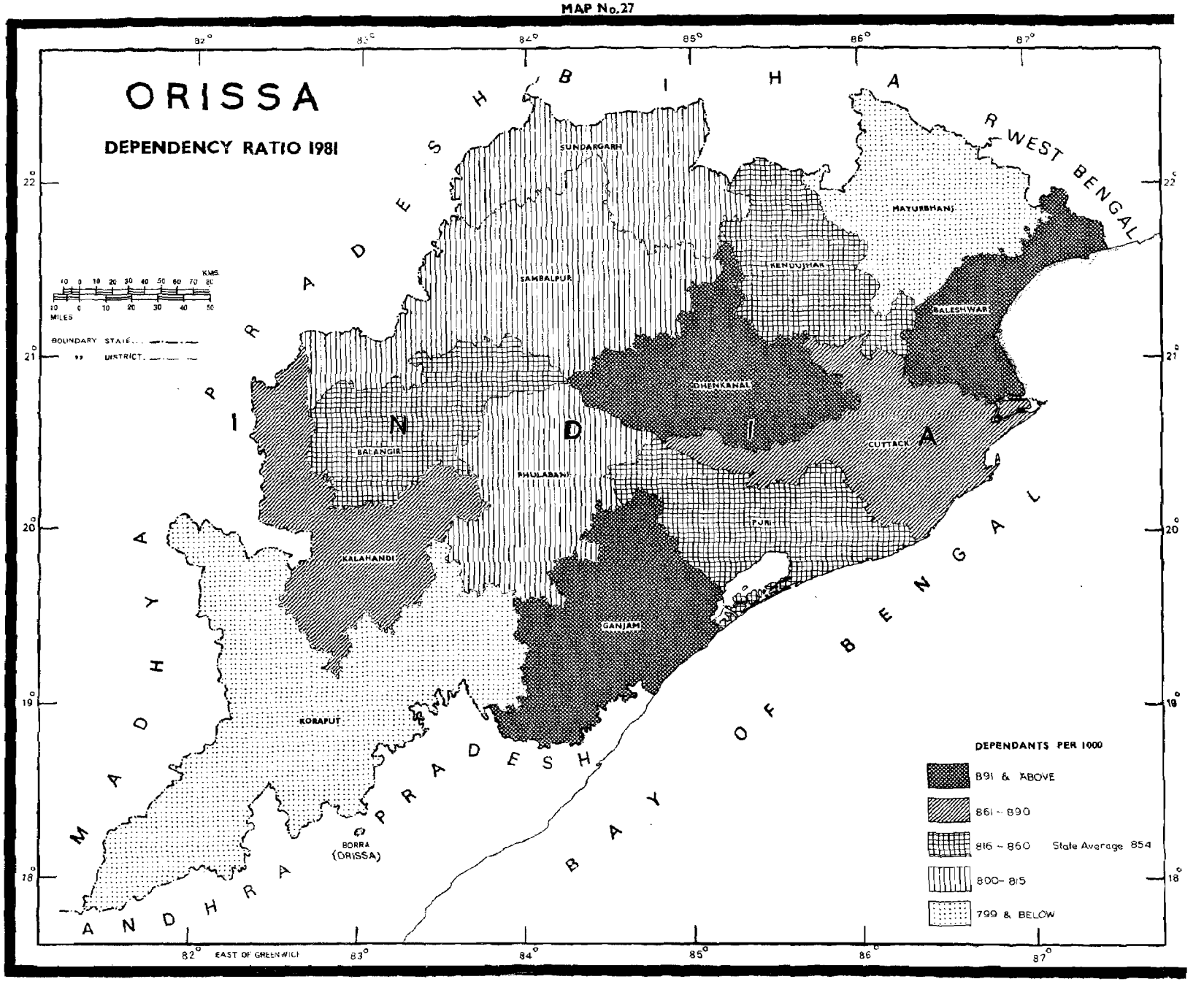

ORISSA
MARITAL STATUS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY, STATE
DISTRICT
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
KALAHANDI
PURI
GANJAM
KORAPUT
BORRA (ORISSA)
1 NEVER MARRIED
2 MARRIED
3 WIDOWED
4 OTHERS
MALE
FEMALE
POPULATION IN '000
ORISSA
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

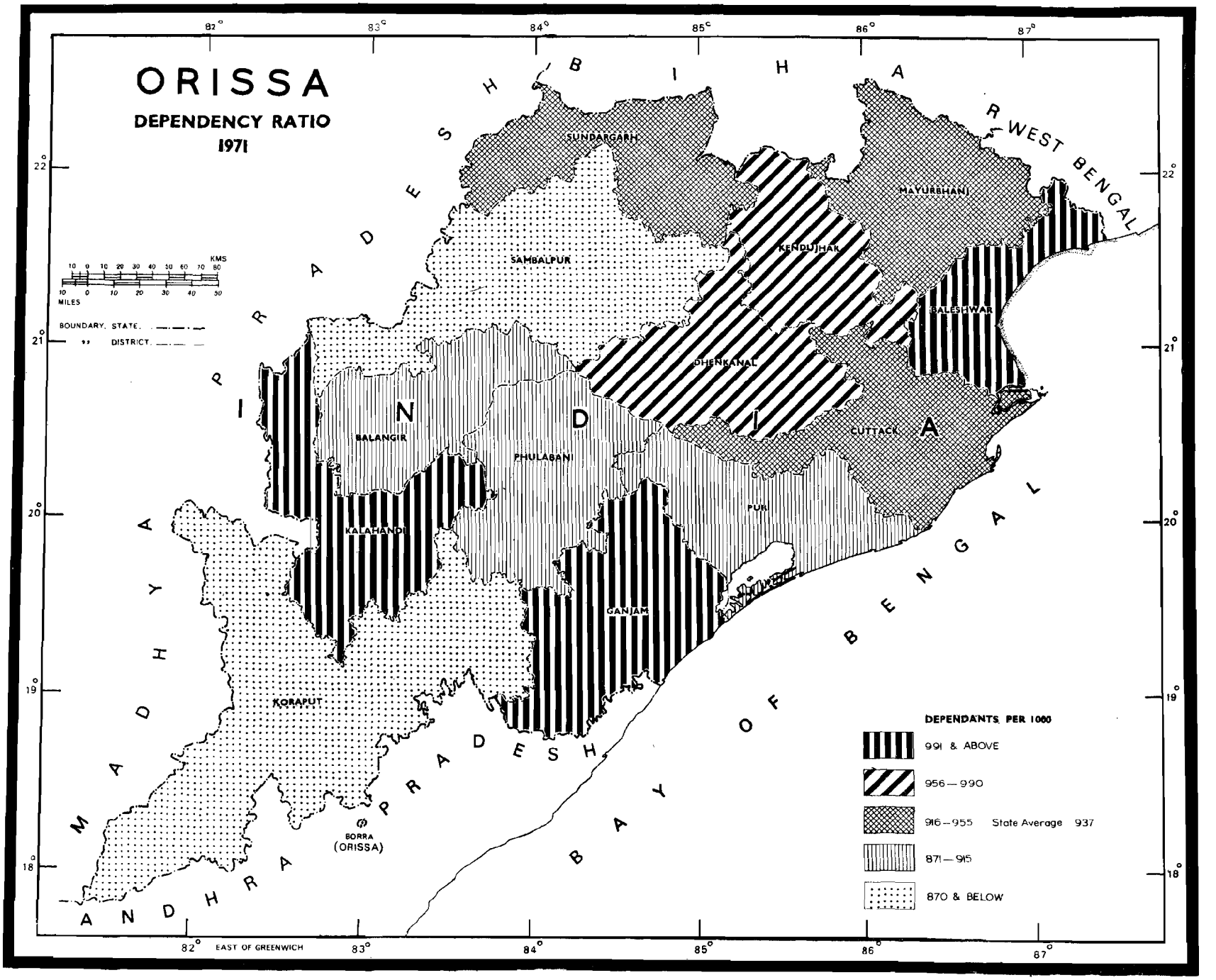
MAP No.25


ORISSA
YOUTHFULNESS OF POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
PERCENTAGE OF POPULATION IN AGE 5-14
29·00 & ABOVE
28·00 – 28·99
27·50 – 27·99
State Average 27·81
27·00 – 27·49
26·99 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

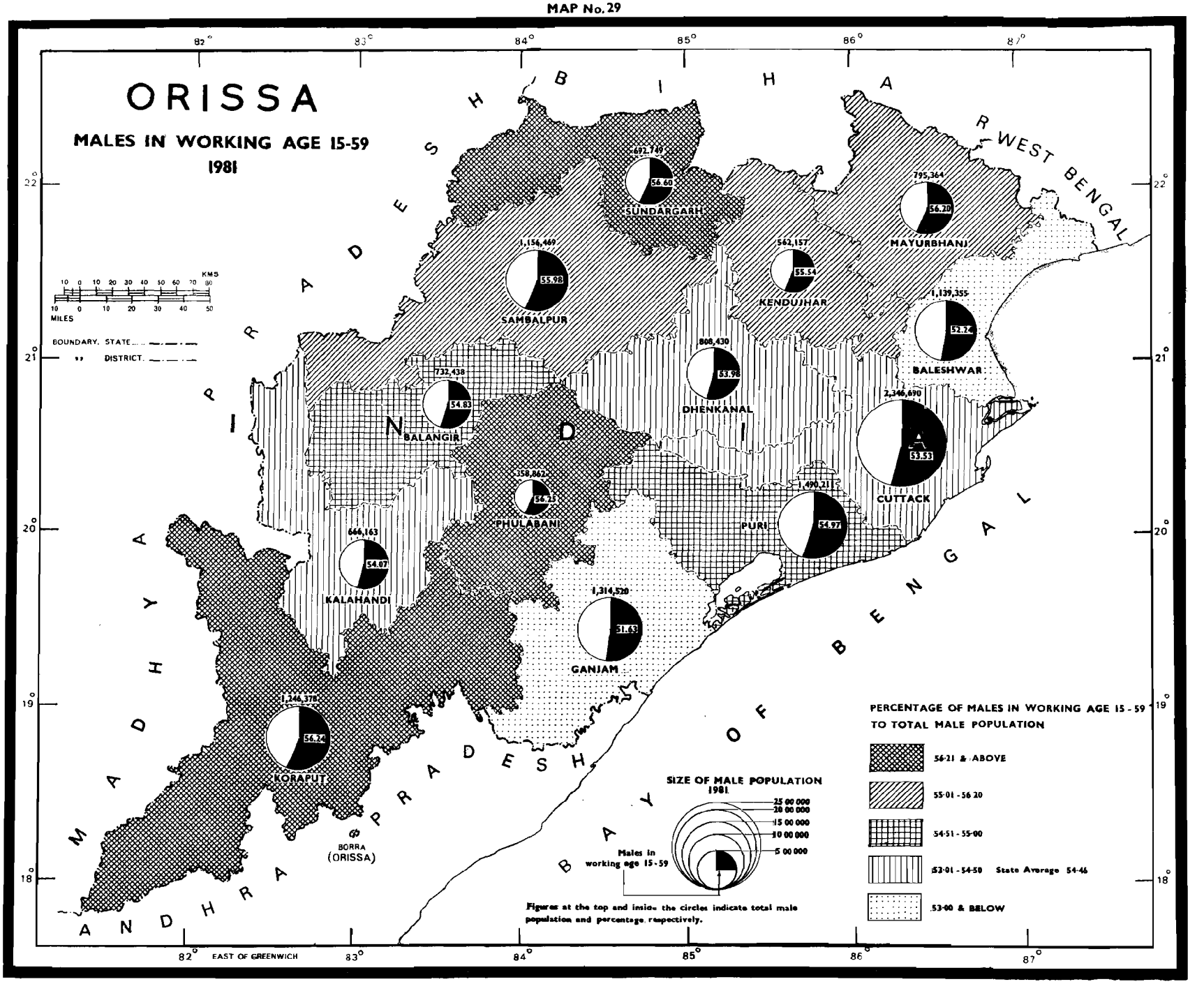

ORISSA
YOUTHFULNESS OF POPULATION
1971
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
MADHYA PRADESH
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
INDIA
PERCENTAGE CHANGE
29·51 & ABOVE
29·01 – 29·50
27·01 – 29·00
State Average 28·11
26·81 – 27·00
26·80 & BELOW
BOUNDARY STATE
DISTRICT
KMS
MILES
EAST OF GREENWICH

MAP No.27

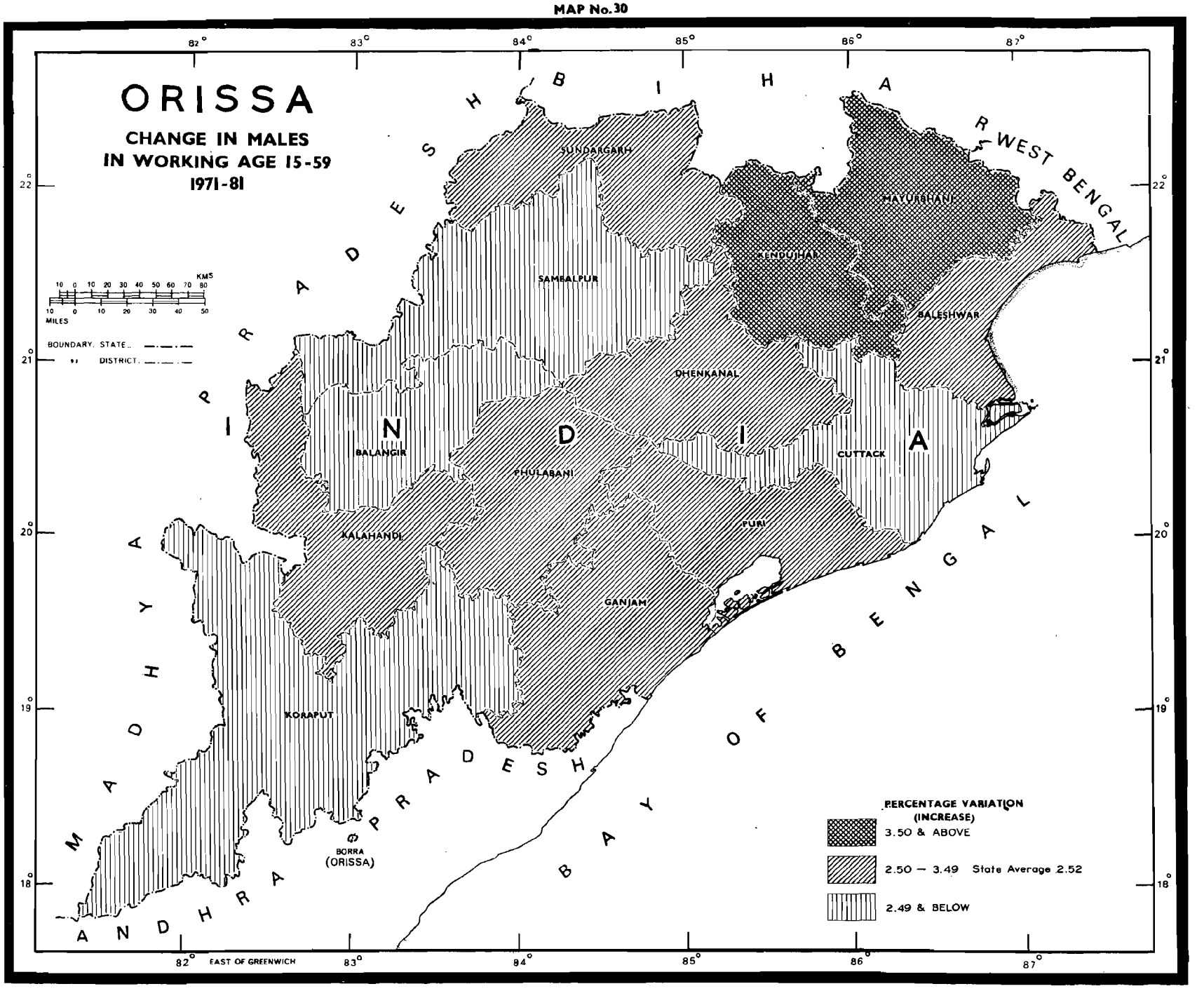

ORISSA
DEPENDENCY RATIO 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
DEPENDANTS PER 1000
891 & ABOVE
861 - 890
816 - 860
State Average 854
800- 815
799 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°


ORISSA
DEPENDENCY RATIO
1971
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
DEPENDANTS PER 1000
991 & ABOVE
956—990
916—955 State Average 937
871—915
870 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

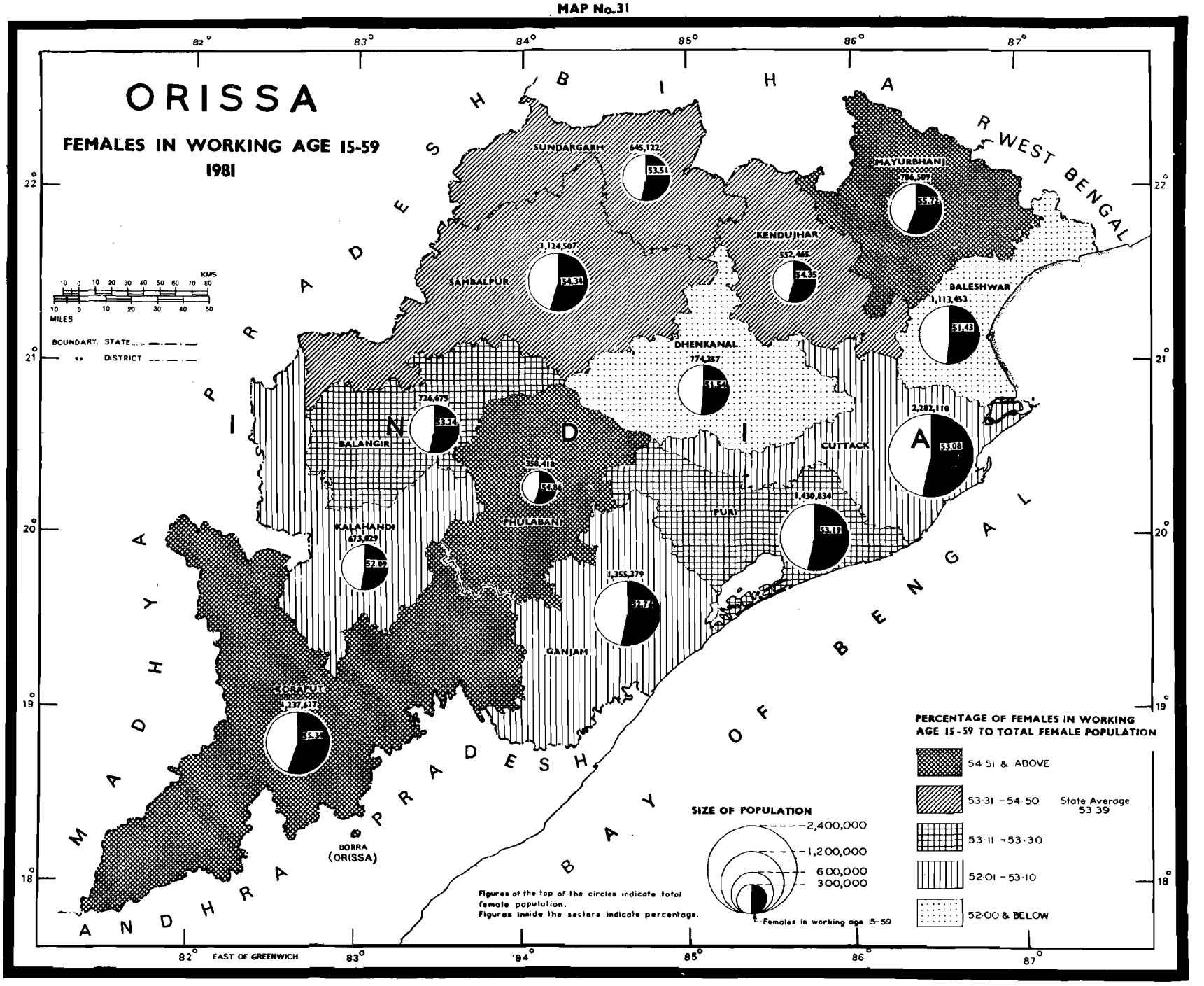
MAP No. 29


ORISSA
MALES IN WORKING AGE 15-59
1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
EAST OF GREENWICH
KMS
MILES
BOUNDARY, STATE
DISTRICT
692,749
56.60
SUNDARGARH
1,156,469
55.98
SAMBALPUR
795,364
56.20
MAYURBHANJ
562,157
55.54
KENDUJHAR
1,139,355
52.2
BALESHWAR
808,430
53.98
DHENKANAL
732,438
54.83
BALANGIR
2,346,690
53.53
CUTTACK
158,862
56.25
PHULABANI
1,490,21
54.97
PURI
666,163
54.07
KALAHANDI
1,314,520
51.63
GANJAM
1,246,378
56.24
KORAPUT
BORRA
(ORISSA)
SIZE OF MALE POPULATION
1981
25 00 000
20 00 000
15 00 000
10 00 000
5 00 000
Males in
working age 15-59
Figures at the top and inside the circles indicate total male
population and percentage respectively.
PERCENTAGE OF MALES IN WORKING AGE 15-59
TO TOTAL MALE POPULATION
56·21 & ABOVE
55·01 - 56·20
54·51 - 55·00
53·01 - 54·50 State Average 54·46
53·00 & BELOW

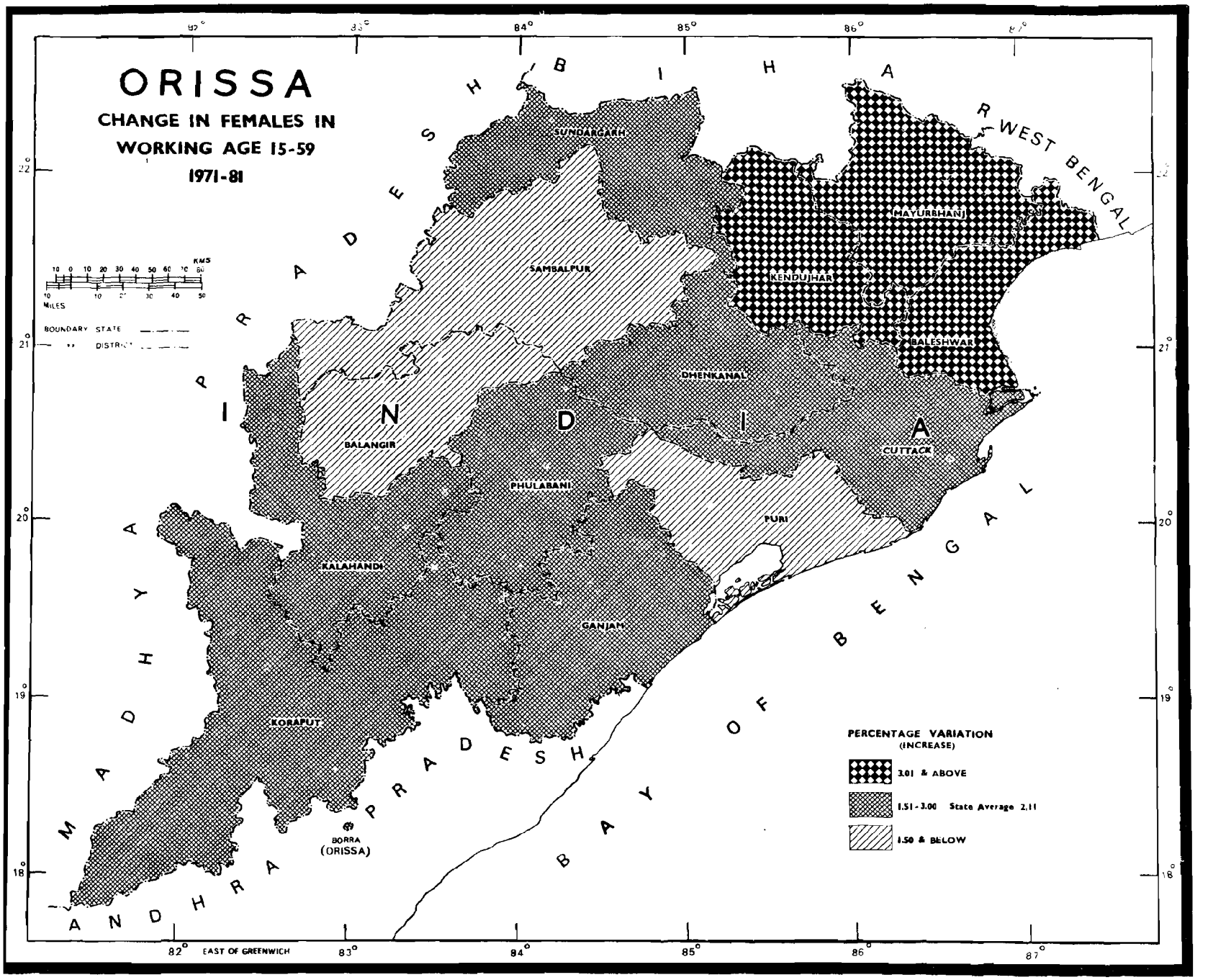
MAP No. 30


ORISSA
CHANGE IN MALES
IN WORKING AGE 15-59
1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
KALAHANDI
PURI
GANJAM
KORAPUT
BORRA
(ORISSA)
KMS
MILES
BOUNDARY. STATE
DISTRICT
PERCENTAGE VARIATION
(INCREASE)
3.50 & ABOVE
2.50 — 3.49 State Average 2.52
2.49 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

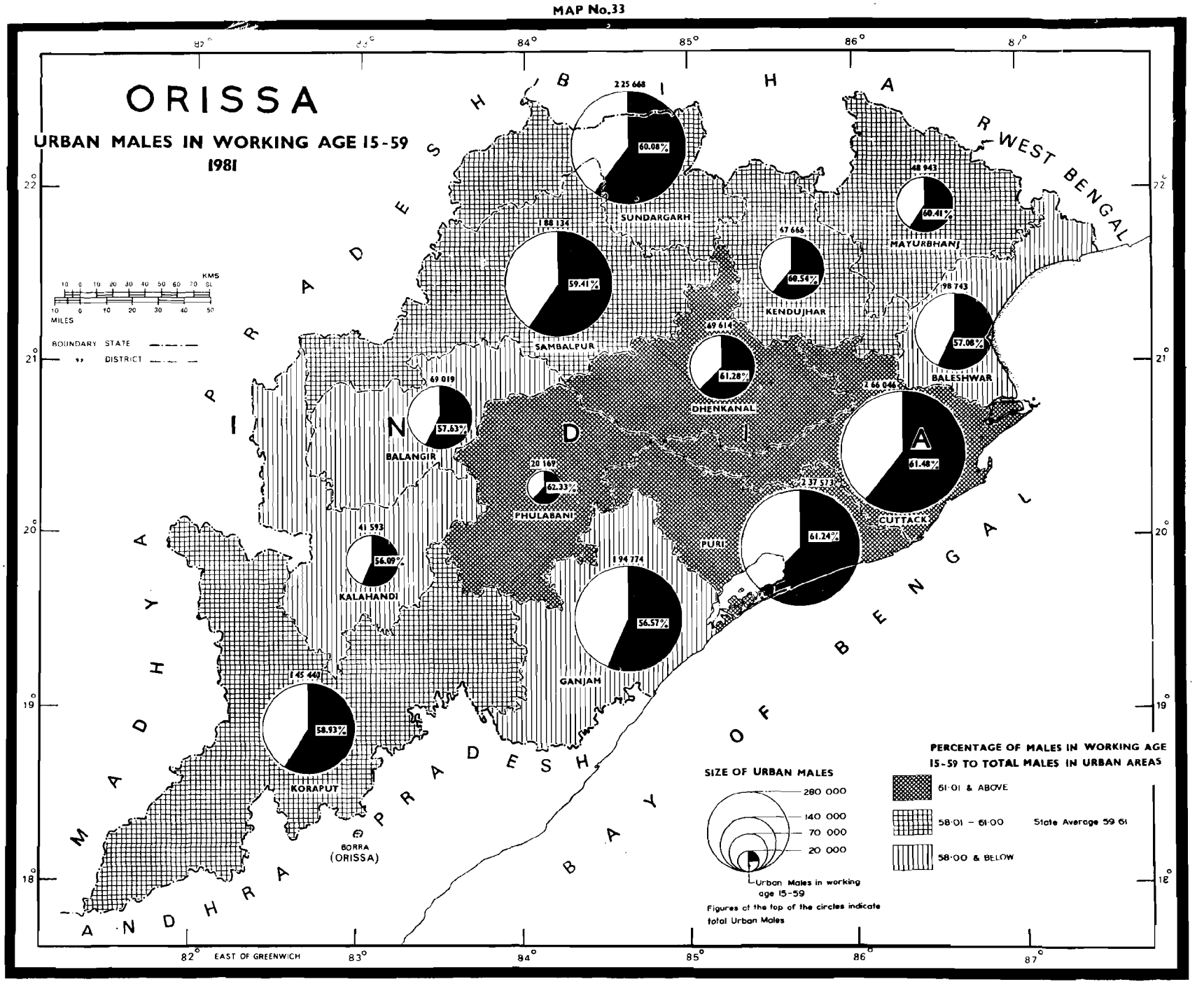
MAP No.31


ORISSA
FEMALES IN WORKING AGE 15-59
1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
645,122
53.51
MAYURBHANJ
786,509
55.72
SAMBALPUR
1,124,507
54.31
KENDUJHAR
532,465
54.36
BALESHWAR
1,113,453
51.43
DHENKANAL
774,257
51.54
726,675
53.74
BALANGIR
2,282,110
53.08
CUTTACK
358,418
54.84
PHULABANI
1,430,834
53.19
PURI
KALAHANDI
673,829
52.09
1,355,379
GANJAM
KORAPUT
1,237,623
55.34
BORRA
(ORISSA)
SIZE OF POPULATION
2,400,000
1,200,000
600,000
300,000
Females in working age 15-59
Figures at the top of the circles indicate total female population.
Figures inside the sectors indicate percentage.
PERCENTAGE OF FEMALES IN WORKING AGE 15-59 TO TOTAL FEMALE POPULATION
54·51 & ABOVE
53·31 - 54·50
State Average 53·39
53·11 - 53·30
52·01 - 53·10
52·00 & BELOW
BOUNDARY: STATE
DISTRICT
KMS
MILES
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

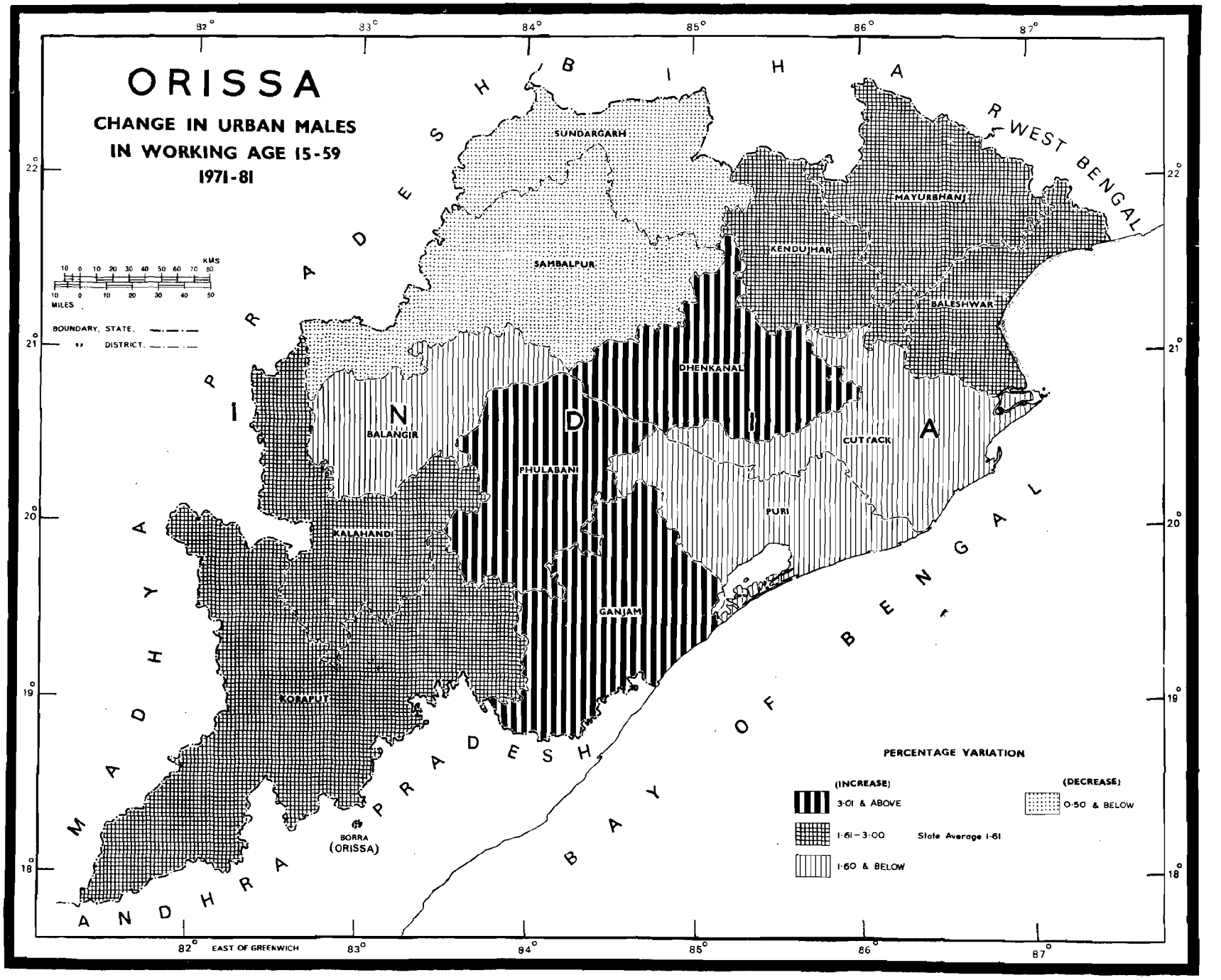
MAP No.32


ORISSA
CHANGE IN FEMALES IN WORKING AGE 15-59
1971-81
KMS
MILES
BOUNDARY STATE
DISTRICT
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
PERCENTAGE VARIATION (INCREASE)
3.01 & ABOVE
1.51 - 3.00 State Average 2.11
1.50 & BELOW
EAST OF GREENWICH

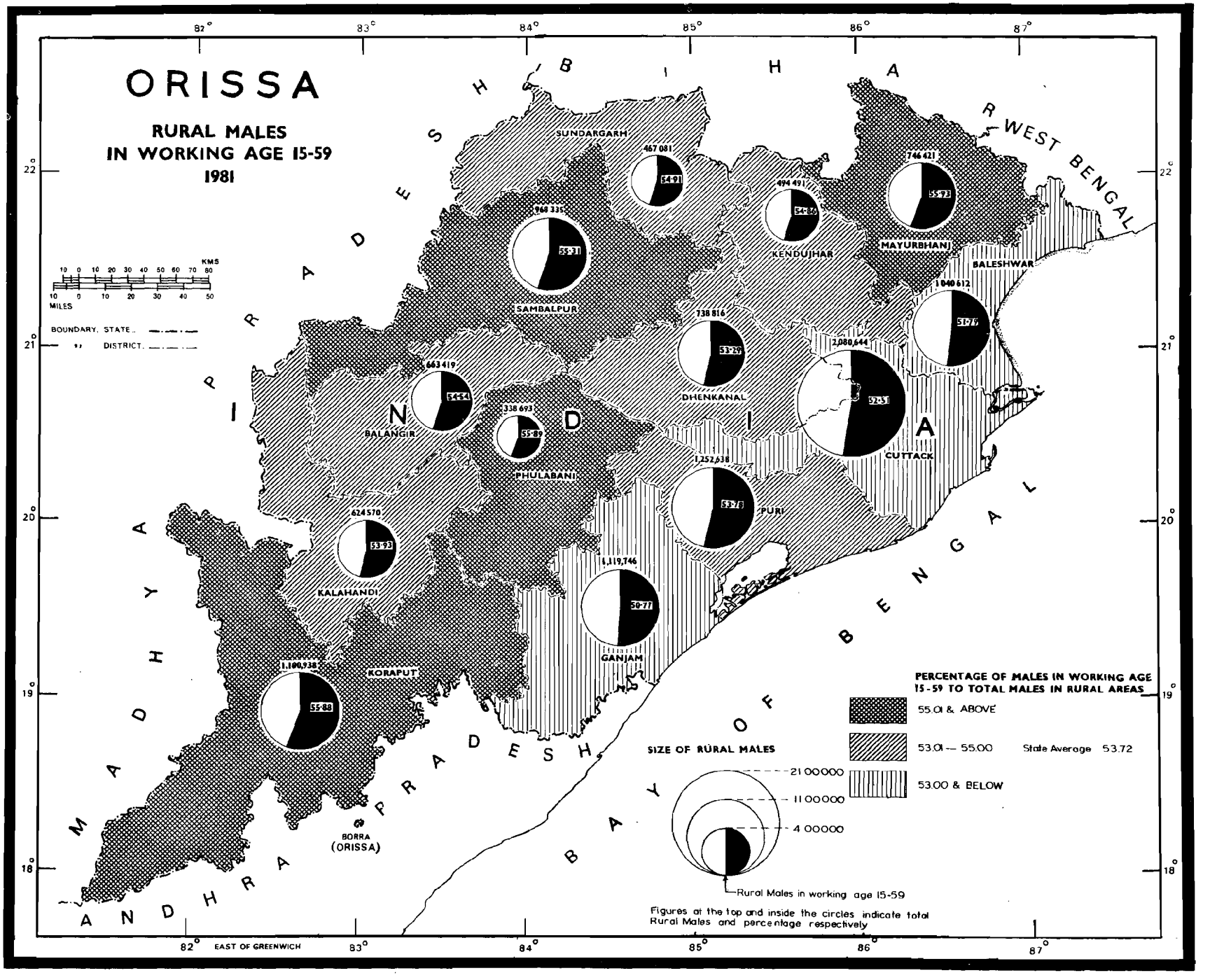
MAP No.33


ORISSA
URBAN MALES IN WORKING AGE 15-59
1981
BOUNDARY STATE
DISTRICT
KMS
MILES
225 668
60.08%
SUNDARGARH
188 134
59.41%
SAMBALPUR
69 019
57.63%
BALANGIR
41 593
56.09%
KALAHANDI
145 449
58.93%
KORAPUT
BORRA (ORISSA)
20 169
62.33%
PHULABANI
194 774
56.57%
GANJAM
69 614
61.28%
DHENKANAL
67 666
60.54%
KENDUJHAR
48 943
60.41%
MAYURBHANJ
98 743
57.08%
BALESHWAR
2 66 046
61.48%
CUTTACK
2 37 573
61.24%
PURI
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
WEST BENGAL
ORISSA
82° EAST OF GREENWICH
SIZE OF URBAN MALES
280 000
140 000
70 000
20 000
Urban Males in working age 15-59
Figures at the top of the circles indicate total Urban Males
PERCENTAGE OF MALES IN WORKING AGE 15-59 TO TOTAL MALES IN URBAN AREAS
61·01 & ABOVE
58·01 – 61·00
58·00 & BELOW
State Average 59·61

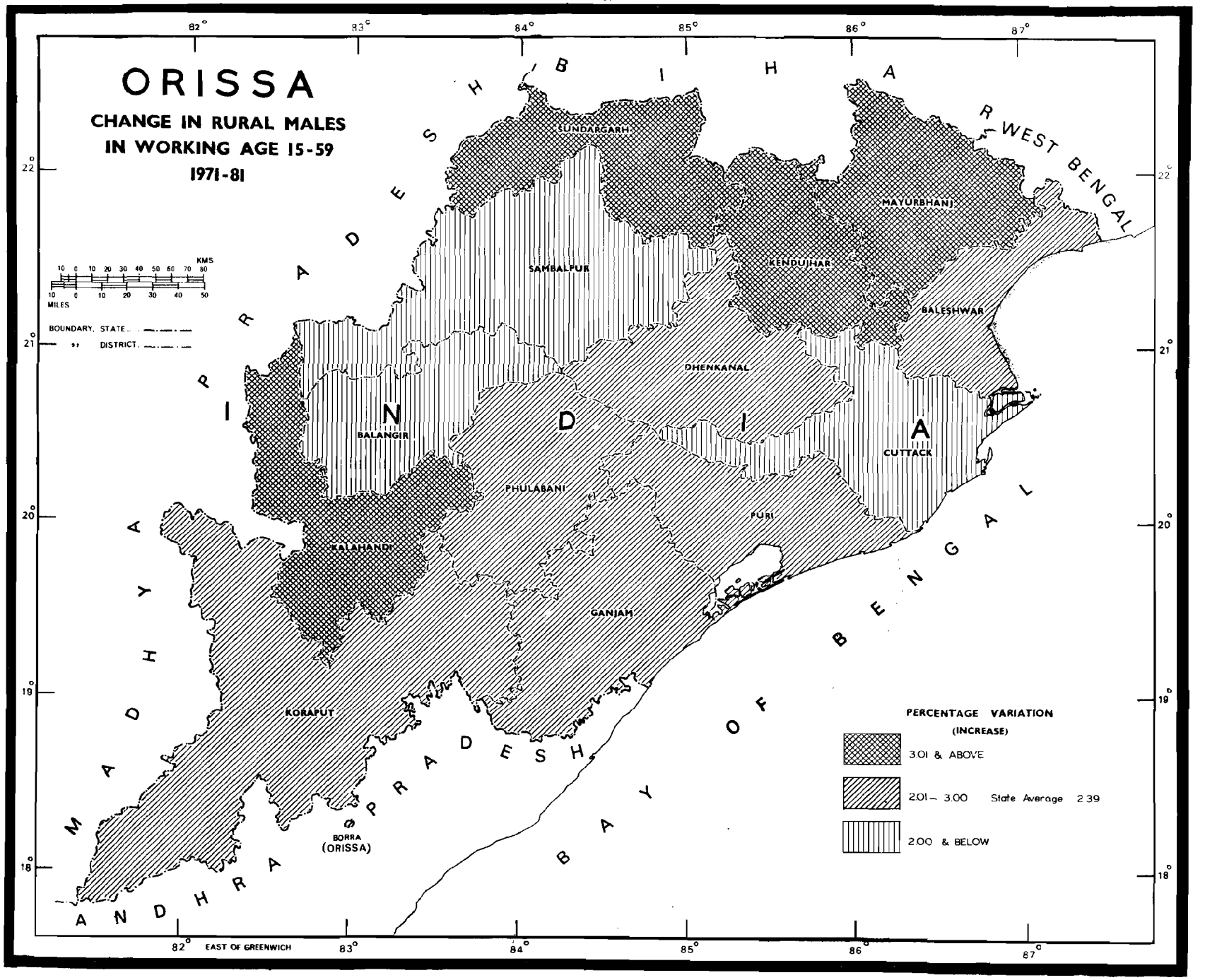
MAP No.34


ORISSA
CHANGE IN URBAN MALES
IN WORKING AGE 15-59
1971-81
KMS
MILES
BOUNDARY, STATE.
DISTRICT.
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA
(ORISSA)
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
PERCENTAGE VARIATION
(INCREASE)
3·01 & ABOVE
1·61 – 3·00
1·60 & BELOW
State Average 1·61
(DECREASE)
0·50 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

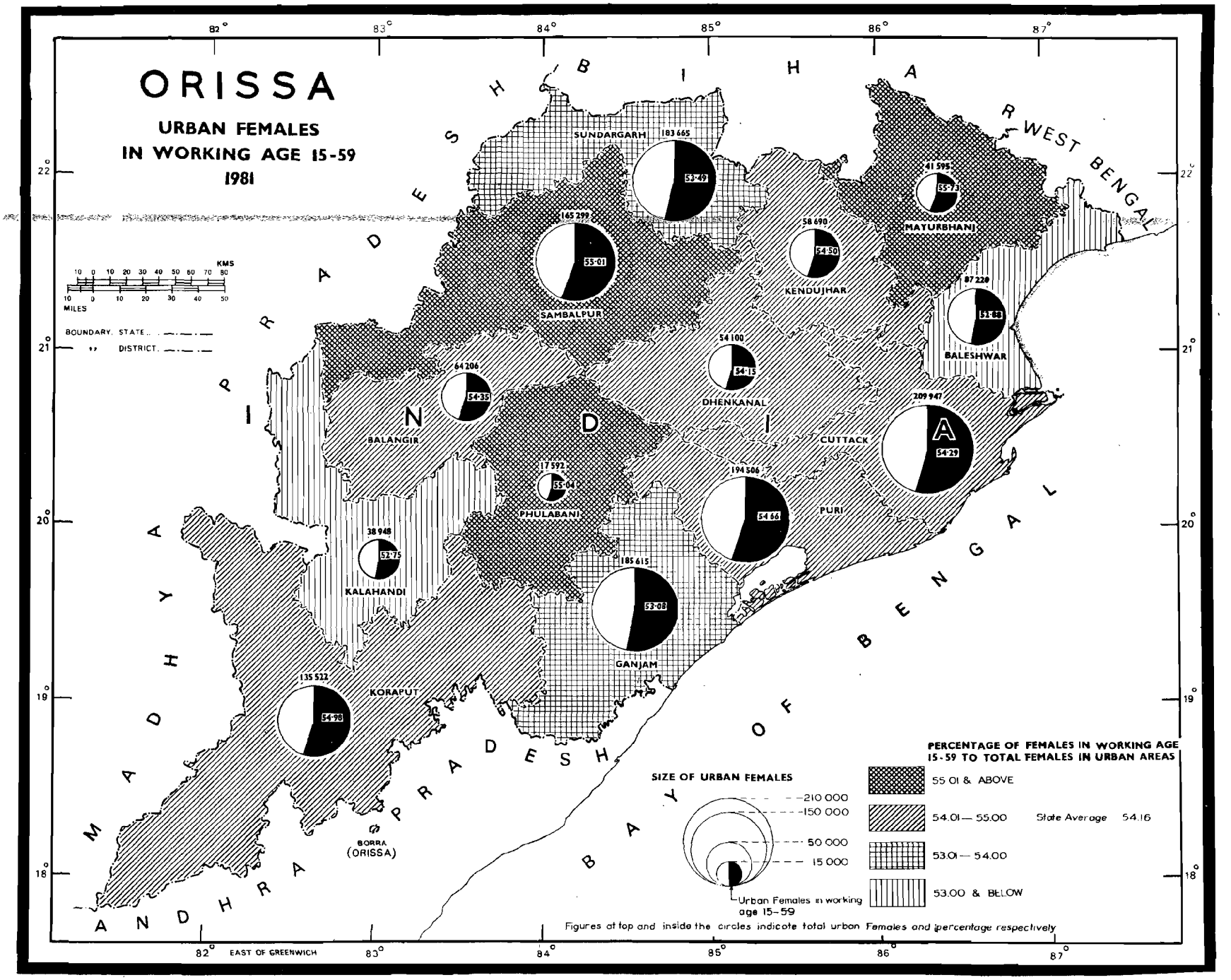
MAP No.35


ORISSA
RURAL MALES
IN WORKING AGE 15-59
1981
SUNDARGARH
467 081
54·91
SAMBALPUR
968 335
55·31
KENDUJHAR
494 491
54·45
MAYURBHANJ
746 421
55·93
BALESHWAR
1 040 612
53·76
DHENKANAL
738 816
53·26
CUTTACK
2,080,644
52·51
BALANGIR
663 419
54·54
PHULABANI
338 693
55·89
PURI
1,252,638
53·78
GANJAM
1,119,746
50·77
KALAHANDI
624 570
53·53
KORAPUT
1,100,938
55·88
BORRA (ORISSA)
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
WEST BENGAL
BIHAR
ORISSA
KMS
MILES
BOUNDARY, STATE
DISTRICT
PERCENTAGE OF MALES IN WORKING AGE 15-59 TO TOTAL MALES IN RURAL AREAS
55.01 & ABOVE
53.01 — 55.00
State Average 53.72
53.00 & BELOW
SIZE OF RURAL MALES
21 00000
11 00000
4 00000
Rural Males in working age 15-59
Figures at the top and inside the circles indicate total Rural Males and percentage respectively
EAST OF GREENWICH

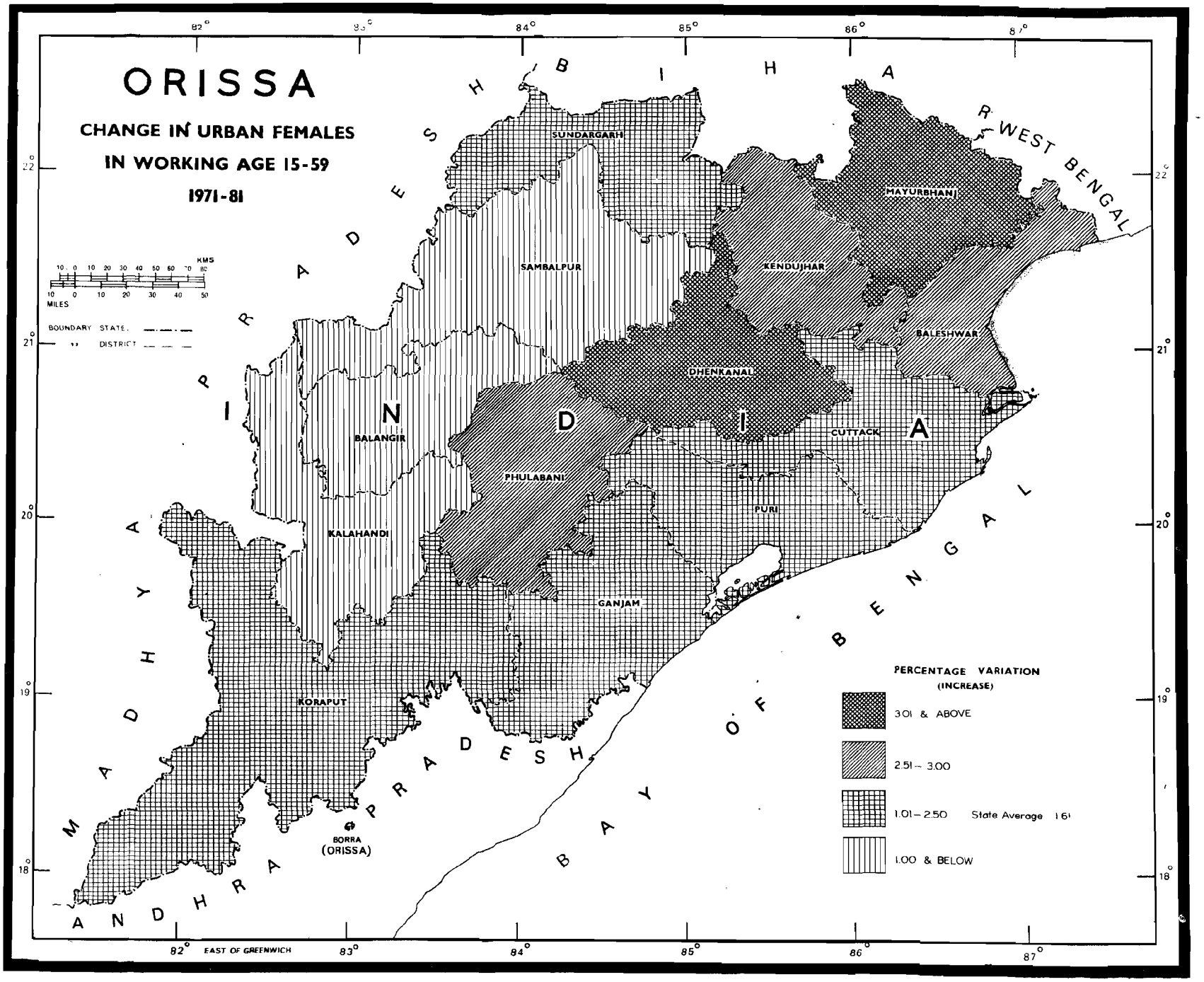
MAP No.36


ORISSA
CHANGE IN RURAL MALES
IN WORKING AGE 15-59
1971-81
KMS
MILES
BOUNDARY, STATE
DISTRICT
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
PERCENTAGE VARIATION
(INCREASE)
3.01 & ABOVE
2.01 – 3.00 State Average 2.39
2.00 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

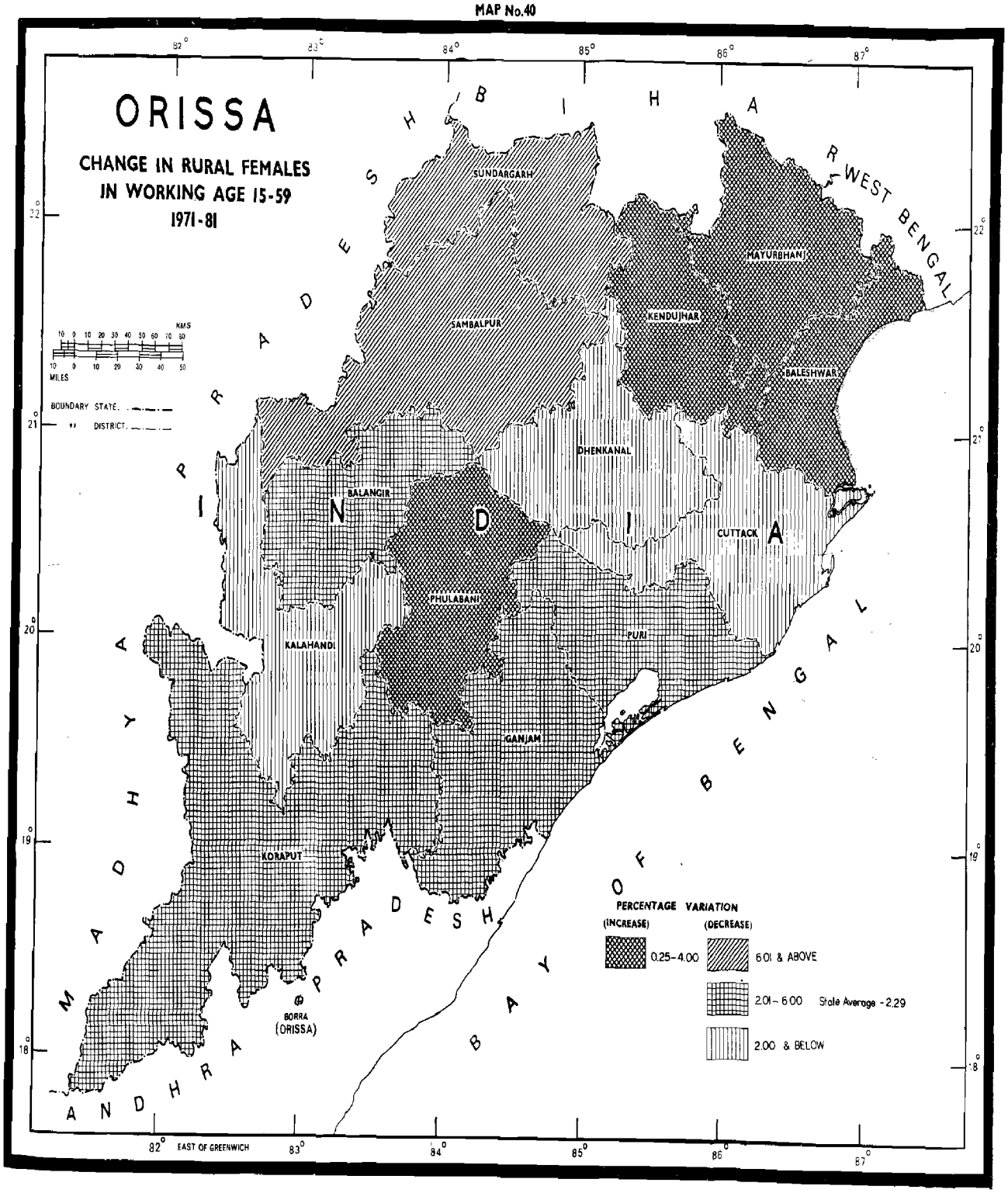
MAP No.37


ORISSA
URBAN FEMALES
IN WORKING AGE 15-59
1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
183 665
53·49
41 595
55·71
MAYURBHANJ
165 299
55·01
SAMBALPUR
58 690
54·50
KENDUJHAR
87 220
54·83
BALESHWAR
54 100
54·15
DHENKANAL
64 206
54·35
BALANGIR
209 947
54·29
CUTTACK
17 592
55·64
PHULABANI
194 506
54·66
PURI
38 948
52·75
KALAHANDI
185 615
53·08
GANJAM
135 522
54·98
KORAPUT
BORRA (ORISSA)
BOUNDARY, STATE
DISTRICT
KMS
MILES
SIZE OF URBAN FEMALES
210 000
150 000
50 000
15 000
Urban Females in working age 15-59
PERCENTAGE OF FEMALES IN WORKING AGE 15-59 TO TOTAL FEMALES IN URBAN AREAS
55 01 & ABOVE
54.01 — 55.00
State Average 54.16
53.01 — 54.00
53.00 & BELOW
Figures at top and inside the circles indicate total urban Females and percentage respectively
EAST OF GREENWICH

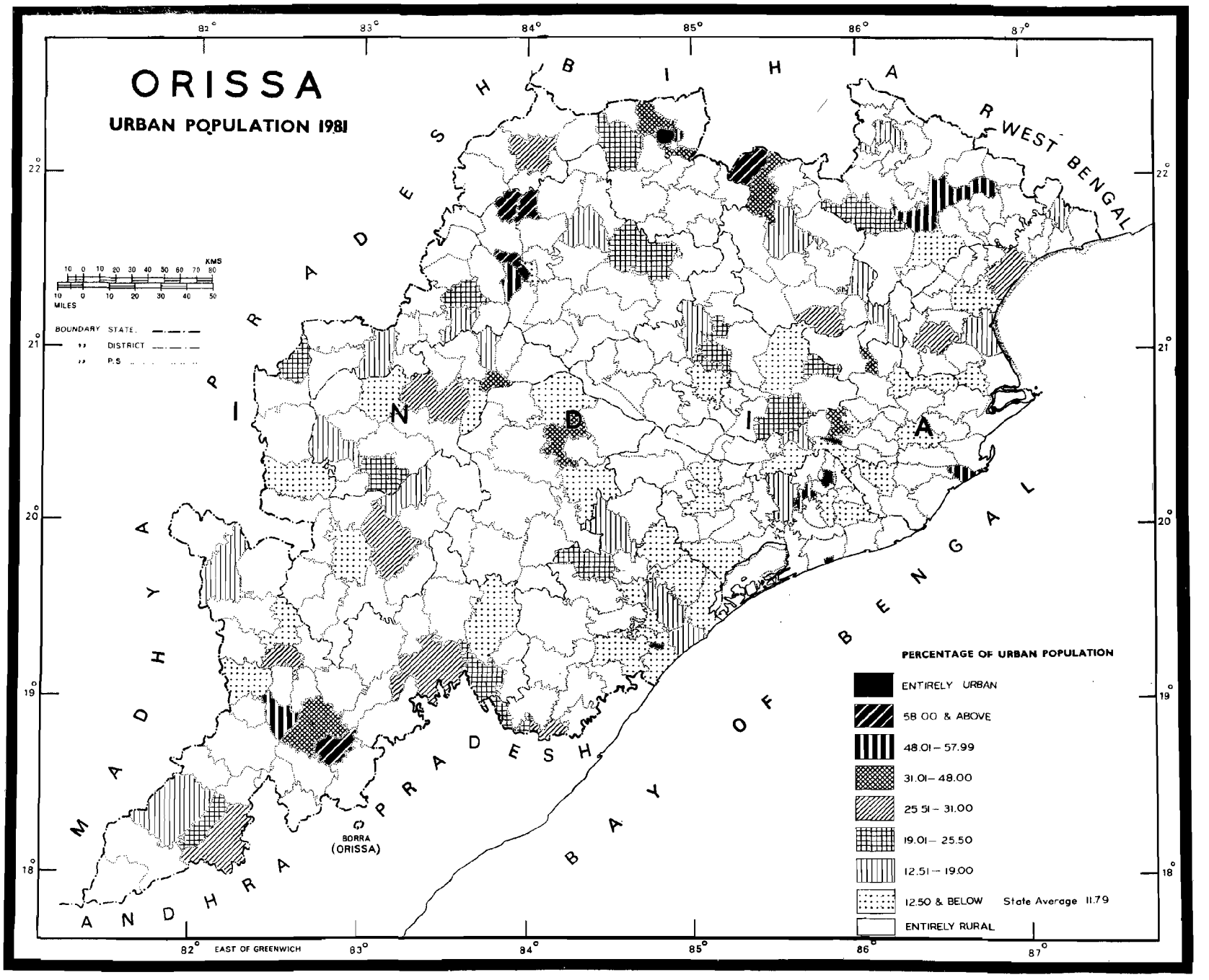
MAP No.38


ORISSA
CHANGE IN URBAN FEMALES
IN WORKING AGE 15-59
1971-81
KMS
MILES
BOUNDARY STATE
DISTRICT
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA
(ORISSA)
PERCENTAGE VARIATION
(INCREASE)
3.01 & ABOVE
2.51 – 3.00
1.01 – 2.50
State Average 1.61
1.00 & BELOW
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

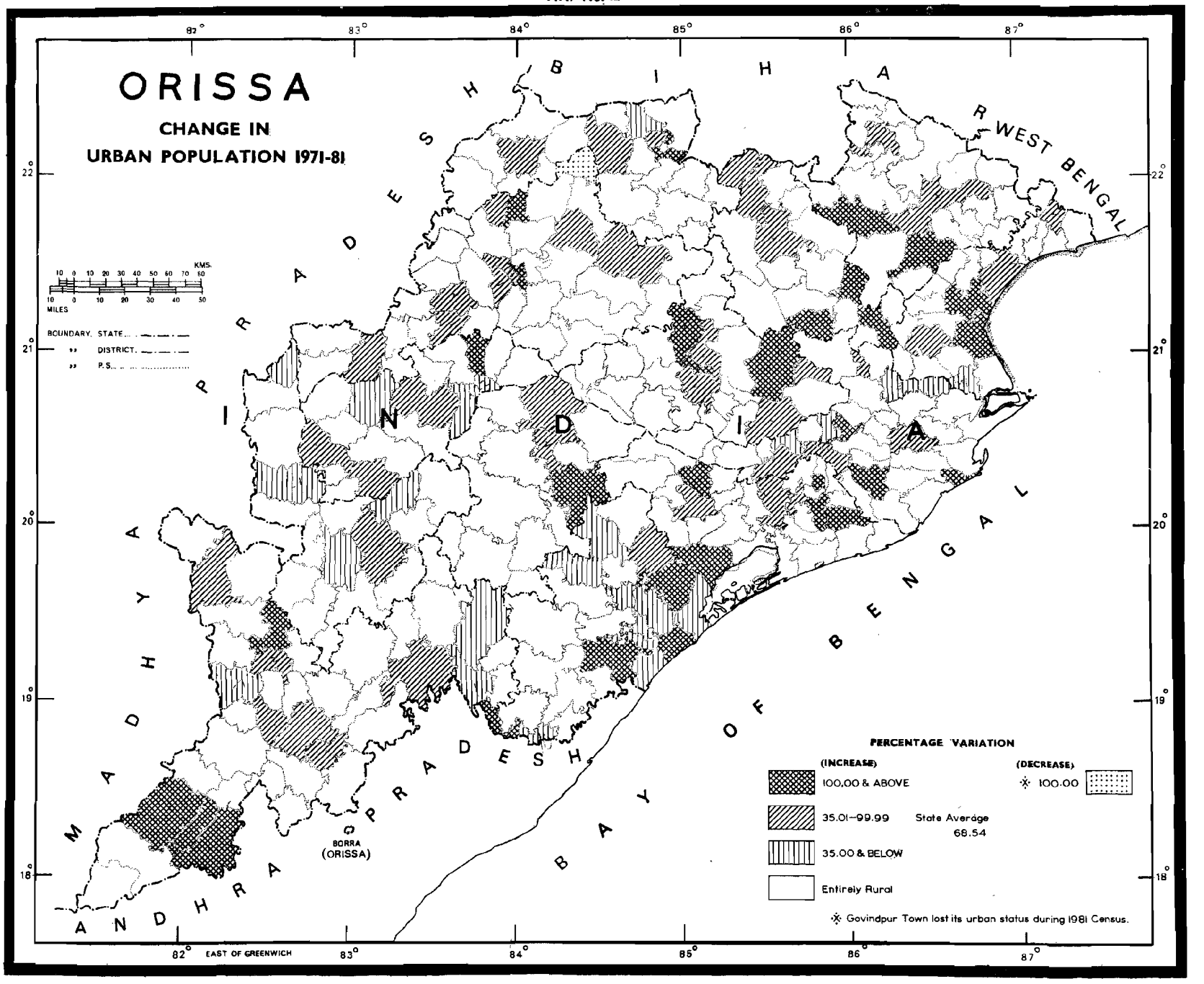
MAP No.40


ORISSA
CHANGE IN RURAL FEMALES
IN WORKING AGE 15-59
1971-81
KMS
MILES
BOUNDARY STATE
DISTRICT
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
KALAHANDI
PURI
GANJAM
KORAPUT
BORRA
(ORISSA)
MADHYA PRADESH
ANDHRA PRADESH
BIHAR
WEST BENGAL
BAY OF BENGAL
INDIA
PERCENTAGE VARIATION
(INCREASE)
(DECREASE)
0.25-4.00
6.01 & ABOVE
2.01-6.00
State Average - 2.29
2.00 & BELOW
EAST OF GREENWICH

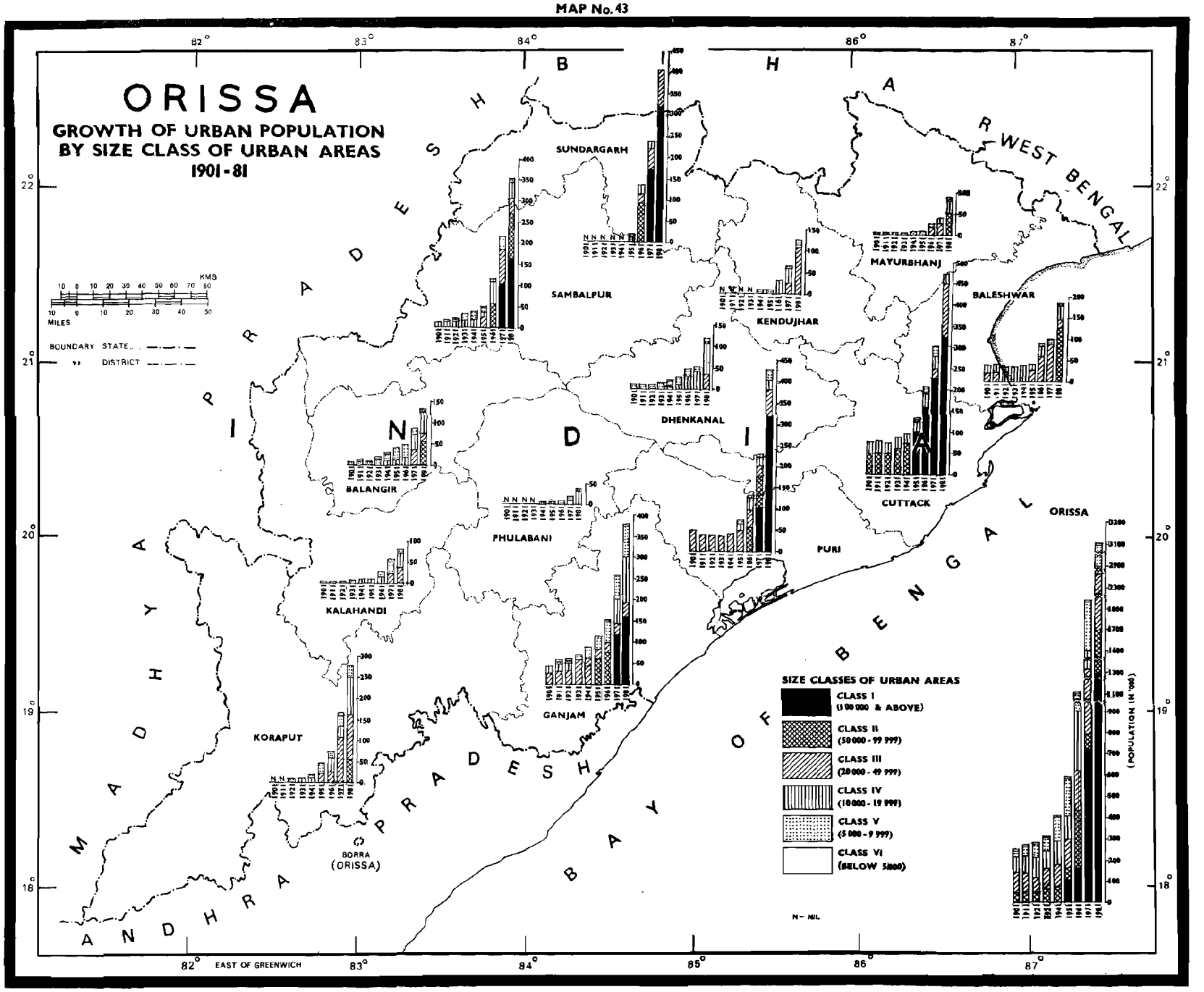
MAP No.41


ORISSA
URBAN POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
BORRA (ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
P.S
PERCENTAGE OF URBAN POPULATION
ENTIRELY URBAN
58.00 & ABOVE
48.01 – 57.99
31.01 – 48.00
25.51 – 31.00
19.01 – 25.50
12.51 – 19.00
12.50 & BELOW
State Average 11.79
ENTIRELY RURAL
EAST OF GREENWICH

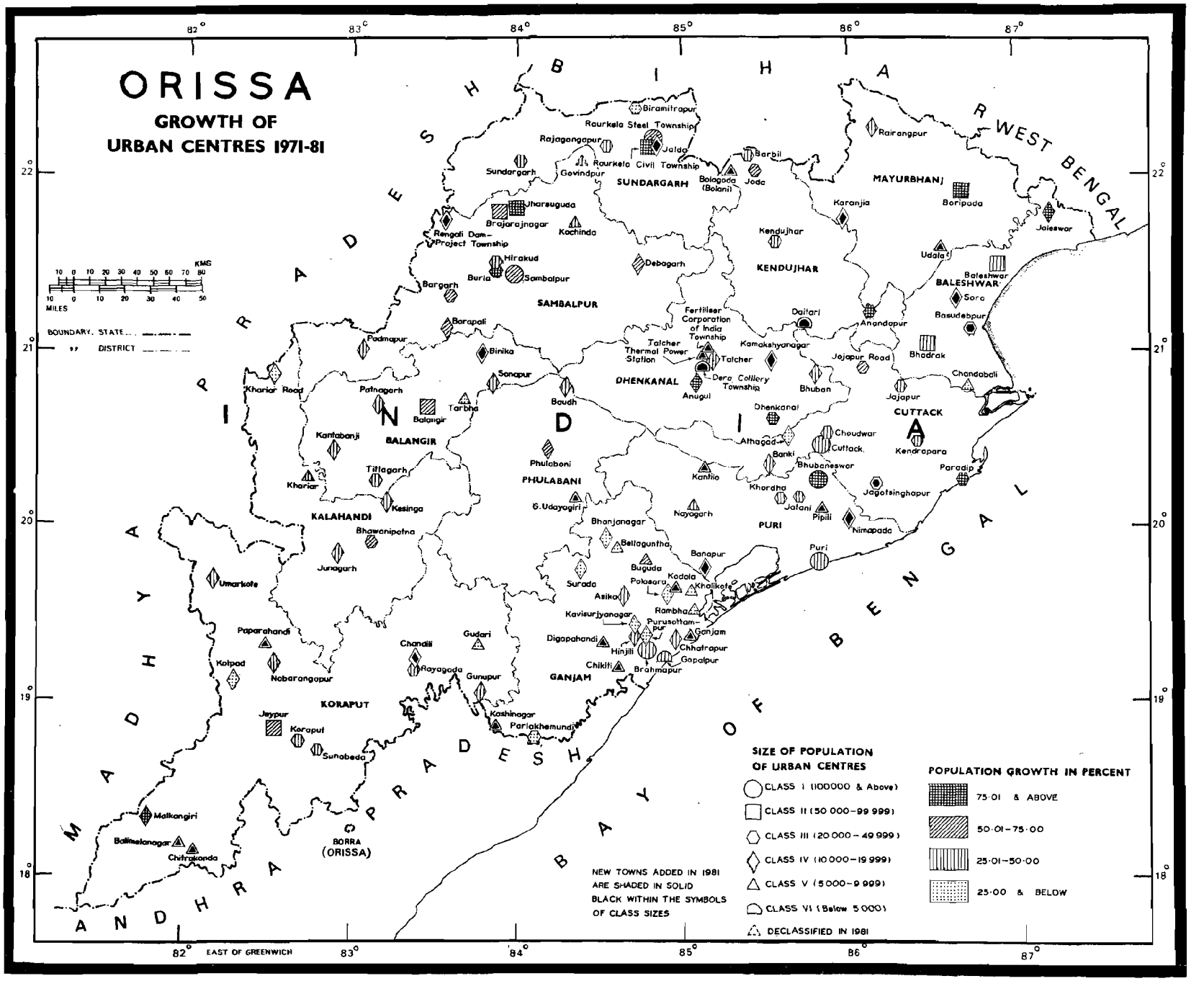
MAP No. 42


ORISSA
CHANGE IN
URBAN POPULATION 1971-81
KMS.
MILES
BOUNDARY. STATE
DISTRICT.
P.S.
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
BORRA (ORISSA)
82° EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
PERCENTAGE VARIATION
(INCREASE)
100.00 & ABOVE
35.01–99.99
State Average 68.54
35.00 & BELOW
Entirely Rural
(DECREASE)
100.00
Govindpur Town lost its urban status during 1981 Census.

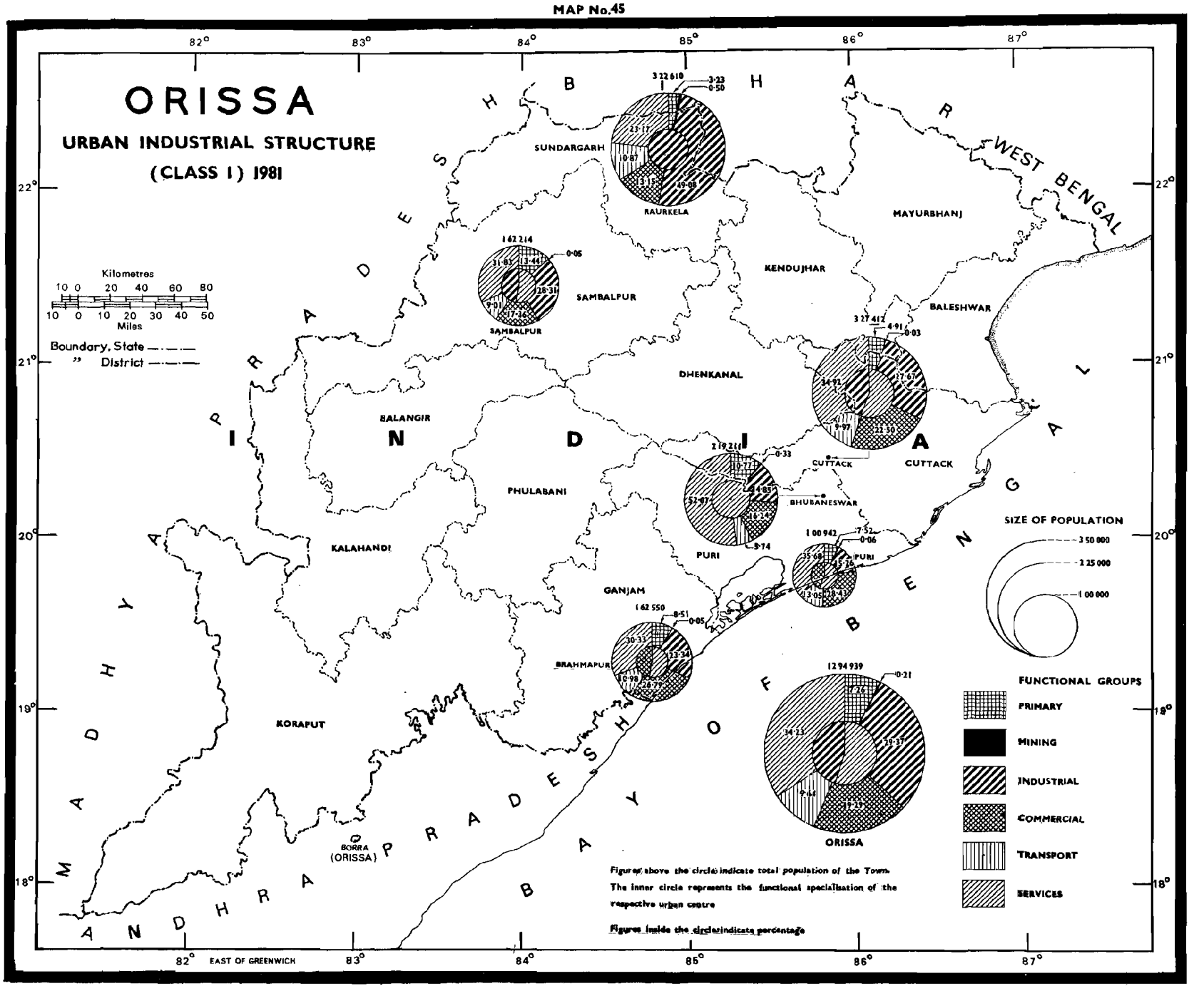
MAP No. 43


ORISSA
GROWTH OF URBAN POPULATION
BY SIZE CLASS OF URBAN AREAS
1901 - 81
BOUNDARY STATE
DISTRICT
MILES
KMS
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
KORAPUT
GANJAM
BORRA
(ORISSA)
ORISSA
SIZE CLASSES OF URBAN AREAS
CLASS I
(100 000 & ABOVE)
CLASS II
(50 000 - 99 999)
CLASS III
(20 000 - 49 999)
CLASS IV
(10 000 - 19 999)
CLASS V
(5 000 - 9 999)
CLASS VI
(BELOW 5000)
N - NIL
(POPULATION IN '000)
EAST OF GREENWICH
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL

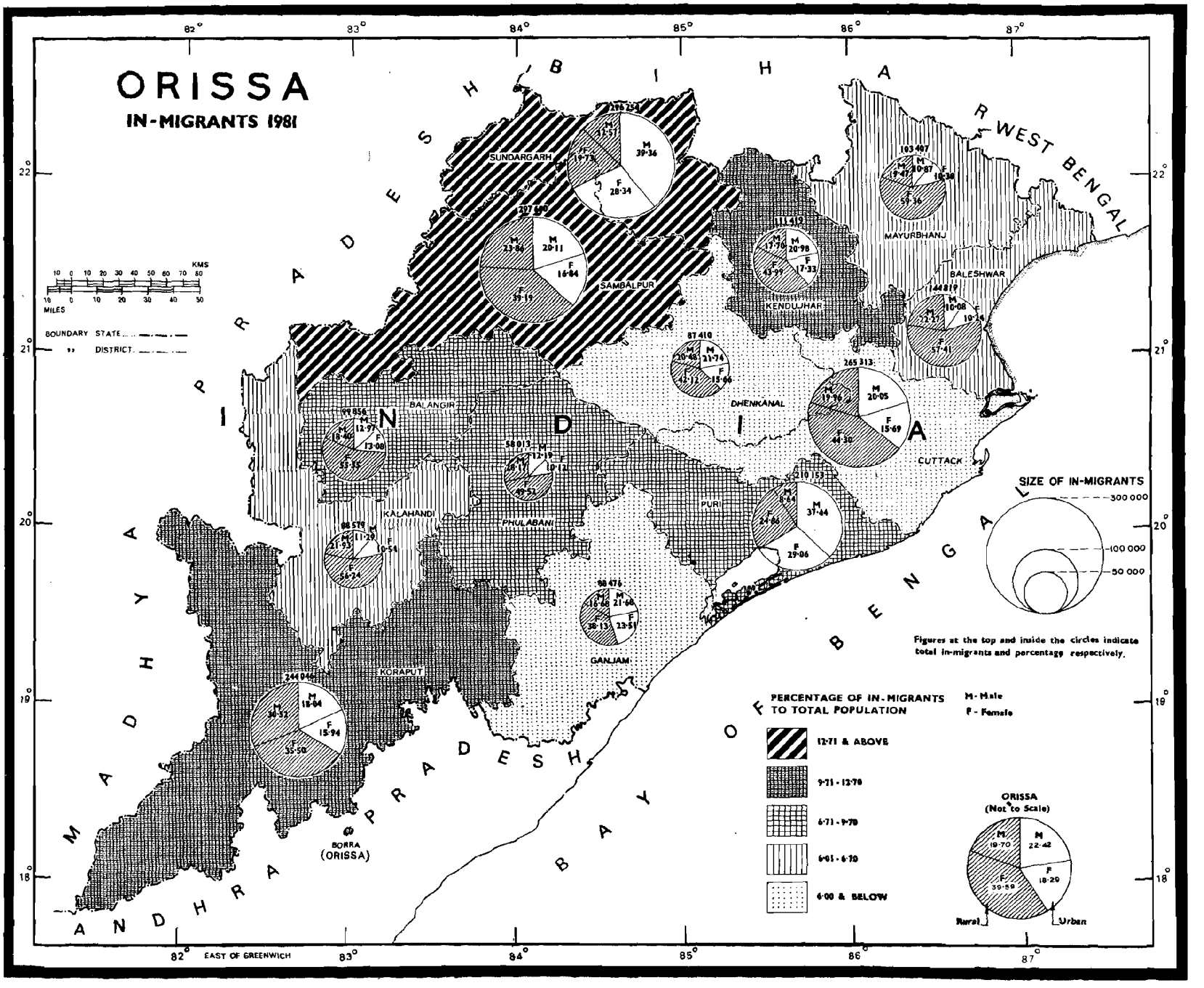
MAP No.44


ORISSA
GROWTH OF
URBAN CENTRES 1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
KMS
MILES
BOUNDARY, STATE
DISTRICT
Biramitrapur
Raurkela Steel Township
Rajagangapur
Jalda
Raurkela Civil Township
Rairangpur
Barbil
Sundargarh
Govindpur
SUNDARGARH
Bolagada (Bolani)
Joda
MAYURBHANJ
Karanjia
Baripada
Jharsuguda
Brajarajnagar
Kachinda
Jaleswar
Rengali Dam-Project Township
Kendujhar
Udala
Hirakud
Debagarh
KENDUJHAR
Baleshwar
BALESHWAR
Burla
Sambalpur
Soro
Bargarh
SAMBALPUR
Basudebpur
Fertiliser Corporation of India Township
Daitari
Anandapur
Barapali
Talcher Thermal Power Station
Kamakshyanagar
Bhadrak
Padmapur
Birika
Talcher
Jajpur Road
Sonapur
Dera Colliery Township
Chandabali
Khariar Road
DHENKANAL
Bhuban
Patnagarh
Tarbha
Anugul
Jajapur
Baudh
Dhenkanal
CUTTACK
Balangir
Athagad
Choudwar
Kantabanji
BALANGIR
Cuttack
Kendrapara
Banki
Phulaboni
Bhubaneswar
Paradip
Titlagarh
Kantilo
Khordha
Jagatsinghapur
Khariar
PHULABANI
Kesinga
G.Udayagiri
Jatani
Pipili
Nayagarh
KALAHANDI
Nimapada
Bhawanipatna
Bhanjanagar
PURI
Bellaguntha
Puri
Banapur
Junagarh
Buguda
Kodala
Umarkote
Surada
Polasara
Khallikote
Asika
Rambha
Kavisuryanagar
Purusottam-pur
Paparahandi
Ganjam
Gudari
Digapahandi
Chandili
Hinjili
Chhatrapur
Kotpad
Nabarangapur
Rayagada
Chikiti
Gopalpur
Gunupur
Brahmapur
GANJAM
KORAPUT
Jeypur
Kashinagar
Koraput
Parlakhemundi
Sunabeda
Malkangiri
Balimelanagar
Chitrakonda
BORRA (ORISSA)
SIZE OF POPULATION OF URBAN CENTRES
CLASS I (100000 & Above)
CLASS II (50 000-99 999)
CLASS III (20 000-49 999)
CLASS IV (10 000-19 999)
CLASS V (5000-9 999)
CLASS VI (Below 5 000)
DECLASSIFIED IN 1981
NEW TOWNS ADDED IN 1981 ARE SHADED IN SOLID BLACK WITHIN THE SYMBOLS OF CLASS SIZES
POPULATION GROWTH IN PERCENT
75·01 & ABOVE
50·01-75·00
25·01-50·00
25·00 & BELOW
EAST OF GREENWICH

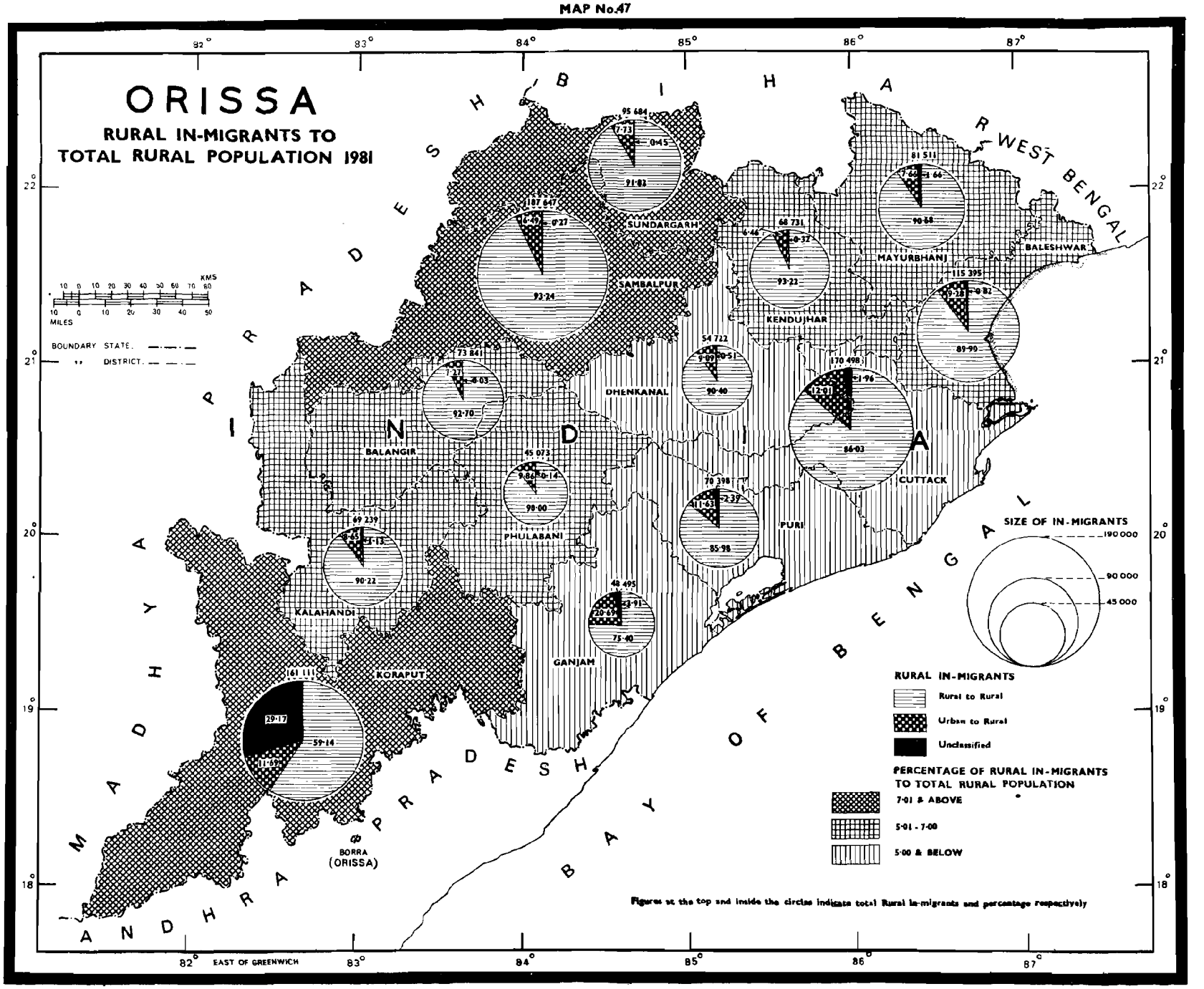
MAP No.45


ORISSA
URBAN INDUSTRIAL STRUCTURE
(CLASS I) 1981
Kilometres
10 0 20 40 60 80
10 0 10 20 30 40 50
Miles
Boundary, State
" District
SUNDARGARH
RAURKELA
SAMBALPUR
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
KALAHANDI
CUTTACK
CUTTACK
BHUBANESWAR
PURI
PURI
GANJAM
BRAHMAPUR
KORAPUT
BORRA
(ORISSA)
ORISSA
WEST BENGAL
BAY OF BENGAL
MADHYA PRADESH
ANDHRA PRADESH
INDIA
SIZE OF POPULATION
3 50 000
2 25 000
1 00 000
FUNCTIONAL GROUPS
PRIMARY
MINING
INDUSTRIAL
COMMERCIAL
TRANSPORT
SERVICES
Figures above the circle indicate total population of the Town.
The inner circle represents the functional specialisation of the respective urban centre
Figures inside the circle indicate percentage
82° EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

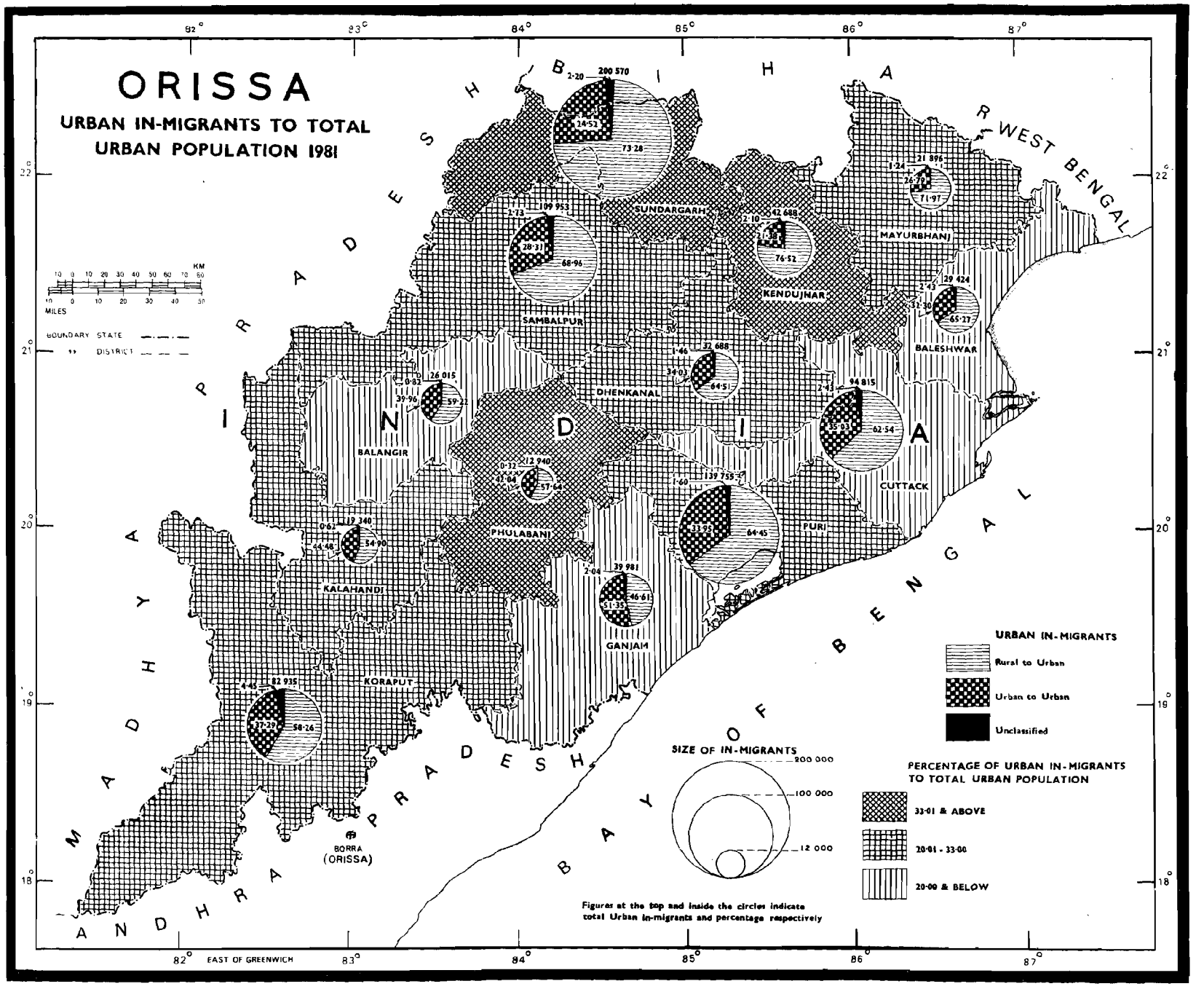
MAP No. 46


ORISSA
IN-MIGRANTS 1981
SUNDARGARH
SAMBALPUR
BALANGIR
KALAHANDI
KORAPUT
PHULABANI
GANJAM
PURI
DHENKANAL
KENDUJHAR
MAYURBHANJ
BALESHWAR
CUTTACK
BORRA (ORISSA)
MADHYA PRADESH
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
INDIA
BOUNDARY STATE
DISTRICT
KMS
MILES
SIZE OF IN-MIGRANTS
300 000
100 000
50 000
Figures at the top and inside the circles indicate total in-migrants and percentage respectively.
PERCENTAGE OF IN-MIGRANTS TO TOTAL POPULATION
12·71 & ABOVE
9·71 - 12·70
6·71 - 9·70
6·01 - 6·70
6·00 & BELOW
M - Male
F - Female
ORISSA (Not to Scale)
Rural
Urban
EAST OF GREENWICH

MAP No.47

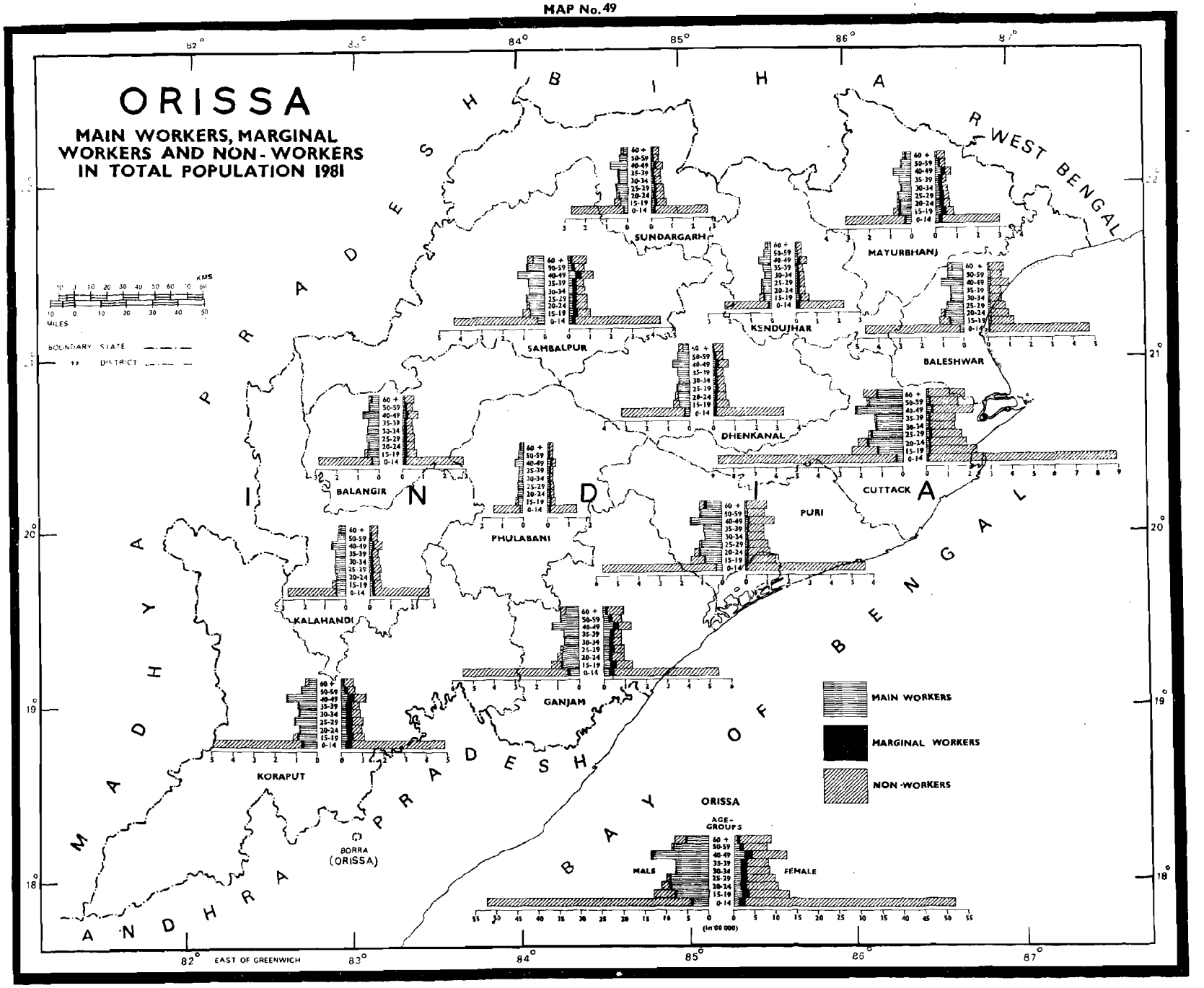

ORISSA
RURAL IN-MIGRANTS TO
TOTAL RURAL POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
GANJAM
KORAPUT
KALAHANDI
BORRA (ORISSA)
95 684
7·73
0·45
91·83
187 647
6·49
0·27
93·24
68 731
6·44
0·32
93·23
81 511
7·82
1·66
90·52
115 395
9·28
0·82
89·90
54 722
9·09
0·51
90·40
73 841
6·93
0·27
6·03
92·70
170 498
12·01
1·96
86·03
45 073
9·84
0·14
90·00
70 398
11·63
2·39
85·98
69 239
6·65
3·13
90·22
48 495
4·91
20·69
75·40
161 111
29·17
59·14
11·69
KMS
10 0 10 20 30 40 50 60 70 80
MILES
10 0 10 20 30 40 50
BOUNDARY STATE
DISTRICT
SIZE OF IN-MIGRANTS
190 000
90 000
45 000
RURAL IN-MIGRANTS
Rural to Rural
Urban to Rural
Unclassified
PERCENTAGE OF RURAL IN-MIGRANTS
TO TOTAL RURAL POPULATION
7·01 & ABOVE
5·01 - 7·00
5·00 & BELOW
Figures at the top and inside the circles indicate total Rural In-migrants and percentage respectively
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
92°
22°
21°
20°
19°
18°

MAP No.48

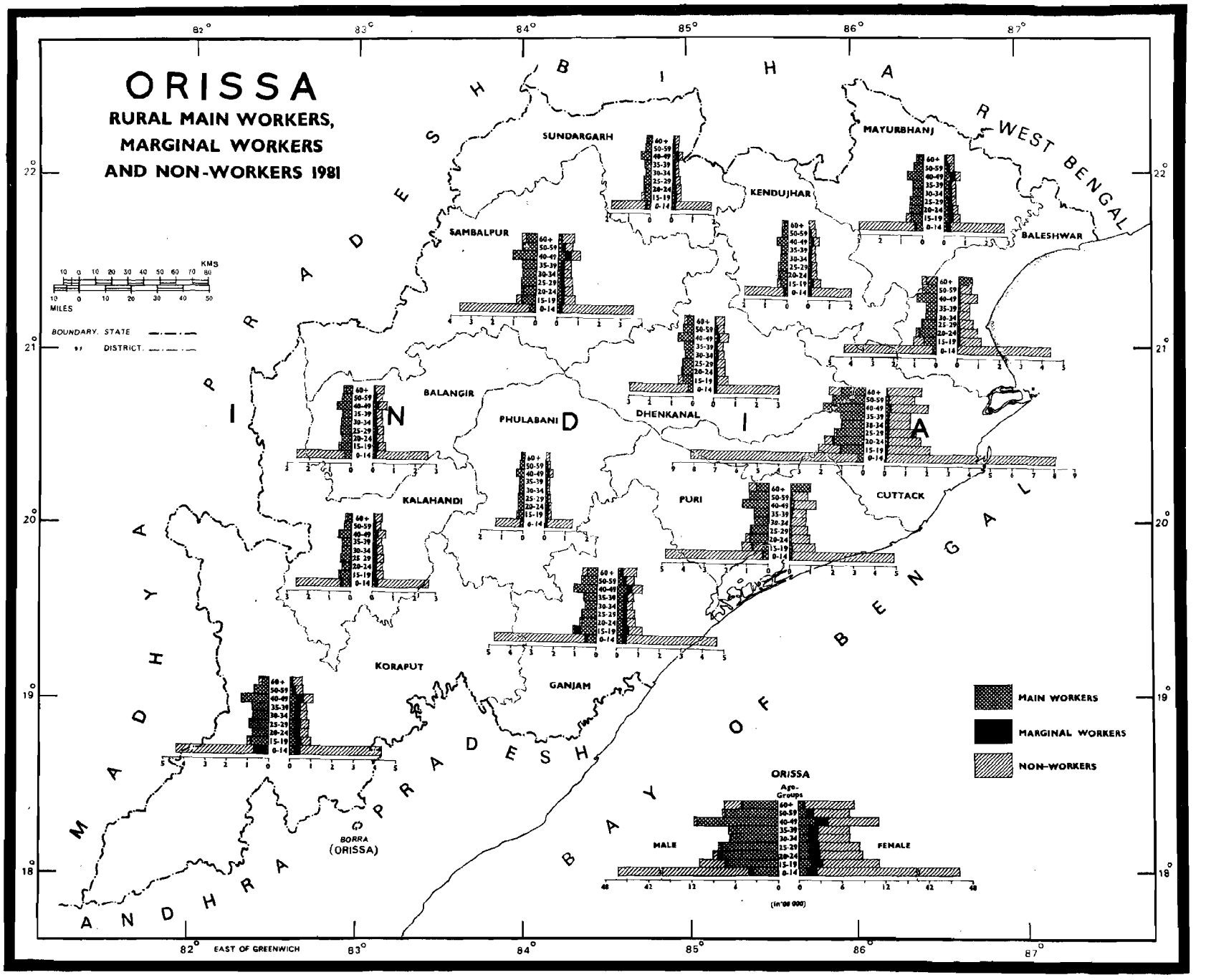

ORISSA
URBAN IN-MIGRANTS TO TOTAL URBAN POPULATION 1981
MADHYA PRADESH
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
200 570
14·53
73·28
109 953
28·37
68·96
42 688
76·52
21 896
26·79
71·97
29 424
65·27
37 688
64·51
94 815
62·54
26 015
57·22
12 940
57·64
139 759
64·45
17 240
54·90
39 981
46·61
82 935
58·26
KM
MILES
BOUNDARY STATE
DISTRICT
SIZE OF IN-MIGRANTS
200 000
100 000
12 000
URBAN IN-MIGRANTS
Rural to Urban
Urban to Urban
Unclassified
PERCENTAGE OF URBAN IN-MIGRANTS TO TOTAL URBAN POPULATION
33·01 & ABOVE
20·01 - 33·00
20·00 & BELOW
Figures at the top and inside the circles indicate total Urban in-migrants and percentage respectively
EAST OF GREENWICH

# ECONOMIC ASPECTS

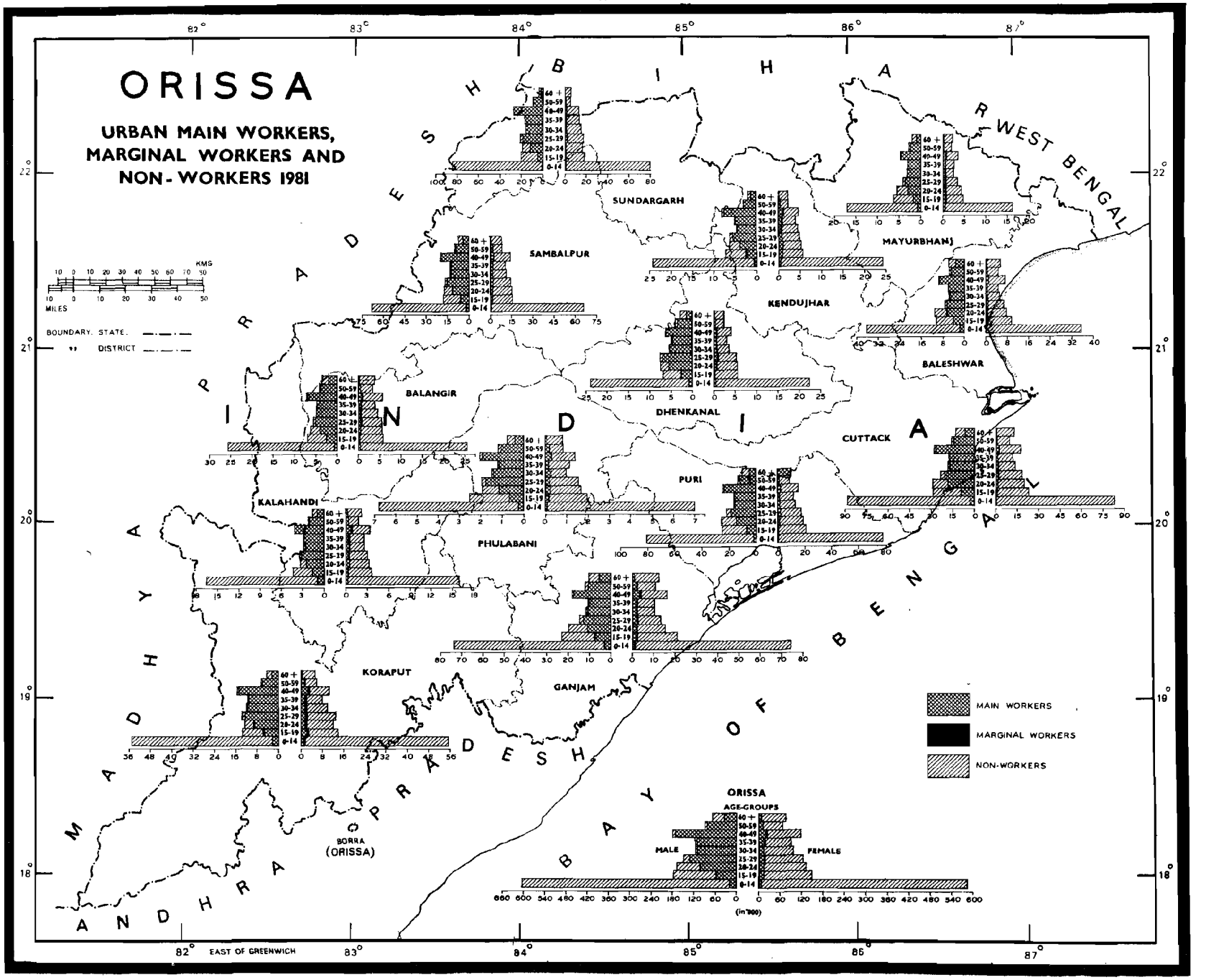
MAP No. 49


ORISSA
MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS IN TOTAL POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
MAYURBHANJ
SAMBALPUR
KENDUJHAR
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
MAIN WORKERS
MARGINAL WORKERS
NON-WORKERS
ORISSA
AGE-GROUPS
MALE
FEMALE
(in '00 000)
BOUNDARY STATE
DISTRICT
KMS
MILES
EAST OF GREENWICH

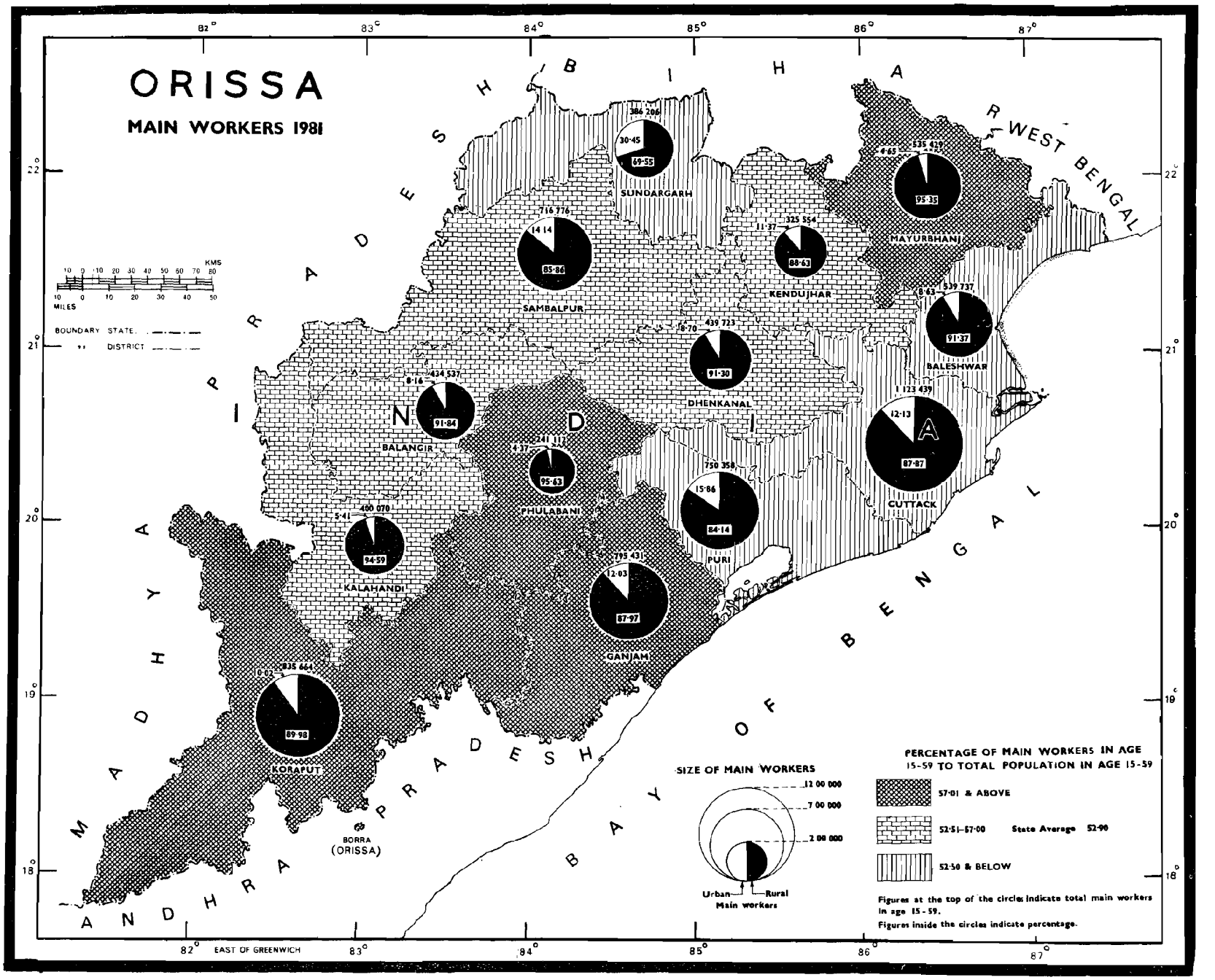
MAP No.50


ORISSA
RURAL MAIN WORKERS,
MARGINAL WORKERS
AND NON-WORKERS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
MAYURBHANJ
KENDUJHAR
SAMBALPUR
BALESHWAR
BALANGIR
PHULABANI
DHENKANAL
KALAHANDI
PURI
CUTTACK
KORAPUT
GANJAM
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
MAIN WORKERS
MARGINAL WORKERS
NON-WORKERS
ORISSA
Age-Groups
MALE
FEMALE
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

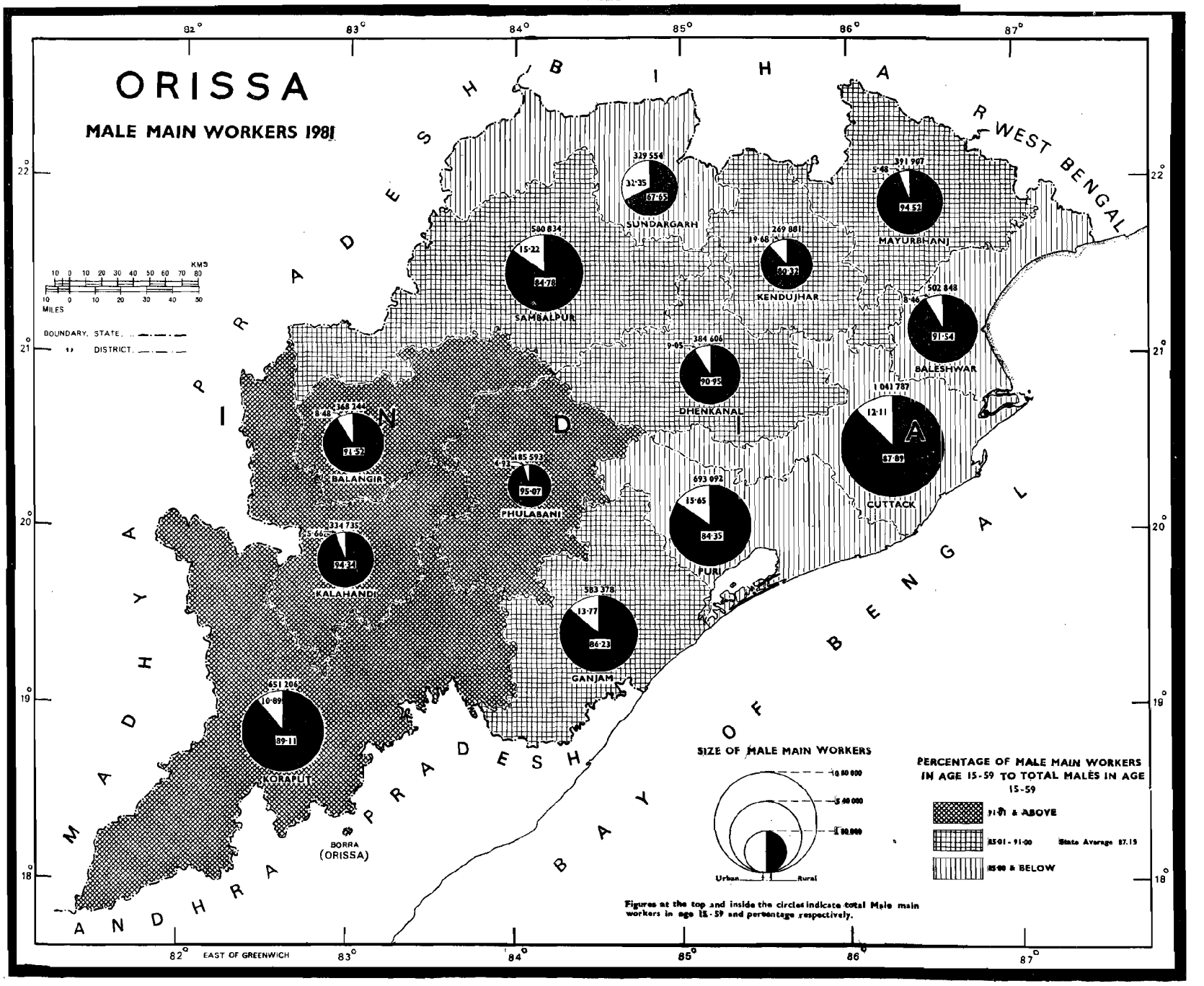
MAP No.51


ORISSA
URBAN MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS 1981
BOUNDARY, STATE
" DISTRICT
KMS
MILES
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
BALANGIR
DHENKANAL
CUTTACK
PURI
KALAHANDI
PHULABANI
KORAPUT
GANJAM
BORRA (ORISSA)
MAIN WORKERS
MARGINAL WORKERS
NON-WORKERS
ORISSA
AGE-GROUPS
MALE
FEMALE
(in '000)
EAST OF GREENWICH
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL

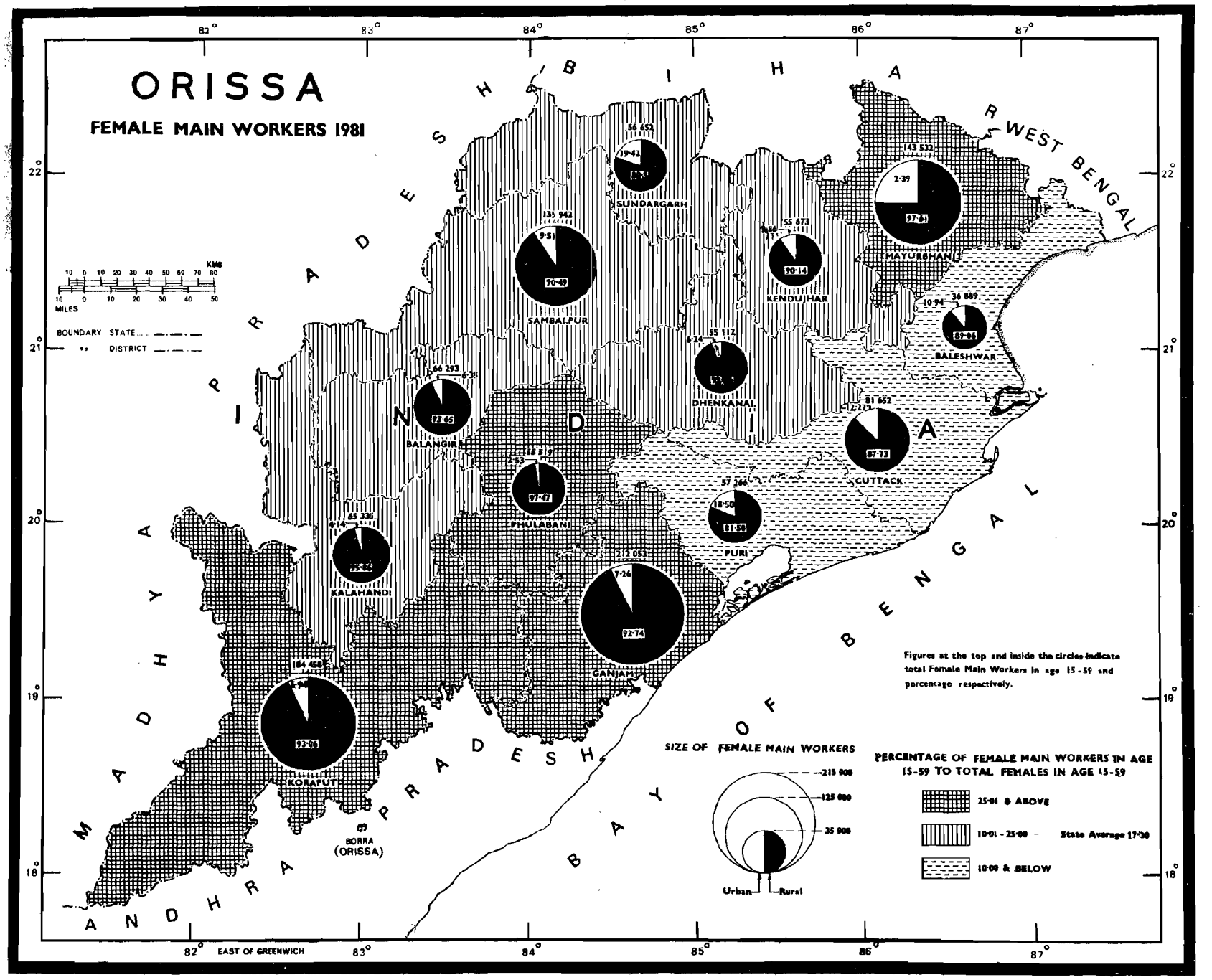
MAP No.52


ORISSA
MAIN WORKERS 1981
MADHYA PRADESH
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BOUNDARY STATE
DISTRICT
KMS
MILES
SIZE OF MAIN WORKERS
12 00 000
7 00 000
2 00 000
Urban
Rural
Main workers
PERCENTAGE OF MAIN WORKERS IN AGE 15-59 TO TOTAL POPULATION IN AGE 15-59
57·01 & ABOVE
52·51–57·00 State Average 52·90
52·50 & BELOW
Figures at the top of the circles indicate total main workers in age 15-59.
Figures inside the circles indicate percentage.
EAST OF GREENWICH

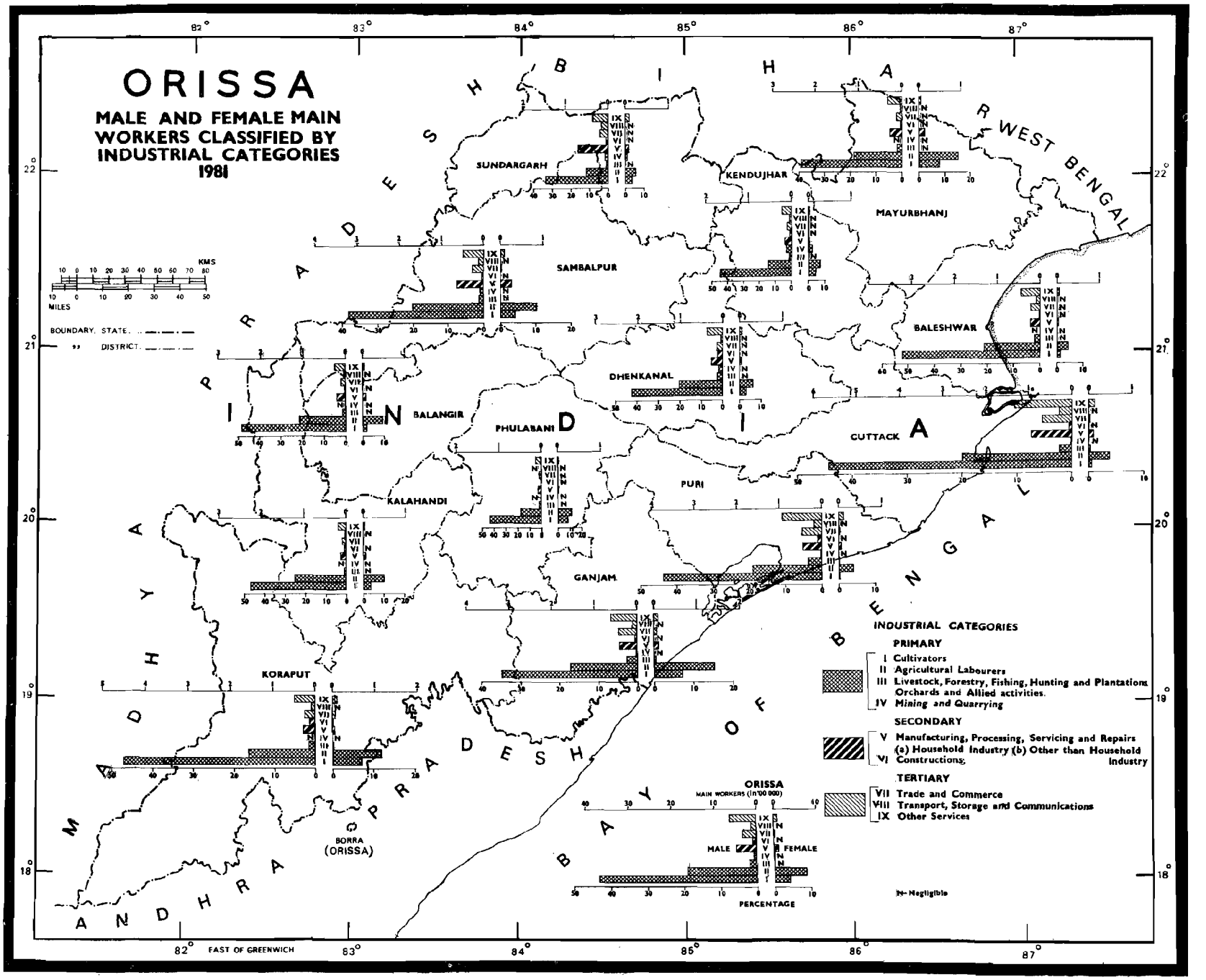
MAP No.53


ORISSA
MALE MAIN WORKERS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
EAST OF GREENWICH
KMS
MILES
BOUNDARY, STATE
DISTRICT
329 554
32·35
67·65
SUNDARGARH
580 834
15·22
84·78
SAMBALPUR
269 881
9·68
90·32
KENDUJHAR
391 907
5·48
94·52
MAYURBHANJ
502 848
8·46
91·54
BALESHWAR
384 606
9·05
90·95
DHENKANAL
1 041 787
12·11
87·89
CUTTACK
368 744
8·48
91·52
BALANGIR
185 593
4·93
95·07
PHULABANI
693 092
15·65
84·35
PURI
334 735
5·66
94·34
KALAHANDI
583 378
13·77
86·23
GANJAM
451 206
10·89
89·11
KORAPUT
BORRA
(ORISSA)
SIZE OF MALE MAIN WORKERS
10 00 000
5 00 000
1 00 000
Urban
Rural
PERCENTAGE OF MALE MAIN WORKERS IN AGE 15-59 TO TOTAL MALES IN AGE 15-59
91·01 & ABOVE
85·01 - 91·00
State Average 87.19
85·00 & BELOW
Figures at the top and inside the circles indicate total Male main workers in age 15-59 and percentage respectively.

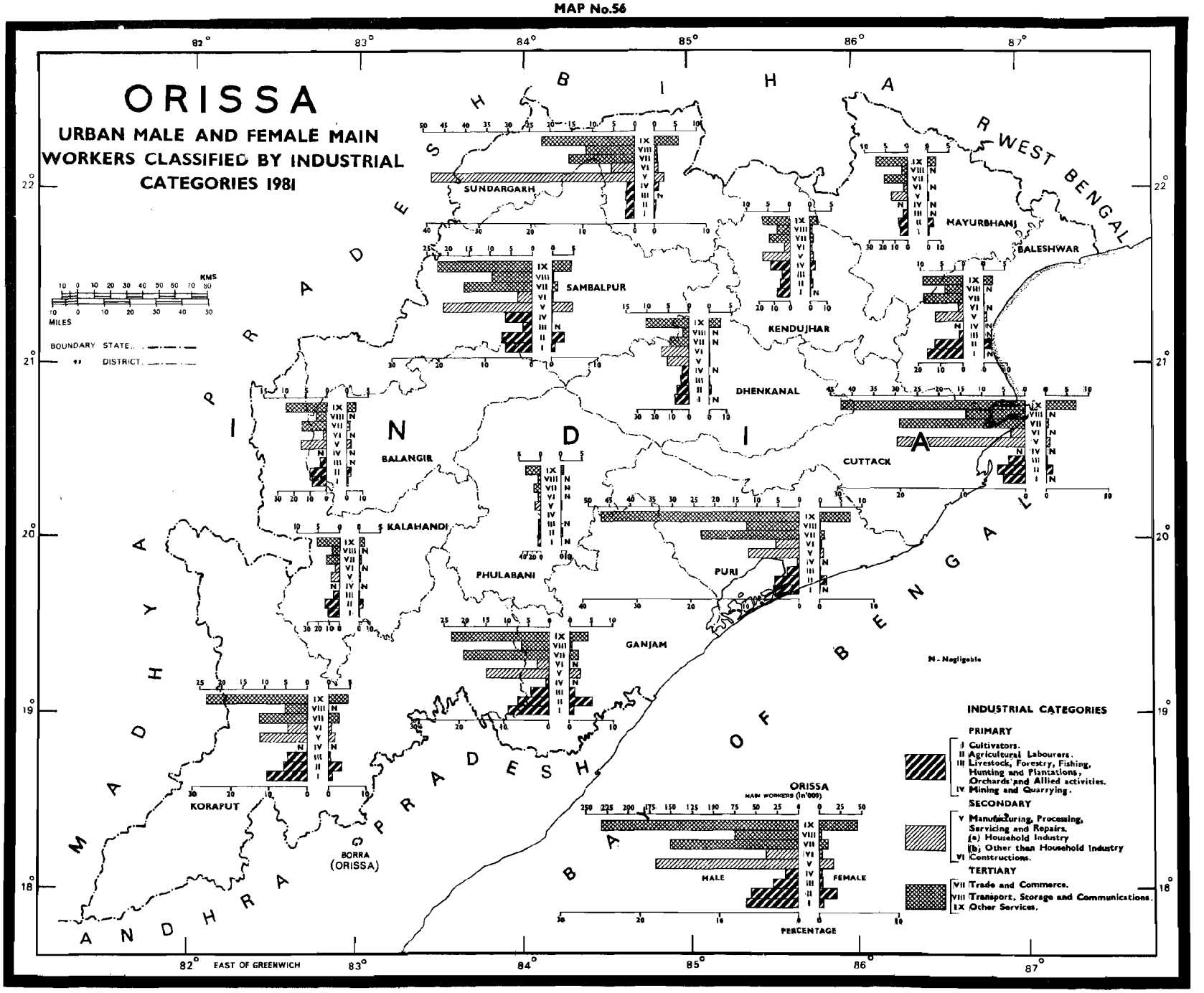
MAP No. 54


ORISSA
FEMALE MAIN WORKERS 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
MADHYA PRADESH
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
ORISSA
KMS 10 0 10 20 30 40 50 60 70 80
MILES 10 0 10 20 30 40 50
BOUNDARY STATE
DISTRICT
56 652
19·42
SUNDARGARH
135 942
9·51
90·49
SAMBALPUR
143 532
2·39
97·61
MAYURBHANJ
55 673
9·86
90·14
KENDUJHAR
36 889
10·94
89·06
BALESHWAR
55 112
6·24
DHENKANAL
66 293
6·35
93·65
BALANGIR
81 652
12·27
87·73
CUTTACK
65 519
2·53
97·47
PHULABANI
57 266
18·50
81·50
PURI
65 333
6·14
93·86
KALAHANDI
170 053
7·26
92·74
GANJAM
184 458
6·94
93·06
KORAPUT
BORRA (ORISSA)
Figures at the top and inside the circles indicate total Female Main Workers in age 15-59 and percentage respectively.
SIZE OF FEMALE MAIN WORKERS
215 000
125 000
35 000
Urban
Rural
PERCENTAGE OF FEMALE MAIN WORKERS IN AGE 15-59 TO TOTAL FEMALES IN AGE 15-59
25·01 & ABOVE
10·01 - 25·00 - State Average 17·30
10·00 & BELOW
EAST OF GREENWICH

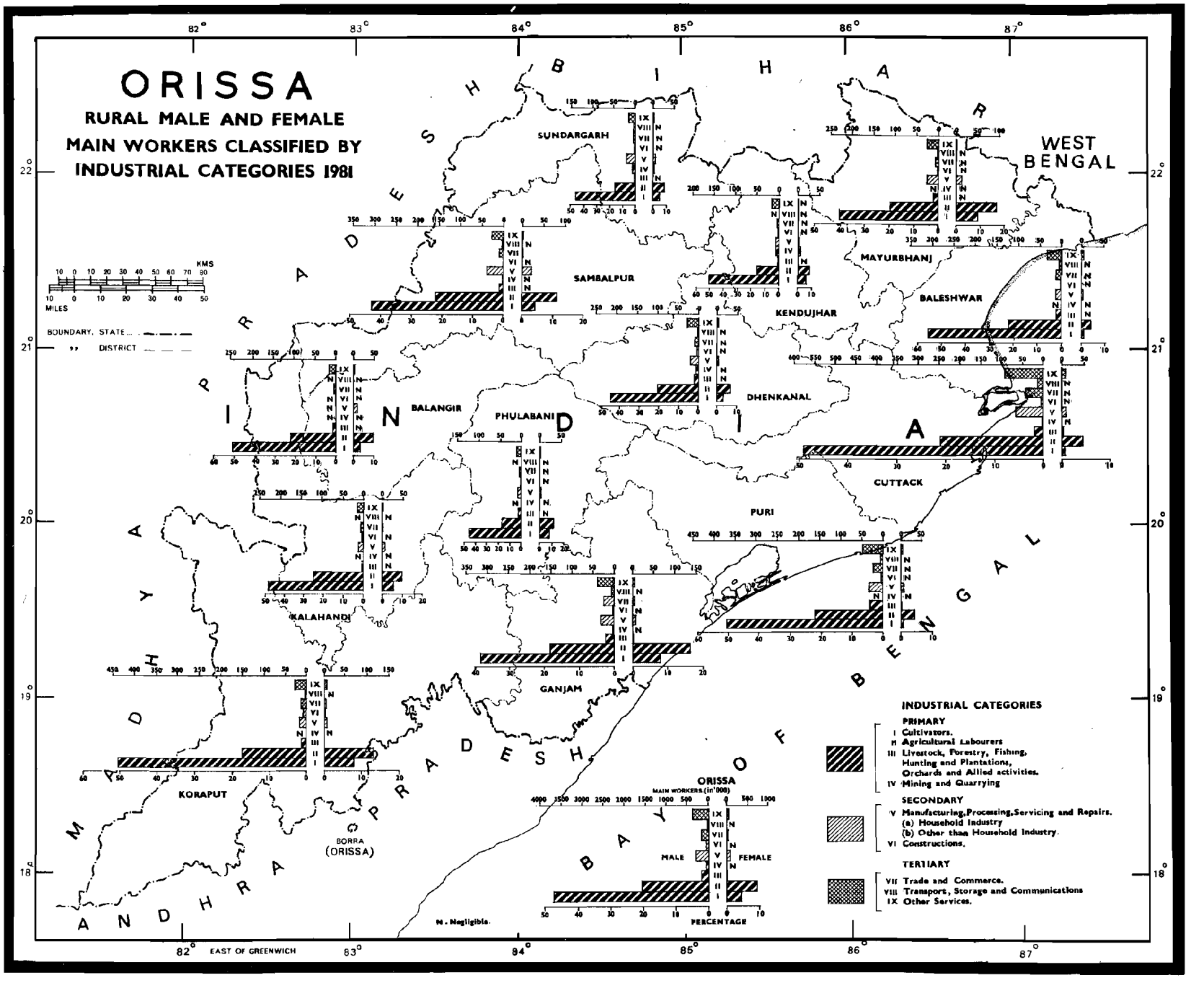
MAP No.55


ORISSA
MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
MADHYA PRADESH
BIHAR
WEST BENGAL
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
KENDUJHAR
MAYURBHANJ
SAMBALPUR
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
INDUSTRIAL CATEGORIES
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 Constructions.
TERTIARY
VII Trade and Commerce
VIII Transport, Storage and Communications
IX Other Services
N- Negligible
ORISSA
MAIN WORKERS (In'00 000)
MALE
FEMALE
PERCENTAGE
FAST OF GREENWICH

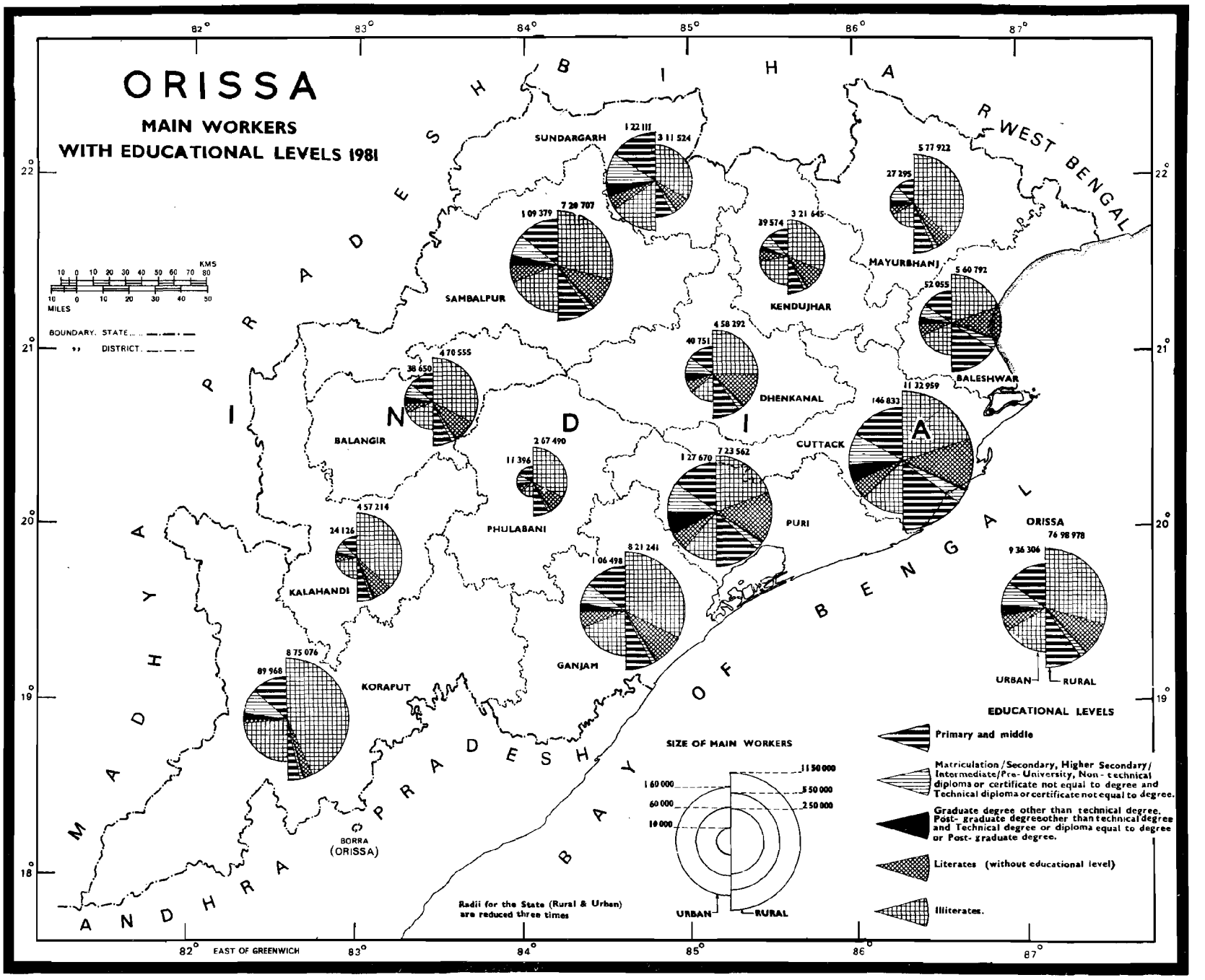
MAP No.56


ORISSA
URBAN MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
KALAHANDI
PHULABANI
PURI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
N - Negligible
INDUSTRIAL CATEGORIES
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 Constructions.
TERTIARY
VII Trade and Commerce.
VIII Transport, Storage and Communications.
IX Other Services.
ORISSA
MAIN WORKERS (In'000)
MALE
FEMALE
PERCENTAGE
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

MAP No.57

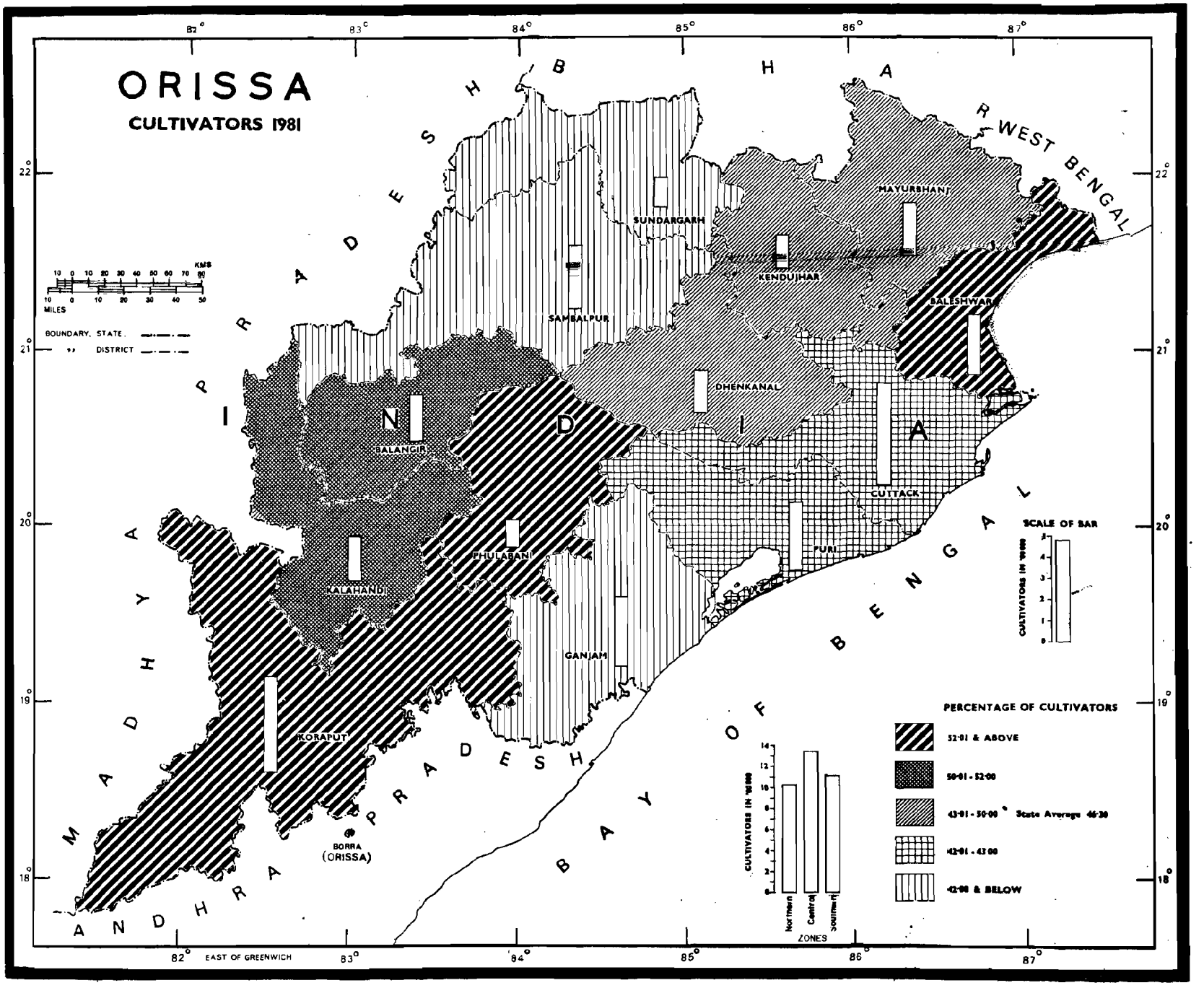

ORISSA
RURAL MALE AND FEMALE
MAIN WORKERS CLASSIFIED BY
INDUSTRIAL CATEGORIES 1981
WEST BENGAL
BIHAR
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
BALANGIR
PHULABANI
DHENKANAL
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
ORISSA
MAIN WORKERS (in'000)
MALE
FEMALE
PERCENTAGE
N. Negligible.
INDUSTRIAL CATEGORIES
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 Constructions.
TERTIARY
VII Trade and Commerce.
VIII Transport, Storage and Communications
IX Other Services.
EAST OF GREENWICH

MAP No.58

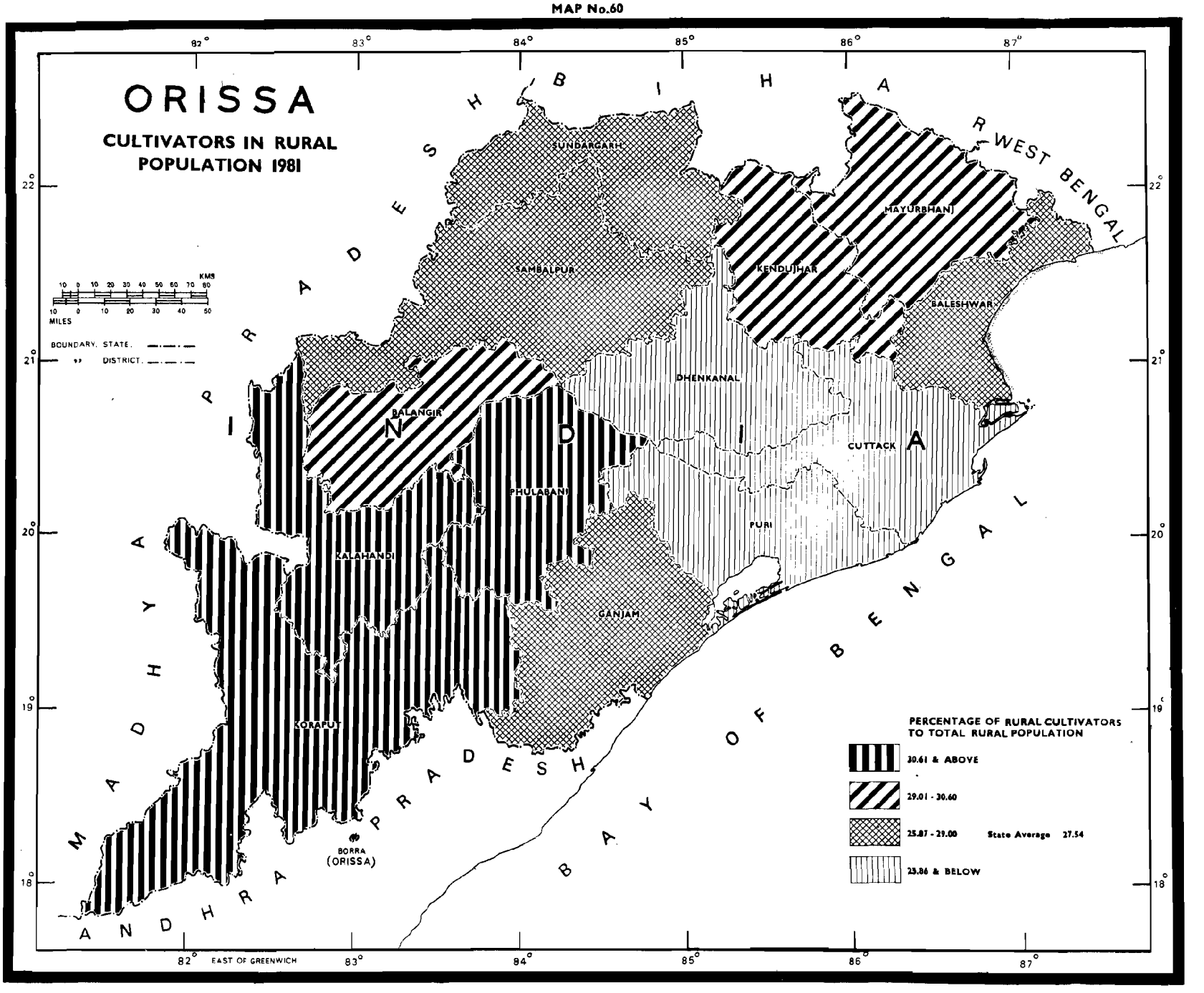

ORISSA
MAIN WORKERS
WITH EDUCATIONAL LEVELS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
1 22 111
3 11 524
SAMBALPUR
1 09 379
7 28 707
KENDUJHAR
39 574
3 21 645
MAYURBHANJ
27 295
5 77 922
BALESHWAR
52 055
5 60 792
DHENKANAL
40 751
4 58 292
BALANGIR
38 650
4 70 555
CUTTACK
11 32 959
146 833
PHULABANI
11 396
2 67 490
PURI
1 27 670
7 23 562
KALAHANDI
24 126
4 57 214
GANJAM
1 06 498
8 21 241
KORAPUT
89 968
8 75 076
BORRA (ORISSA)
ORISSA
76 98 978
9 36 306
URBAN
RURAL
SIZE OF MAIN WORKERS
1 60 000
60 000
10 000
1 50 000
5 50 000
2 50 000
URBAN
RURAL
Radii for the State (Rural & Urban) are reduced three times
EDUCATIONAL LEVELS
Primary and middle
Matriculation / Secondary, Higher Secondary / Intermediate / Pre-University, Non-technical diploma or certificate not equal to degree and Technical diploma or certificate not equal to degree.
Graduate degree other than technical degree. Post-graduate degree other than technical degree and Technical degree or diploma equal to degree or Post-graduate degree.
Literates (without educational level)
Illiterates.
BOUNDARY. STATE
DISTRICT
KMS
MILES
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

[redacted]

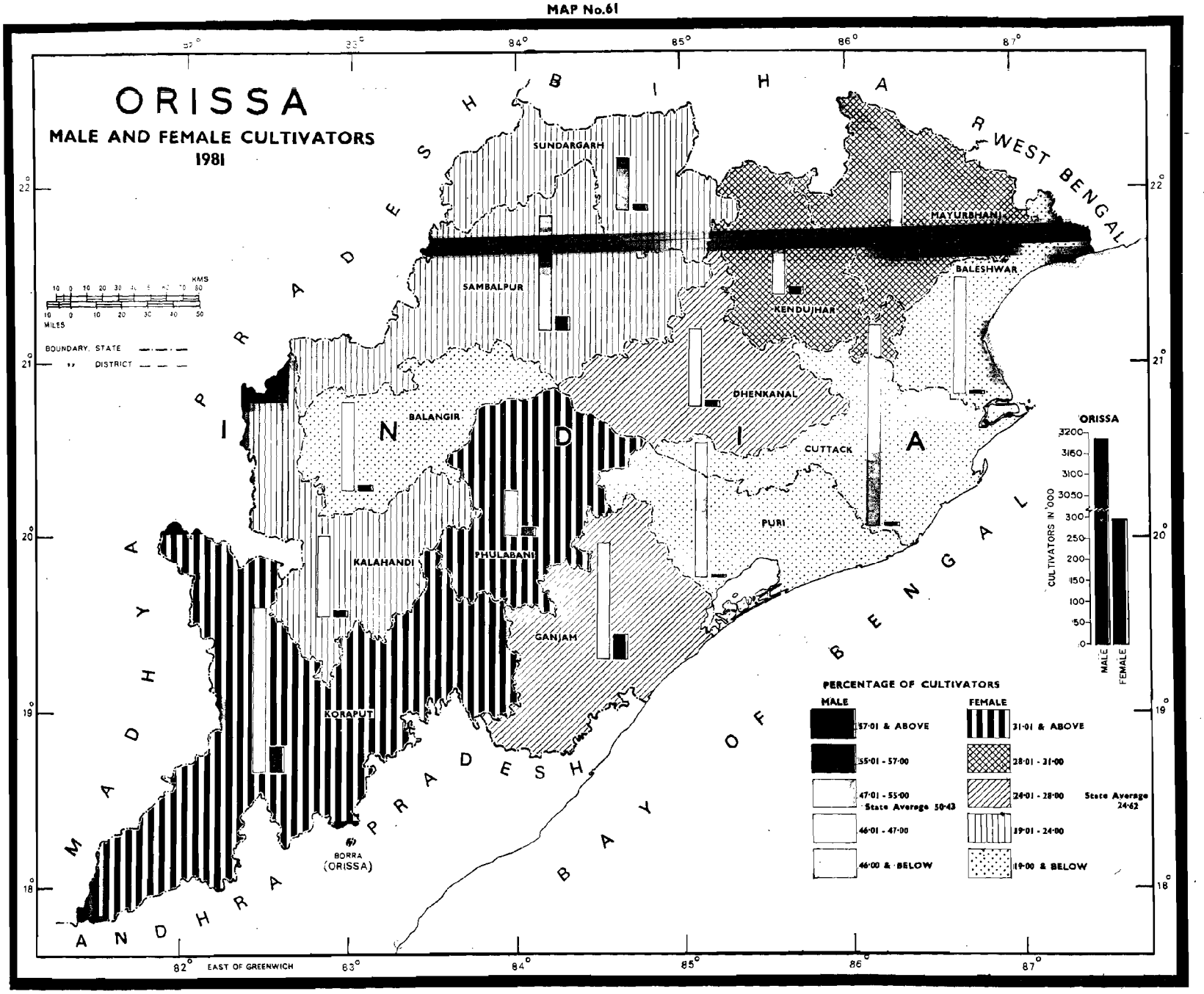
MAP No.59



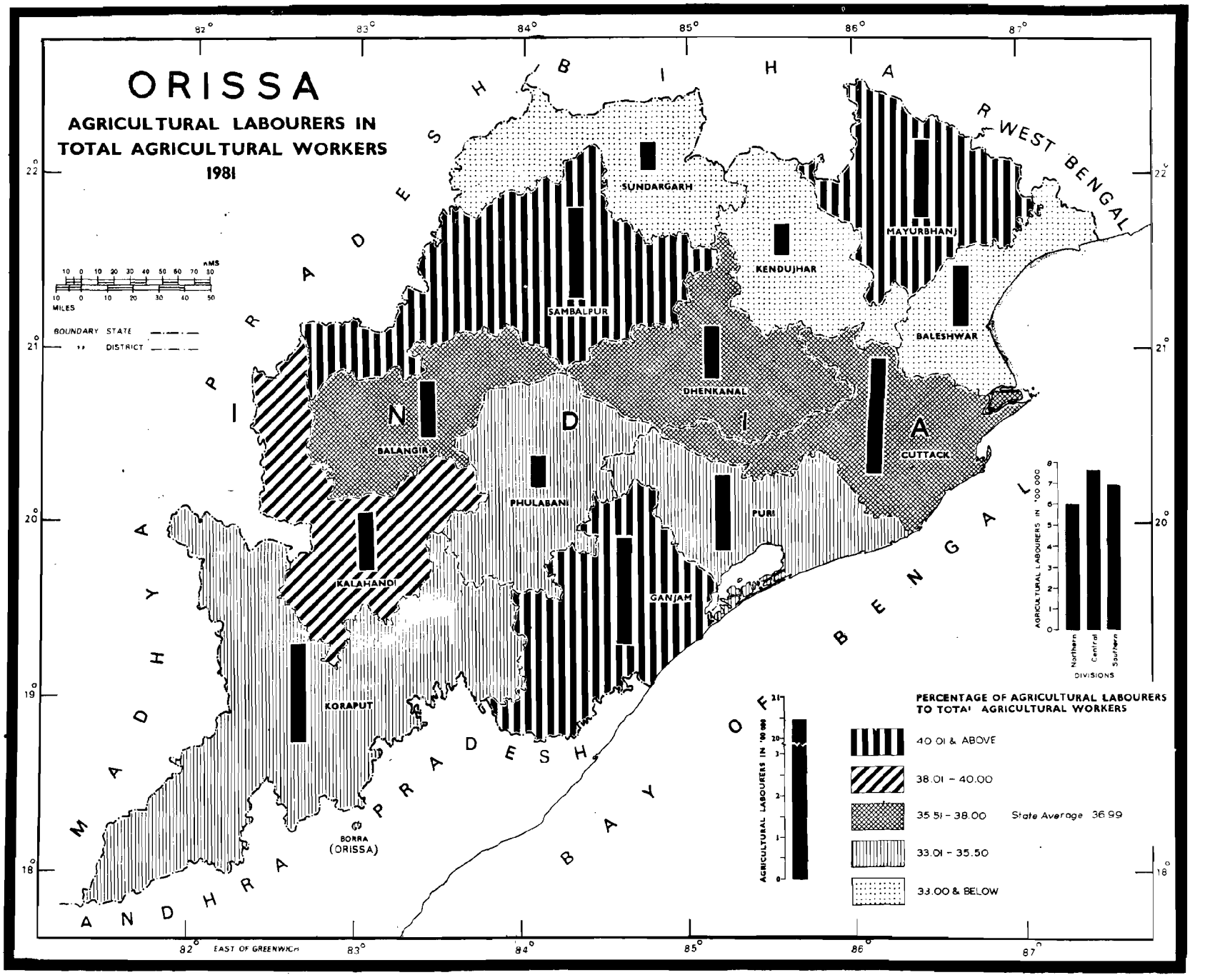
MAP No.60


ORISSA
CULTIVATORS IN RURAL POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BOUNDARY, STATE
DISTRICT
MILES
KMS
PERCENTAGE OF RURAL CULTIVATORS TO TOTAL RURAL POPULATION
30.61 & ABOVE
29.01 - 30.60
25.87 - 29.00
State Average 27.54
25.86 & BELOW
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

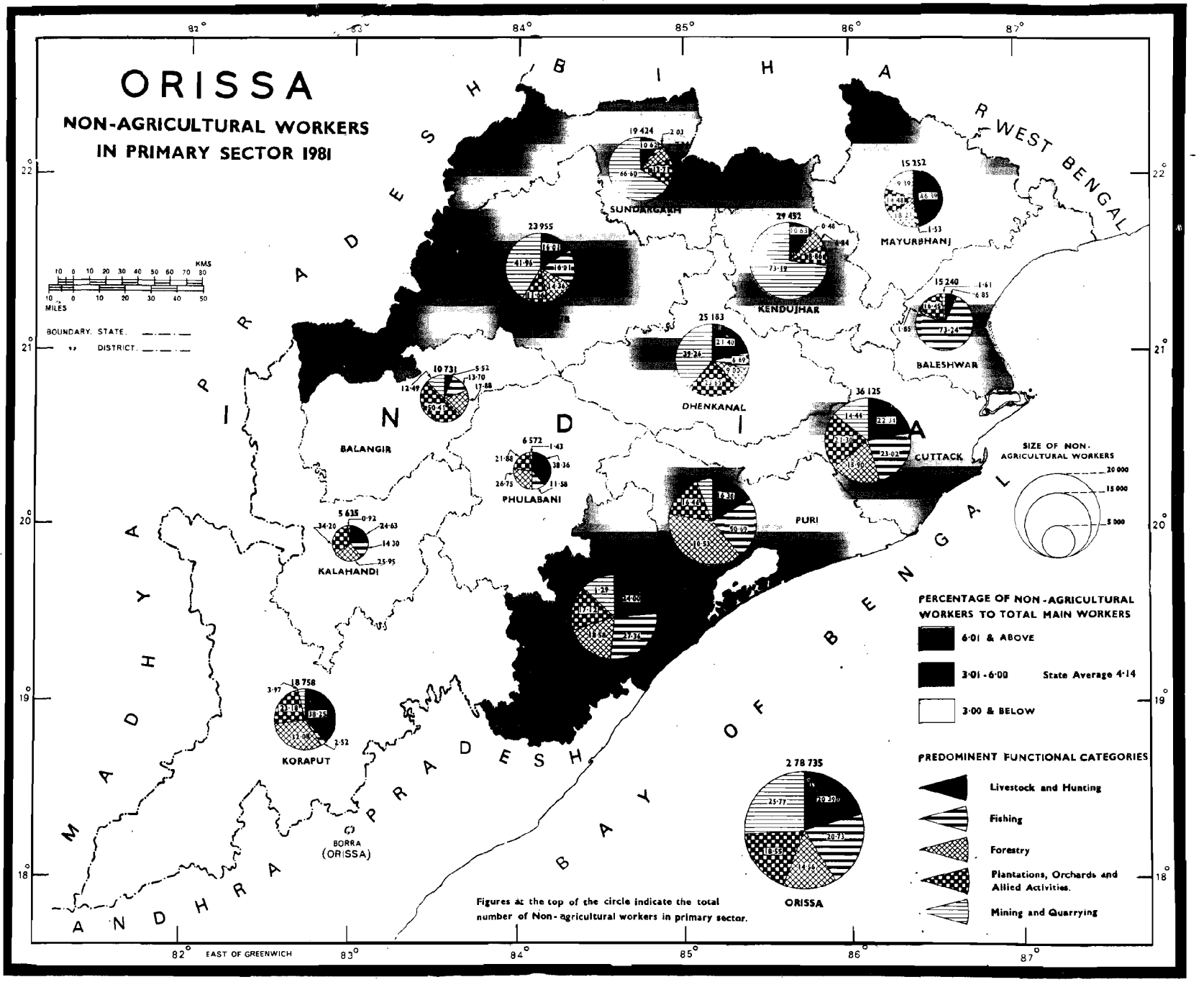
MAP No.61


ORISSA
MALE AND FEMALE CULTIVATORS
1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
BALESHWAR
KENDUJHAR
DHENKANAL
BALANGIR
CUTTACK
PURI
KALAHANDI
PHULABANI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY: STATE
DISTRICT
ORISSA
CULTIVATORS IN '000
MALE
FEMALE
PERCENTAGE OF CULTIVATORS
MALE
57·01 & ABOVE
55·01 - 57·00
47·01 - 55·00
State Average 50·43
46·01 - 47·00
46·00 & BELOW
FEMALE
31·01 & ABOVE
28·01 - 31·00
24·01 - 28·00
State Average 24·62
19·01 - 24·00
19·00 & BELOW
EAST OF GREENWICH

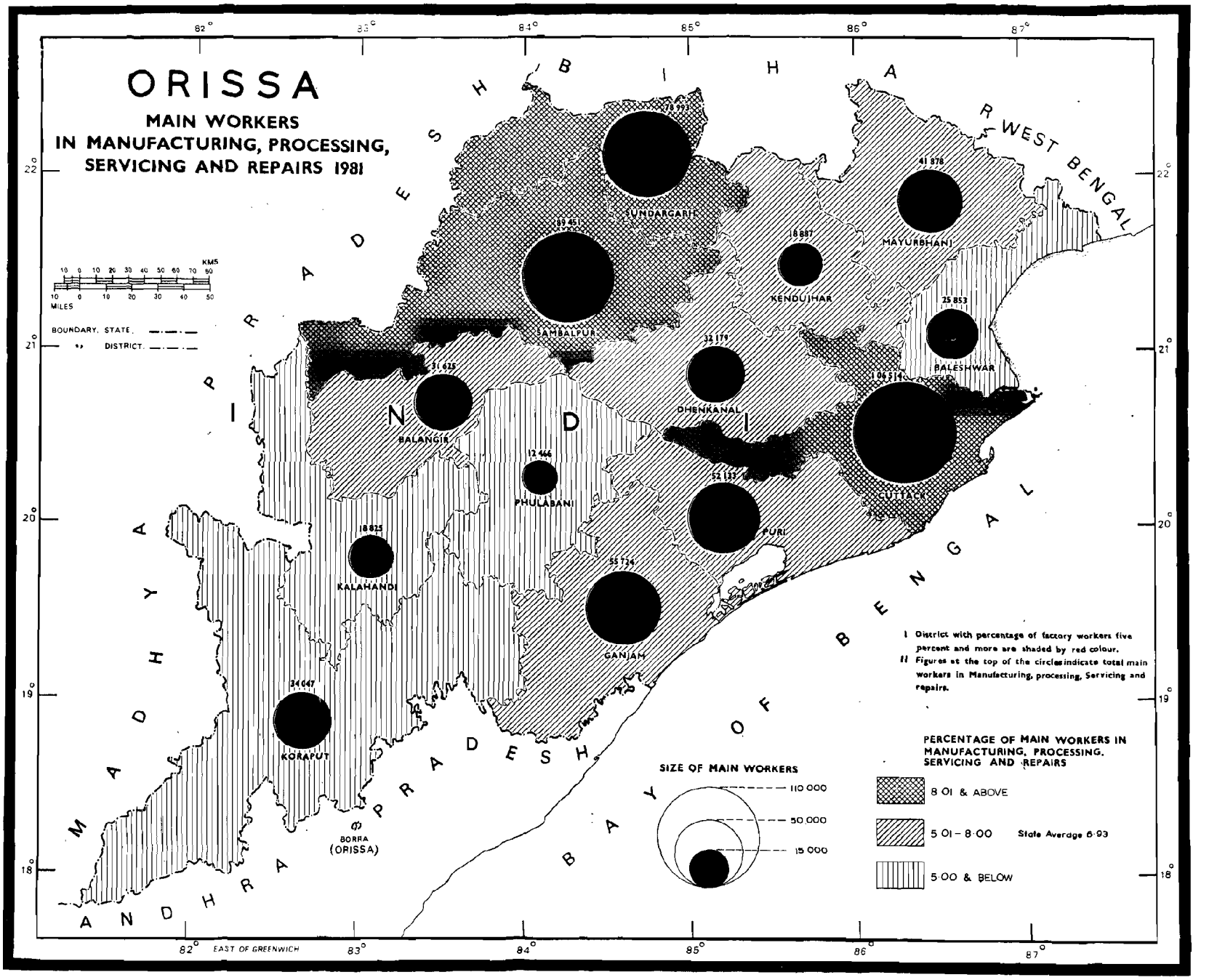
MAP No.62


ORISSA
AGRICULTURAL LABOURERS IN TOTAL AGRICULTURAL WORKERS 1981
BOUNDARY STATE
DISTRICT
MILES
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
MADHYA PRADESH
ANDHRA PRADESH
BIHAR
WEST BENGAL
BAY OF BENGAL
AGRICULTURAL LABOURERS IN '00 000
Northern
Central
Southern
DIVISIONS
PERCENTAGE OF AGRICULTURAL LABOURERS TO TOTAL AGRICULTURAL WORKERS
40 01 & ABOVE
38.01 - 40.00
35 51 - 38.00
State Average 36 99
33.01 - 35.50
33.00 & BELOW
EAST OF GREENWICH

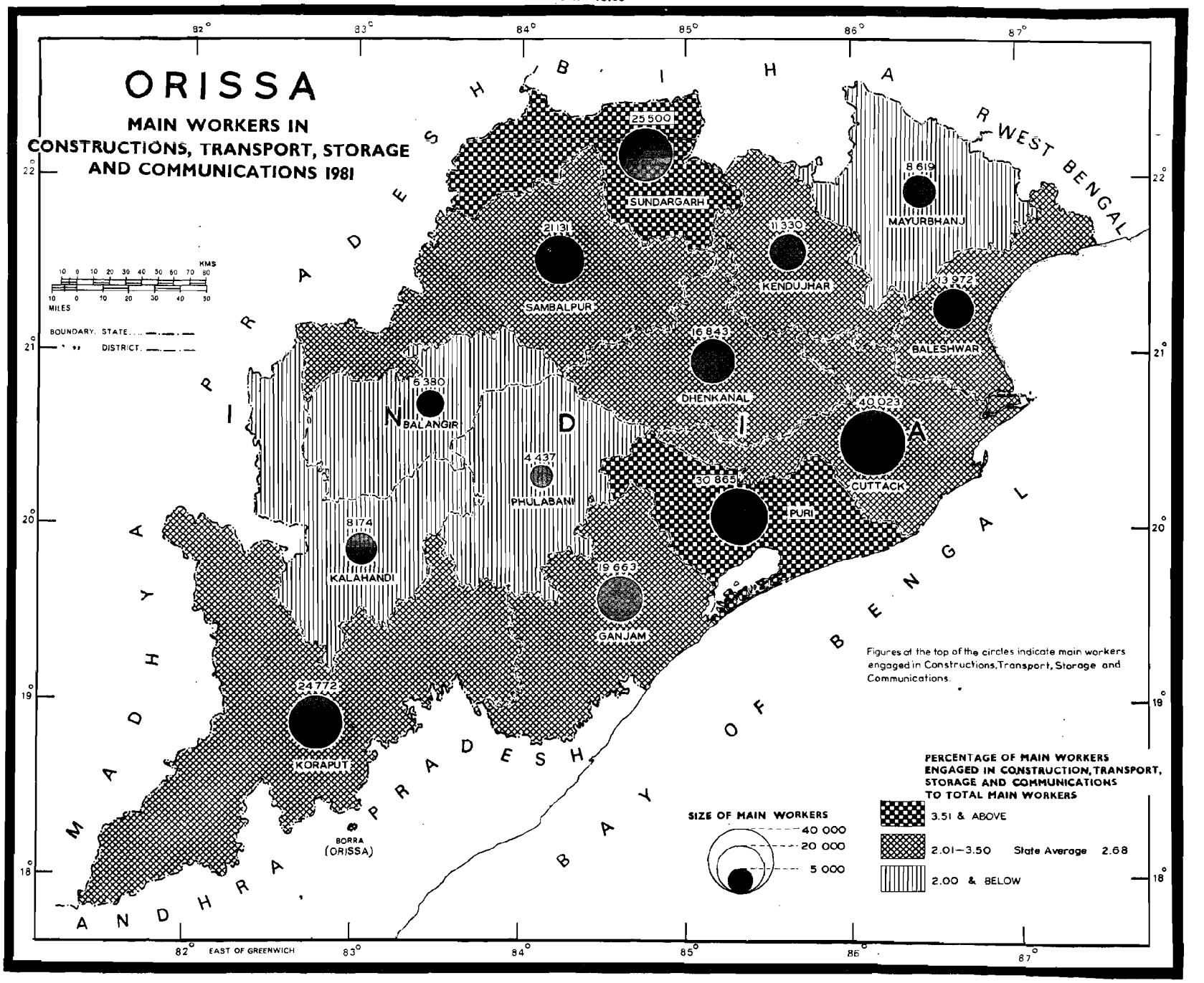
MAP No.63


ORISSA
NON-AGRICULTURAL WORKERS
IN PRIMARY SECTOR 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
KORAPUT
BORRA (ORISSA)
ORISSA
BOUNDARY: STATE
DISTRICT
KMS
MILES
SIZE OF NON-AGRICULTURAL WORKERS
20 000
15 000
5 000
PERCENTAGE OF NON-AGRICULTURAL WORKERS TO TOTAL MAIN WORKERS
6·01 & ABOVE
3·01 - 6·00
State Average 4·14
3·00 & BELOW
PREDOMINENT FUNCTIONAL CATEGORIES
Livestock and Hunting
Fishing
Forestry
Plantations, Orchards and Allied Activities.
Mining and Quarrying
Figures at the top of the circle indicate the total number of Non-agricultural workers in primary sector.
EAST OF GREENWICH

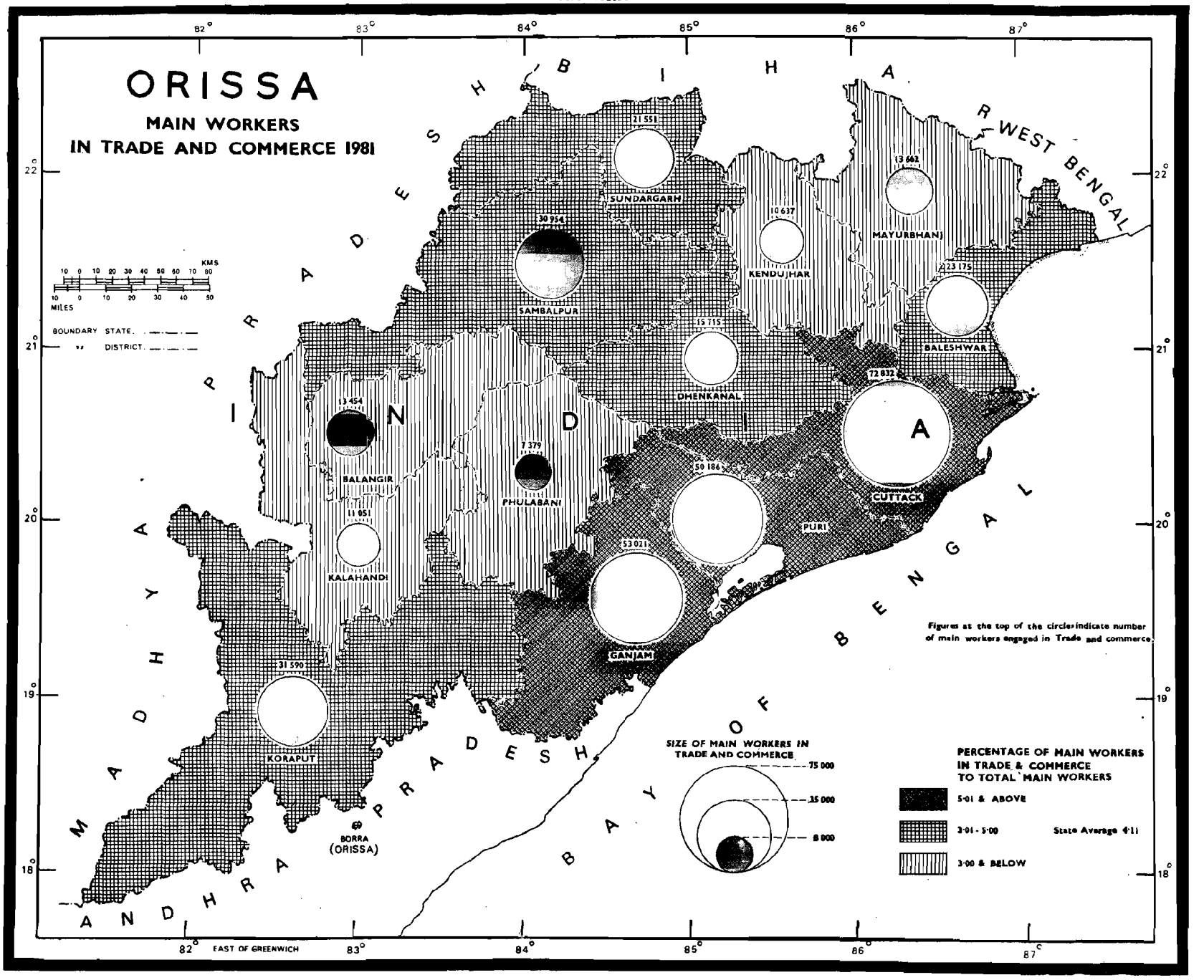
MAP No.64


ORISSA
MAIN WORKERS
IN MANUFACTURING, PROCESSING,
SERVICING AND REPAIRS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
78 993
SAMBALPUR
89 451
KENDUJHAR
18 887
MAYURBHANJ
41 878
BALESHWAR
25 853
BHADRAK
106 314
DHENKANAL
33 179
BALANGIR
31 625
PHULBANI
12 466
CUTTACK
52 133
PURI
41 515
KALAHANDI
18 825
GANJAM
55 734
KORAPUT
34 047
BORRA
(ORISSA)
KM5
MILES
BOUNDARY, STATE
DISTRICT
I District with percentage of factory workers five percent and more are shaded by red colour.
II Figures at the top of the circles indicate total main workers in Manufacturing, processing, Servicing and repairs.
SIZE OF MAIN WORKERS
110 000
50 000
15 000
PERCENTAGE OF MAIN WORKERS IN MANUFACTURING, PROCESSING, SERVICING AND REPAIRS
8·01 & ABOVE
5·01 – 8·00
State Average 6·93
5·00 & BELOW
EAST OF GREENWICH

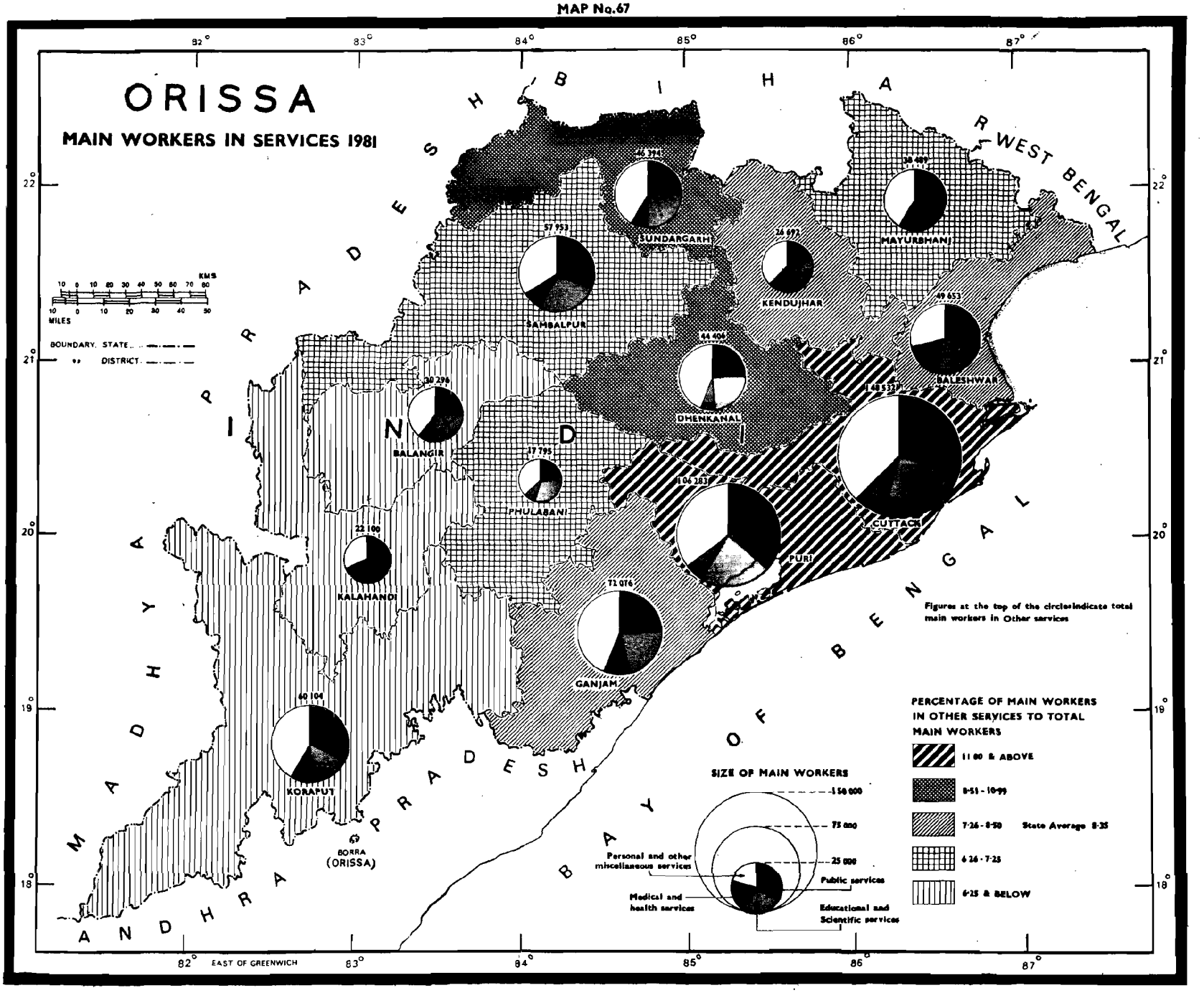
MAP No.65


ORISSA
MAIN WORKERS IN CONSTRUCTIONS, TRANSPORT, STORAGE AND COMMUNICATIONS 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
KMS
MILES
BOUNDARY: STATE
DISTRICT
SUNDARGARH 25 500
MAYURBHANJ 8 619
SAMBALPUR 21 131
KENDUJHAR 11 330
BALESHWAR 13 972
DHENKANAL 16 845
BALANGIR 6 380
CUTTACK 40 023
PHULABANI 4 437
PURI 30 865
KALAHANDI 8174
GANJAM 19 663
KORAPUT 24772
BORRA (ORISSA)
EAST OF GREENWICH
Figures at the top of the circles indicate main workers engaged in Constructions, Transport, Storage and Communications.
SIZE OF MAIN WORKERS
40 000
20 000
5 000
PERCENTAGE OF MAIN WORKERS ENGAGED IN CONSTRUCTION, TRANSPORT, STORAGE AND COMMUNICATIONS TO TOTAL MAIN WORKERS
3.51 & ABOVE
2.01—3.50 State Average 2.68
2.00 & BELOW

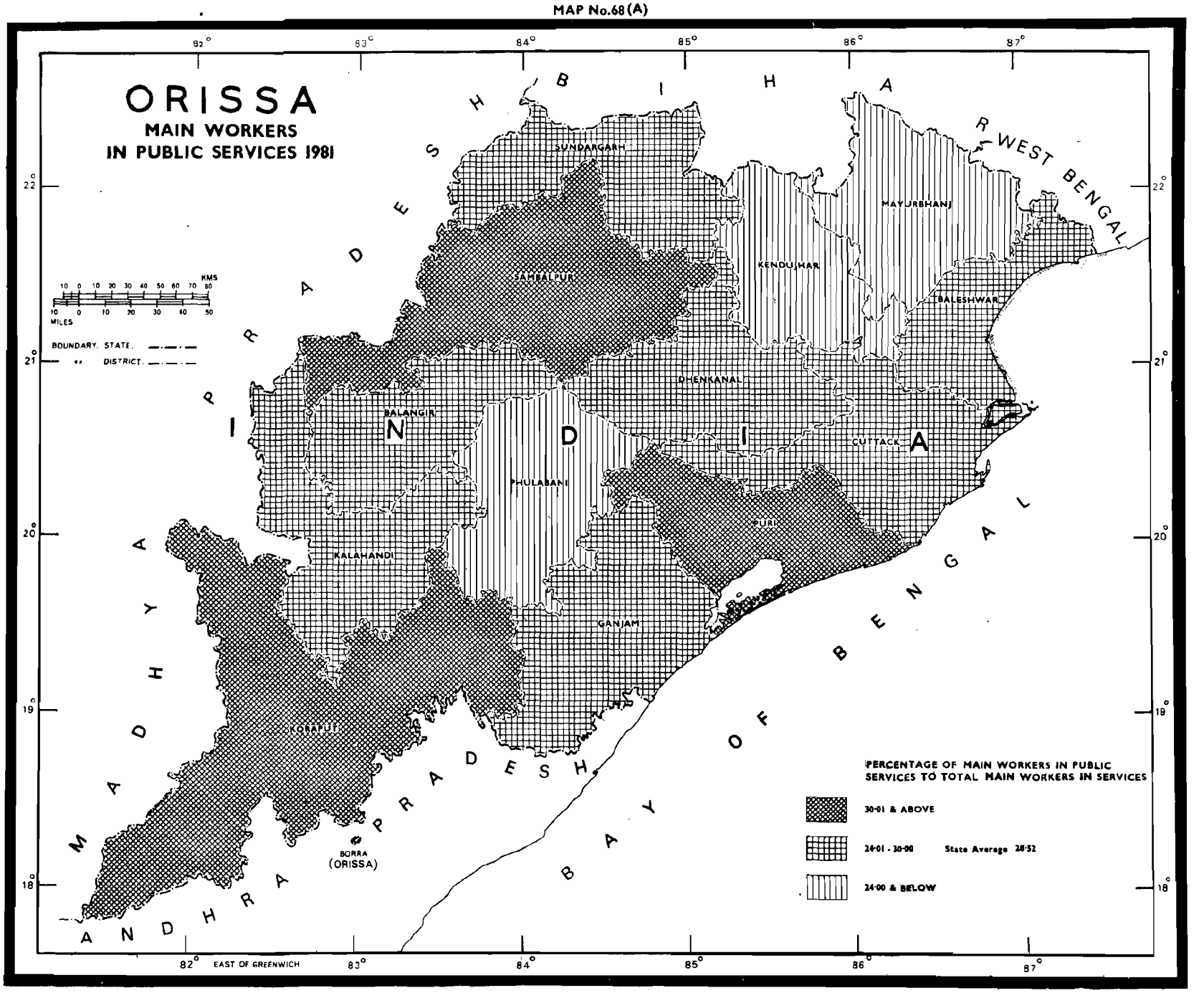
MAP No.66


ORISSA
MAIN WORKERS
IN TRADE AND COMMERCE 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
21 551
13 662
MAYURBHANJ
10 637
KENDUJHAR
30 954
SAMBALPUR
23 175
BALESHWAR
15 715
DHENKANAL
72 832
CUTTACK
50 186
PURI
53 021
GANJAM
13 454
BALANGIR
7 379
PHULABANI
11 051
KALAHANDI
31 590
KORAPUT
BORRA
(ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
SIZE OF MAIN WORKERS IN
TRADE AND COMMERCE
75 000
15 000
8 000
PERCENTAGE OF MAIN WORKERS
IN TRADE & COMMERCE
TO TOTAL MAIN WORKERS
5·01 & ABOVE
3·01 - 5·00
3·00 & BELOW
State Average 4·11
Figures at the top of the circles indicate number
of main workers engaged in Trade and commerce.
EAST OF GREENWICH

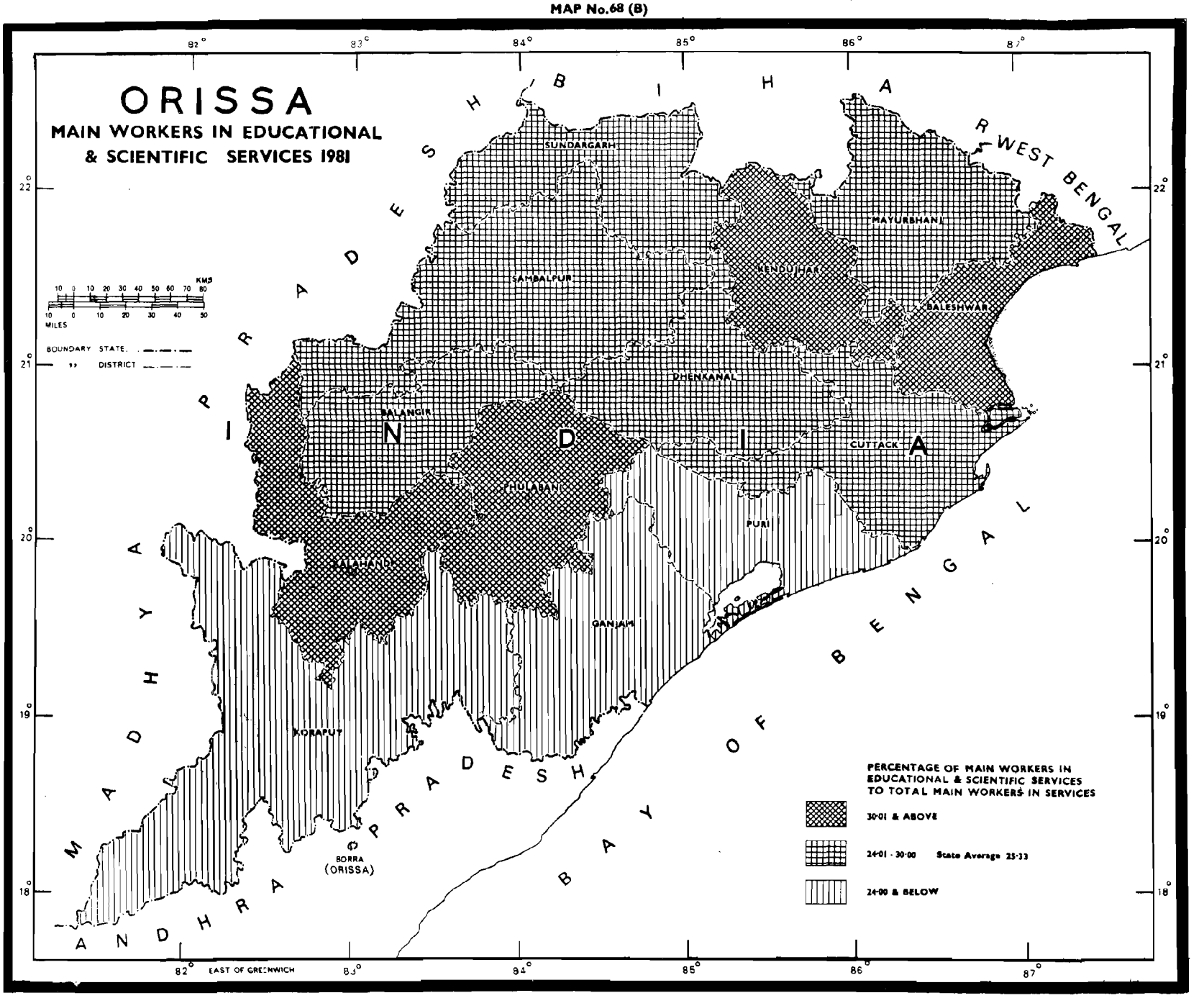
MAP No.67


ORISSA
MAIN WORKERS IN SERVICES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
Figures at the top of the circles indicate total main workers in Other services
PERCENTAGE OF MAIN WORKERS IN OTHER SERVICES TO TOTAL MAIN WORKERS
11·00 & ABOVE
9·51 - 10·99
7·26 - 8·50
State Average 8·35
6·26 - 7·25
6·25 & BELOW
SIZE OF MAIN WORKERS
1 50 000
75 000
25 000
Personal and other miscellaneous services
Public services
Medical and health services
Educational and Scientific services
MILES
KMS
BOUNDARY, STATE
DISTRICT
EAST OF GREENWICH

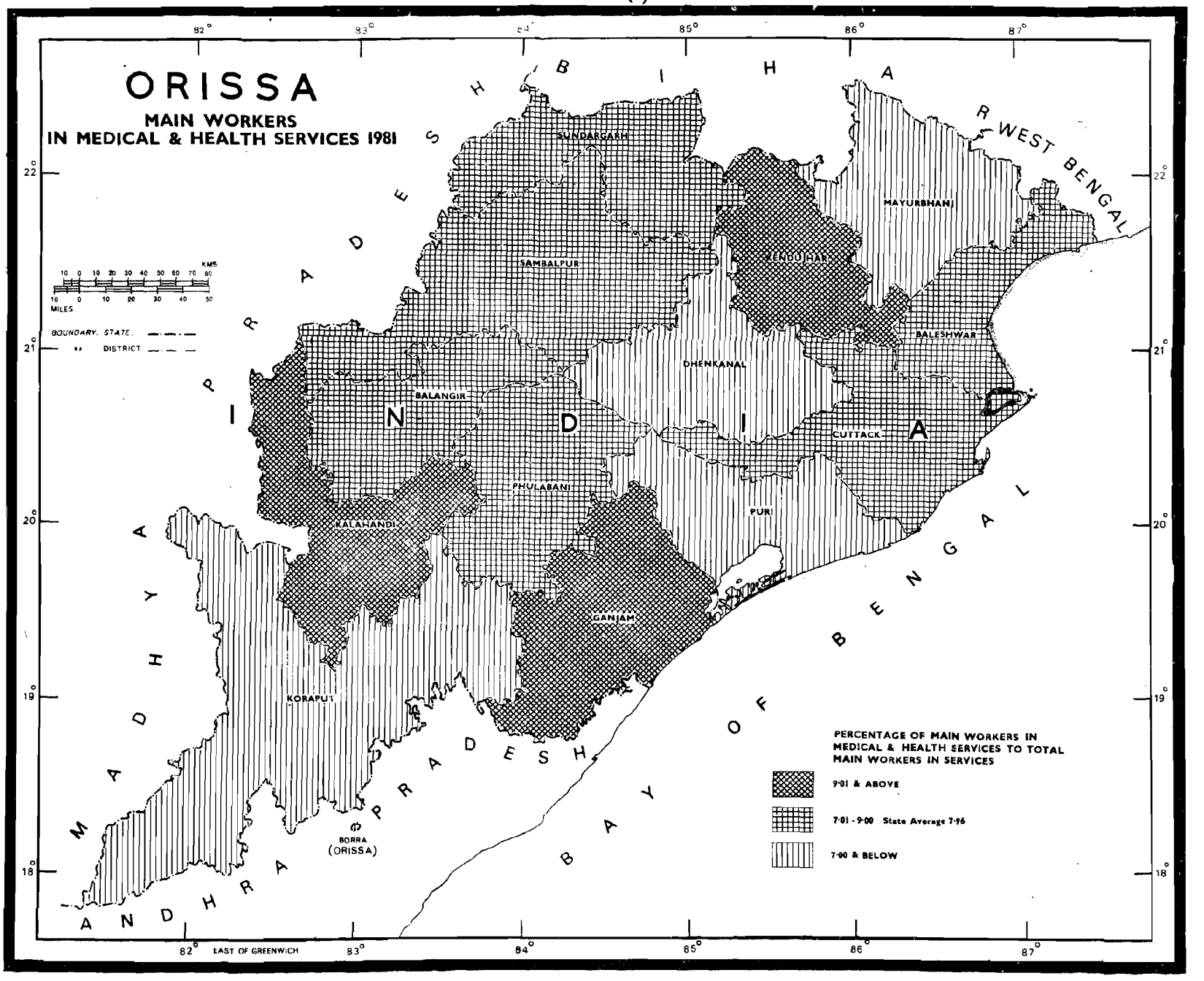
MAP No.68 (A)


ORISSA
MAIN WORKERS
IN PUBLIC SERVICES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
PERCENTAGE OF MAIN WORKERS IN PUBLIC SERVICES TO TOTAL MAIN WORKERS IN SERVICES
30·01 & ABOVE
24·01 - 30·00
State Average 28·52
24·00 & BELOW
82° EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

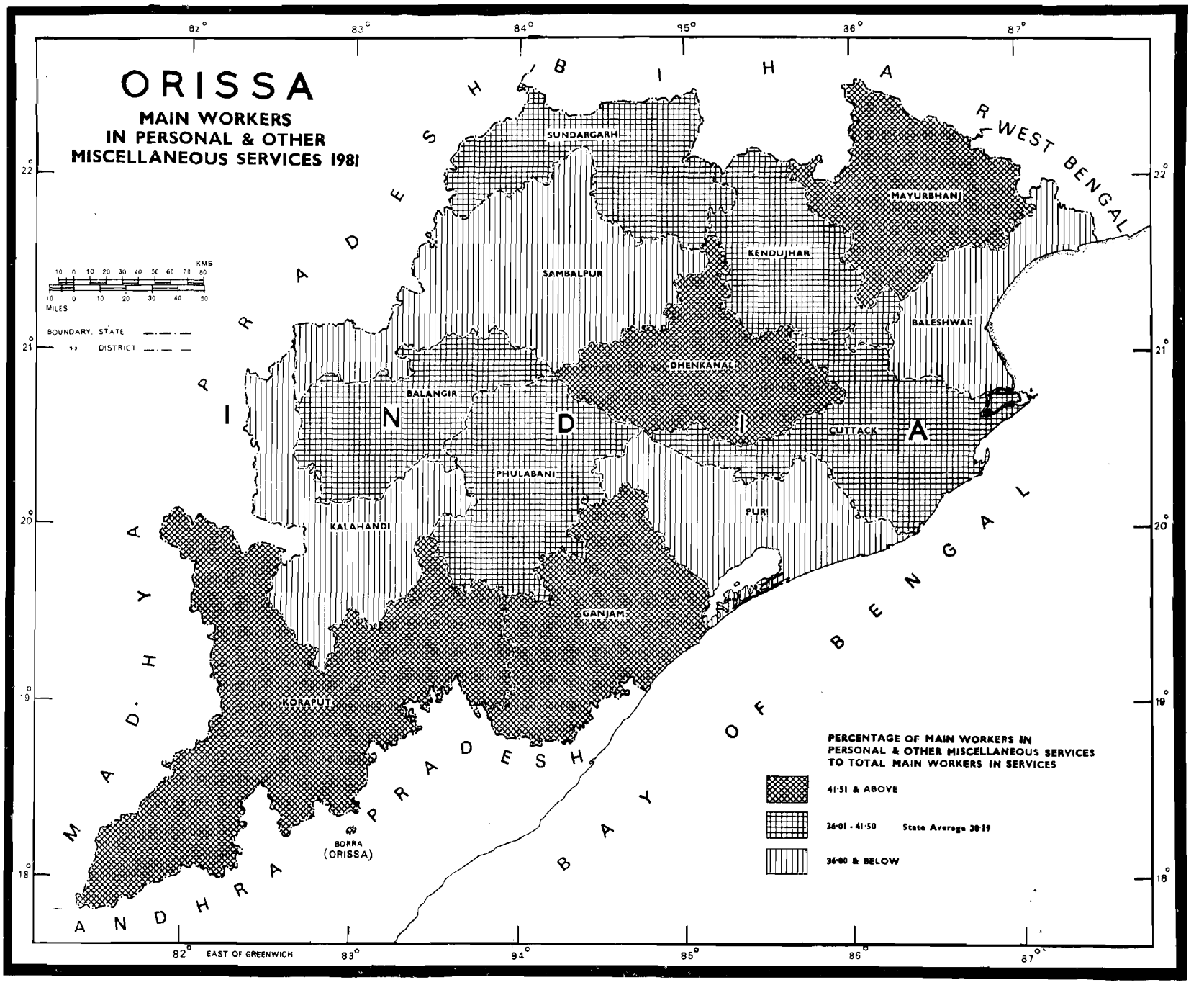
MAP No.68 (B)


ORISSA
MAIN WORKERS IN EDUCATIONAL & SCIENTIFIC SERVICES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULBANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
PERCENTAGE OF MAIN WORKERS IN EDUCATIONAL & SCIENTIFIC SERVICES TO TOTAL MAIN WORKERS IN SERVICES
30·01 & ABOVE
24·01 - 30·00 State Average 25·33
24·00 & BELOW
EAST OF GREENWICH

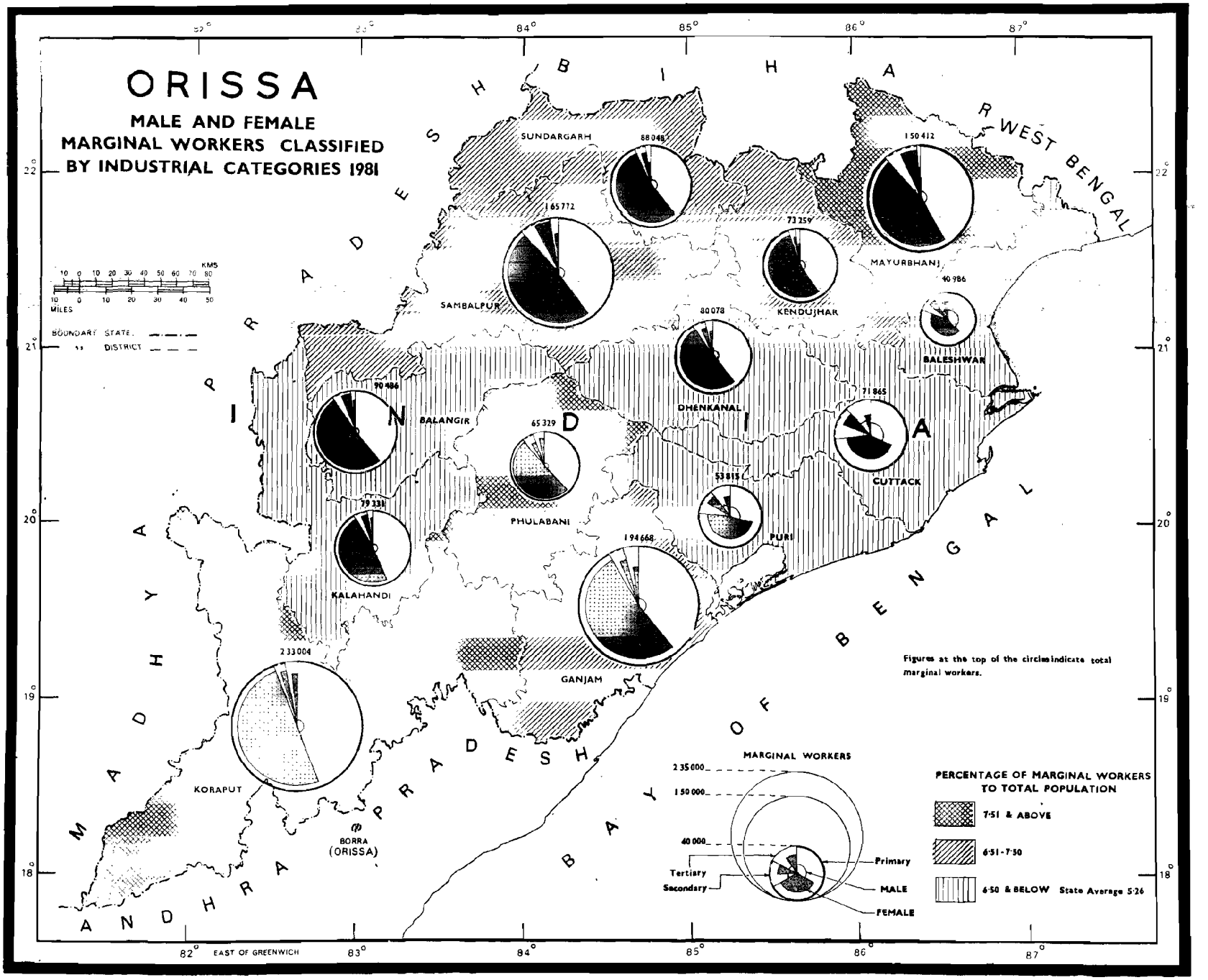
MAP No. 68 (C)


ORISSA
MAIN WORKERS
IN MEDICAL & HEALTH SERVICES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
KALAHANDI
PURI
GANJAM
KORAPUT
BORRA (ORISSA)
BOUNDARY. STATE.
DISTRICT
KMS
MILES
PERCENTAGE OF MAIN WORKERS IN MEDICAL & HEALTH SERVICES TO TOTAL MAIN WORKERS IN SERVICES
9·01 & ABOVE
7·01 - 9·00 State Average 7·96
7·00 & BELOW
EAST OF GREENWICH

MAP No. 68 (D)

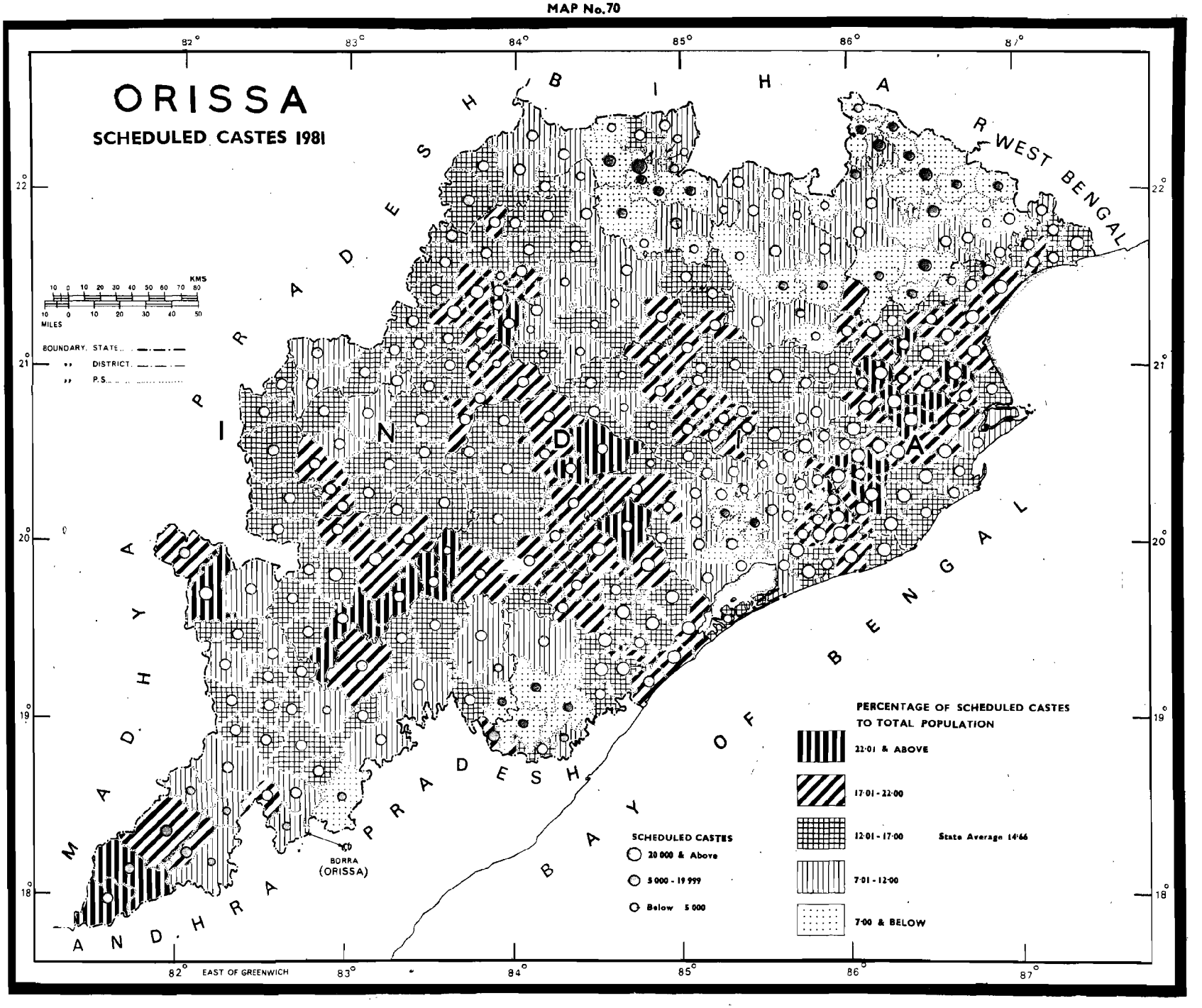

ORISSA
MAIN WORKERS
IN PERSONAL & OTHER
MISCELLANEOUS SERVICES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
KALAHANDI
PURI
GANJAM
KORAPUT
BORRA
(ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
PERCENTAGE OF MAIN WORKERS IN
PERSONAL & OTHER MISCELLANEOUS SERVICES
TO TOTAL MAIN WORKERS IN SERVICES
41·51 & ABOVE
36·01 - 41·50
State Average 38·19
36·00 & BELOW
EAST OF GREENWICH

MAP No.69

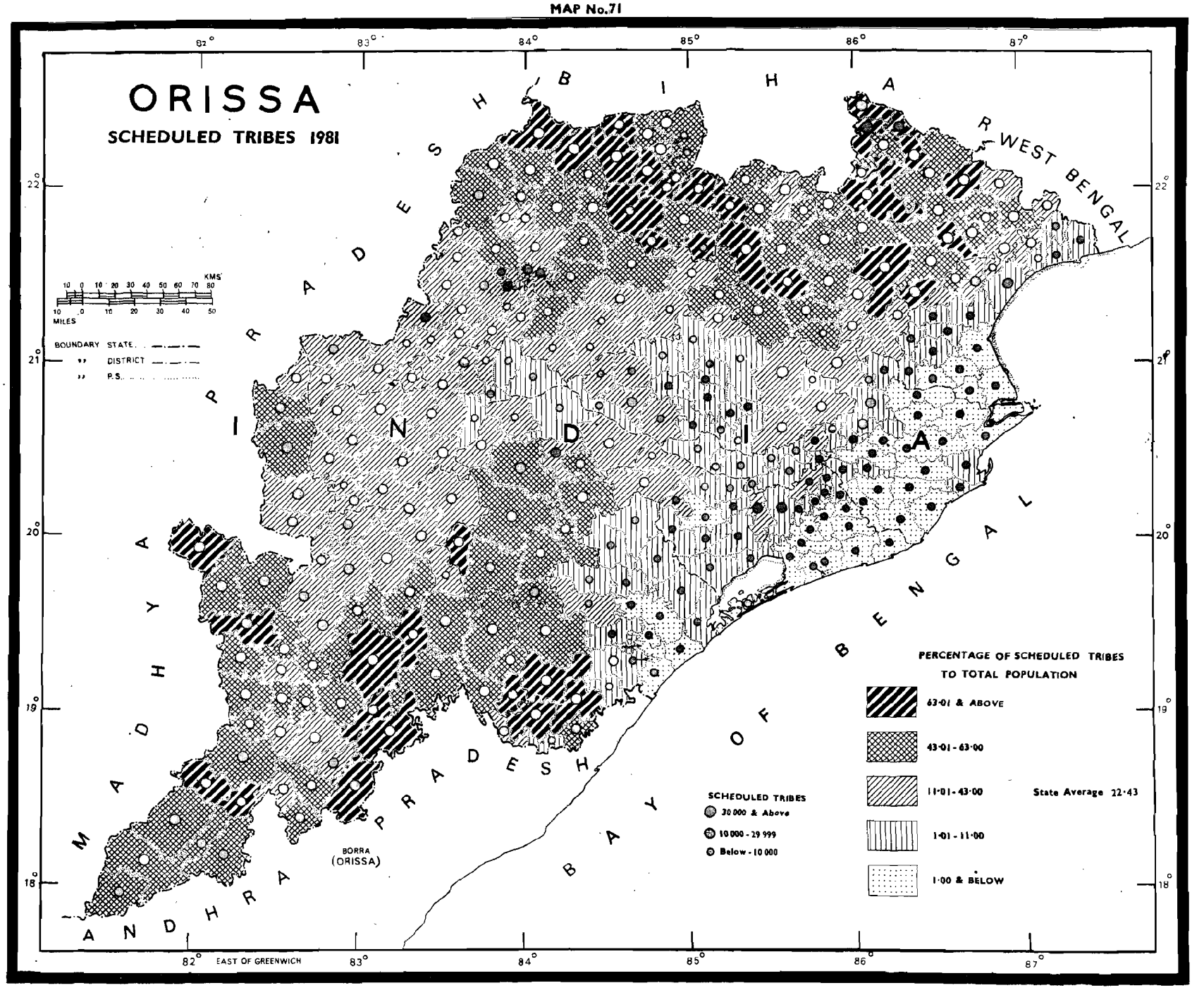

ORISSA
MALE AND FEMALE
MARGINAL WORKERS CLASSIFIED
BY INDUSTRIAL CATEGORIES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
88048
150412
MAYURBHANJ
165772
SAMBALPUR
73259
KENDUJHAR
40986
BALESHWAR
80078
DHENKANAL
90486
BALANGIR
65329
PHULABANI
71865
CUTTACK
53815
PURI
79338
KALAHANDI
194668
GANJAM
233004
KORAPUT
BORRA
(ORISSA)
Figures at the top of the circles indicate total marginal workers.
MARGINAL WORKERS
235000
150000
40000
Primary
Tertiary
Secondary
MALE
FEMALE
PERCENTAGE OF MARGINAL WORKERS TO TOTAL POPULATION
7·51 & ABOVE
6·51 - 7·50
6·50 & BELOW State Average 5·26
KMS
MILES
BOUNDARY STATE
DISTRICT
EAST OF GREENWICH

# SOCIO-CULTURAL ASPECTS

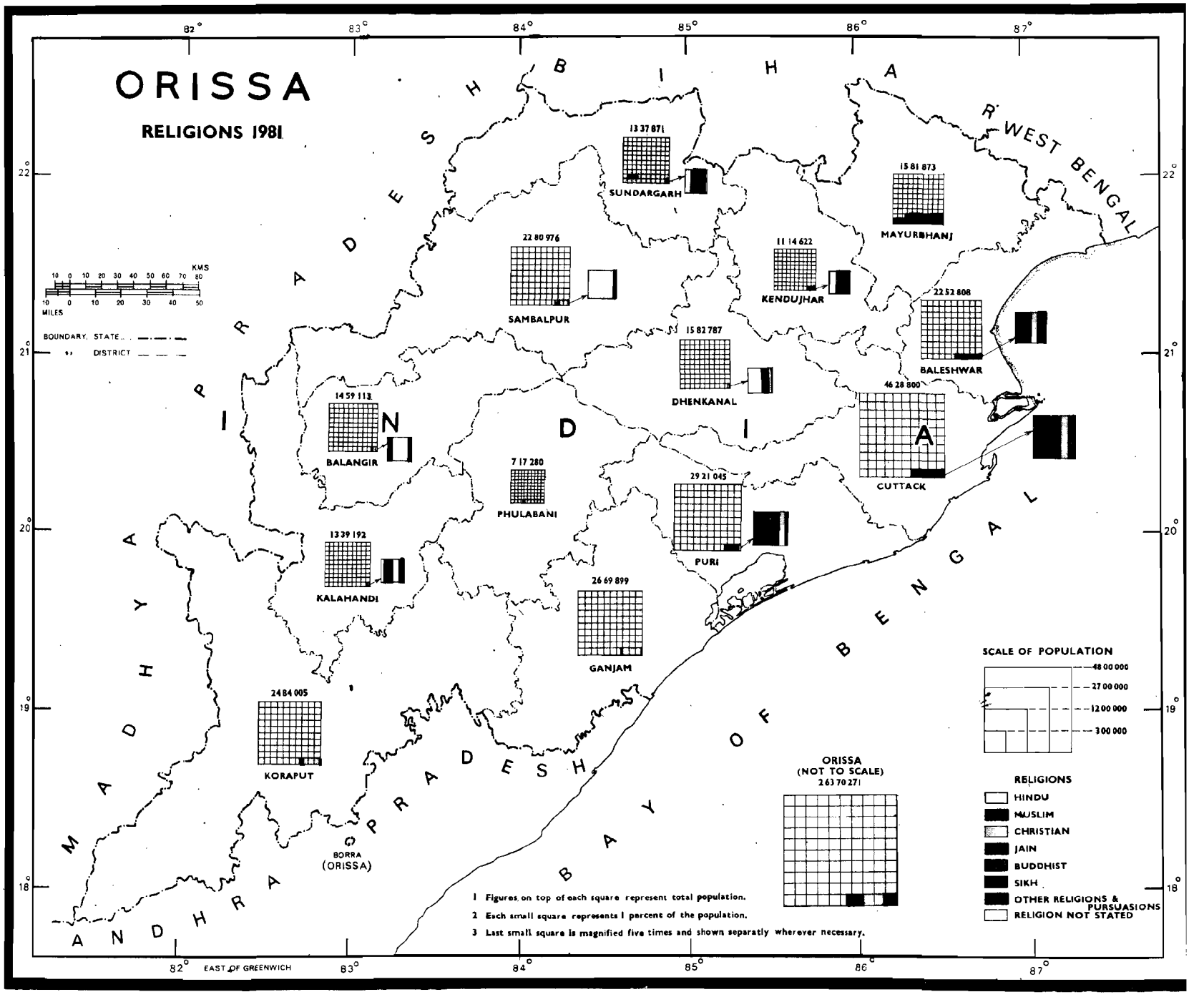
MAP No.70


ORISSA
SCHEDULED CASTES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY, STATE
DISTRICT
P.S.
BORRA (ORISSA)
SCHEDULED CASTES
20 000 & Above
5 000 - 19 999
Below 5 000
PERCENTAGE OF SCHEDULED CASTES TO TOTAL POPULATION
22·01 & ABOVE
17·01 - 22·00
12·01 - 17·00
State Average 14·66
7·01 - 12·00
7·00 & BELOW
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

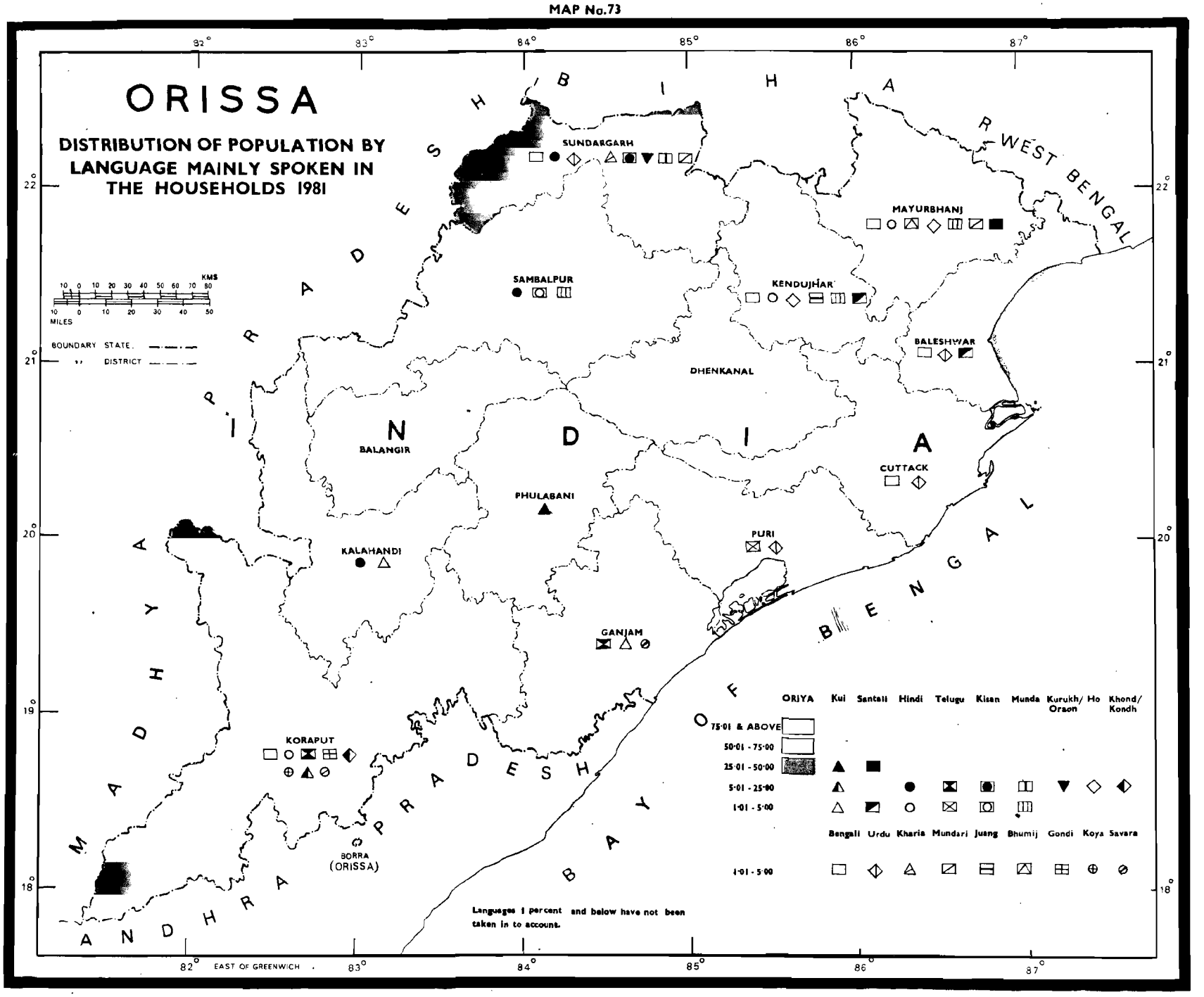
MAP No.71


ORISSA
SCHEDULED TRIBES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
INDIA
BAY OF BENGAL
BORRA (ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
P.S.
PERCENTAGE OF SCHEDULED TRIBES TO TOTAL POPULATION
63·01 & ABOVE
43·01 - 63·00
11·01 - 43·00
1·01 - 11·00
1·00 & BELOW
State Average 22·43
SCHEDULED TRIBES
30 000 & Above
10 000 - 29 999
Below - 10 000
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

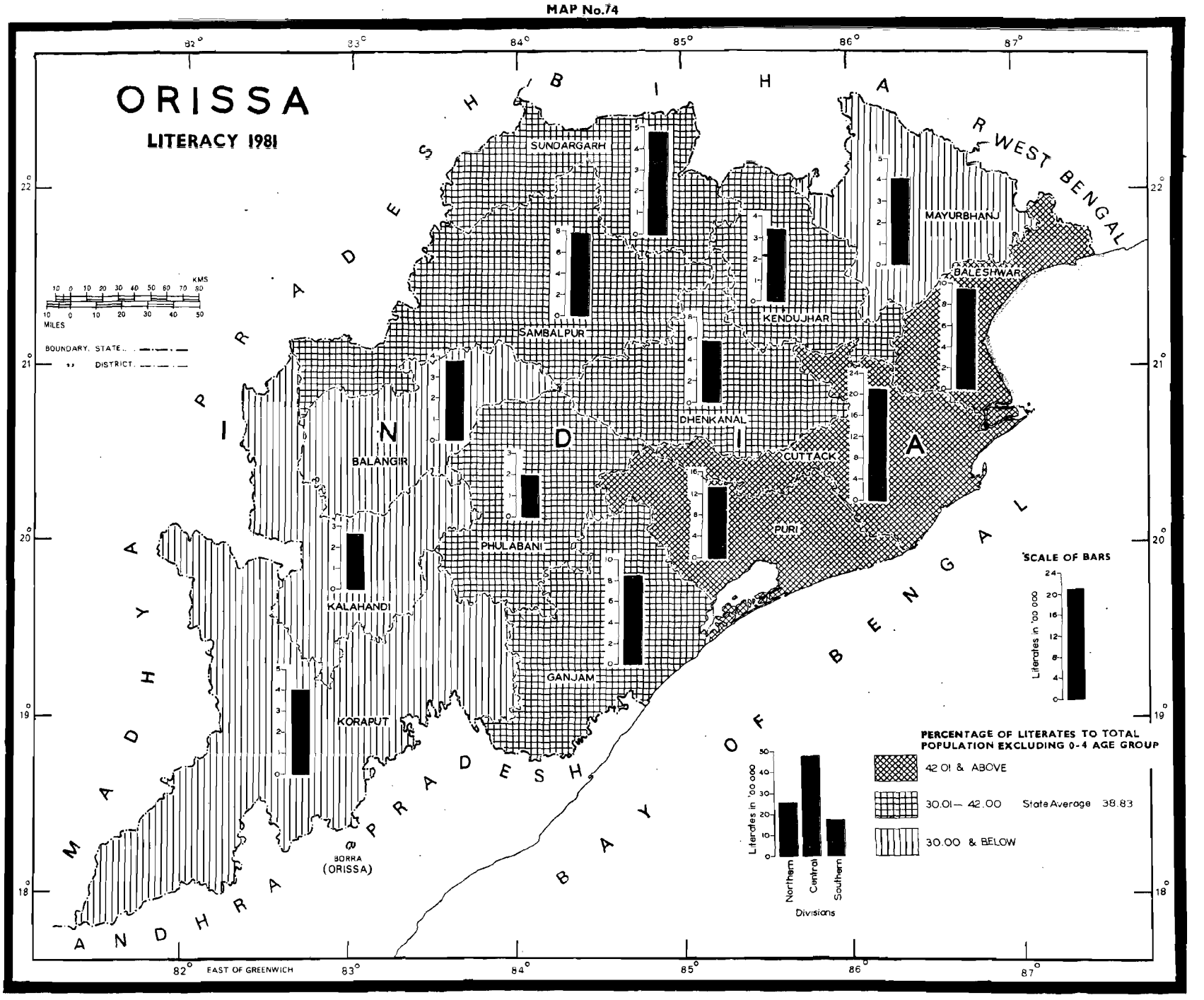
MAP No.72


ORISSA
RELIGIONS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
13 37 871
SUNDARGARH
15 81 873
MAYURBHANJ
22 80 976
SAMBALPUR
11 14 622
KENDUJHAR
22 52 808
BALESHWAR
15 82 787
DHENKANAL
14 59 113
BALANGIR
46 28 800
CUTTACK
7 17 280
PHULABANI
29 21 045
PURI
13 39 192
KALAHANDI
26 69 899
GANJAM
24 84 005
KORAPUT
BORRA (ORISSA)
ORISSA (NOT TO SCALE)
2 63 70 271
SCALE OF POPULATION
48 00 000
27 00 000
12 00 000
3 00 000
RELIGIONS
HINDU
MUSLIM
CHRISTIAN
JAIN
BUDDHIST
SIKH
OTHER RELIGIONS & PURSUASIONS
RELIGION NOT STATED
BOUNDARY, STATE
DISTRICT
KMS
MILES
1 Figures on top of each square represent total population.
2 Each small square represents 1 percent of the population.
3 Last small square is magnified five times and shown separately wherever necessary.
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

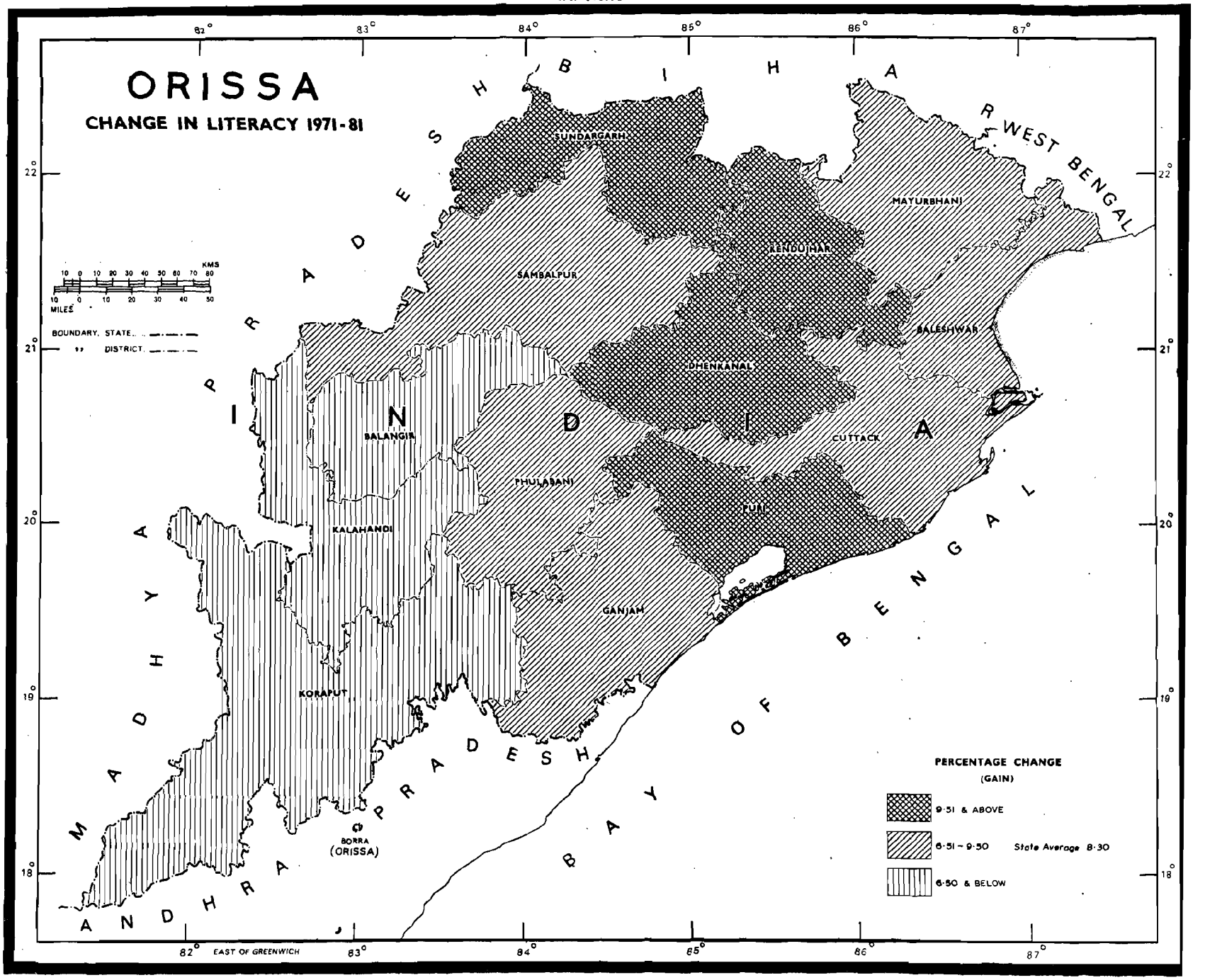
MAP No.73


ORISSA
DISTRIBUTION OF POPULATION BY LANGUAGE MAINLY SPOKEN IN THE HOUSEHOLDS 1981
SUNDARGARH
MAYURBHANJ
SAMBALPUR
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KMS
MILES
BOUNDARY STATE
DISTRICT
ORIYA
Kui
Santali
Hindi
Telugu
Kisan
Munda
Kurukh/ Oraon
Ho
Khond/ Kondh
75·01 & ABOVE
50·01 - 75·00
25·01 - 50·00
5·01 - 25·00
1·01 - 5·00
Bengali
Urdu
Kharia
Mundari
Juang
Bhumij
Gondi
Koya
Savara
1·01 - 5·00
Languages 1 percent and below have not been taken in to account.
82° EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

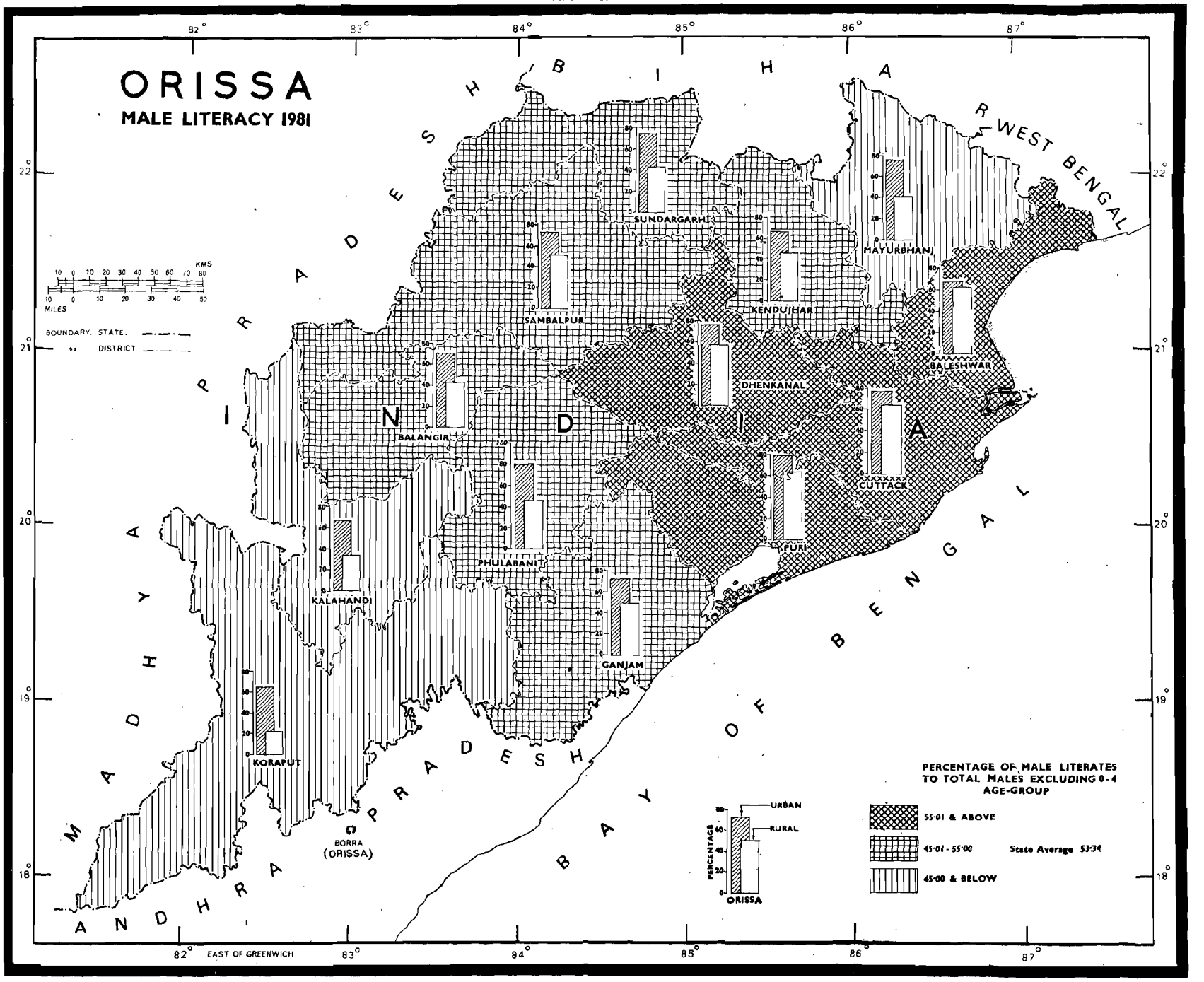
MAP No.74


ORISSA
LITERACY 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
BALANGIR
DHENKANAL
CUTTACK
PURI
PHULABANI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
SCALE OF BARS
Literates in '00 000
PERCENTAGE OF LITERATES TO TOTAL POPULATION EXCLUDING 0-4 AGE GROUP
42.01 & ABOVE
30.01 — 42.00
State Average 38.83
30.00 & BELOW
Northern
Central
Southern
Divisions
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

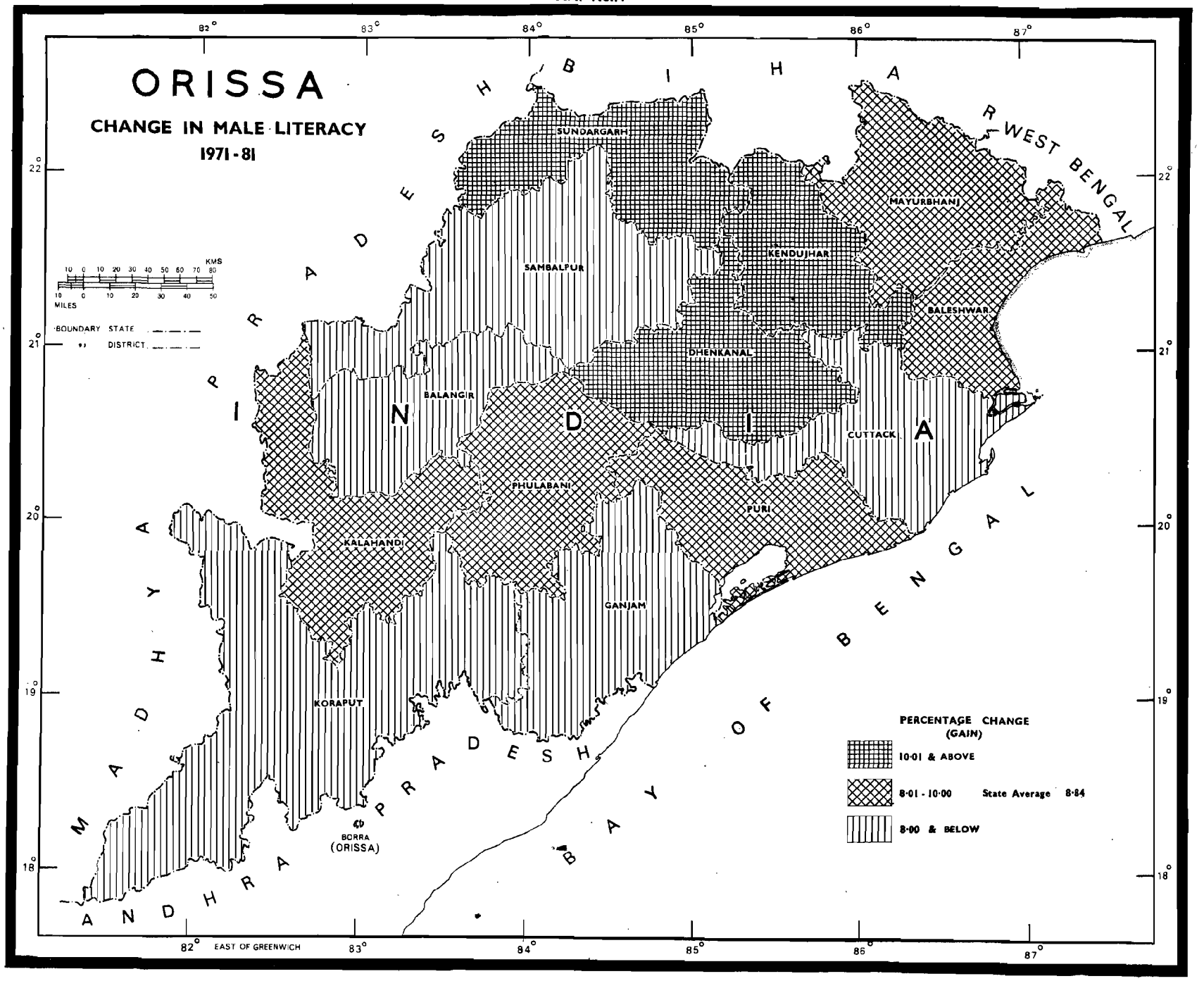
MAP No.75


ORISSA
CHANGE IN LITERACY 1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
PERCENTAGE CHANGE
(GAIN)
9·51 & ABOVE
6·51 – 9·50
State Average 8·30
6·50 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

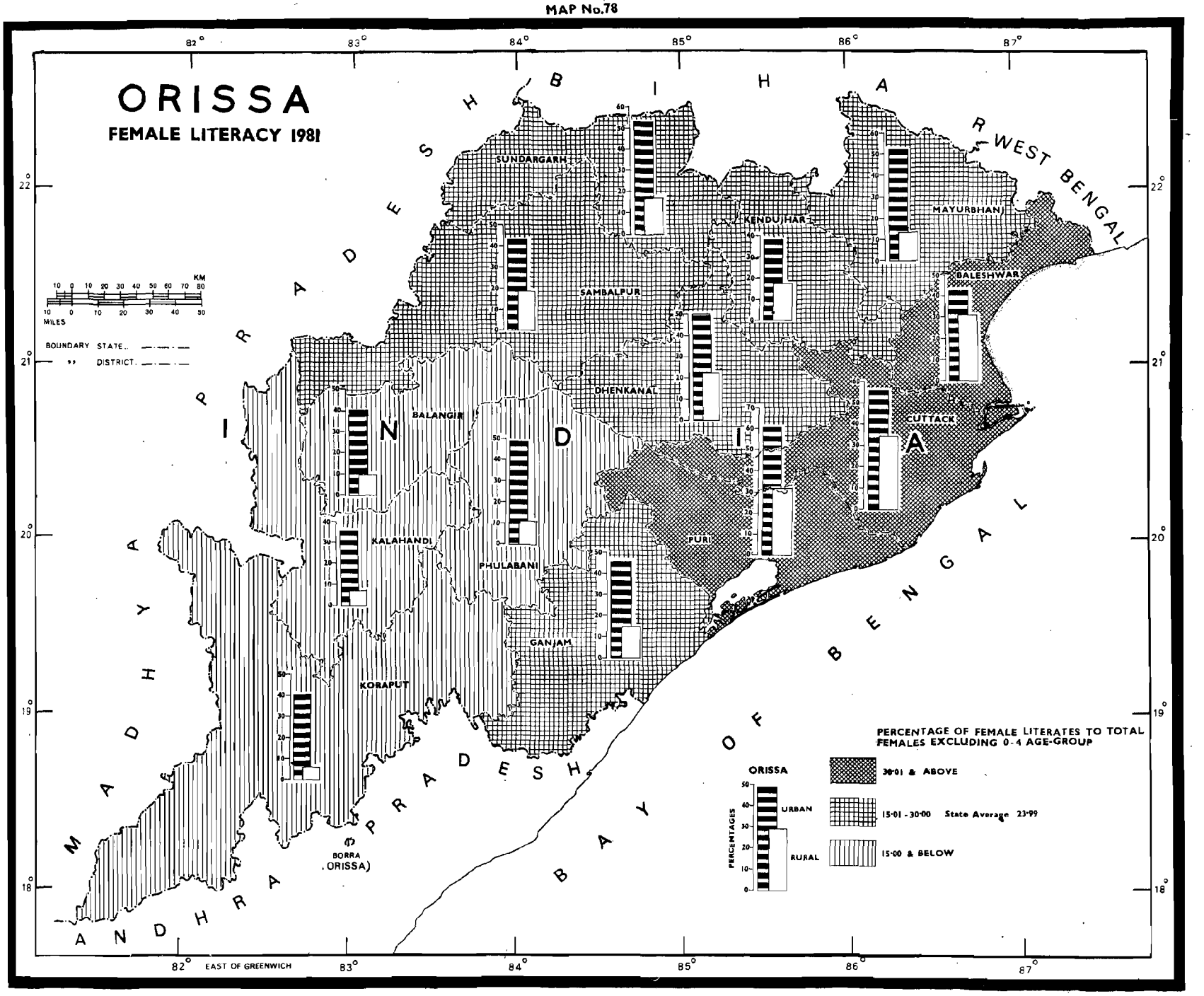
MAP No.76


ORISSA
MALE LITERACY 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PURI
PHULABANI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
PERCENTAGE OF MALE LITERATES TO TOTAL MALES EXCLUDING 0-4 AGE-GROUP
55·01 & ABOVE
45·01 - 55·00
45·00 & BELOW
State Average 53·34
URBAN
RURAL
PERCENTAGE
ORISSA
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

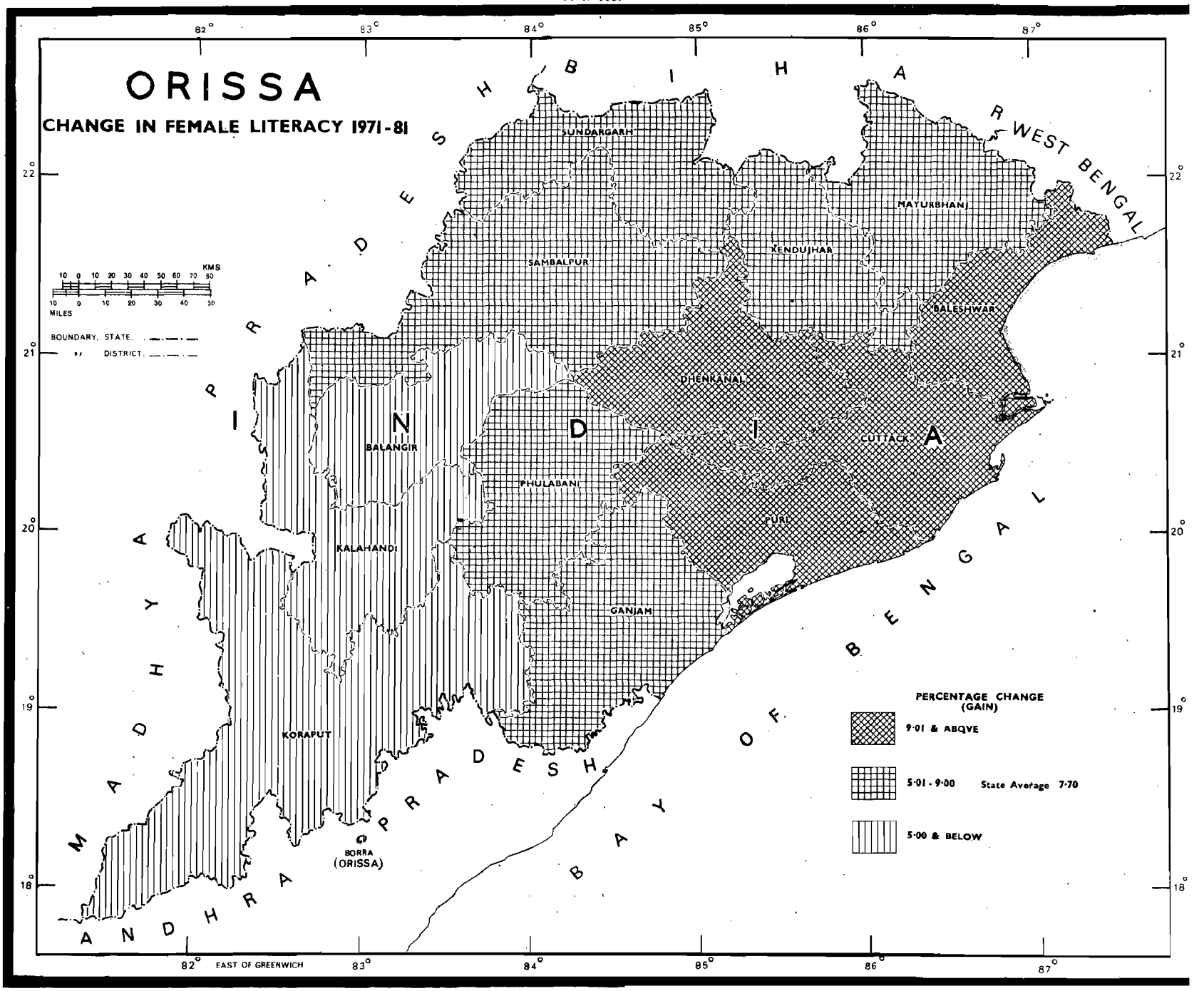
MAP No.77


ORISSA
CHANGE IN MALE LITERACY
1971 - 81
KMS
MILES
BOUNDARY STATE
DISTRICT
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
MADHYA PRADESH
ANDHRA PRADESH
BIHAR
WEST BENGAL
BAY OF BENGAL
INDIA
PERCENTAGE CHANGE (GAIN)
10·01 & ABOVE
8·01 - 10·00
State Average 8·84
8·00 & BELOW
EAST OF GREENWICH

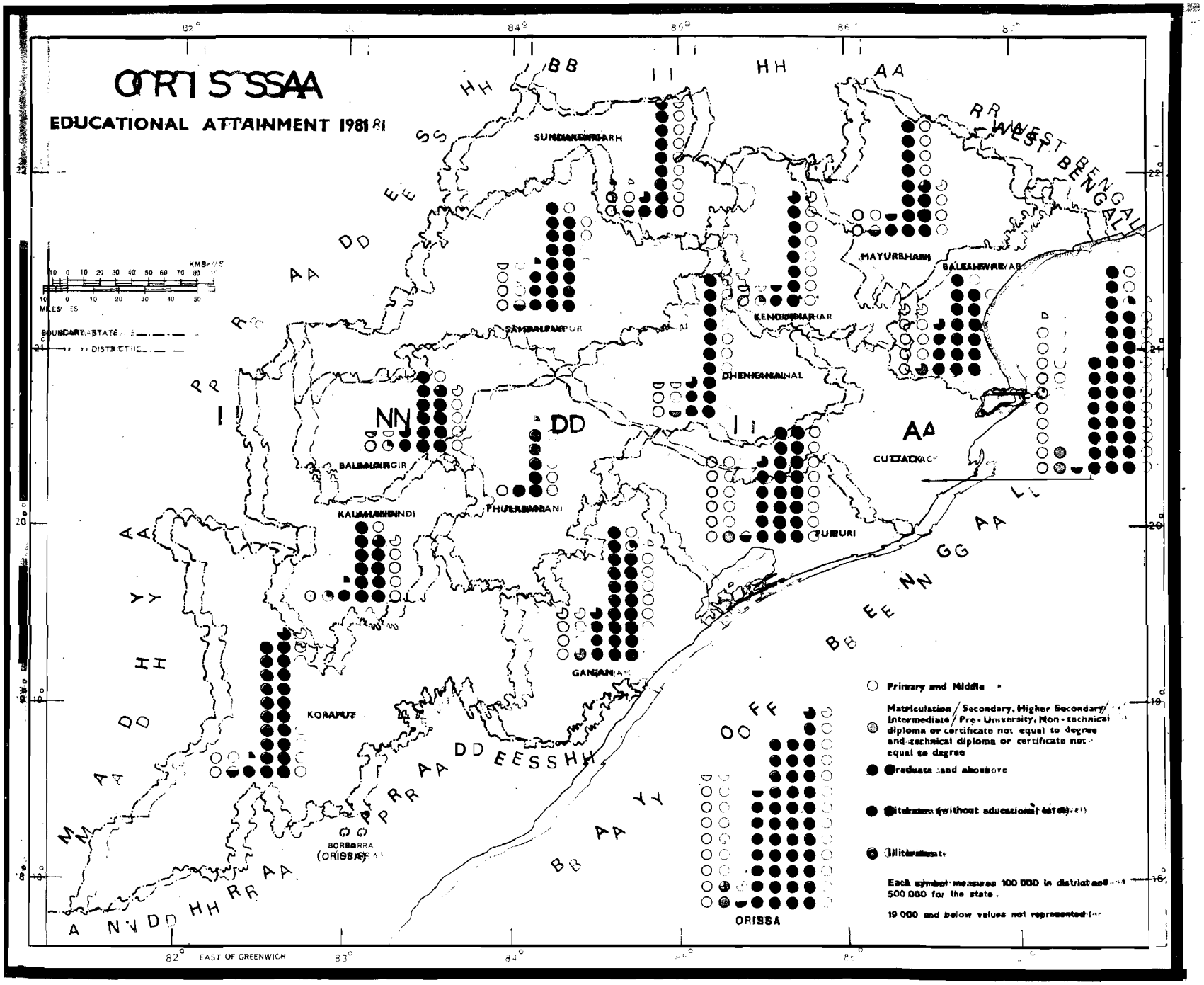
MAP No.78


ORISSA
FEMALE LITERACY 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
KALAHANDI
PHULABANI
PURI
GANJAM
KORAPUT
BORRA (ORISSA)
KM
MILES
BOUNDARY STATE
DISTRICT
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
EAST OF GREENWICH
PERCENTAGE OF FEMALE LITERATES TO TOTAL FEMALES EXCLUDING 0-4 AGE-GROUP
ORISSA
URBAN
RURAL
PERCENTAGES
30·01 & ABOVE
15·01 - 30·00 State Average 23·99
15·00 & BELOW

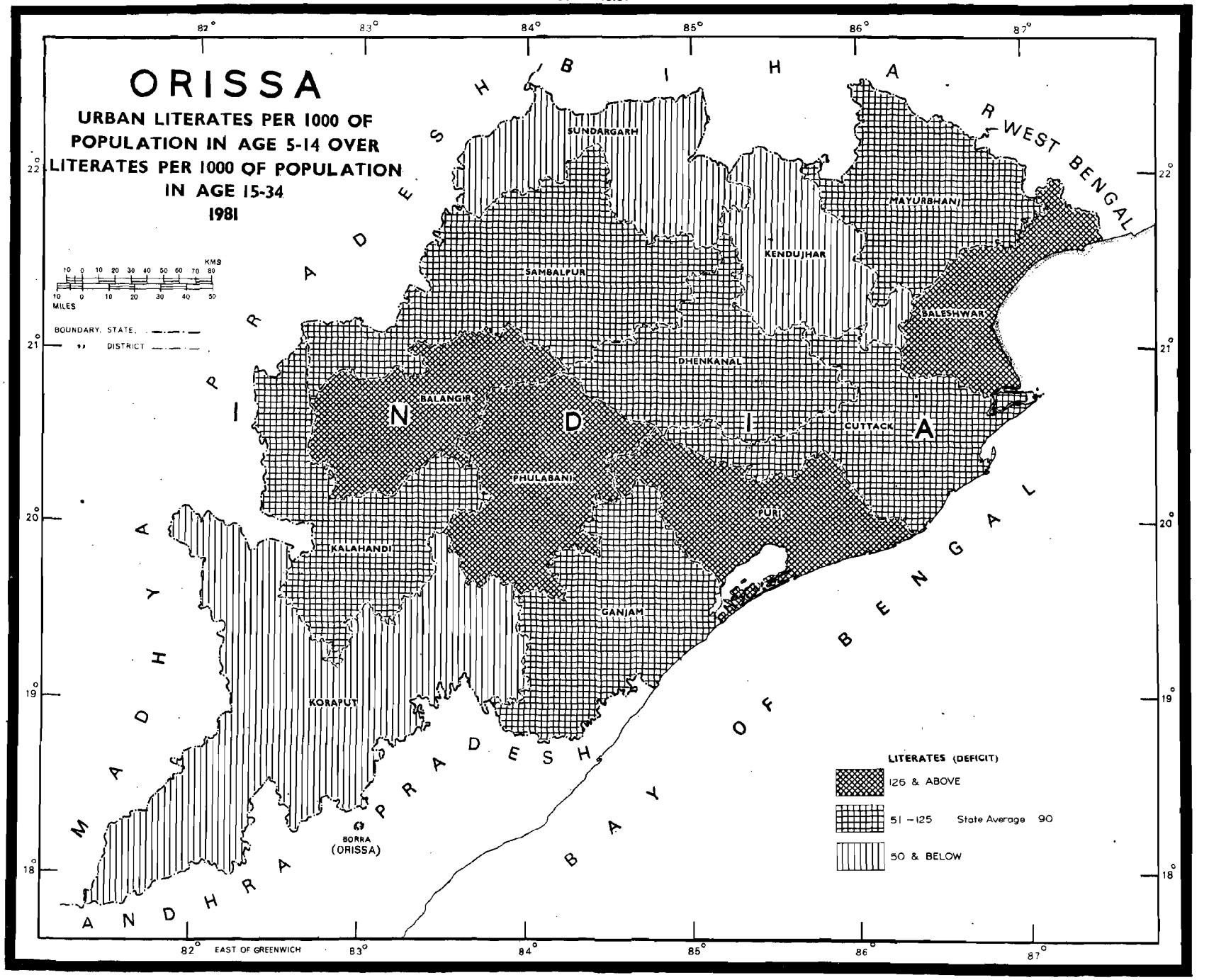
MAP No.79


ORISSA
CHANGE IN FEMALE LITERACY 1971-81
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
PERCENTAGE CHANGE (GAIN)
9·01 & ABOVE
5·01 - 9·00
State Average 7·70
5·00 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

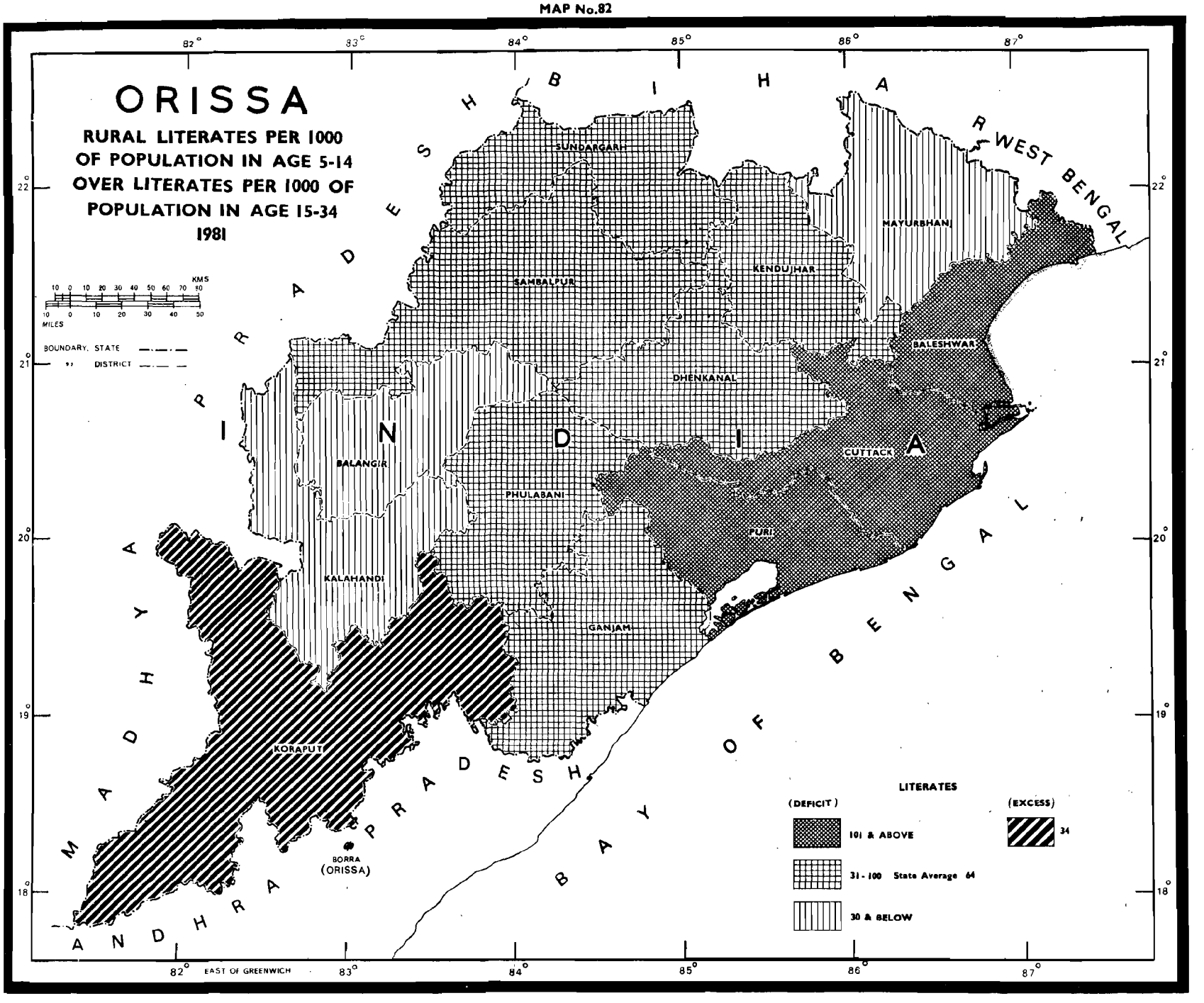
MAP No. 80


ORISSA
EDUCATIONAL ATTAINMENT 1981
WEST BENGAL
BOUNDARY-STATE
DISTRICTWISE
SUNDARGARH
SAMBALPUR
DHENKANAL
MAYURBHANJ
BALASHWAR
KENDUJHAR
BALANGIR
KALAHANDI
PHULBANI
CUTTACK
PURI
KORAPUT
GANJAM
BORBORRA (ORISSA)
ORISSA
Primary and Middle
Matriculation / Secondary, Higher Secondary / Intermediate / Pre-University, Non-technical diploma or certificate not equal to degree and technical diploma or certificate not equal to degree
Graduate and above
Literate (without educational level)
Illiterate
Each symbol measures 100 000 in district and 500 000 for the state.
19 000 and below values not represented
EAST OF GREENWICH

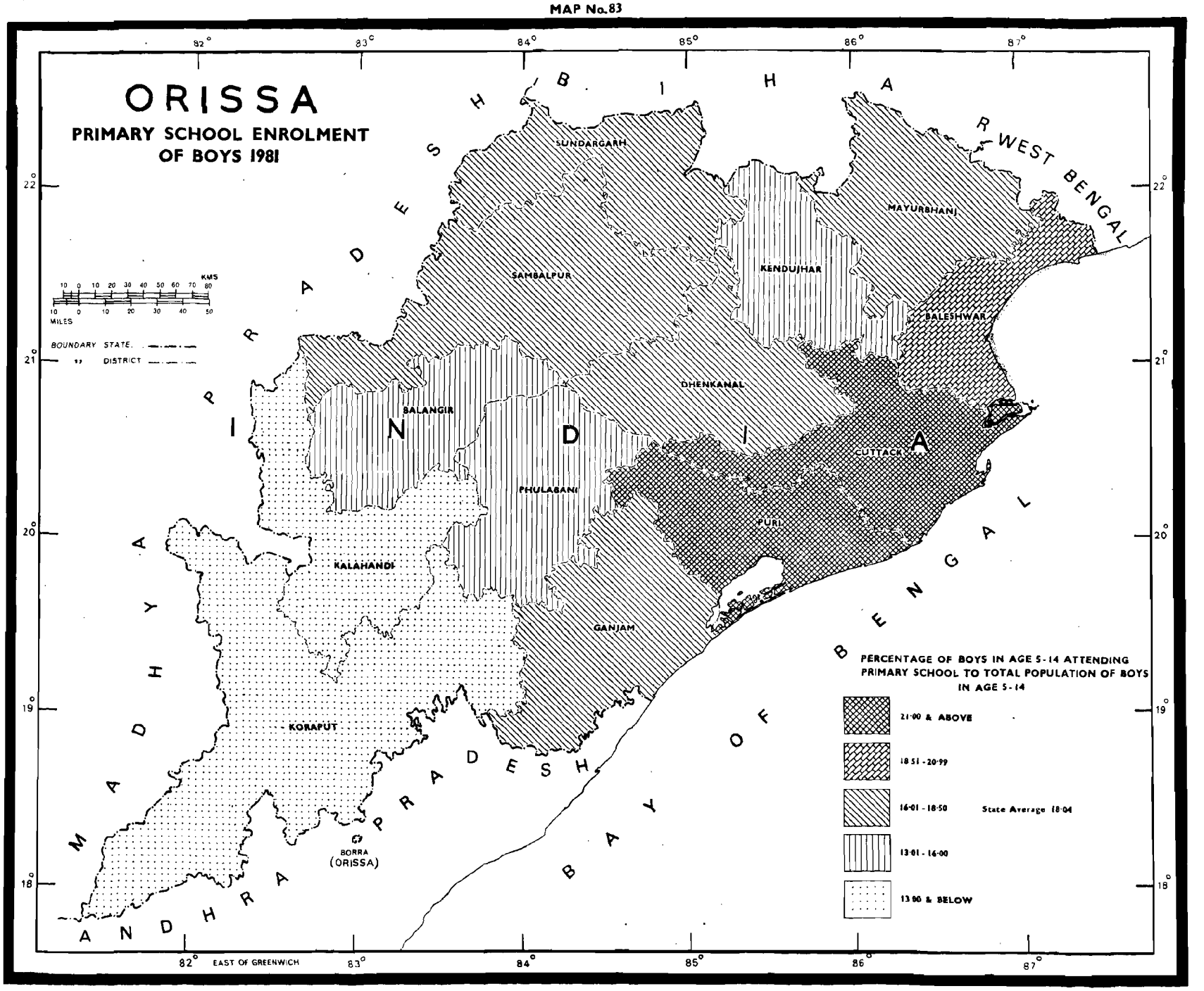
MAP No.81


ORISSA
URBAN LITERATES PER 1000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34
1981
KMS
MILES
BOUNDARY, STATE
DISTRICT
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
LITERATES (DEFICIT)
126 & ABOVE
51 – 125
State Average 90
50 & BELOW
EAST OF GREENWICH

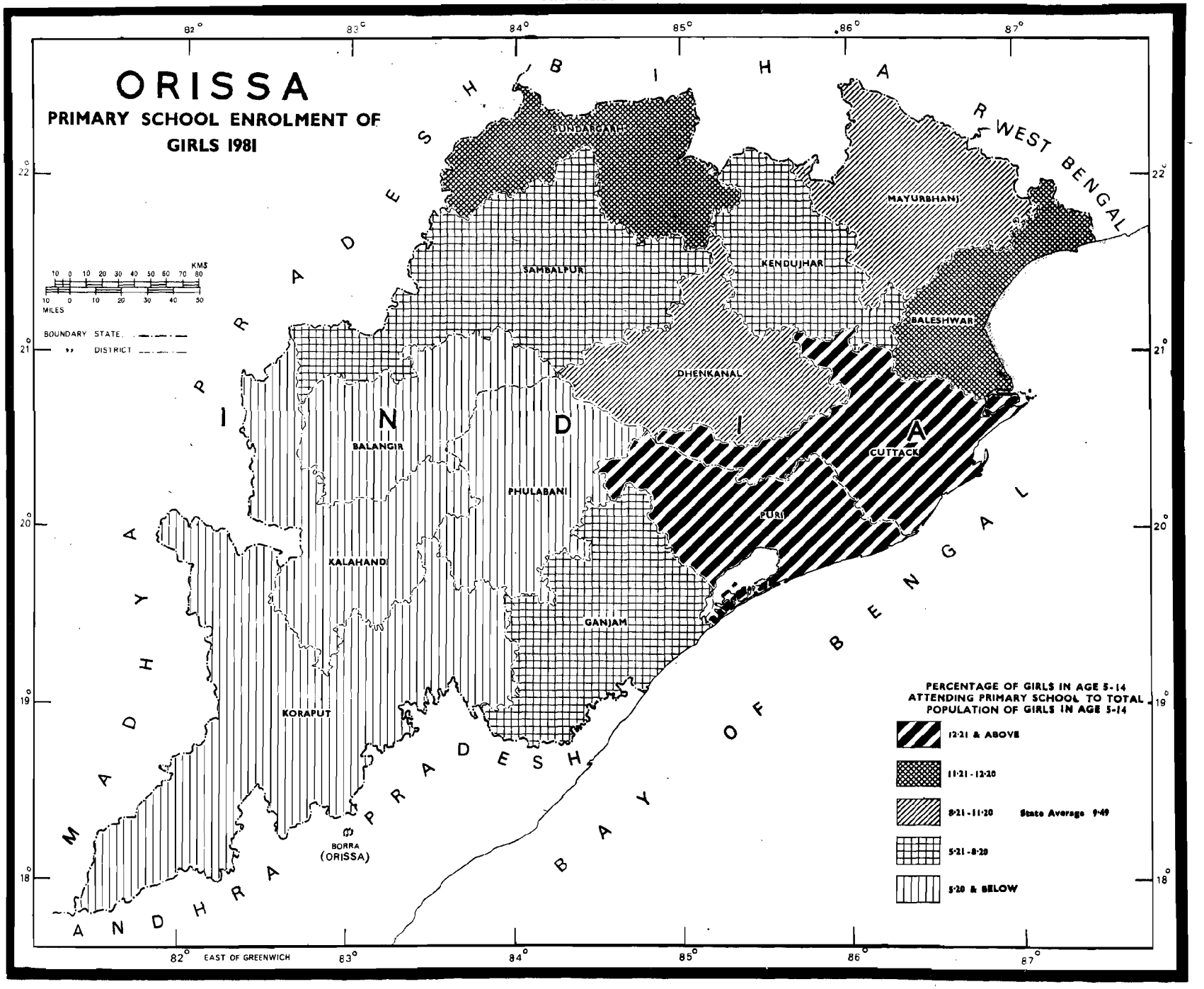
MAP No.82


ORISSA
RURAL LITERATES PER 1000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34 1981
KMS
MILES
BOUNDARY, STATE
DISTRICT
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
LITERATES
(DEFICIT)
(EXCESS)
101 & ABOVE
31 - 100 State Average 64
30 & BELOW
34
EAST OF GREENWICH

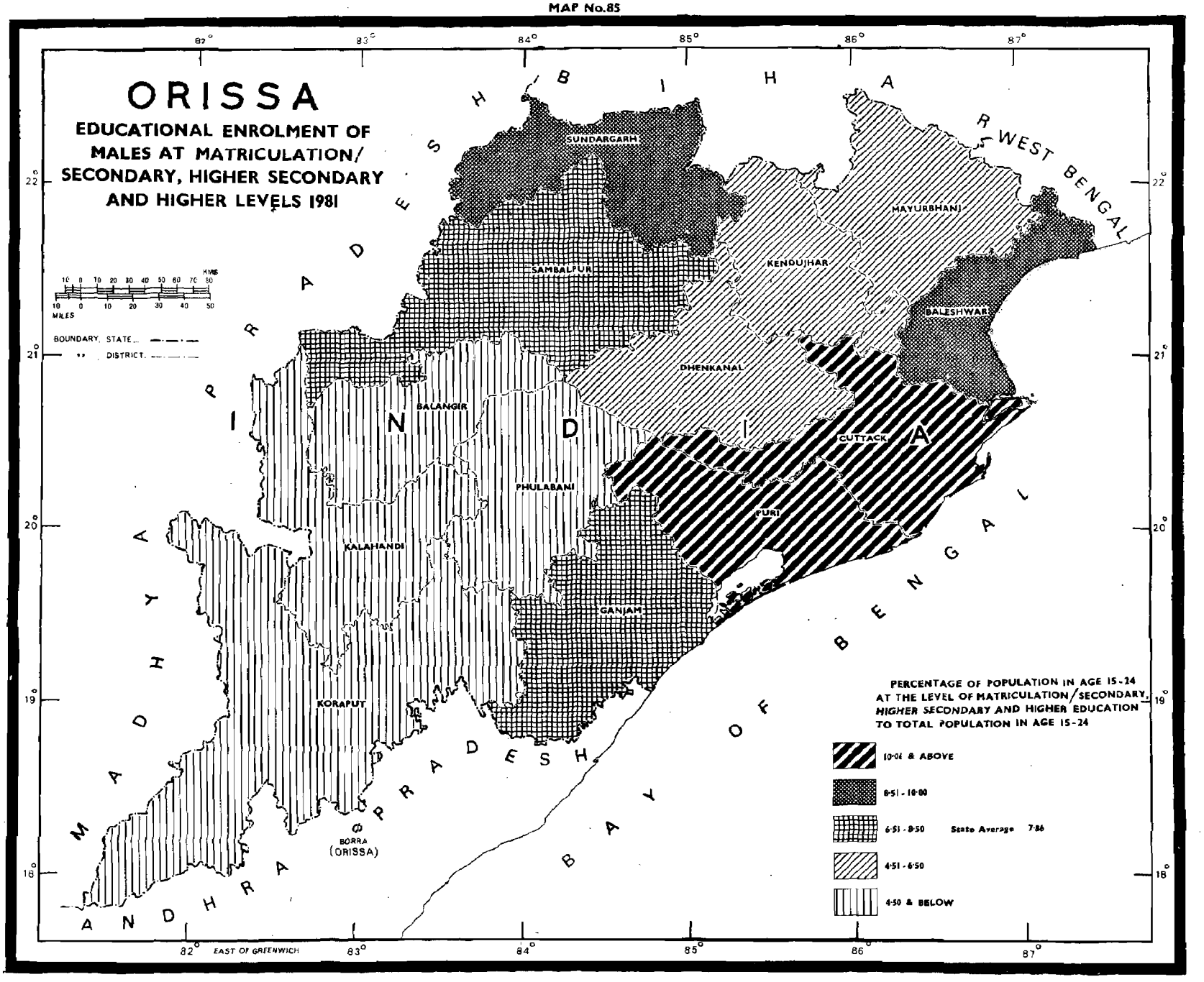
MAP No. 83


ORISSA
PRIMARY SCHOOL ENROLMENT OF BOYS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BOUNDARY STATE
DISTRICT
KMS
MILES
PERCENTAGE OF BOYS IN AGE 5-14 ATTENDING PRIMARY SCHOOL TO TOTAL POPULATION OF BOYS IN AGE 5-14
21·00 & ABOVE
18·51 - 20·99
16·01 - 18·50
State Average 18·04
13·01 - 16·00
13·00 & BELOW
EAST OF GREENWICH

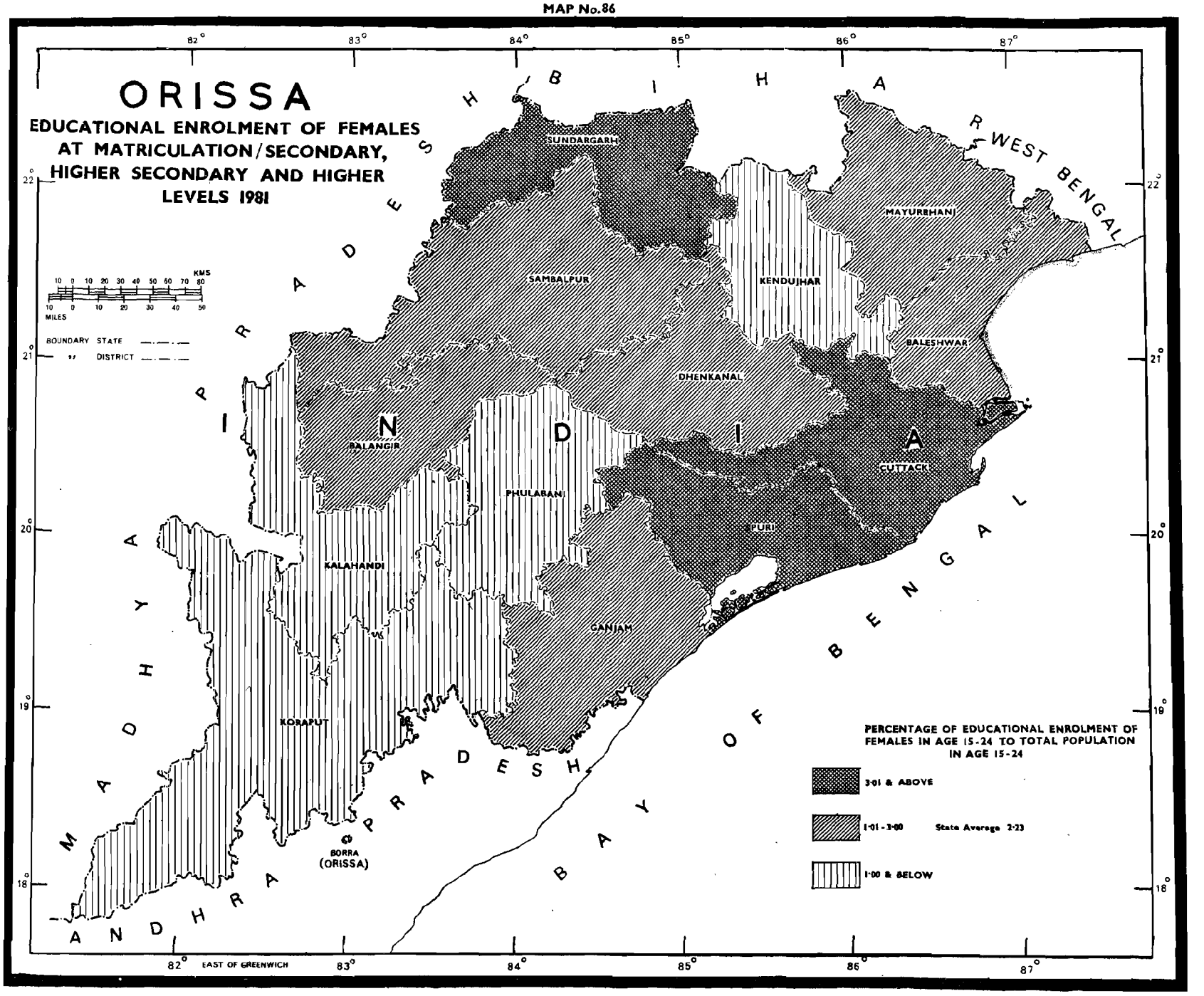
MAP No.84


ORISSA
PRIMARY SCHOOL ENROLMENT OF GIRLS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
MAYURBHANJ
SAMBALPUR
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
PERCENTAGE OF GIRLS IN AGE 5-14 ATTENDING PRIMARY SCHOOL TO TOTAL POPULATION OF GIRLS IN AGE 5-14
12·21 & ABOVE
11·21 - 12·20
8·21 - 11·20
State Average 9·49
5·21 - 8·20
5·20 & BELOW
EAST OF GREENWICH

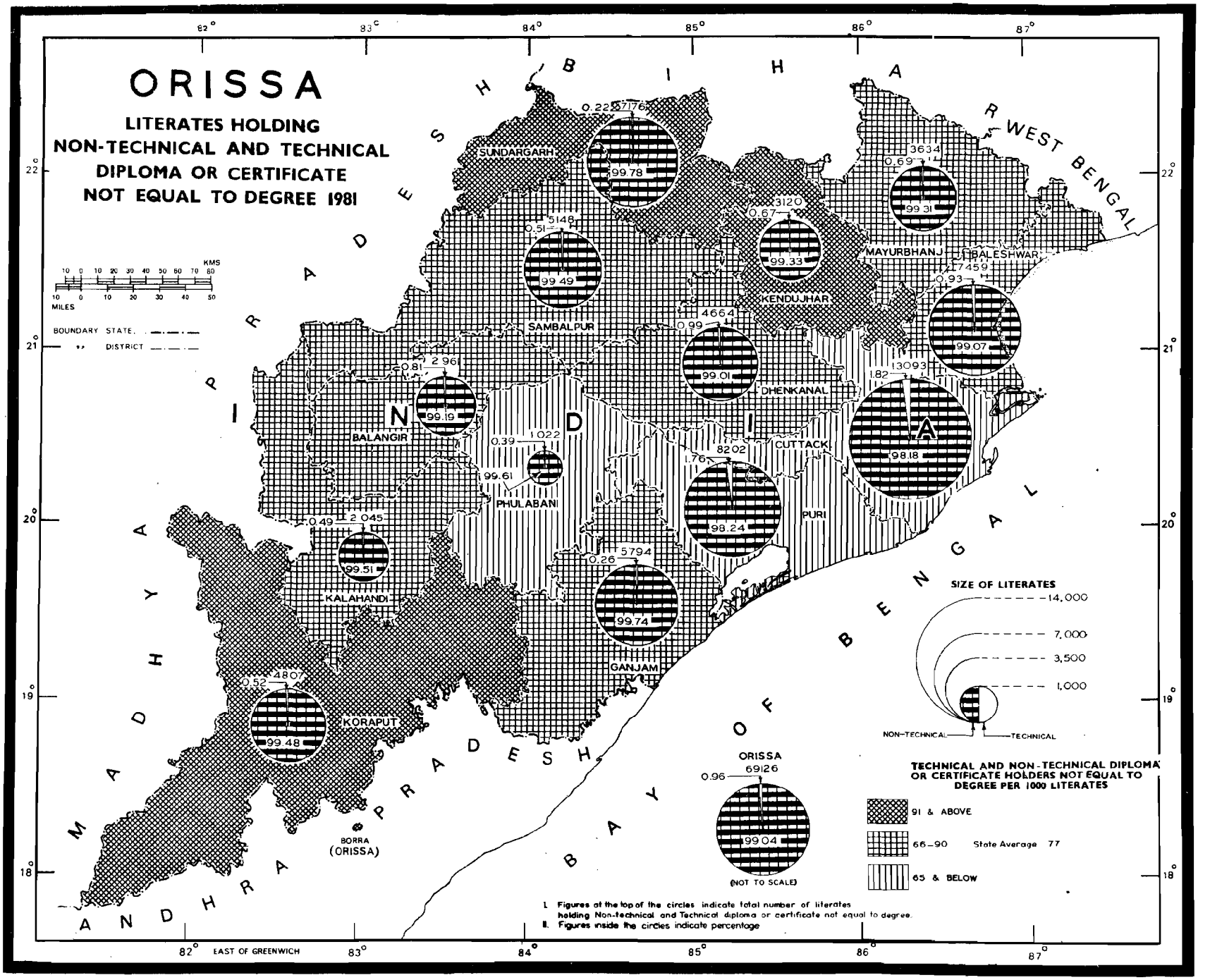
MAP No.85


ORISSA
EDUCATIONAL ENROLMENT OF MALES AT MATRICULATION/ SECONDARY, HIGHER SECONDARY AND HIGHER LEVELS 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BOUNDARY, STATE
DISTRICT
MILES
KMS
PERCENTAGE OF POPULATION IN AGE 15-24 AT THE LEVEL OF MATRICULATION/SECONDARY, HIGHER SECONDARY AND HIGHER EDUCATION TO TOTAL POPULATION IN AGE 15-24
10·01 & ABOVE
8·51 - 10·00
6·51 - 8·50
State Average 7·86
4·51 - 6·50
4·50 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

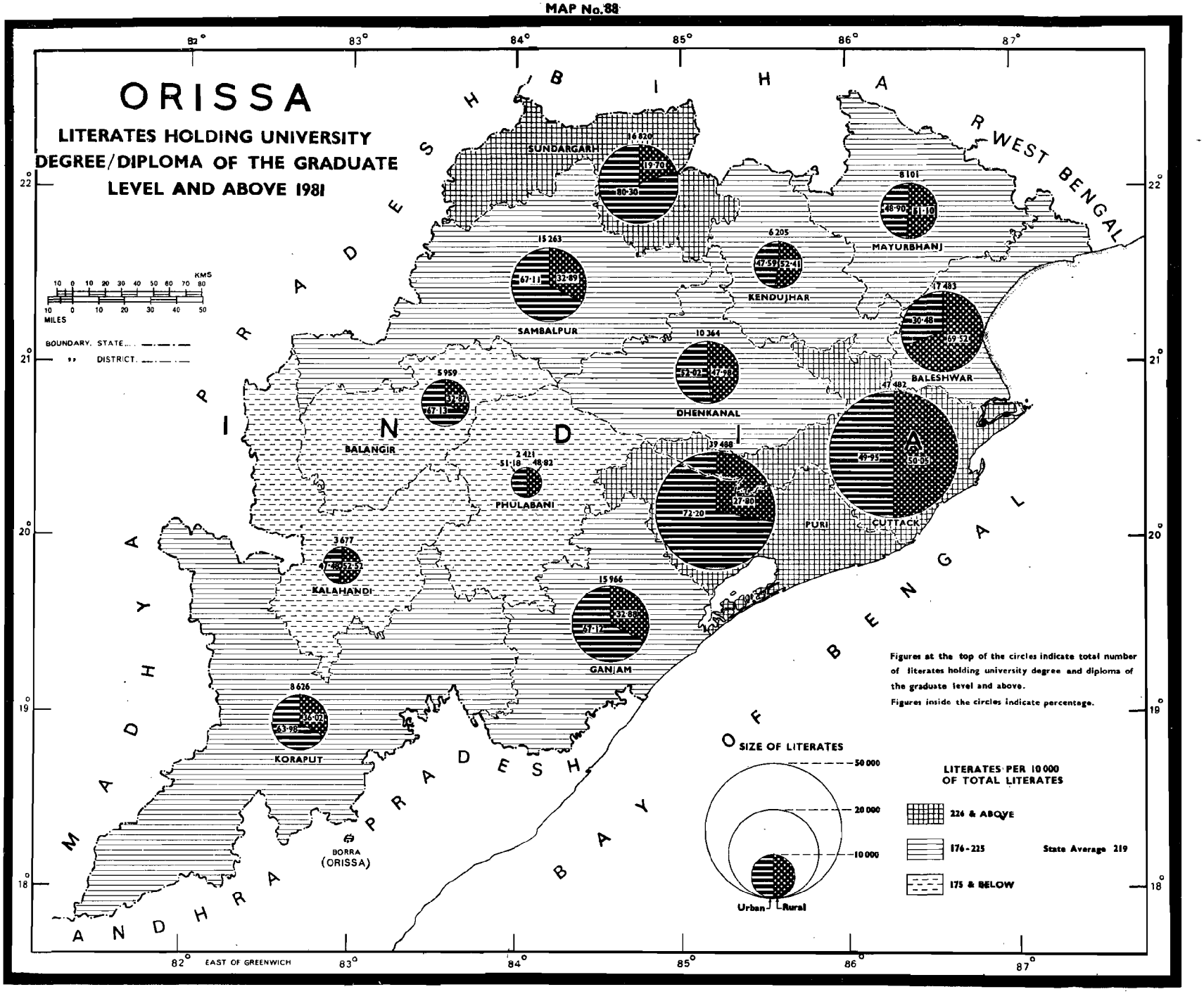
MAP No.86


ORISSA
EDUCATIONAL ENROLMENT OF FEMALES AT MATRICULATION/SECONDARY, HIGHER SECONDARY AND HIGHER LEVELS 1981
KMS
MILES
BOUNDARY STATE
DISTRICT
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
PERCENTAGE OF EDUCATIONAL ENROLMENT OF FEMALES IN AGE 15-24 TO TOTAL POPULATION IN AGE 15-24
3·01 & ABOVE
1·01 - 3·00
State Average 2·23
1·00 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

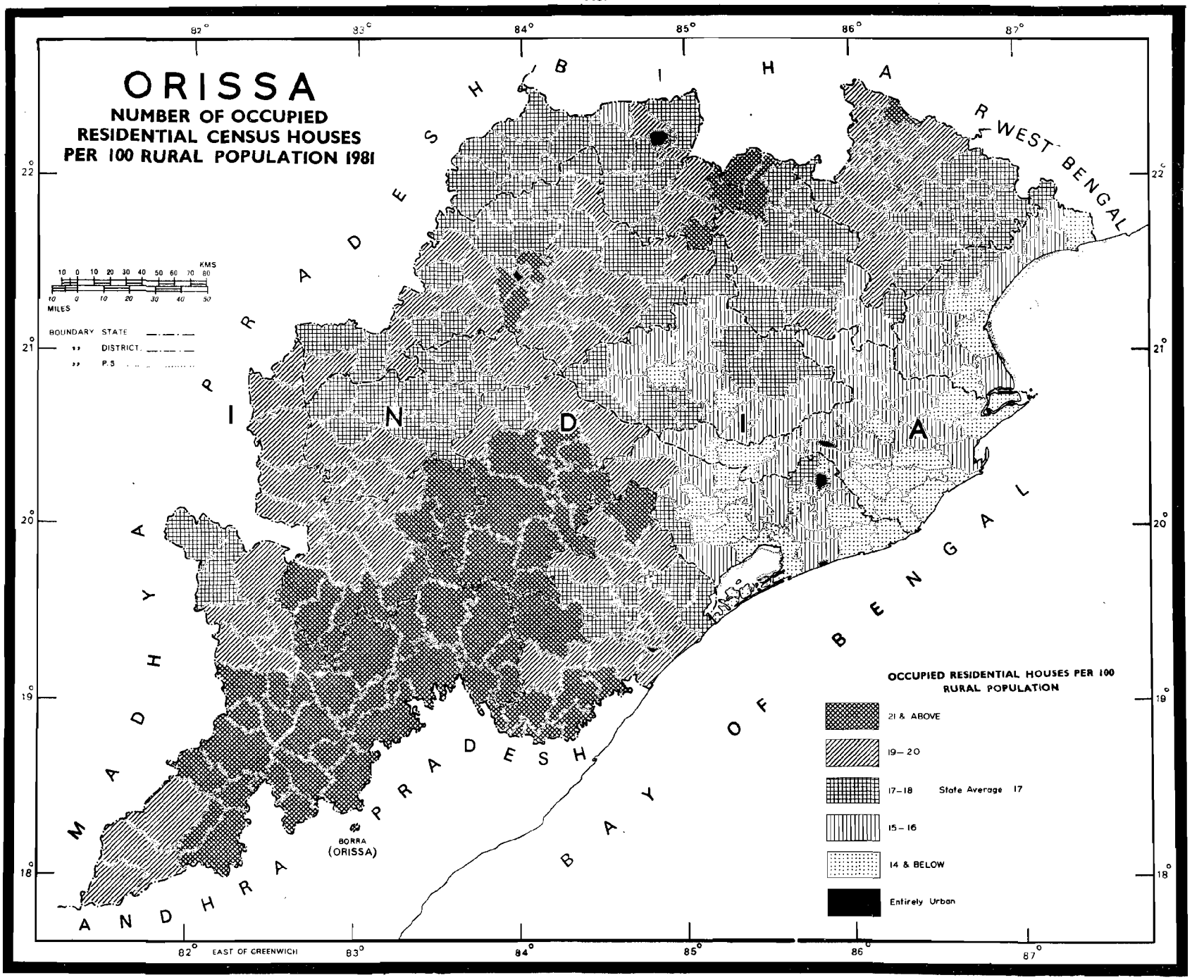
MAP No. 87


ORISSA
LITERATES HOLDING
NON-TECHNICAL AND TECHNICAL
DIPLOMA OR CERTIFICATE
NOT EQUAL TO DEGREE 1981
KMS
MILES
BOUNDARY STATE
DISTRICT
SUNDARGARH
0.22
5176
99.78
3634
0.69
99.31
WEST BENGAL
0.51
5148
99.49
3120
0.67
99.33
MAYURBHANJ
BALESHWAR
17459
0.93
99.07
KENDUJHAR
SAMBALPUR
4664
0.99
99.01
DHENKANAL
0.81
2961
99.19
13093
1.82
98.18
BALANGIR
0.39
1022
99.61
CUTTACK
8202
1.76
98.24
PHULABANI
PURI
0.49
2045
99.51
0.26
5794
99.74
KALAHANDI
GANJAM
0.52
4807
99.48
KORAPUT
BORRA
(ORISSA)
ORISSA
0.96
69126
99.04
(NOT TO SCALE)
SIZE OF LITERATES
14,000
7,000
3,500
1,000
NON-TECHNICAL
TECHNICAL
TECHNICAL AND NON-TECHNICAL DIPLOMA OR CERTIFICATE HOLDERS NOT EQUAL TO DEGREE PER 1000 LITERATES
91 & ABOVE
66–90
State Average 77
65 & BELOW
I. Figures at the top of the circles indicate total number of literates holding Non-technical and Technical diploma or certificate not equal to degree.
II. Figures inside the circles indicate percentage
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
MADHYA PRADESH
BIHAR
BAY OF BENGAL
ANDHRA PRADESH

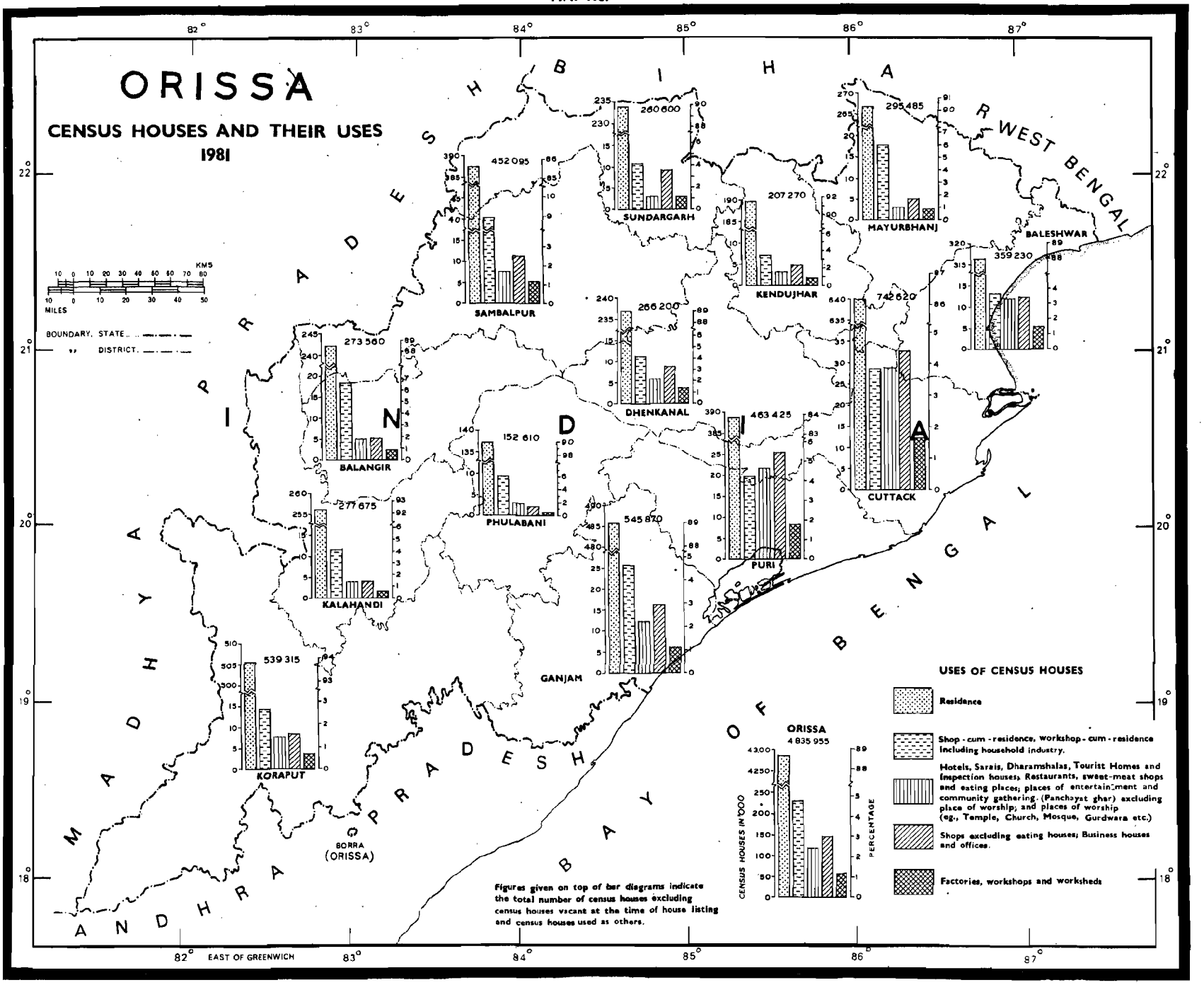
MAP No. 88


ORISSA
LITERATES HOLDING UNIVERSITY DEGREE/DIPLOMA OF THE GRADUATE LEVEL AND ABOVE 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
16 820
19·70
80·30
MAYURBHANJ
8 101
48·90
51·10
KENDUJHAR
6 205
47·59
52·41
SAMBALPUR
15 263
67·11
32·89
BALESHWAR
17 483
30·48
69·52
DHENKANAL
10 364
52·02
47·98
BALANGIR
5 959
32·87
67·13
CUTTACK
47 482
49·95
50·05
PURI
39 488
72·20
27·80
PHULABANI
2 421
51·18
48·82
KALAHANDI
3 677
52·13
GANJAM
15 966
32·83
67·17
KORAPUT
8 626
36·02
63·98
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
Figures at the top of the circles indicate total number of literates holding university degree and diploma of the graduate level and above.
Figures inside the circles indicate percentage.
SIZE OF LITERATES
50 000
20 000
10 000
Urban
Rural
LITERATES PER 10 000 OF TOTAL LITERATES
226 & ABOVE
176-225
175 & BELOW
State Average 219
EAST OF GREENWICH

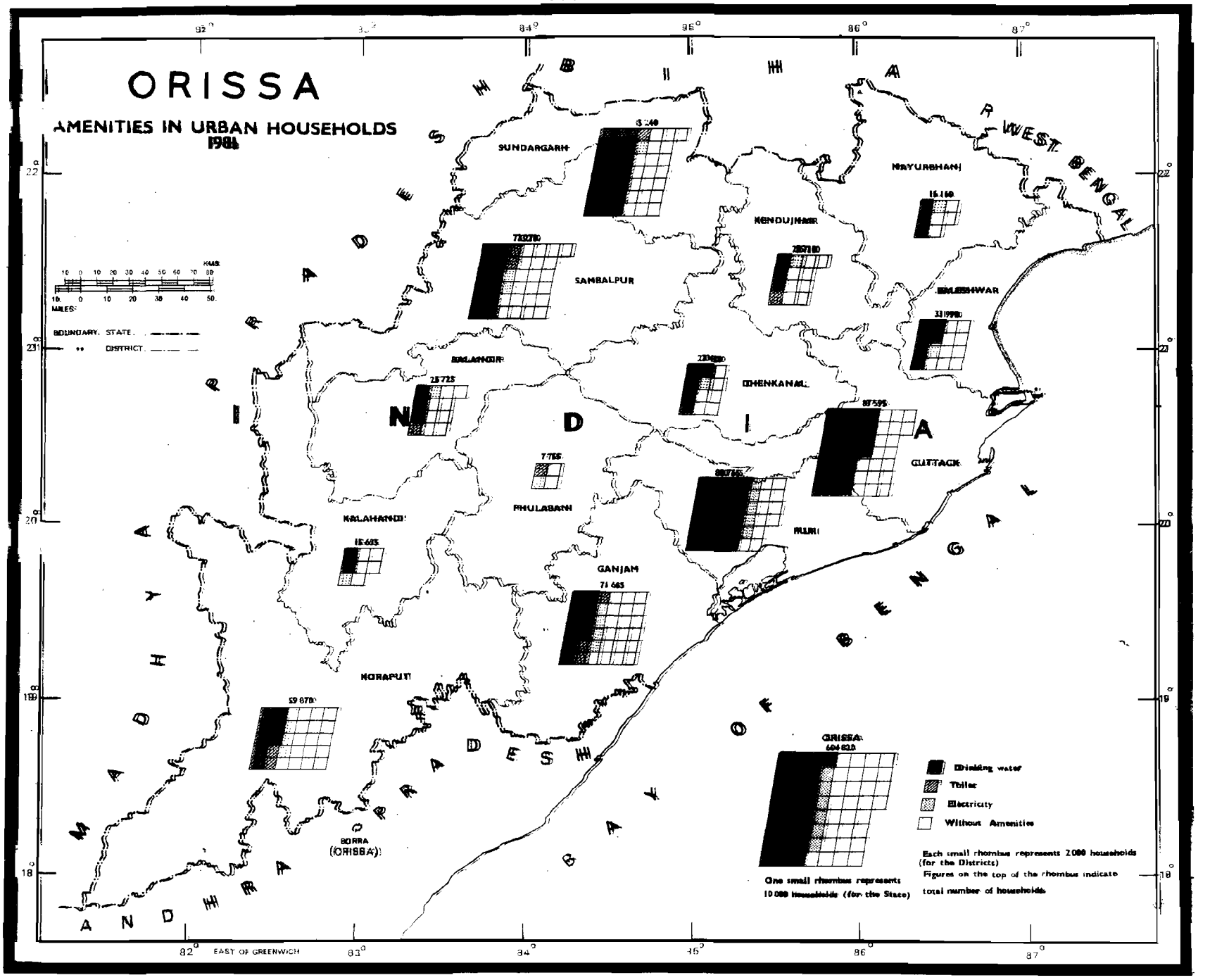
MAP No.89


ORISSA
NUMBER OF OCCUPIED RESIDENTIAL CENSUS HOUSES PER 100 RURAL POPULATION 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
KMS
MILES
BOUNDARY STATE
DISTRICT
P.S
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
INDIA
BAY OF BENGAL
BORRA (ORISSA)
EAST OF GREENWICH
OCCUPIED RESIDENTIAL HOUSES PER 100 RURAL POPULATION
21 & ABOVE
19–20
17–18
State Average 17
15–16
14 & BELOW
Entirely Urban

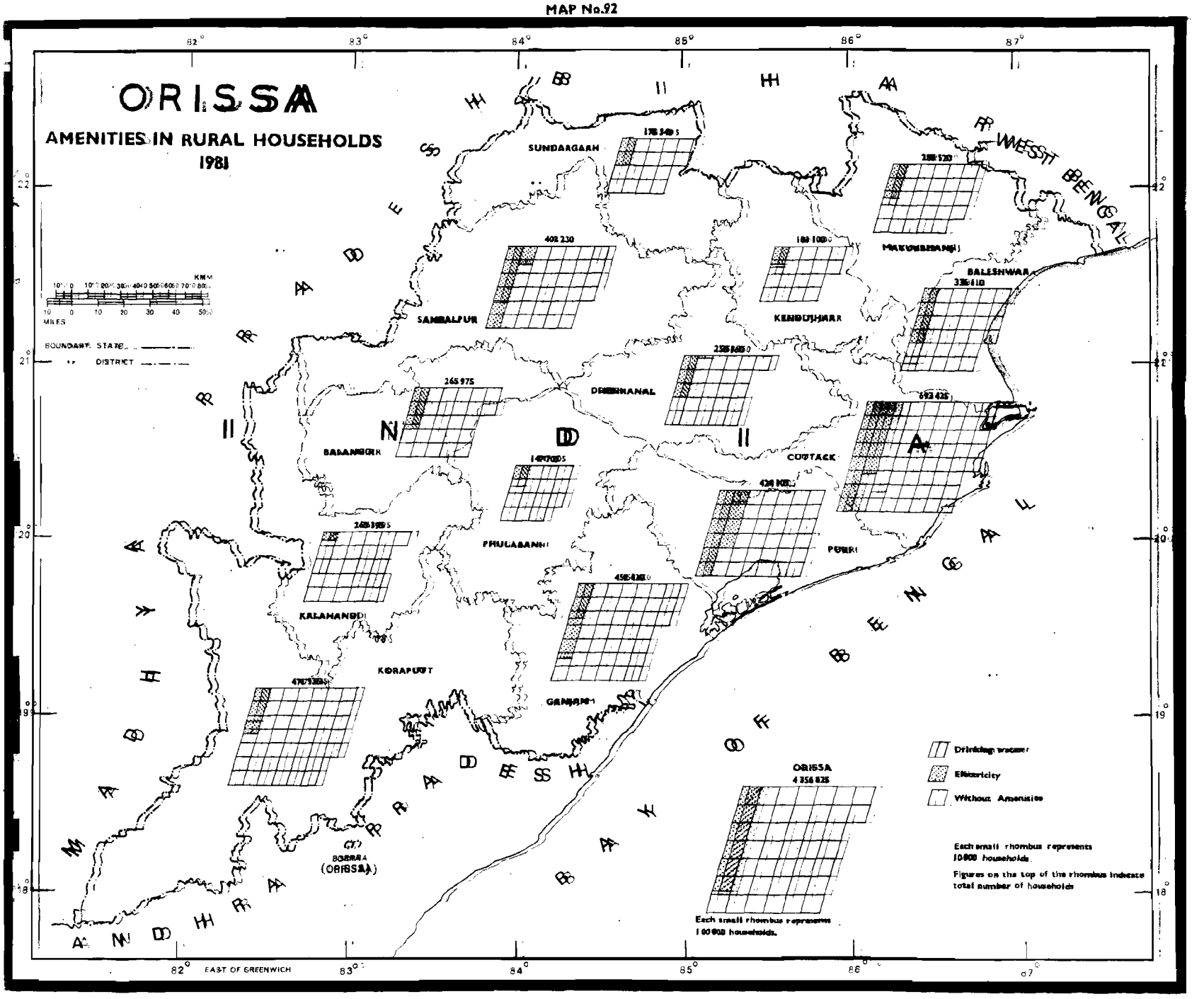
MAP No.90


ORISSA
CENSUS HOUSES AND THEIR USES
1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
KM5
MILES
BOUNDARY, STATE
DISTRICT
452 095
SAMBALPUR
260 600
SUNDARGARH
207 270
KENDUJHAR
295 485
MAYURBHANJ
BALESHWAR
359 230
273 560
BALANGIR
266 200
DHENKANAL
742 620
CUTTACK
152 610
PHULABANI
463 425
PURI
277 675
KALAHANDI
545 870
GANJAM
539 315
KORAPUT
BORRA (ORISSA)
ORISSA
4 835 955
CENSUS HOUSES IN '000
PERCENTAGE
USES OF CENSUS HOUSES
Residence
Shop-cum-residence, workshop-cum-residence including household industry.
Hotels, Sarais, Dharamshalas, Tourist Homes and Inspection houses, Restaurants, sweet-meat shops and eating places; places of entertainment and community gathering (Panchayat ghar) excluding place of worship; and places of worship (eg., Temple, Church, Mosque, Gurdwara etc.)
Shops excluding eating houses; Business houses and offices.
Factories, workshops and worksheds
Figures given on top of bar diagrams indicate the total number of census houses excluding census houses vacant at the time of house listing and census houses used as others.
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
EAST OF GREENWICH

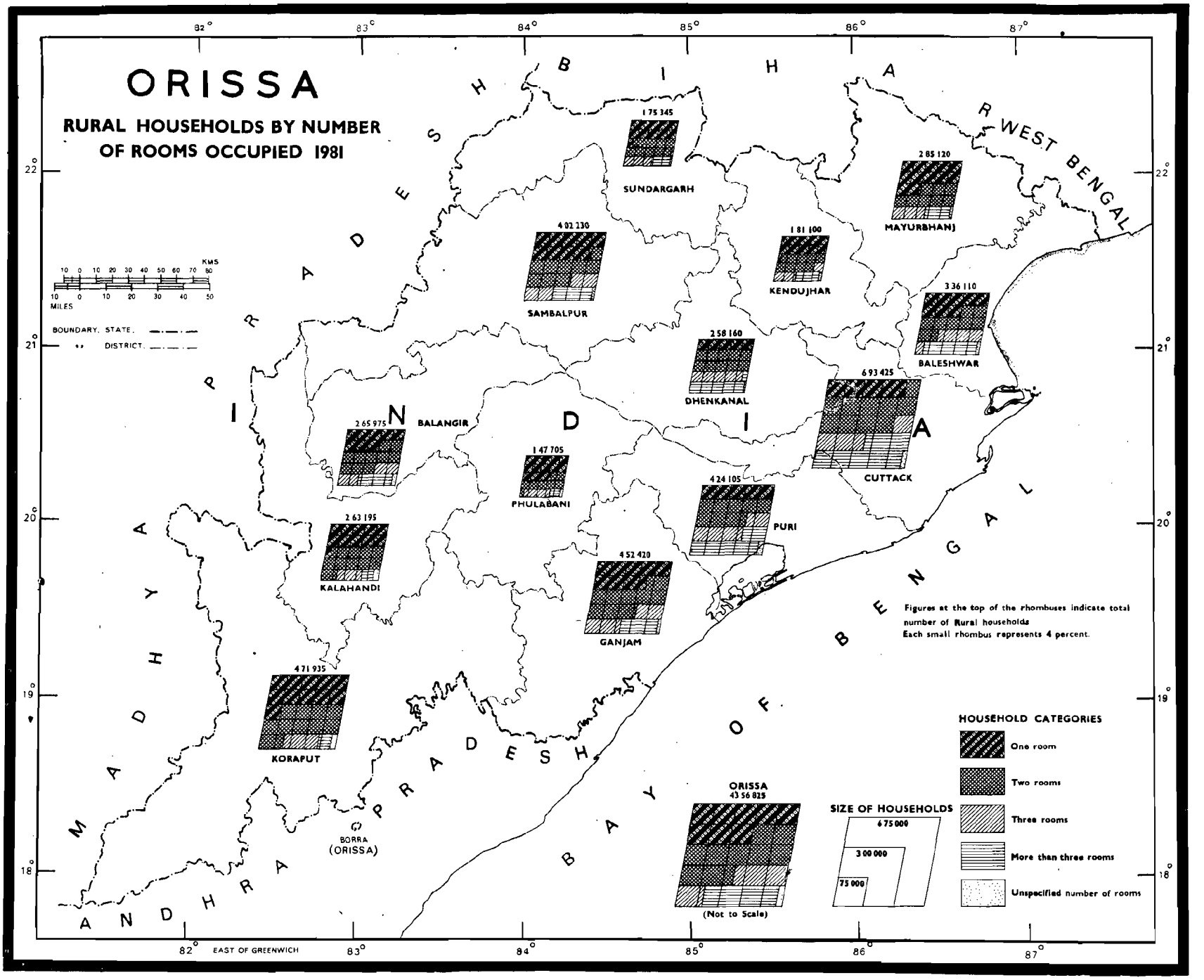
MAP No.91


ORISSA
AMENITIES IN URBAN HOUSEHOLDS
1981
BOUNDARY, STATE
DISTRICT
SUNDARGARH
MAYURBHANJ
KENDUJHAR
SAMBALPUR
BALASHWAR
BALANGIR
DHENKANAL
CUTTACK
PURI
PHULABANI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
ORISSA
Drinking water
Toilet
Electricity
Without Amenities
Each small rhombus represents 2000 households (for the Districts)
Figures on the top of the rhombus indicate total number of households
One small rhombus represents 10000 households (for the State)
EAST OF GREENWICH
MADHYA PRADESH
ANDHRA PRADESH
WEST BENGAL
BAY OF BENGAL
INDIA

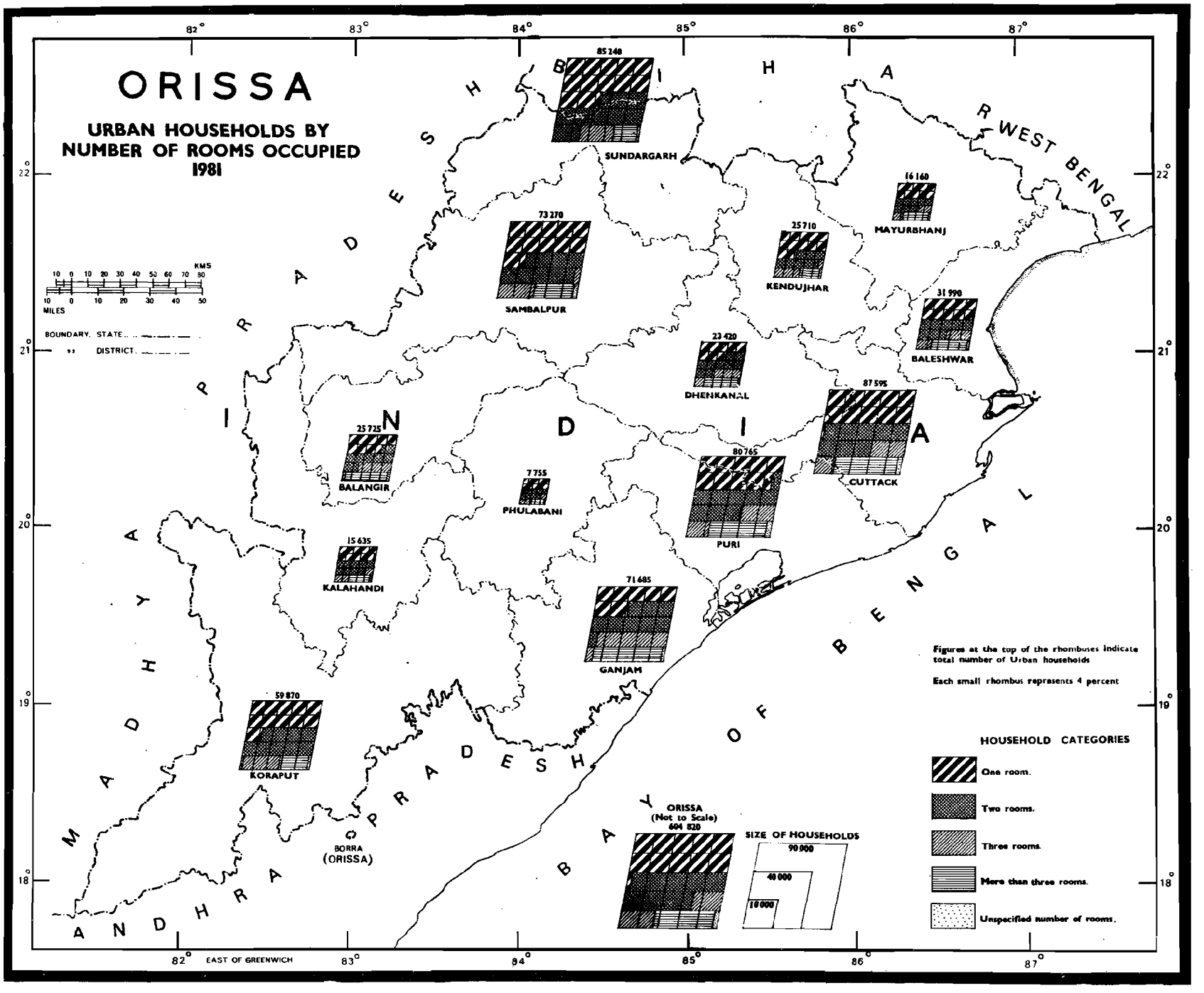
MAP No.92


ORISSA
AMENITIES IN RURAL HOUSEHOLDS
1981
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BARANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
KORAPUT
GANJAM
BERHAMPUR
(ORISSA)
ORISSA
4 356 825
Drinking water
Electricity
Without Amenities
Each small rhombus represents
10000 households.
Figures on the top of the rhombus indicate
total number of households
Each small rhombus represents
100000 households.
BOUNDARY: STATE
DISTRICT
MILES
KMS
EAST OF GREENWICH

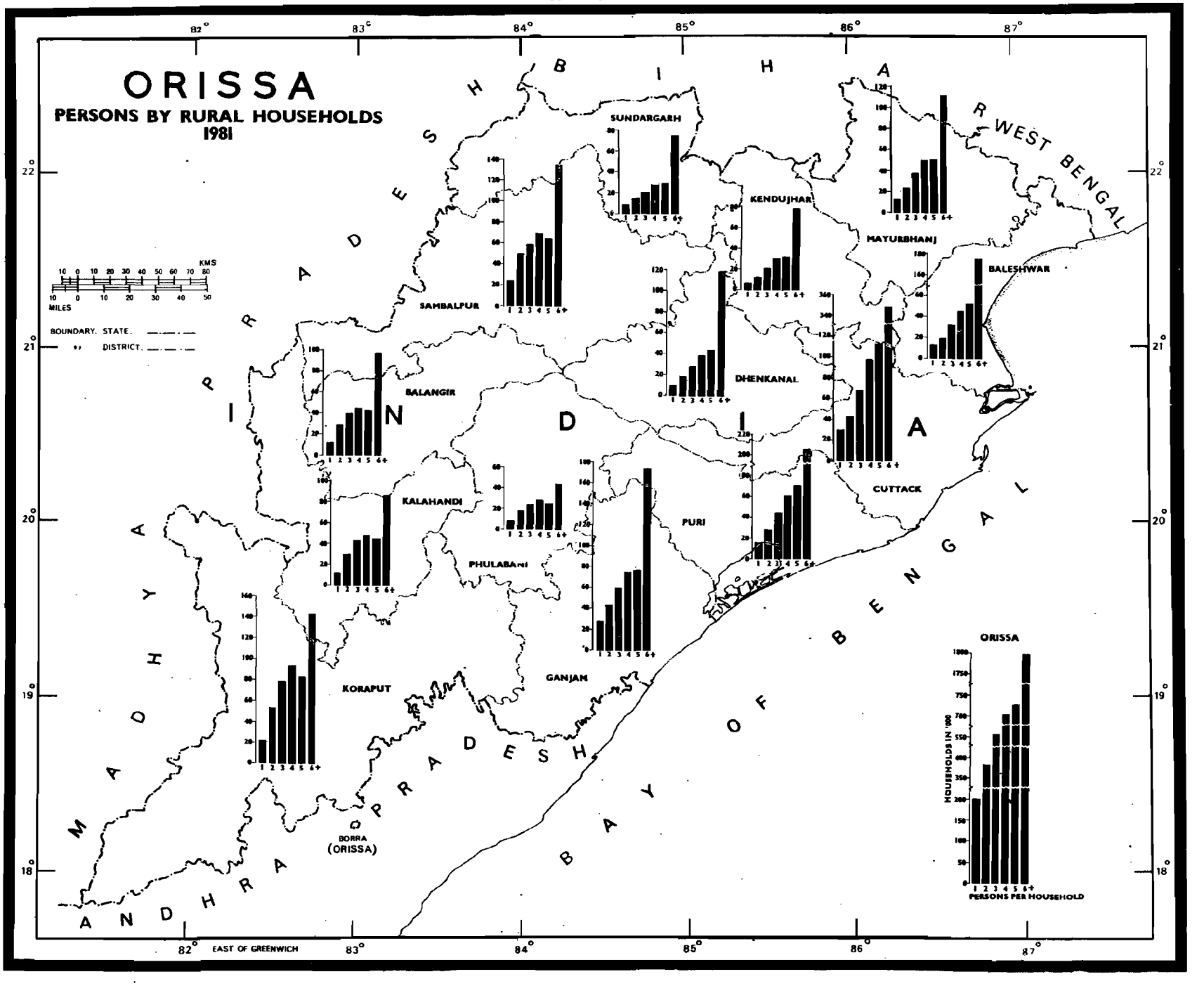
MAP No.93


ORISSA
RURAL HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
KMS
MILES
BOUNDARY: STATE
DISTRICT
1 75 345
SUNDARGARH
2 85 120
MAYURBHANJ
4 02 230
SAMBALPUR
1 81 100
KENDUJHAR
3 36 110
BALESHWAR
2 58 160
DHENKANAL
6 93 425
CUTTACK
2 65 975
BALANGIR
1 47 705
PHULABANI
4 24 105
PURI
2 63 195
KALAHANDI
4 52 420
GANJAM
4 71 935
KORAPUT
BORRA (ORISSA)
MADHYA PRADESH
ANDHRA PRADESH
BIHAR
WEST BENGAL
BAY OF BENGAL
INDIA
Figures at the top of the rhombuses indicate total number of Rural households
Each small rhombus represents 4 percent.
HOUSEHOLD CATEGORIES
One room
Two rooms
Three rooms
More than three rooms
Unspecified number of rooms
ORISSA
43 56 825
(Not to Scale)
SIZE OF HOUSEHOLDS
6 75 000
3 00 000
75 000
EAST OF GREENWICH

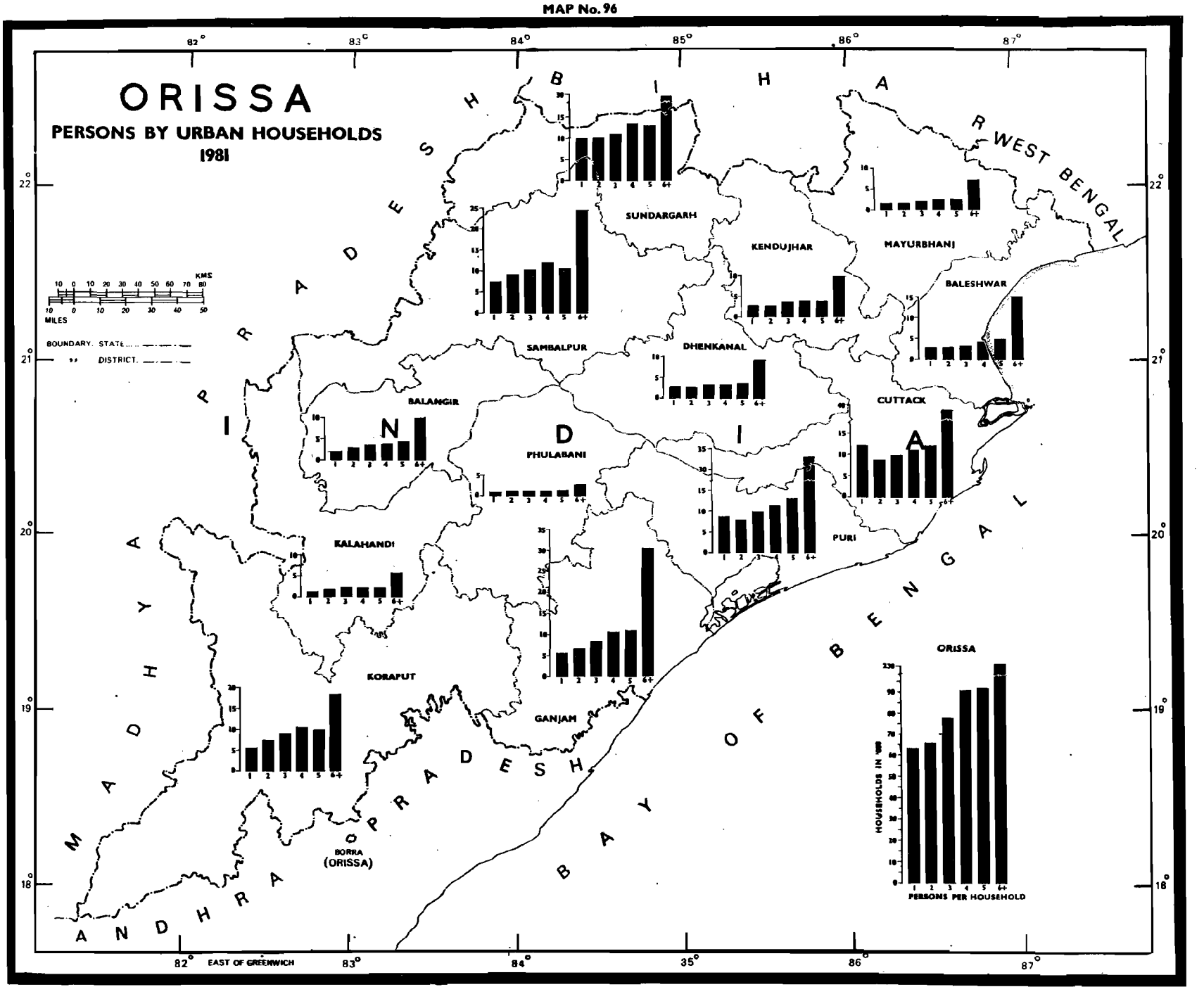
MAP No.94


ORISSA
URBAN HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH 85240
SAMBALPUR 73270
MAYURBHANJ 16160
KENDUJHAR 25710
BALESHWAR 31990
DHENKANAL 23420
CUTTACK 87595
BALANGIR 25725
PHULABANI 7755
PURI 80765
KALAHANDI 15635
GANJAM 71685
KORAPUT 59870
BORRA (ORISSA)
ORISSA (Not to Scale) 604 820
SIZE OF HOUSEHOLDS
90000
40000
10000
Figures at the top of the rhombuses indicate total number of Urban households
Each small rhombus represents 4 percent
HOUSEHOLD CATEGORIES
One room.
Two rooms.
Three rooms.
More than three rooms.
Unspecified number of rooms.
KMS
MILES
BOUNDARY. STATE
DISTRICT
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

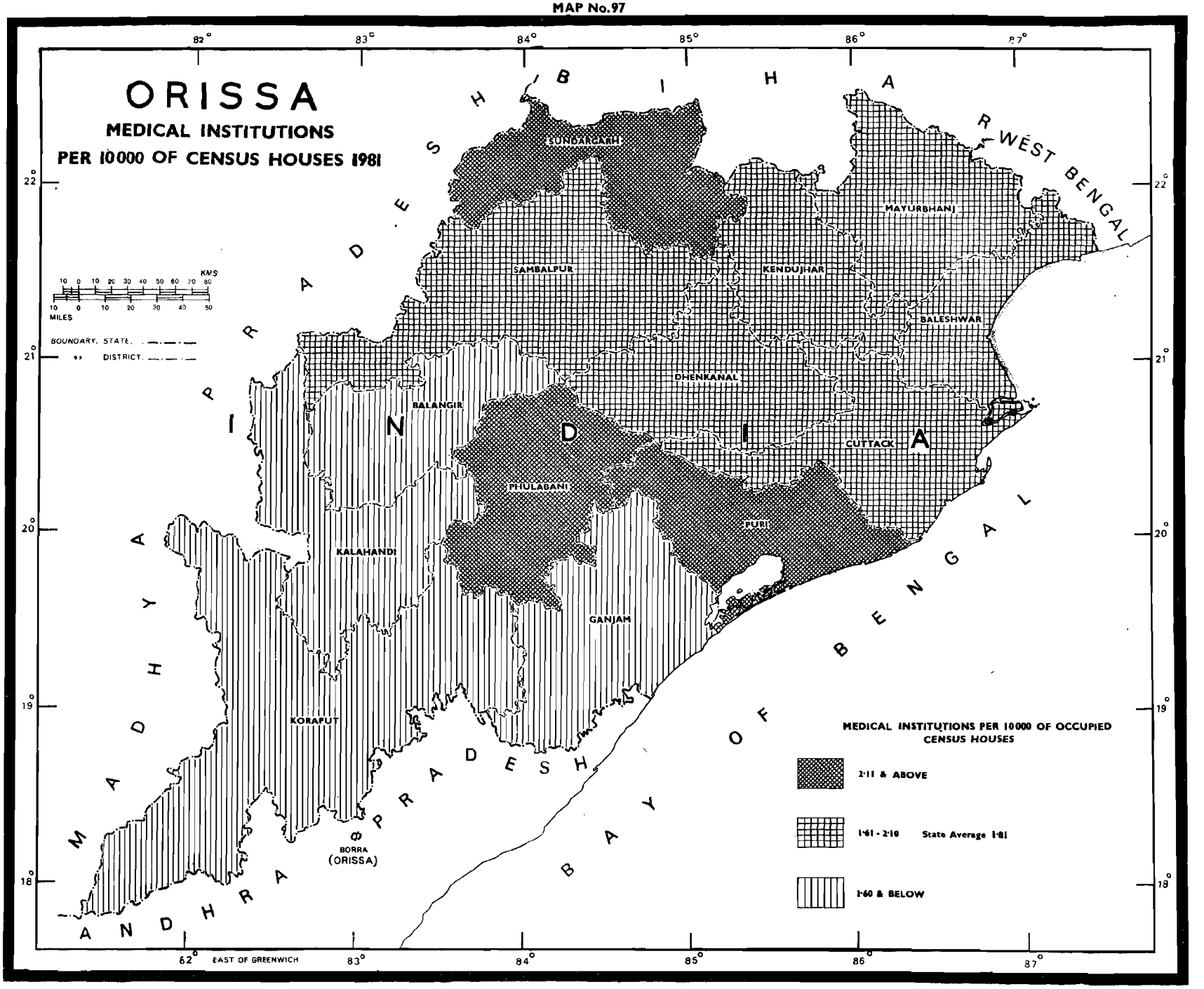
MAP No.95


ORISSA
PERSONS BY RURAL HOUSEHOLDS
1981
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
BALANGIR
DHENKANAL
CUTTACK
KALAHANDI
PHULABANI
PURI
KORAPUT
GANJAM
BORRA (ORISSA)
ORISSA
HOUSEHOLDS IN '000
PERSONS PER HOUSEHOLD
BOUNDARY. STATE.
DISTRICT.
MILES
KMS
EAST OF GREENWICH
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA

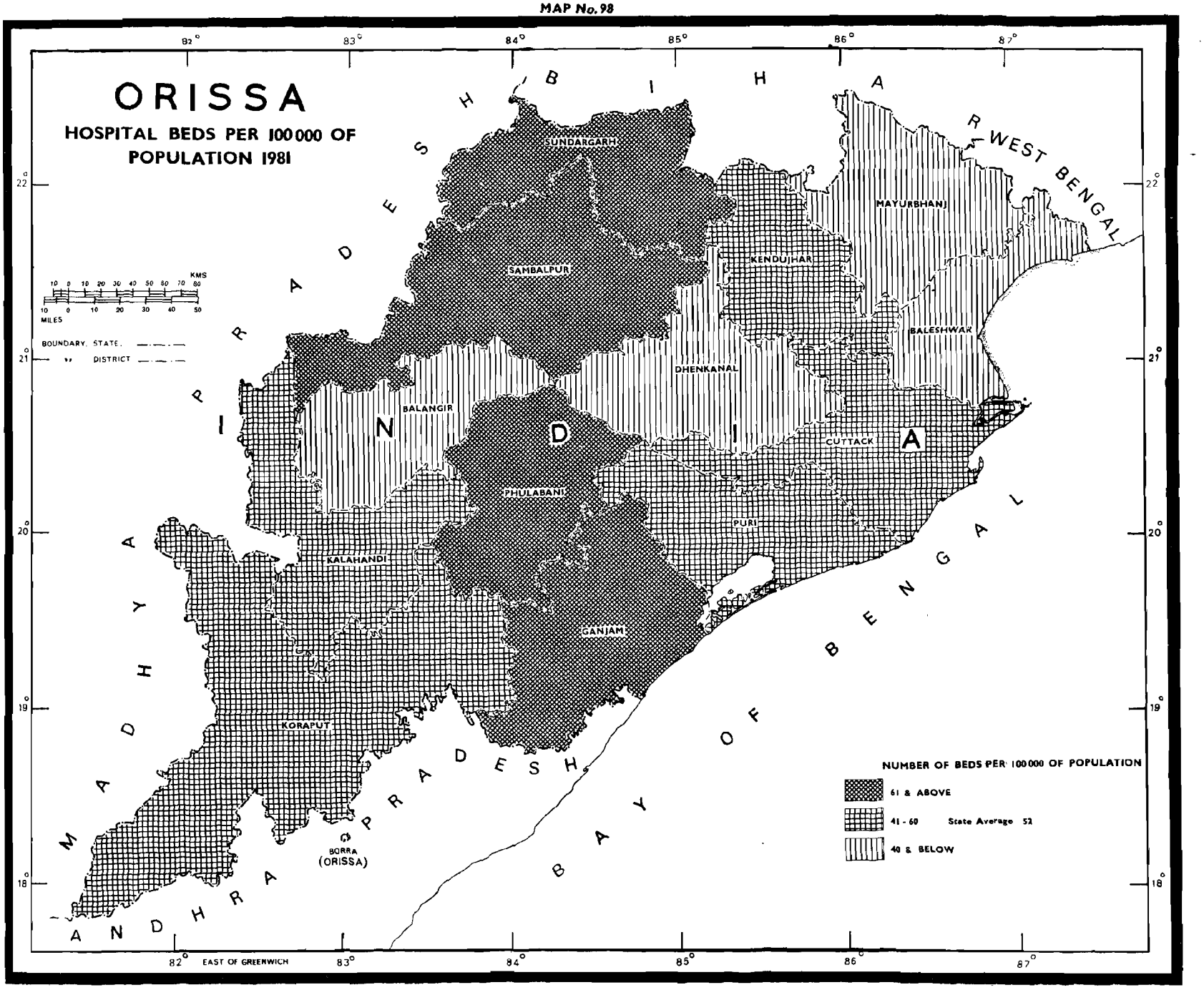
MAP No. 96


ORISSA
PERSONS BY URBAN HOUSEHOLDS
1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
KENDUJHAR
MAYURBHANJ
BALESHWAR
SAMBALPUR
DHENKANAL
BALANGIR
PHULABANI
CUTTACK
KALAHANDI
PURI
KORAPUT
GANJAM
BORRA (ORISSA)
ORISSA
HOUSEHOLDS IN '000
PERSONS PER HOUSEHOLD
BOUNDARY. STATE
DISTRICT.
MILES
KMS
82° EAST OF GREENWICH
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

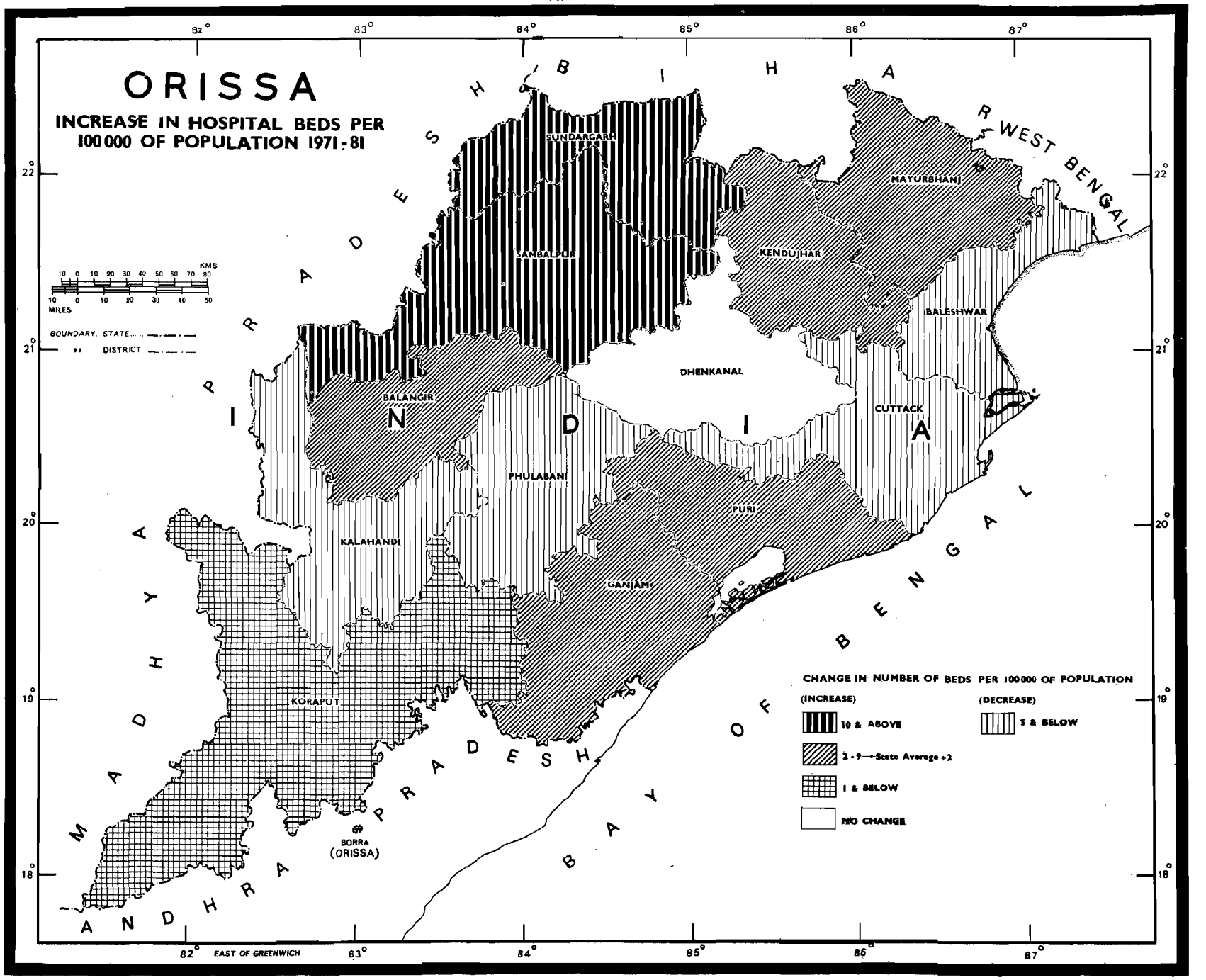
MAP No.97


ORISSA
MEDICAL INSTITUTIONS
PER 10000 OF CENSUS HOUSES 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
MEDICAL INSTITUTIONS PER 10000 OF OCCUPIED CENSUS HOUSES
2·11 & ABOVE
1·61 - 2·10 State Average 1·81
1·60 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

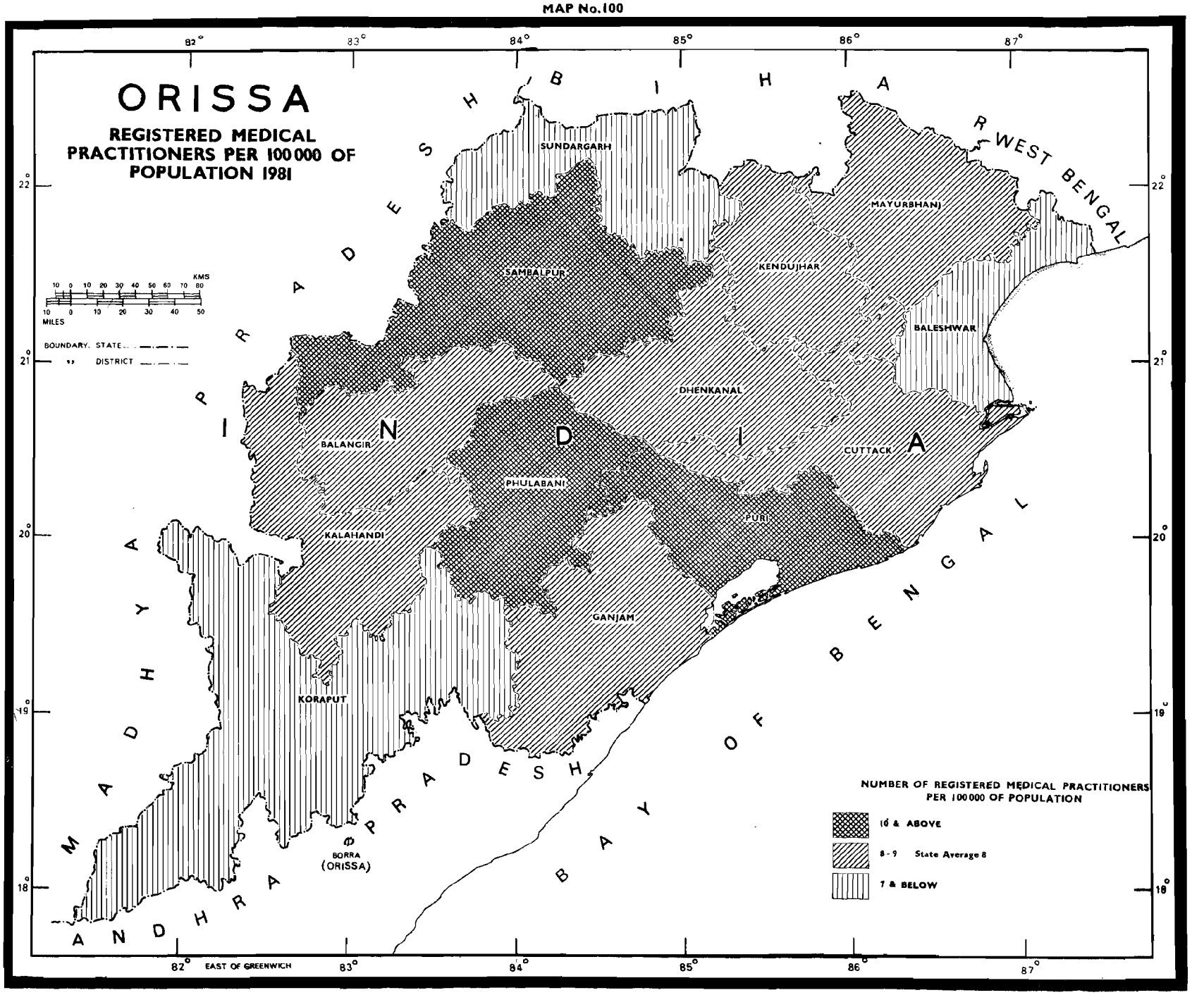
MAP No. 98


ORISSA
HOSPITAL BEDS PER 100000 OF POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY: STATE
DISTRICT
NUMBER OF BEDS PER 100000 OF POPULATION
61 & ABOVE
41 - 60 State Average 52
40 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

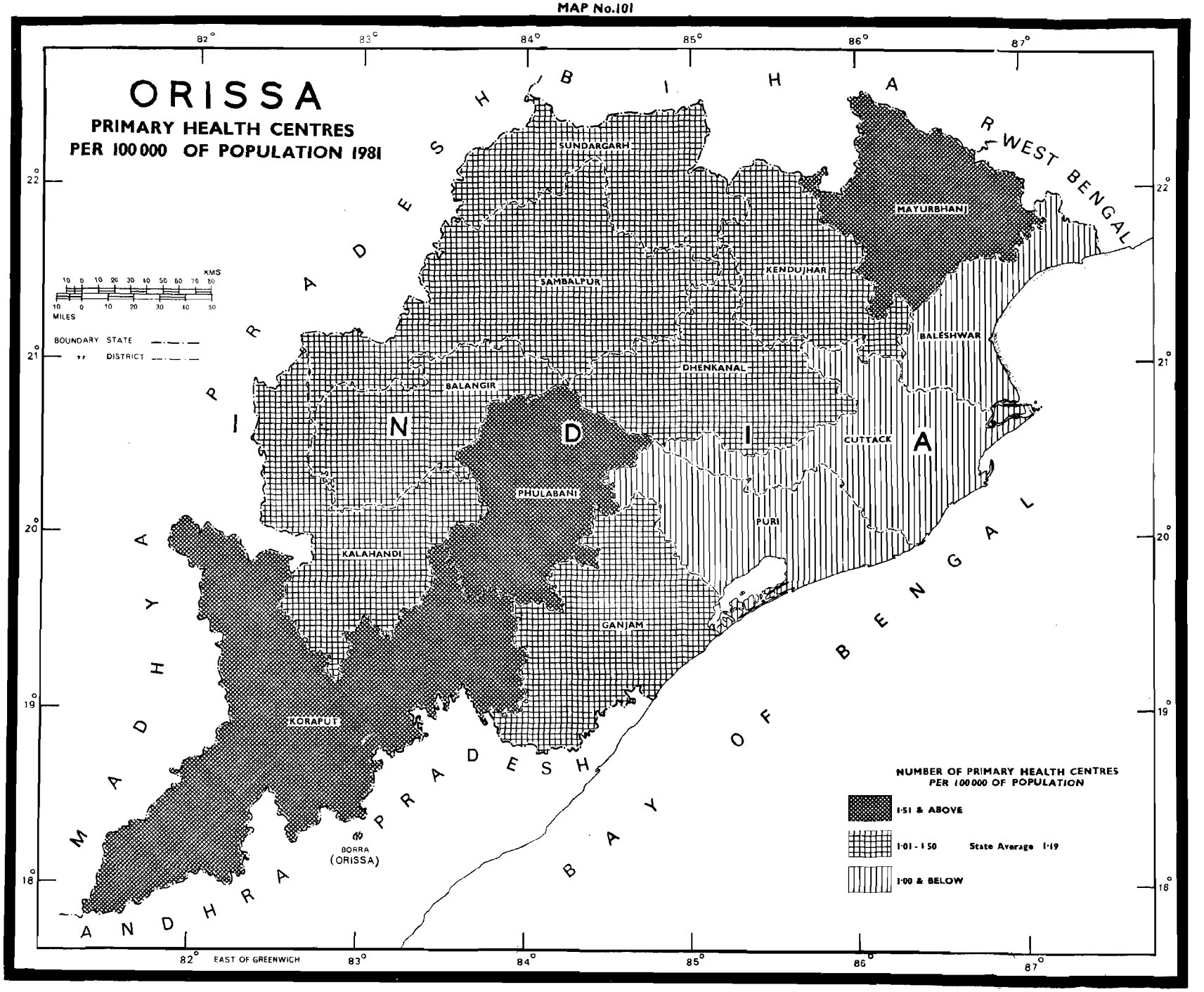
MAP No.99


ORISSA
INCREASE IN HOSPITAL BEDS PER 100000 OF POPULATION 1971-81
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY, STATE
DISTRICT
CHANGE IN NUMBER OF BEDS PER 100000 OF POPULATION
(INCREASE)
10 & ABOVE
1 - 9 → State Average +2
1 & BELOW
NO CHANGE
(DECREASE)
5 & BELOW
EAST OF GREENWICH

MAP No. 100


ORISSA
REGISTERED MEDICAL PRACTITIONERS PER 100000 OF POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
SUNDARGARH
SAMBALPUR
MAYURBHANJ
KENDUJHAR
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA (ORISSA)
KMS
MILES
BOUNDARY. STATE
DISTRICT
NUMBER OF REGISTERED MEDICAL PRACTITIONERS PER 100000 OF POPULATION
10 & ABOVE
8-9 State Average 8
7 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

MAP No.101


ORISSA
PRIMARY HEALTH CENTRES
PER 100000 OF POPULATION 1981
BIHAR
WEST BENGAL
MADHYA PRADESH
ANDHRA PRADESH
BAY OF BENGAL
INDIA
SUNDARGARH
SAMBALPUR
KENDUJHAR
MAYURBHANJ
BALESHWAR
DHENKANAL
BALANGIR
CUTTACK
PHULABANI
PURI
KALAHANDI
GANJAM
KORAPUT
BORRA
(ORISSA)
KMS
MILES
BOUNDARY STATE
DISTRICT
NUMBER OF PRIMARY HEALTH CENTRES
PER 100000 OF POPULATION
1·51 & ABOVE
1·01 - 1·50
State Average 1·19
1·00 & BELOW
EAST OF GREENWICH
82°
83°
84°
85°
86°
87°
22°
21°
20°
19°
18°

# ORIENTATION

MAP 1

## POSITION OF ORISSA IN INDIA 1981

This map presents the location of Orissa in India and the boundaries of all the states along with the name and location of their respective capitals. The state of Orissa is earmarked by hatching.

The state of Orissa is situated between 81°27' and 87°29' East longitudes and 17°49' and 22°34' North latitudes. It lies in the east coast of India and is bounded in the north by the state of Bihar, in the West by Madhya Pradesh, in the south by Andhra Pradesh and in the north-east by West Bengal. The state has 482 kilometers of coast line and extends over an area of 155,707 km$^2$. It occupies 4.74 per cent of the total area of India and 10th position among all the states of the country as regards to area.

At the 1981 Census, the state of Orissa had a population of 26,370,271 persons with 13,309,786 males and 13,060,485 females.

MAP 2

# ADMINISTRATIVE DIVISIONS 1981

This map presents the administrative set-up of the state of Orissa in 1981 in colour. The boundaries of tahasils and police stations and the location of the state capital, headquarters of the districts, tahasils and police stations are shown as per the legend given in the map.

For the administrative purpose the state of Orissa is divided into thirteen districts, one hundred fourteen tahasils, three hundred eight police stations and six urban units.

The name of the districts with their area in km$^2$, population, density of population, number of villages/towns are given below.

| Name of the State/District | Area in km$^2$ | Population | Density per km$^2$ | No. of Villages/Towns |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. ORISSA | 1,55,707 | 26,370,271 | 169 | 4,607,626/108 |
| 2. Sambalpur | 17,516 | 2,280,976 | 130 | 3,685/10 |
| 3. Sundargarh | 9,712 | 1,337,871 | 138 | 1,720/6 |
| 4. Kendujhar | 8,303 | 1,114,622 | 134 | 2,106/6 |
| 5. Mayurbhanj | 10,418 | 1,581,873 | 152 | 3,989/4 |
| 6. Baleshwar | 6,311 | 2,252,808 | 357 | 4,340/6 |
| 7. Cuttack | 11,142 | 4,628,800 | 415 | 6,602/9 |
| 8. Dhenkanal | 10,827 | 1,582,787 | 146 | 3,185/9 |
| 9. Phulabani | 11,119 | 717,280 | 65 | 3,651/3 |
| 10. Balangir | 8,913 | 1,459,113 | 164 | 2,741/7 |
| 11. Kalahandi | 11,772 | 1,339,192 | 114 | 2,840/5 |
| 12. Koraput | 26,961 | 2,484,005 | 92 | 6,294/14 |
| 13. Ganjam | 12,531 | 2,669,899 | 213 | 4,724/20 |
| 14. Puri | 10,182 | 1,430,834 | 287 | 5,010/9 |

MAP 3

# CHANGES IN ADMINISTRATIVE BOUNDARIES 1971-81

This map depicts the changes in administrative boundaries within Orissa, during the decade 1971-81.

The map of Orissa is drawn according to the 1981 jurisdiction of its districts, tahasils and police stations. The new administrative units which are carved out as well as the areas transferred from one administrative unit to the other, are shown with different shading for each unit as shown in the index.

No change took place in the state boundary as well as in the district boundaries during 1971-81. There are 114 tahasils and 308 police stations in 1981 as against 103 tahasils and 301 police stations in 1971.

The changes occurring in the boundaries of administrative units during 1971-81 are indicated as follows:

| Year | New administrative area created | Area transferred from one administrative unit to another unit |
|---|---|---|
| 1 | 2 | 3 |
| 1972 | (1) Paradip P.S. newly created by transfering 43 villages from Tirtol P.S. | — |
| | (2) Orkel P.S. newly created by transfering 84 villages from Chitrakonda P.S. and 11 villages from Malkangiri P.S. | — |
| 1973 | (1) Machhkund Tahsil newly created by transfering entire Padua P.S. Machhkund P.S. & 10 villages of Nandapur P.S. from Nandapur Tahasil | — |
| | (2) Khariar Tahasil newly created by transfering entire Khariar and Sinapali police stations from Nuapada Tahasil. | — |
| 1974 | (1) Jajapur Road P.S. newly created by transfering 42 villages from Sukinda P.S., 1 village from Korai P.S. and 10 villages from Dharamsala P.S. | — |
| | (2) Saheed Nagar P.S. newly created by transfering entire Capital P.S. and 5 villages from Bhubaneswar P.S. | — |

| 1 | 2 | 3 |
|---|---|---|
| 1975 | Basudebpur Tahasil newly created by transfering entire Basudebpur P.S. from Bhadrak Tahasil | |
| 1976 | (1) Sainkul P.S. newly created by transfering entire villages of Ramachandrapur P.S. | 1) 53 villages from Tirtol P.S. of Kujang Tahasil transferred to Balikuda P.S. of Jagatsinghapur Tahasil. |
| | (2) Daitari P.S. newly created by transfering of 31 villages from Harichandanpur P.S. | 2) 12 villages from Surada P.S. of Aska Tahasil transferred to Surada P.S. of Surada Tahasil. |
| | (3) Garabandha P.S. newly created by transfering 21 villages from Parlakhemundi P.S. and 89 villages from Ramagiri P.S. | |
| 1977 | (1) Attabira Tahasil newly created by transfering entire Attabira and Bheden P.S. from Bargarh Tahasil. | (1) 34 villages of Pattamundai P.S. of Pattamundai tahasil transferred to Aali P.S. of Aali tahasil |
| | (2) Binjharpur Tahasil newly created by transfering entire Binjharpur P.S. from Jajapur Tahasil. | (2) 18 villages of Koksara P.S. of Jayapatna tahasil transferred to Dharamgarh P.S. of Dharamgarh tahasil. |
| | (3) Chhendipada Tahasil newly created by transfering entire Chhendipada P.S. and 28 villages of Jarapada P.S. from Anugul Tahasil. | (3) 13 villages (11 villages of Purusottampur P.S. and 2 villages of Hinjili P.S.) from Chhatrapur Tahasil transferred to Kodala Tahasil. |
| | (4) Kantamal Tahasil newly created by transfering entire Ghantapura and Manamunda P.S. from Baudh Tahasil. | |
| | (5) Rampur Tahasil newly created by transfering entire Binika P.S. and 124 villages of Dunguripali P.S. from Sonapur Tahasil. | |
| | (6) Khalikote Tahasil newly created by transfering 82 villages from Chhatrapur Tahasil, (2 villages of Chhatrapur P.S., 9 villages of Purusottampur P.S. and 71 villages of Rambha P.S.) and 340 villages from Kodala Tahasil (20 villages of Purusottampur P.S., 143 villages of Kodala P.S., 177 villages of Rambha P.S.) | |

| 1 | 2 | 3 |
|---|---|---|
| | (7) Kodinga Tahasil newly created by transfering entire Kodinga P.S. and 1 village of Dabugan P.S. from Nabarangapur Tahasil. | |
| 1978 | Kashinagara P.S. newly created by transfering 81 villages from Parlakhemundi P.S. | 93 villages from Lanjigarh P.S. transferred to Narala P.S. |
| 1979 | Rajnagar Tahasil newly created by transfering entire Rajnagar P.S. from Kanika Tahasil. | 1) 12 villages of Katarbaga P.S. of Sambalpur Tahasil transferred to Jharsuguda Tahasil.<br>2) 5 villages of Raiboga P.S. of Panposh Tahasil transferred to Rajagangapur P.S. of Rajagangapur tahasil<br>3) 64 villages of Aali P.S. of Aali Tahsil transferred to Aali P.S. of Kanika Tahasil.<br>4) 59 villages from Ramagiri P.S. of Berhampur tahasil transferred to Ramagiri P.S. of Parlakhemundi tahasil. |

# PHYSICAL ASPECTS

MAP 4

# RELIEF AND DRAINAGE

This map depicts the physiographic details of Orissa. Altitudes of land above the mean sea level are shown by different hatchings as per the legend.

The average height of the Ganjam district is highest among the districts of Orissa. Major parts of the district is covered by the Eastern Ghats. Many of the peaks here stand above 1000 metres from the mean sea level. The highest peak is 1,501 metres situated at the south-east corner of the district.

The eastern part of Koraput, the southern parts of Phulabani and Ganjam and the central part of Mayurbhanj district come under the range of 900-1350 metres. The third range (600-900) covers parts of Koraput, Kalahandi, Ganjam, Phulabani, Mayurbhanj, Kendujhar and Sundargarh districts.

The areas lying at a height of 300-600 metres are noticed mainly in Koraput, Ganjam, Phulabani, Kalahandi, Dhenkanal and partly in Mayurbhanj, Kendujhar and Puri districts.

Many areas of Balangir, Kalahandi, Sambalpur, Sundargarh, Dhenkanal and some parts of Koraput, Phulabani, Ganjam, Kendujhar and Mayurbhanj districts lie at a height of 150-300 metres from the mean sea level.

The areas along the main river valleys (namely the Tel-Mahanadi, the Brahmani, the Baitarani, the Vamsadhara etc.) beyond the coastal region come under the range of 75-150 metres.

The coastal region lying upto a maximum height of 75 metres covers mainly the districts of Baleshwar, Cuttack, Puri and some parts of the Ganjam district. The region varies in width from 5 kilometres to more than 100 kilometres.

MAP 5

# RELATIVE RELIEF

This map depicts the relative relief in the state of Orissa. Five grades of hatching are provided on the legend of the map to distinguish the patterns of relief.

The highest area in the state is found at the extreme southern part of Ganjam district with an average height of 900 metres and above.

The areas covered by the range of 600-900 metres are found in the districts of Koraput, Ganjam, Phulabani, Mayurbhanj, Kendujhar and Sambalpur.

Major parts of Ganjam and Phulabani and small portion of Kalahandi, Koraput, Mayurbhanj, Kendujhar, Sundargarh and Sambalpur come under the range of 300-600 metres.

The areas in the range of 150-300 metres spread contiguously around the former region and cover almost all the districts of the state.

The lowest range (0-150 metres) covers maximum areas among the ranges. Almost whole of the districts of Baleshwar, Cuttack, Puri, Sundargarh and Balangir and portion of the rest of the districts are covered by this range.

Readers may find this useful with reference to the map on relief and drainage for better understanding of the physiography to assess the distribution of population in the state.

MAP 6

# NORMAL MONTHLY AND ANNUAL RAINFALL

This map depicts the normal monthly and annual rainfall in Orissa in millimetres as per legend of the map.

The map reveals that the northern part of the state receives the highest amount of rainfall (above 1600 mm). The districts of Sundargarh, Sambalpur, Kendujhar, Mayurbhanj and Baleshwar come under this region. The intensity gradually decreases towards south resulting a low rainfall (below 1400 mm) in central Kalahandi, north-east Koraput and southern part of Ganjam districts and then again increases towards south-west causing rainfall upto 1550 mm in the south-west Koraput.

On an average the rainy season in Orissa extends from June to September. While the northern districts, namely, Sambalpur, Sundargarh, Kendujhar, Mayurbhanj and Baleshwar experience heavy rainfall in the months of June and July, the others experience it in the months of August and September. Kalahandi district records the highest rainfall (551 mm) and Kendujhar the lowest (190.2 mm) in the state.

The northern districts get rainfall earlier from the wind of the Bay of Bengal branch even to the commencement of the monsoon. The southern districts get the rainfall mainly from the Arabian sea branch that moves a longer distance over the Deccan plateau and causes rainfall over the south-western districts of Orissa. The north-east monsoon causes little rainfall in the north-eastern part of the state. During March-May some conventional type of rainfall occur in the north-eastern part due to local depressions locally known as Kalbaishakhi (Norwesters). During September-October some cyclonic rainfall also occurs in northern Orissa from the late monsoons.

MAP 7

# NORMAL MONTHLY AND ANNUAL TEMPERATURE

This map depicts the normal monthly and annual temperature of the state of Orissa in centigrades as per the legend of the map.

A few selected meteorological stations are shown in the map by bar diagrams showing the variations in normal monthly temperature during the year.

Orissa comes under tropical Savanna climate where mean January temperature varies between 22.0°C and 23.15°C and mean July temperature is 24.40°C and 29.15°C.

The maximum annual average temperature of 28.0°C and above is experienced in the western part of Sambalpur and Balangir and northern part of Kalahandi districts, with highest figure in Balangir (34.7°C).

The region along the Mahanadi valley, partially including the districts of Sambalpur, Balangir, Dhenkanal, Cuttack and Puri and a few pockets in the north as well as in the south experience the next higher range of 27.0°-28.0°C.

It is followed by the next lower range (26.0°-27.0°C) entirely covering the districts of Kendujhar, Baleshwar and partly the districts of Mayurbhanj, Sambalpur, Sundargarh, Koraput, Ganjam, Cuttack and Puri.

Eastern part of Phulabani, western pocket of Puri, northern pocket of Ganjam and the south-western half of Koraput district experience the lowest average annual temperature (less than 25.0°C) in the state.

MAP 8

# SOILS

This map depicts the various soils sub-order associations that prevail in Orissa. The map also shows the approximate traditional nomenclature of the soils. The newly developed sub-order associations of soil characteristics are shown by numbers according to the original map for reference. These sub-order associations have been categorised into seven groups which are shown by different hatchings on the map as per the legend.

The most common and widely spread sub-order associations are *Ustalfs* (7), *Ustalfs-Ochrepts* (9), *Ustalfs-Ochrepts-Aquepts* (11), *Ustalfs-Rock Outcrops* (15), *Ustalfs-Aqualfs-Ochrepts* (17) and *Ustalfs-Ochrepts-Orthents* (18). These are high base status soils and are mainly red in colour with varying texture of loam to sandy loam. These soils are specially suitable for cultivation of paddy, fruits, vegetables and mustard. These soils cover almost all the districts of the state.

The next predominant group has the following sub-order associations: *Aqualfs-Aquepts* (1), *Aqualfs-Aquepts-Udalfs* (2) and *Aqualfs-Ustalfs* (3). These are basically high base status hydromorphic soils together with red loamy, red sandy and alluvials soils of humid regions. These are spread over the parts of Mayurbhanj, Kendujhar, Dhenkanal, Sundargarh, Sambalpur, Balangir, Kalahandi and Koraput districts.

The third predominant soils in the state are the *Aquepts-Aquents* (63). They are basically composed of coastal alluvials and brown soils of hydromorphic origin. These types of soils are found mainly in the districts of Baleshwar, Cuttack, Puri and partly in south-east Dhenkanal. They are unsuitable for agriculture due to high content of salinity specially along the coast but away from the coast they are very fertile and very much suitable for agriculture provided irrigational facilities are available. Besides, paddy, coconuts are grown abundantly in these soils.

The soil units *Orthents-Tropepts-Rock outcrops* (55) and *Orthents-Ochrepts-Ustalfs* (59) are found in Koraput, Ganjam, Mayurbhanj and Kendujhar districts. These are recently formed soils and are composed of shallow black, brown and alluvial soils.

In *Orchrepts-Orthents (72) and Ochrepts-Orthents-Aquents* (81) associations, the soils are mostly coarse loamy to fine loamy and are found partly in Baleshwar, Kendujhar, Cuttack, Puri and Ganjam districts.

*Fluvents-Aquepts-Aqualfs* (46) and *Fluvents Psamments-Orthents* (50) are found at the deltaic region of the Mahanadi and along the lower Subarnarekha valley. These recent alluvial deposits are of medium to fine grain in texture and composed of mainly high base status and brown soils of hydromorphic origin occasionally mixed with sandy soils of recent origin. They are less fertile and porous in nature.

The soil unit Psamments (35) is found near the coast in the south-west part of Ganjam district. The soil is mostly sandy with moderately coarse to medium texture in general.

MAP 9

# FORESTS

This map depicts the forest types available in the state and their distribution. The forest regions are demarcated on the map by various grades of shading in colour as shown under reference.

Broadly there are five types of forests found in Orissa. They are:

1. Tropical dry-deciduous forest
2. Tropical moist-deciduous forest
3. Littoral and swamp forest
4. Tropical dry-evergreen forest,
5. Tropical semi-evergreen forest

Tropical dry-deciduous—This type of forests are seen mainly in Balangir, Sambalpur, Sundargarh, Dhenkanal, Kendujhar, Puri, Cuttack and Mayurbhanj districts.

2. Tropical moist-deciduous—This type of forests are found mainly in the Southern Highlands of Orissa, namely, in the districts of Koraput, Kalahandi, Phulabani, Ganjam and Kendujhar districts of northern Orissa. These forests are mainly composed of sal and teaks.

3. Littoral and Swamp—This type of forests are found in the coastal areas of Puri and Cuttack districts. They are mainly composed of rasuarinas and scrubs.

4. Tropical dry-evergreen—This type of forests are very uncommon in the state. Only a small patch of dry evergreen forest is found in the northern part of Khordha P.S. of Puri district.

5. Tropical semi-evergreen—This type of forests are found only in Similipal plateau of Mayurbhanj district at a higher level.

# DEMOGRAPHIC STRUCTURE AND TRENDS

MAP 10

# DISTRIBUTION OF POPULATION 1981

This map shows the distribution of rural and urban population of Orissa, 1981

The rural population has been shown in black dots, each representing 5,000 persons and the urban population by red squares proportionate to the size class of population of each urban centre. The squares are shaded with transparent light red colour. The rivers are shown in blue with their names and three important contour lines are shown in brown colour.

The rural population as recorded in 1981 Census is 23,259,984 persons or 88.21 per cent of the total population of 26,370,271 in Orissa. In 108 towns of Orissa 3,110,287 persons are registered as urban population and constitute 11.79 per cent of the total population of the state.

The map reveals that majority of population inhabit in coastal districts and along the main river basins of the state. Most of the urban centres are situated along the banks of the rivers of the Mahanadi, the Brahmani, the Baitarani, the Rushikulya, the Vamsadhara, the Subarnarekha, the Burhabalanga, the Salandi, the Nagavali, the Kolab, the Indravati, the Bhaskel, the Tel, the Indra, the Suktel, the Ong and the Ib.

MAP 11

# DENSITY OF POPULATION 1981

This map depicts the variations in concentration of population per $km^2$ in each police station of the state in 1981.

The total population of each police station is divided by its total area (in $km^2$) to obtain the density figures of each police station. Density figures for 308 police stations and 6 'entirely urban' units of the state are calculated separately and grouped into five suitable ranges, three above, one nearer to and one below the state average (169). Choropleth technique has been followed in shading the police station as per the index of the map.

The total population of Orissa in 1981 is 26,370,271 and its area is 155,707 $km^2$. Thus the average density of population of Orissa is 169 as against the national average of 216 (excluding Assam). 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. There are 29 police stations which are coming under the first range of density (471 and above).

As many as 31 police stations come under the next range (351-470). There are 42 police stations that come under the third range (241-350).

Sixtyeight police stations come under the range of '151-240' which are nearer to the state average of 169 whereas 144 police stations come below the state average in the range of '150 and below'.

MAP 12

# INTER-CENSAL CHANGE IN POPULATION 1971-81

This map presents the percentage of change (increase or decrease) in population during 1971-81 for each police station of the state.

The percentage change in population of each police station during the decade 1971-81 is calculated keeping in view the 1981 administrative set up and the percentage values thus obtained are grouped into five ranges for increase and one range for decrease. In the percentage gain, the five ranges are as follows, one above (25.01 and above) one nearer to (20.01-25.00) and three below (15.01-20.00), (10.01-15.00) and (10.00 and below) the state average. The percentage decrease is shown in one range of "25.00 and below".

As per 1981 Census, the total population of the state is 26,370,271 while in 1971 the population was 21,944,615. Thus there is a net increase of 4,425,656 in 1981 over 1971 population. The percentage change in population of the state during the decade is +20.17.

There are 308 police stations and 6 'entirely urban' units in the state in 1981. The percentage gain is noticed in almost all the police stations except in the Chitrakonda P.S. (-24.45) of Koraput district and Raruan P.S. (-0.34) of Mayurbhanj district where percentage decrease in population is noticed.

As many as 62 police stations in the state come under the highest range of population growth (25.01 and above) 54 police stations come under the second higher range (20.01-25.00) in which state average of +20.17 falls, 95 police stations fall in the third higher range (15.01-20.00), 66 police stations fall in the range of (10.01-15.00), and 37 police stations come under the lowest range of percentage of growth of (10.00 and below).

MAP 13

# GROWTH OF POPULATION 1901-1981

This map depicts the decadal growth of population during 1901-81 in each district of the state.

Histograms consisting of bars proportionate to the absolute rural and urban population of each Census Year from 1901-81 are shown on the map for each district of the state. The urban and rural bars are drawn overlapping each other. These bars are further divided proportionately into male and female population of each Census Year. The male proportion of the bar is shown in solid black colour and the female proportion is shown in hatching as per index. An absolute scale is drawn on the right side and the Census Years are shown at the bottom of each histogram.

During the decades of 1901-81 the total population of the state was 10,302,917 in 1901, 11,378,875 in 1911, 11,158,586 in 1921, 12,491,056 in 1931, 13,767,988 in 1941, 14,645,946 in 1951, 17,548,846 in 1961, 21,944,615 in 1971 and 26,370,271 in 1981.

During the decade 1911-21 there was a decrease in the population of 220,289. A remarkable increase in population is noticed during the decade 1961-71, with an increase of 4,395,769 and during the decade 1971-81 with an increase of 4,425,656 persons.

As regards to districts the growth of population during the decades seems to be steady except 1911-21. During 1911-21, there was a decrease of population in 6 of the districts. In the remaining 7 districts the growth was not remarkable except Sambalpur. A steady growth is noticed in almost all the districts during the decades 1961-71 and 1971-81.

MAP 14

# FERTILITY 1981

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

The ratio of children in age 0-4 per 100 women in age-group 15-44 is calculated for each district of the state. These ratio figures are suitably grouped into five ranges, two above, one nearer to and two below the state average of 55.52. Each district is shaded using the choropleth technique as per the index.

There are as many as 3,119,425 children in age-group 0-4 and 5,618,495 women in age-group 15-44 of the state as per 1981 Census. The ratio of these children to 100 of these women in the state is calculated as 55.52.

A glance on the map reveals that Sundargarh, Baleshwar and Dhenkanal are in the highest range of fertility (57.00 & above) whereas Cuttack and Ganjam are in the next below range (56.06-56.99).

The districts of Kendujhar, Balangir and Kalahandi are in the range of fertility which is nearer to state average 55.00-56.05.

The districts of Sambalpur, Phulabani and Puri come under the fourth range (51.51-54.99) and the districts of Mayurbhanj and Koraput come under the last range of fertility (51.50 and below).

MAP 15

## EVER MARRIED WOMEN AND TOTAL CHILDREN BORN TO THEM 1981

This map depicts the ratio of children ever born per 100 total ever married women for each district of the state.

The number of total children ever born per 100 total ever married women are calculated and the ratio figures thus obtained are grouped into five suitable ranges, two above, one nearer to and two below the state average 341. Each district is shaded using the choropleth technique as per the legend.

There are as many as 23,237,502 ever born children and 6,812,067 ever married women in the state. The ratio of their children per 100 of these women in the state is 341.

The districts of Baleshwar and Dhenkanal have the highest ratio of ever born children per 100 ever married women and come under the first range (370 and above). Districts of Cuttack, Kendujhar and Ganjam come next which are above the state average 341. The districts of Puri, Sundargarh and Kalahandi come under the third range (328-349), Phulabani, Mayurbhanj and Balangir districts come under the fourth range (310-327) and in the lowest range (309 and below) the districts of Sambalpur and Koraput are recorded.

MAP 16

## SEX RATIO 1981

This map depicts the sex ratio (females per 1000 males) in each police station of the state in 1981.

The sex ratio is calculated dividing the number of females by number of males and multiplying by 1000 for each police station. The sex ratio values thus obtained are grouped into five suitable ranges two above, one nearer to and two below the state average of 981. The police stations according to the range of sex ratio values are shaded by different hatchings as per the index. The highest range of 1026 and above is shown in solid black.

There are 36 police stations in the state shown in the highest range of 1026 and above, 76 police stations shown in the second highest range of 1001 to 1025. Similarly 103 police stations and the state average fall in the third range of 976-1000, 54 police stations in the range of 951-975 and 39 police stations and 6 urban units come under the lowest range of 950 and below.

Ganjam district has 11 police stations in the highest range and 10 police stations in the second highest range. Out of 23 police stations of the district 21 police stations have the sex ratio above the equality figure (1000). Such high ratios are not recorded in any other districts of the state.

MAP 17

# CHANGE IN SEX RATIO 1971-81

This map shows the sex ratio of each police station of the state for the decade 1971-81 on 1981 administrative set-up.

The sex ratios (females per 1000 males) for 1971 and 1981 have been calculated separately for each police station. The ratios thus obtained for both the census years are grouped separately into different grades. The police stations are hatched in black with different grades of hatching for 1981 and in transparent green colour with different depths for 1971. In the legend as well as on the map "Entirely Urban" is shown as 'EU', "Entirely Rural" as 'ER', "Area lost urban status in 1981" as 'L', 'Sex Ratio constant' as 'C' and "Area graded first time in Urban" as 'A'.

There has been a slight decline in sex ratio from 988 to 981 during 1971-81 in the state.

There are 8 districts where the decline in sex ratio during 1971 have been observed and the maximum declination in sex ratio is noti in the district of Dhenkanal, where sex ratio declined from 977 to followed by Puri (977 to 960), Cuttack (986 to 972), Sundargarh (94 931), Ganjam (1042 to 1031), Sambalpur (977 to 972) and Balangir ( to 992).

Only in Kalahandi district no change in sex ratio (1010) is noti during 1971-81.

There are four districts where the increase in sex ratio is noti during 1971-81. Among them the Koraput has the maximum increase fi 980 to 993 followed by Kendujhar (977 to 983), Baleshwar (972 to 9 and Mayurbhanj (987 to 989).

MAP 18

# RURAL SEX RATIO 1981

This map depicts the sex ratio in rural areas of each police station as per the 1981 Census.

The sex ratio is calculated in respect of rural part of each police station as follows:

$$\text{Sex Ratio} : \frac{\text{Number of Females}}{\text{Number of Males}} \times 1000$$

The sex ratio values thus obtained are grouped into five suitable ranges, two above, one nearer to and two below the state average of 999. Of these five ranges, the highest range of 1026 and above is shown in solid black where as other four ranges are shown in different grades of hatching from high to low intensity using choropleth technique as shown in index. The entirely urban units are shown as 'EU' on the map as marked in the index of the map.

There are 46 police stations where the rural sex ratio is in the range of 1026 and above and 78 police stations are in the range of 1001-1025. Both the above said ranges are higher than the equality figure of 1000. There are 114 police stations coming in the range of 976-1000 which is nearer to the state average of 999. Fortyeight police stations are coming in the next below range of 951-975 and 22 police stations in the lowest range of 950 and below.

Ganjam district has the highest number of 14 police stations where the rural sex ratio is 1026 and above.

The highest number of police stations (5) coming under the lowest range of 950 and below are found in Cuttack district.

MAP 19

# CHANGE IN RURAL SEX RATIO 1971-81

This map depicts the change in rural sex ratio during 1971-81 for each police station in the state.

The rural sex ratio (females per 1000 males) for 1971 and 1981 are calculated separately. The ratios thus obtained are grouped into suitable ranges separately. The ranges for 1981 are shown in black hatching of different depths whereas the ranges for 1971 are shown in different shades of transparent green colour from high to low intensity. Two separate legends are shown on the map side by side for 1971 and 1981 respectively. "Entirely Urban", "Entirely rural", "Area lost urban status in 1981", "Sex ratio constant" are shown by symbols in the map as marked in the legend.

The sex ratios thus obtained for 1971 and 1981 are grouped into five suitable ranges for 1971 and 1981 separately, two above, one nearer to and two below the state average.

There are 308 police stations in the state with a total rural population of 23,259,984 in 1981 as against 301 police stations with a rural population of 20,099,220 in 1971. The average number of females per 1000 males stood at 1002 in 1971 which declined to 999 in 1981 in rural areas of the state. Out of 301 police stations in 1971, highly female concentration was noticed in 142 police stations whereas out of 308 police stations in 1981, the number of females predominates that of males in 106 police stations. There were 6 police stations in 1971 where the numbers of male and female were equal whereas in 1981 such police stations are only two in which numbers of males and females are at par.

There were 151 police stations in 1971, in which low sex ratios are recorded. Similarly in 200 police stations of 1981 low sex ratios are exhibited.

In 1971 high intensity of transparent green colour is shown in 29 police stations whose range is "1036 and above" while in 1981 only 21 police stations are hatched under this range.

In the second range (1011-1035) 65 police stations come in 1971 as against 68 police stations of 1981. As many as 112 police stations of 1971 and 102 police stations of 1981 come under the third range (986-1010). The fourth range (961-985) covered 78 police stations in 1971 and 83 police stations of 1981. The lowest range (960 & below) covered 24 police stations of 1971 and 34 police stations of 1981.

MAP 20

# URBAN SEX RATIO 1981

This map depicts the sex ratio (females per 1000 males) in urban area of Orissa in 1981.

Urban sex ratio of each police station has been calculated as follows:—

$$\text{Sex ratio} : \frac{\text{Number of females}}{\text{Number of males}} \times 1000$$

The values thus obtained are grouped into five suitable ranges, two above, one nearer to and two below the state average 859. The first range (1001 and above) above the equality figure (1000) is shown in solid black, all other four ranges are shown in different types of shading from high to low intensity by using choropleth technique. The police stations without urban population are left blank and shown in the legend as "Entirely Rural".

As per 1981 Census, there are 1,673,382 males and 1,436,905 females living in the urban areas of the state which constitute sex ratio of 859 females per 1000 males.

High sex-ratio values above the equality figure of 1000 are found in Kotpad police station (1055) of Koraput district, followed by the police stations of Bellaguntha (1047), Kodala (1034), Kashinagar (1032), Buguda (1024), Rambha (1007) and Suruda (1004) in Ganjam district and Junagarh police station (1012) in Kalahandi district.

Tarbha in Balangir district is the only police station whose urban sex ratio is 1000.

The lowest urban sex ratio '554' is noticed in the Paradip police station of Cuttack district.

MAP 21

# CHANGE IN URBAN SEX RATIO 1971-81

This map depicts the change in Urban sex ratio during 1971-81 on 1981 administrative set-up for each police station in the state.

The urban sex ratio (Females per 1000 males) for 1971 and 1981 are calculated separately on 1981 administrative set-up for each police station. The figures thus obtained are grouped into suitable ranges. The ranges for 1981 Census are shown in black hatching of different depths whereas the ranges for 1971 Census shown in different shades of transparent green colour from high to low intensity. Two separate legends are shown on the map side by side for 1971 and 1981. "Entirely rural", "Entirely Urban" and "Area graded first time in urban" are shown by symbols in map as given under the legend. Where the changes in sex ratio during 1971-81 is nil or constant the same is also specified suitably on the map.

The sex ratios for 1971 and 1981 are grouped separately into five ranges each for 1971 and 1981. The ranges are three above, one nearer to and one below the state averages of 845 and 859 respectively for 1971 and 1981.

There are 108 urban units in 95 police stations and 6 entirely independent urban units with urban population of 3,110,287 in 1981 as against 81 urban units with an urban population of 1,845,395 in 1971. The state average of females per 1000 males in urban areas was 845 in 1971 and 859 in 1981. Gain in same ratio is fourteen during the decade.

The females surplus regions were located in 4 urban units of which three are in Ganjam and one is in Koraput district in 1971 whereas in 1981 such urban units are five of which three are also in Ganjam and one each in Koraput and Kalahandi districts. In 1981 there are as many as 56 police stations where the sex ratios are above, 28 police stations in which sex ratios are nearer to and in 17 police stations sex ratios are below the state average 859. Whereas in 1971 out of 81 police stations 62 police stations were above and 19 were below the state average 845.

Only in Padmapur police station of Sambalpur district no change in sex ratio is noticed during the decade 1971-81.

MAP 22

# SEX AND AGE STRUCTURE 1981

This map shows the sex and age structure of males and females for the state and each district in 1981.

Horizontal bars in pyramids of each district are drawn proportionate to the total population of the district in each age-group 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 right side of the vertical line of the pyramids. The scales are given both in percentage and absolute figures at the top and bottom of the pyramids respectively. Age groups of the pyramids are shown as per the pyramid of the state. The male and female population are grouped into five categories *viz.*, infants (0-4 age), boys and girls (5-14 age), youngmen and women (15-34 age), middle-aged men and women (35-59 age) and old men and women (age 60+) are shown as per the index.

A common feature in the age structure is the broad foundation constituted by the section of boys and girls (5-9 and 10-14) and subsequent age-group 0-4 of infants. The top bar representing old men and women (age 60+) is comparatively longer than the immediate below age-groups in the districts.

MAP 23

# CHANGE IN SEX AND AGE STRUCTURE 1971-81

This map exhibits the change in sex and age structure of population in each district of the state during the decade 1971-81.

Two age pyramids for 1971 and 1981 for each district of the state are drawn. Horizontal bars of the pyramids are proportionate to total population of the district in each age-group 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 scale for absolute figures are given at the bottom of the pyramid. Pyramids of 1981 have been shown in lemon colour and that of 1971 are hatched in black colour. Pyramids of 1971 are super imposed over 1981 pyramids.

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-groups 5-9 and 10-14. Age-groups above 10-14 and upto 55-59 usually follow a tappering pattern with slight deviation. The top bar representing the age 60+ is comparatively larger.

In Orissa state, the population of male and female in different age-groups have increased considerably in 1981 as against the corresponding population in 1971. The maximum increase is noticed in age-groups (5-9), (10-14), (15-19) and (20-24) in the state as well as in most of the districts. The population in age-group (60+) is shown an eye catching increase in all the districts and the state.

**MAP 24**

# MARITAL STATUS 1981

The map illustrates the marital status of males and females for the state and the districts.

In this map, the marital status *viz.* (1) never married, (2) married (3) widowed and (4) others according to their absolute number in each district are shown in one set of two bars overlapping each other, one for males and another for females for each marital status. The slant hatching is given inside the bar for males whereas dots are given for females. The numerical code for marital status given on the bottom and the absolute scale is indicated on the left side of the bar diagram.

While analysing the marital status in different groups, it has been observed that the Cuttack district has the maximum number of "never married" males as well as females numbering 1,347,586 males and 1,098,520 females respectively. Phulabani district has the lowest number of males and females belonging to "never married" group. In case of Marital Status of 'married', also Cuttack district has the highest number of persons, *viz.*, 930,968 males and 969,459 females and Phulabani has the lowest number of population having 153,306 males and 151,780 females. There are 65,029 males and 210,501 females widowed in Cuttack district which is also the highest in the state and Phulabani has the lowest number of widowed numbering 8,702 males and 34,605 females. In respect of "others", Koraput district has the highest number of persons having 9,139 males and 8,935 females whereas Dhenkanal district has the lowest number of 'others' with 1,079 males and 1,530 females.

In case of the state, there are 7,471,195 males and 6,246,021 females in the group of "Never married", 5,489,475 males and 5,582,823 females in the group of 'Married', 307,521 males and 1,176,644 females 'widowed' and 39,031 males and 52,599 females are in the marital status of "Others".

MAP 25

# YOUTHFULNESS OF POPULATION 1981

This map represents the percentage of persons in age 5-14 to the total population for each district. The percentage figures thus calculated are grouped into five ranges, two above, one nearer to and two below the state average of 27.81 as displayed in the map by different grades of hatching.

The map reveals proportion of youthfulness of population in each district and it varies from 26.24 (lowest) in Sambalpur district to 29.80 (highest) in Kalahandi district. The district of Kalahandi (29.80) and Dhenkanal (29.03) come under the highest range of 29.00 and above followed by Baleshwar (28.93) and Ganjam (28.92) in the range of 28.00-28.99. The third range (27.50-27.99) covers four districts, namely, Koraput (27.97), Sundargarh (27.68), Kendujhar (27.61) and Phulabani (27.50). Three districts come under the fourth range (27.00-27.49) and the districts of Cuttack (26.98) and Sambalpur come under the last range of 26.99 and below.

MAP 26

# CHANGE IN YOUTHFULNESS OF POPULATION 1971-81

These two maps show the change in youthfulness of population of the districts and state during the decade 1971-81.

Youthfulness of population is obtained by computing percentage of population in age-group 5-14 to the total population of each district for 1971 and 1981 separately and the percentage figures thus obtained are grouped into five suitable ranges with different grades of hatching as per index.

The boys and the girls constitute 27.81 per cent of total population of the state in 1981 as against 28.11 in 1971.

Dhenkanal district had the highest percentage (33.55) of youthfulness of population in 1971 but it has been replaced by Kalahandi district with 29.80 per cent in 1981. In 1971 the percentage of youthfulness of population varied between 25.61 and 33.55 as against 26.24 and 29.80 in 1981. Sambalpur district has the lowest percentage (26.24) of youthfulness of population in 1981 and also occupied the lowest place in 1971.

There were three districts, Dhenkanal, Kalahandi and Baleshwar in the range of 29.51 and above in 1971 while only one district (Kalahandi) comes under this range in 1981. In the second range (29.01-29.50) two districts *viz.*, Kendujhar and Mayurbhanj come in 1971 but in 1981 only Dhenkanal district comes under this range. Nine districts in 1981 come under the range of 27.01-29.00 while in 1971 only four districts come under this range. The fourth range (26.81-27.00) covered three districts in 1971 and in 1981 it covers only one district (Cuttack). The lowest range (26.80 and below) covered two districts (Sambalpur and Cuttack) in 1971 while in 1981 only Sambalpur comes under this range.

MAP 27

# DEPENDENCY RATIO 1981

This map shows the dependency ratio of population in age-groups 0-14 and 60+ (excluding age not stated) together to the total population in the age-group 15-59 for each district of the state. The ratio (per 1000) of population in age-group 0-14 and 60+ together to the total population in age-group 15-59 are calculated and the figures thus obtained are grouped into five suitable ranges, two above, one nearer to and two below the state average of 854.

Baleshwar district has the highest dependency ratio of 929 and Mayurbhanj district has the lowest ratio of 787. Five districts namely, Baleshwar (929), Ganjam (915), Dhenkanal (894), Cuttack (875), and Kalahandi (883) have the ratio of dependency higher than the state average of 854. The dependency ratio of the districts of Kendujhar (819), Balangir (850) and Puri (848) stand near to the state average whereas Sundargarh (813), Sambalpur (811), Phulabani (800), Koraput (792) and Mayurbhanj (787) are below the state average.

The dependency ratio per 1000 of population is shown in the following table.

| Sl. No. | Name of the State/District | Total population in age-group 15-59 in 1981 | Total population in age-group 0-14 plus 60+ (excluding age not stated) in 1981 | Ratio per 1000 of population |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 14,222,069 | 12,138,774 | 854 |
| 2. | Baleshwar | 1,167,871 | 1,084,484 | 929 |
| 3. | Ganjam | 1,393,748 | 1,275,456 | 915 |
| 4. | Dhenkanal | 835,423 | 746,935 | 894 |
| 5. | Kalahandi | 710,783 | 627,921 | 883 |
| 6. | Cuttack | 2,467,576 | 2,159,214 | 875 |
| 7. | Balangir | 788,505 | 669,954 | 850 |
| 8. | Puri | 1,580,282 | 1,340,003 | 848 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 9. | Kendujhar | 612,518 | 501,854 | 819 |
| 10. | Sundargarh | 737,305 | 599,706 | 813 |
| 11. | Sambalpur | 1,258,494 | 1,020,745 | 811 |
| 12. | Phulabani | 398,478 | 318,599 | 800 |
| 13. | Koraput | 1,385,865 | 1,097,641 | 792 |
| 14. | Mayurbhanj | 885,222 | 696,268 | 787 |

(Data for 'age not stated' are not available)

MAP 28

## CHANGE IN DEPENDENCY RATIO 1971-81

These two maps for 1971 and 1981 drawn on the administrative set-up of 1981 show the change in dependency ratio in each district and state during 1971-81.

Change in dependency of each district is measured separately for 1971 and 1981. The ratio of dependents in age-groups 0-14 and 60+ together (excluding age not stated) to 1000 of population in age-group 15-59 is calculated for each district and grouped into five suitable ranges for 1971 and 1981 separately and shown on the maps by different grades of hatching using choropleth technique as per index. In 1971, the districts falling in the five ranges are as follows: Three districts, namely, Baleshwar (1044), Ganjam (1009) and Kalahandi (995) are coming under the highest range of 991 and above. Districts of Dhenkanal (980) and Kendujhar (964) are coming under the second range of 956-990. In the middle range i.e., nearer to state average 937 are the districts of Cuttack (951), Mayurbhanj (950) and Sundargarh (919). The fourth range (871-915) covers the districts of Puri (913), Phulabani (883) and Balangir (876) while the last range (870 and below) is screened for districts of Koraput (864) and Sambalpur (831). In 1981 the districts of Baleshwar (929), Ganjam (915), and Dhenkanal (894) are coming under the first range of 891 and above. The districts of Kalahandi (883) and Cuttack (875) are coming under the range of 861-890, the districts of Balangir (850), Puri (848) and Kendujhar (819) are coming under the middle range of 816-860 in which the state average 854 falls. The districts of Sundargarh (813), Sambalpur (811) and Phulabani (800) are coming under the range of 800-815. In the last range of 799 and below the districts of Koraput (792) and Mayurbhanj (787) are hatched.

In 1971 the ratio varied from 831 in Sambalpur district to 1044 in Baleshwar district whereas in 1981 it varies from 787 in Mayurbhanj district to 929 in Baleshwar district.

The following statement gives districtwise dependency ratio in 1971 & 1981.

| Sl. No. | Name of the State/District | Ratio per 1000 of population in age-group 0-14 plus 60+ to total population in age-group 15-59, 1971 | Ratio per 1000 of population in age-group 0-14 plus 60+ to total population in age-group 15-59, 1981 | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 937 | 854 | |
| 2. | Sambalpur | 831 | 811 | |
| 3. | Sundargarh | 919 | 813 | |
| 4. | Kendujhar | 964 | 819 | |
| 5. | Mayurbhanj | 950 | 787 | |
| 6. | Baleshwar | 1044 | 929 | |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 7. | Cuttack | 951 | 875 | |
| 8. | Dhenkanal | 980 | 894 | |
| 9. | Phulabani | 883 | 800 | |
| 10. | Balangir | 876 | 850 | |
| 11. | Kalahandi | 995 | 883 | |
| 12. | Koraput | 864 | 792 | |
| 13. | Ganjam | 1009 | 915 | |
| 14. | Puri | 913 | 848 | |

MAP 29

# MALES IN WORKING AGE 15-59 1981

The map depicts the percentage of males in working age 15-59 in 1981. The percentage of male population in working age 15-59 to total male population of each district are calculated and grouped into five ranges, three above, one nearer to, and one below the state average of 54.46 per cent as displayed in the map by different grades of hatching. Pie-diagram is drawn proportionate to total male population of the district. Each circle is divided into two sectors. The shaded sectors represent the proportion of male population in working age 15-59. The total male population figures are given at the top of each circle.

The map reveals how much employable male population is available in each district. The males within the age-group 15-59 constitute 54.46 per cent of the total male population of the state. The proportion varies between 51.63 per cent (lowest) in Ganjam district and 56.60 per cent (highest) in Sundargarh district. There are eight districts which have recorded percentage above three districts nearer to, and two districts below the state average 54.46 per cent.

The following statement shows percentage of male population in working age-group 15-59 to the total male population 1981.

| Sl. No. | District/State | Total male population | Percentage of male population in age-group 15-59 to total male population 1981 |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 1. | ORISSA | 13,309,785 | 54.46 |
| 2. | Sambalpur | 1,156,469 | 55.98 |
| 3. | Sundargarh | 692,749 | 56.60 |
| 4. | Kendujhar | 562,157 | 55.54 |
| 5. | Mayurbhanj | 795,364 | 56.20 |
| 6. | Baleshwar | 1,139,355 | 52.24 |
| 7. | Cuttack | 2,346,690 | 53.53 |
| 8. | Dhenkanal | 808,430 | 53.98 |
| 9. | Phulabani | 358,862 | 56.25 |
| 10. | Balangir | 732,438 | 54.83 |
| 11. | Kalahandi | 666,163 | 54.07 |
| 12. | Koraput | 1,246,378 | 56.24 |
| 13. | Ganjam | 1,314,520 | 51.63 |
| 14. | Puri | 1,490,211 | 54.97 |

MAP 30

# CHANGE IN MALES IN WORKING AGE 15-59 1971-81

This map presents the decadal change in proportion of male population in working age 15-59 to the total male population of each district of the state during the decade 1971-81.

The change in percentage is calculated as below:

$$C=\left(\frac{B}{A}-\frac{B1}{A1}\right)\times 100 \quad \text{.....(1)}$$

Where A and A1 respectively stand for total male population in 1981 and 1971, while B and B1 respectively represent the total male in working age 15-59 for 1981 and 1971. The figures thus obtained as per the equation (1) are again grouped into three ranges one above, one nearer to and one below the state average 2.52. The districts falling under each range are hatched as per the grades of the hatching shown in the index using choropleth method.

The percentage of males in age 15-59 to total male population comes to 54.46 in 1981 as against 51.94 recorded in 1971 resulting in percentage variation of 2.52 in the decade 1971-81.

The maximum increase is recorded in Mayurbhanj district (4.48) and the minimum is seen in the district of Sambalpur (0.55). The increase in proportion of males in working age 15-59 has been shown in all the 13 districts of Orissa by different grades of hatching. The gain is higher in the districts of Mayurbhanj (4.48) and Kendujhar (3.50), nearer to state average in 7 districts namely, Kalahandi, Sundargarh, Ganjam, Phulabani, Baleshwar, Dhenkanal and Puri and 4 districts namely, Koraput, Cuttack, Balangir, and Samballpur are below the state average (2.52).

The following statement shows the changing pattern of proportion of male population in working age-group 15-59 during 1971 & 1981.

| Sl. No. | State/District | Percentage of male working age 15-59 to total male population | | Change during 1971-81 |
|---|---|---|---|---|
| | | 1971 | 1981 | |
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 51.94 | 54.46 | + 2.52 |
| 2. | Sambalpur | 55.43 | 55.98 | + 0.55 |
| 3. | Sundargarh | 53.48 | 56.60 | +3.12 |
| 4. | Kendujhar | 52.04 | 55.54 | + 3.50 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 5. | Mayurbhanj | 51.72 | 56.20 | + 4.48 |
| 6. | Baleshwar | 49.43 | 52.24 | + 2.81 |
| 7. | Cuttack | 51.50 | 53.53 | + 2.03 |
| 8. | Dhenkanal | 51.37 | 53.98 | + 2.61 |
| 9. | Phulabani | 53.34 | 56.25 | + 2.91 |
| 10. | Balangir | 53.70 | 54.83 | + 1.13 |
| 11. | Kalahandi | 50.60 | 54.07 | + 3.47 |
| 12. | Koraput | 53.88 | 56.24 | + 2.36 |
| 13. | Ganjam | 48.59 | 51.63 | + 3.04 |
| 14. | Puri | 52.39 | 54.97 | + 2.58 |

MAP 31

# FEMALE IN WORKING AGE 15-59 1981

This map depicts the proportion of females in working age-group 15-59 to the total female population in each district. The percentage figures of female population of each district in working age 15-59 are calculated and grouped into five ranges of which one above, one near to and three below the state average (53.39) as displayed in the map by different shades of hatching. The total female population of the district is shown by a proportionate circle and sectors are shaded therein to show the proportion of female population in working age 15-59. The total female population figures of the districts are given at top of each circle.

The map reveals how much employable female population is available in each district. The females within the age 15-59 constitute 53.39 per cent of total female population of the state. The proportion varies between 51.43 in Baleshwar and 55.72 in Mayurbhanj districts. There are three districts namely, Mayurbhanj, Koraput and Phulabani above, three districts nearer to namely, Kendujhar, Sambalpur and Sundargarh and seven districts namely, Balangir, Puri, Cuttack, Ganjam, Kalahandi, Dhenkanal and Baleshwar are below the state average.

The following statement depicts the percentage of females in age-group 15-59 to total female population.

| Sl. No. | State/District | Percentage of female population in age 15-59 to total female population 1981 |
|---|---|---|
| 1 | 2 | 3 |
| 1. | ORISSA | 53.39 |
| 2. | Sambalpur | 54.34 |
| 3. | Sundargarh | 53.51 |
| 4. | Kendujhar | 54.35 |
| 5. | Mayurbhanj | 55.72 |
| 6. | Baleshwar | 51.43 |
| 7. | Cuttack | 53.08 |
| 8. | Dhenkanal | 51.54 |
| 9. | Phulabani | 54.86 |
| 10. | Balangir | 53.24 |
| 11. | Kalahandi | 52.09 |
| 12. | Koraput | 55.34 |
| 13. | Ganjam | 52.76 |
| 14. | Puri | 53.19 |

MAP 32

# CHANGE IN FEMALES IN WORKING AGE 15-59 1971-81

This map depicts the change in proportion of females in age 15-59 to total female population during the decade 1971-81 in each district.

Change in percentage is $C = \left(\frac{B}{A} - \frac{B1}{A1}\right) \times 100$ where A & A1 respectively stand for total female population in 1981 and 1971 and B & B1 respectively for the female population in working age 15-59 in1981 and 1971. The figures thus obtained are grouped into three convenient ranges. 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 increased in all the districts and the state as a whole during the decade. The increase in the state's proportion during the decade is 2.11. The maximum increase is noticed in Mayurbhanj district (4.89) and the lowest increase is noticed in Balangir district (0.36). Three districts namely, Mayurbhanj, Kendujhar and Baleshwar are above, seven districts namely, Sundargarh, Kalahandi, Cuttack, Phulabani, Koraput, Dhenkanal and Ganjam are nearer to and three districts namely, Puri, Sambalpur and Balangir are below the state average.

MAP 33

# URBAN MALES IN WORKING AGE 15-59 1981

This map depicts the proportion of urban males in working age 15-59 to total urban male population as in 1981 at state and district level.

The state and districtwise percentage of urban male population in working age 15-59 to total urban male population of 1981 have been grouped into three ranges *viz.*, 61.01 & above 58.01-61.00 and 58.00 and below and all the districts are shaded by different hatchings as shown in the index.

Circles proportionate to total urban males are drawn for each district. Each circle is divided into two sectors. The shaded sector indicates the proportion of urban males in working age 15-59. Figures for total urban males are written at the top of each circle.

In 1981 the total urban male population in working age 15-59 in the state is 997,505 or 59.61 per cent of total urban male population. The highest percentage is noticed in the district of Phulabani (62.33) and the lowest in the district of Kalahandi (56.09).

The districts of Phulabani (62.33), Cuttack (61.48), Dhenkanal (61.28), and Puri (61.24) are coming under the highest range of 61.01 and above, the districts of Kendujhar (60.54), Mayurbhanj (60.41), Sundargarh (60.08), Koraput (58.93) and Sambalpur (59.41) as well as the state average (59.61) are coming under next lower range of 58.01-61.00 and in the lowest range of 58.00 and below the districts of Balangir (57.63), Baleshwar (57.08), Ganjam (56.57) and Kalahandi (56.09) are recorded.

The following statement shows percentage of urban male population in age-group 15-59 to total urban male population 1981.

| Sl. No. | Name of the State/District | Percentage of urban male in working age 15-59 to the total urban male population 1981 |
|---|---|---|
| 1 | 2 | 3 |
| 1. | ORISSA | 59.61 |
| 2. | Sambalpur | 59.41 |
| 3. | Sundargarh | 60.08 |
| 4. | Kendujhar | 60.54 |
| 5. | Mayurbhanj | 60.41 |
| 6. | Baleshwar | 57.08 |
| 7. | Cuttack | 61.48 |
| 8. | Dhenkanal | 61.28 |
| 9. | Phulabani | 62.33 |
| 10. | Balangir | 57.63 |
| 11. | Kalahandi | 56.09 |
| 12. | Koraput | 58.93 |
| 13. | Ganjam | 56.57 |
| 14. | Puri | 61.24 |

MAP 34

# CHANGE IN URBAN MALES IN WORKING AGE 15-59 1971-81

This map presents the decadal change in proportion of urban male population in working age 15-59 to total urban male population in each district. The change in percentage is calculated as $C = \left(\frac{B}{A} - \frac{B1}{A1}\right) \times 100$ where A & A1 respectively stand for total urban male population in 1981 and 1971, while B & B1 represent the total urban males in working age 15-59 in 1981 and 1971 respectively. The figures thus obtained are grouped into four suitable ranges, one for decrease and three for increase of which one above, one nearer to and one below the state average (1.61). The 'increase' and 'decrease' ranges are hatched as per the grades of hatching shown in the index.

Proportion of urban males in working age 15-59 to total urban male population increased in 1981 in the state and in eleven districts. Decrease in proportion is marked in two districts only. The percentage for the state has gone up from 58.00 in 1971 to 59.61 in 1981. There are three districts which are above the state average, namely, Phulabani, Dhenkanal and Ganjam, five districts nearer to the state average, namely, Mayurbhanj, Kendujhar, Koraput, Kalahandi and Baleshwar and three districts below the state average namely, Puri, Cuttack and Balangir. The districts of Sundargarh and Sambalpur are shown under the decrease range of proportion.

The maximum increase is recorded in Phulabani district (4.26) and the minimum increase is noticed in Balangir district (0.78).

MAP 35

# RURAL MALES IN WORKING AGE 15-59 1981

This map shows the proportion of rural males in working age 15-59 to the total rural male population in each district and the state.

The proportion of rural male population in working age 15-59 to the total rural males of each district is calculated and related percentage figures have been grouped into three ranges, one above, one nearer to and one below the state average as indicated in the legend by different grades of hatching using choropleth method. Circles proportionate to the total rural male population of each district are drawn and divided into two sectors. The sectors in black shading represent proportion of rural males in working age 15-59. The total rural male population figure of each district is written at the top of the circle.

The total rural male population in the state is 11,636,403 of which the rural males in working age 15-59 is 6,251,454 or 53.72 per cent. There are four districts above the state average of 53.72 namely, Mayurbhanj (55.93), Phulabani (55.89), Koraput (55.88) and Sambalpur (55.31), six districts, namely, Sundargarh (54.91), Kendujhar (54.86), Balangir (54.54), Kalahandi (53.93), Puri (53.78) and Dhenkanal (53.29) are nearer to the state average and three districts namely Cuttack (52.51), Baleshwar (51.79) and Ganjam (50.77) are below the state average.

MAP 36

# CHANGE IN RURAL MALES IN WORKING AGE 15-59 1971-81

This map depicts the change in proportion of rural males in working age 15-59 to the total rural males in each district and state separately during 1971-81.

Change in proportion recorded in 1971 and 1981 of rural males in working age 15-59 to total rural male population is worked out for the state and each district as $C = \left(\frac{B}{A} - \frac{B1}{A1}\right) \times 100$, where A and A1 respectively stand for total rural male population of 1981 and 1971, while B and B1 stand for rural males in working age 15-59 of 1981 and 1971 respectively. The figures thus obtained are grouped into three ranges and shown above and below the state average of 2.39. The change is positive for all the districts and the state. The highest change is noticed in the district of Mayurbhanj (4.39) and the lowest is in the district of Sambalpur (0.50). There are four districts namely, Mayurbhanj, Sundargarh, Kalahandi and Kendujhar, above the state average, six districts namely, Ganjam, Baleshwar, Phulabani, Puri, Koraput and Dhenkanal are nearer to the state average and three districts namely, Cuttack, Balangir and Sambalpur are below the state average.

The following statement shows the changing pattern of proportion of rural male population in working age 15-59 during 1971-81.

| Sl. No. | Name of the State/District | Proportion of rural males in working age 15-59 1971 $\left(\frac{B1}{A1} \times 100\right)$ | Proportion of rural males in working age 15-59 1981 $\left(\frac{B}{A} \times 100\right)$ | Change in rural males in working age 15-59 $C = \left(\frac{B}{A} - \frac{B1}{A1}\right) \times 100$ |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 51.33 | 53.72 | +2.39 |
| 2. | Sambalpur | 54.81 | 55.31 | + 0.50 |
| 3. | Sundargarh | 51.17 | 54.91 | + 3.74 |
| 4. | Kendujhar | 51.51 | 54.86 | + 3.35 |
| 5. | Mayurbhanj | 51.54 | 55.93 | + 4.39 |
| 6. | Baleshwar | 49.06 | 51.79 | + 2.73 |
| 7. | Cuttack | 50.67 | 52.51 | + 1.84 |
| 8. | Dhenkanal | 51.10 | 53.29 | + 2.19 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 9. | Phulabani | 53.17 | 55.89 | + 2.72 |
| 10. | Balangir | 53.46 | 54.54 | + 1.08 |
| 11. | Kalahandi | 50.40 | 53.93 | + 3.53 |
| 12. | Koraput | 53.59 | 55.88 | + 2.29 |
| 13. | Ganjam | 49.99 | 50.77 | + 2.78 |
| 14. | Puri | 51.11 | 53.78 | + 2.67 |

MAP 37

# URBAN FEMALES IN WORKING AGE 15-59 1981

This map depicts the proportion of urban females in working age 15-59 to total urban female population in each district and the state in 1981.

The districtwise percentages of urban female population in working age-group 15-59 to total urban female population of 1981 have been grouped into four categories *viz.*, 55.01 & above, 54.01-55.00, 53.01-54.00 and 53.00 and below and the districts are shaded by different grades of hatching as shown in the index.

In 1981 the total urban female population in working age-group 15-59 in the state is 778,215 which is 54.16 per cent of the total urban female population of the state. The highest proportion is noticed in the district of Mayurbhanj (55.73) and the lowest is in the district of Kalahandi (52.75). Three districts namely, Mayurbhanj (55.73), Phulabani (55.04) and Sambalpur (55.01) are coming under the highest range of 55.01 & above.

In the next higher range of 54.01-55.00 fall the districts of Koraput (54.98), Puri (54.66), Kendujhar (54.50), Balangir (54.35), Cuttack (54.29) and Dhenkanal (54.15). The state average 54.16 is also coming under this range.

Two districts namely, Sundargarh (53.49) and Ganjam (53.08) come under the range of 53.01-54.00.

The districts of Baleshwar (52.88) and Kalahandi (52.75) are coming under the lowest range of 53.00 and below.

The following statement shows the percentage of urban female population in working age-group 15-59 to total urban female population in 1981.

| Sl. No. | Name of the State/District | Percentage of urban females in working age 15-59 to total urban female population 1981 |
|---|---|---|
| 1 | 2 | 3 |
| 1. | ORISSA | 54.16 |
| 2. | Sambalpur | 55.01 |
| 3. | Sundargarh | 53.49 |
| 4. | Kendujhar | 54.50 |
| 5. | Mayurbhanj | 55.73 |
| 6. | Baleshwar | 52.88 |
| 7. | Cuttack | 54.29 |
| 8. | Dhenkanal | 54.15 |
| 9. | Phulabani | 55.04 |
| 10. | Balangir | 54.35 |
| 11. | Kalahandi | 52.75 |
| 12. | Koraput | 54.98 |
| 13. | Ganjam | 53.08 |
| 14. | Puri | 54.66 |

MAP 38

# CHANGE IN URBAN FEMALES IN WORKING AGE 15-59 1971-81

The map depicts the change in proportion of urban females in working age 15-59 to the total urban female population in the state and the districts during 1971-81.

Change of proportion recorded in 1971 and 1981 of urban females in working age 15-59 to total urban female population is worked out for the state and each district using the formula $C = \left(\frac{B}{A} - \frac{B1}{A1}\right) \times 100$, where A and A1 respectively stand for total urban female population of 1981 and 1971, while B and B1 stand for urban females in working age 15-59 of 1981 and 1971. The figures thus obtained are grouped into four ranges and shown above and below the state average of 1.61.

The highest change is noticed in the district of Mayurbhanj (4.69) and lowest in the district of Kalahandi (0.15).

In the highest range of 3.01 & above, two districts of Mayurbhanj (4.69) and Dhenkanal (3.37) fall.

In the next higher range of 2.51-3.00 the districts of Kendujhar (2.97), Baleshwar (2.94) and Phulabani (2.57) are shown.

In the third range of 1.01-2.50 five districts are recorded alongwith the state average (1.61) *viz.*, Puri (2.21), Cuttack (2.15), Sundargarh (1.19), Koraput (1.15) and Ganjam (1.06). In the last range of 1.00 & below, come the districts of Sambalpur (0.39), Balangir (0.28) and Kalahandi (0.15).

The following statement depicts the changing pattern of proportion of urban female population in working age-group 15-59 during 1971-81.

| Sl. No. | Name of the State/District | Percentage of urban females in working age 15-59, 1981 $\left(\frac{B}{A} \times 100\right)$ | Percentage of urban females in working age 15-59, 1971 $\left(\frac{B1}{A1} \times 100\right)$ | Change in urban females in working age 15-59 (Cl.3-Cl.4) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 54.16 | 52.55 | + 1.61 |
| 2. | Sambalpur | 55.01 | 54.62 | + 0.39 |
| 3. | Sundargarh | 53.49 | 52.30 | + 1.19 |
| 4. | Kendujhar | 54.50 | 51.53 | + 2.97 |
| 5. | Mayurbhanj | 55.73 | 51.04 | + 4.69 |
| 6. | Baleshwar | 52.88 | 49.94 | + 2.94 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 7. | Cuttack | 54.29 | 52.14 | + 2.15 |
| 8. | Dhenkanal | 54.15 | 50.78 | + 3.37 |
| 9. | Phulabani | 55.04 | 52.47 | + 2.57 |
| 10. | Balangir | 54.35 | 54.07 | + 0.28 |
| 11. | Kalahandi | 52.75 | 52.60 | + 0.15 |
| 12. | Koraput | 54.98 | 53.83 | + 1.15 |
| 13. | Ganjam | 53.08 | 52.02 | + 1.06 |
| 14. | Puri | 54.66 | 52.45 | + 2.21 |

MAP 39

# RURAL FEMALES IN WORKING AGE 15-59 1981

This map depicts the percentage of rural females in working age 15-59 to total rural female population in each district and the state in 1981.

The districtwise percentage is calculated and grouped into three ranges *viz.*, 54.71 & above, 52.71 — 54.70 and 52.70 and below. The districts are shown by different grades of hatching from high to low as shown in the index.

In 1981, the total rural females in working age 15-59 to total rural female population is 53.30 per cent. The highest percentage is noticed in the district of Mayurbhanj (55.72) and lowest is in the district of Baleshwar (51.30).

Three districts namely, Mayurbhanj (55.72), Koraput (55.39) and Phulabani (54.85) fall above the state average, six districts namely, Kendujhar (54.34), Sambalpur (54.23), Sundargarh (53.52), Balangir (53.13), Cuttack (52.96) and Puri (52.96) are in the range nearer to the state average 53.30 and the districts namely, Ganjam, (52.70), Kalahandi (52.05), Dhenkanal (51.34) and Baleshwar (51.30) fall below the state average of 53.30.

The following statement depicts percentage of rural female population in working age-group 15-59 to the total rural female population 1981.

| Sl. No. | Name of the State/ District | Percentage of rural females in age 15-59 to total rural female population 1981 |
|---|---|---|
| 1 | 2 | 3 |
| 1. | ORISSA | 53.30 |
| 2. | Sambalpur | 54.23 |
| 3. | Sundargarh | 53.52 |
| 4. | Kendujhar | 54.34 |
| 5. | Mayurbhanj | 55.72 |
| 6. | Baleshwar | 51.30 |
| 7. | Cuttack | 52.96 |
| 8. | Dhenkanal | 51.34 |
| 9. | Phulabani | 54.85 |
| 10. | Balangir | 53.13 |
| 11. | Kalahandi | 52.05 |
| 12. | Koraput | 55.39 |
| 13. | Ganjam | 52.70 |
| 14. | Puri | 52.96 |

MAP 40

## CHANGE IN RURAL FEMALES IN WORKING AGE 15-59 1971-81

This map depicts the change in percentage of rural females in age-group 15-59 to total rural female population, 1981 in each district and the state.

The change in proportion of the rural females in age 15-59 to total rural female population, during the decade 1971-81 is worked out for the state and each district as per formula $c = \left(\frac{B}{A} - \frac{B1}{A1}\right) \times 100$, where A and A1 respectively stand for total rural female population of 1981 and 1971 while B and B1 respectively stand for rural females in age-group 15-59 in 1981 and 1971. The figures thus obtained are grouped into four ranges, one range showing increase is 0.25-4.00 and other three ranges showing decrease are 6.01 and above, 2.01-6.00 and 2.00 and below. The change in proportion for the state is shown as decrease of 2.29 per cent. The highest increase is found in the district of Mayurbhanj (3.56).

There are only four districts namely, Mayurbhanj (3.56), Kendujhar (1.13), Phulabani )(0.39) and Baleshwar (0.28) where increase in proportion is noticed.

The highest decrease in proportion is noticed in the district of Sundargarh (-10.70) and the lowest decrease is found in the district of Kalahandi (-0.05). The districts of Sundargarh (-10.70) and Sambalpur (-6.26) are coming under the highest range of decrease (6.00 and above). Four districts namely, Ganjam (-4.41), Puri (-4.16), Balangir (-3.49) and Koraput (-2.64) are recorded in the range of 2.01 to 6.00 which is nearer to the state average. The districts of Cuttack (-1.89), Dhenkanal (-0.11) and Kalahandi (-0.05) are coming under the lowest range of 2.00 and below.

The following statement depicts the changing pattern of proportion of rural female population in working age-group 15-59 during 1971-81.

| Sl. No. | Name of the State/District | Percentage of rural females in working age 15-59 to total rural female population 1971 $\left(\frac{B1}{A1} \times 100\right)$ | Percentage of rural females in working age 15-59 to total rural female population 1981 $\left(\frac{B}{A} \times 100\right)$ | Change in rural female in working age 15-59 1971-81 |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 55.59 | 53.30 | – 2.29 |
| 2. | Sambalpur | 60.49 | 54.23 | – 6.26 |
| 3. | Sundargarh | 64.22 | 53.52 | – 10.70 |
| 4. | Kendujhar | 53.21 | 54.34 | + 1.13 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 5. | Mayurbhanj | 52.16 | 55.72 | + 3.56 |
| 6. | Baleshwar | 51.02 | 51.30 | + 0.28 |
| 7. | Cuttack | 54.85 | 52.96 | – 1.89 |
| 8. | Dhenkanal | 51.45 | 51.34 | – 0.11 |
| 9. | Phulabani | 54.46 | 54.85 | + 0.39 |
| 10. | Balangir | 56.62 | 53.13 | – 3.49 |
| 11. | Kalahandi | 52.10 | 52.05 | – 0.05 |
| 12. | Koraput | 58.03 | 55.39 | – 2.64 |
| 13. | Ganjam | 57.11 | 52.70 | – 4.41 |
| 14. | Puri | 57.12 | 52.96 | – 4.16 |

MAP 41

# URBAN POPULATION 1981

This map depicts the percentage of urban population to total population for each police station of the state of Orissa in 1981.

the percentage figures are grouped into nine ranges above and below the state average. The entirely urban units are shaded in black and the entirely rural units are left blank. Other police stations are shaded according to the gradation of grouping and hatching as shown in the legend.

Out of the total population of 26,370,271 as recorded in 1981 Census in the state as many as 3,110,287 persons are living in the urban areas. Thus the percentage of urban population in the state comes to be 11.79.

The town police stations like Cuttack, Bhubaneswar, Rourkela, Brahmapur, Puri and Sambalpur have got cent per cent urban population. Five police stations come under the highest range of 58.00 & above, six in the next higher range of 48.01-57.99, eight in the range of 31.01-48.00, ten under the fourth range of 25.51-31.00, fourteen under the fifth range of 19.01-25.50, nineteen under the sixth range of 12.51-19.00 and as many as thirty three police stations come under the lowest range of 12.50 & below per cent of urban population.

The highest percentage of urban population is noticed in the Hirakud Police station (81.99) of Sambalpur district and the lowest percentage (2.09) is noticed in the Brahmapur Sadar Police Station of Ganjam district.

MAP 42

# CHANGE IN URBAN POPULATION 1971-81

This map depicts the percentage decadal variation of urban population in each police station of the state during 1971-81.

The percentage of increase or decrease of urban population during the decade 1971-81 has been calculated for each police station in the state as per the formula.

$$P.G. = \frac{A-B}{B} \times 100$$

Where P.G. = Percentage Growth either +Ve or – Ve

A = for 1981 urban population

B = for 1971 urban population

The figures thus calculated are grouped into three suitable ranges, showing increase and decrease. The increase of urban population is grouped into three ranges, i.e., 100.00 & above, 35.01-99.99 and 35.00 & below.

The number of towns increases from 81 in 1971 to 108 in 1981. The urban population accordingly increased from 1,845,395 in 1971 to 3,110,287 in 1981. The percentage of increase of urban population in the state is 68.54 during the decade 1971-81.

Of the 308 police stations in the state only 95 police stations have urban population. Six police stations are entirely urban these are Cuttack, Bhubaneswar, Sambalpur, Rourkela, Puri and Brahmapur. Thirty one police stations show an increase in change of urban population in the range of 100.00 & above. Forty six police stations show an increase in the range of 35.01-99.99 and twenty four police stations record an increase in the range of 35.00 & below.

The 100 per cent loss of urban population is found only in the Govindpur police station of Sambalpur district as because Govindpur town lost its urban status in 1981 Census.

The maximum increase of urban population (138.77 per cent) is found in the district of Dhenkanal and the lowest increase (7.93 per cent) is noticed in Balangir district.

MAP 43

# GROWTH OF URBAN POPULATION BY SIZE CLASS OF URBAN AREAS 1901-1981

This map shows the growth of urban population in each district of Orissa by size class of urban areas during 1901-1981.

Nine vertical bars proportionate to total urban population for the nine decennial census years from 1901 to 1981 are drawn in each district. Further each of these bars is divided into six parts indicating the urban population by size class of urban areas such as Class I (100,000 & above), Class-II (50,000-99,999), Class-III (20,000-49,999), Class-IV (10,000-19,999) Class-V (5,000-9,999) and Class-VI (Below 5000). These parts of each bar are shaded by different hatchings as per index. A vertical scale showing the urban population in absolute number is shown in the right side of each diagram.

During the last decade a noticeable growth of urban population is noticed in the districts of Cuttack, Puri, Sundargarh, Baleshwar, Ganjam, Sambalpur and Koraput. The growth of urban population is also noticed in the remaining districts except Phulabani where the growth is not so remarkable.

MAP 44

# GROWTH OF URBAN CENTRES 1971-81

This map depicts the growth of urban centres during the decade 1971-81 in Orissa.

Percentage growth of each urban centre during 1971-81 are calculated and grouped into four categories of growth rate, e.g., (i) 75.01 and above (ii) 50.01-75.00, (iii) 25.01-50.00 (iv) 25.00 and below. The urban centres are shaded with dense to light hatching as per the intensity as shown in the index of the map. The new urban centres added in 1981 Census are shown in solid black of different models in accordance with the size class of towns as shown in index. The urban centre which is declassified is shown with dash outline of the triangular form. The name of each urban centre is written on the map.

There were 81 towns in 1971 which increased to 108 in 1981 in Orissa. Twenty eight new towns are added in 1981 whereas one town, namely, Govindpur in Sambalpur district has lost its urban status and declassified as rural in 1981.

The highest growth is noticed in Anandapur town (289.81) in Kendujhar district and the lowest is noticed in Tarbha town (7.93) in Balangir district.

MAP 45

# URBAN INDUSTRIAL STRUCTURE (CLASS-I) 1981

This map presents the urban industrial structure for Class-I urban centres in Orissa in 1981.

The broad nine industrial categories of main workers are grouped into six types of services as mentioned below:—

| Industrial categories | | Groups |
|---|---|---|
| I. | Cultivators | I. Primary |
| II. | Agricultural Labourers | |
| III. | Livestock, Forestry, Fishing, Hunting & Plantations, Orchards and Allied activities | |
| IV. | Mining & Quarrying | II. Mining |
| V. | Manufacturing, Processing, servicing & repairs | III. Industrial |
| | (a) Household Industry | |
| | (b) Other than household Industry | |
| VI. | Constructions | |
| VII. | Trade & Commerce | IV. Commercial |
| VIII. | Transport, Storage & Communications | V. Transport |
| IX. | Other services | VI. Services |

The percentage of main workers in each group to total main workers in each Class-I urban centre (Urban Agglomeration/City) is calculated. According to the percentage values of the group, the Class-I urban centre is classified. If one group or sector of the economy constitute 40 per cent or above of the total main workers of a Class-I urban centre, that centre will be designated by that group or sector of economy such as Industrial or Mining or Commercial urban centre or as the case may be.

When the percentage figure of a particular group or sector of the economy is less than 40 per cent then it will be taken into account to next

predominant group so that their total reaches 60 per cent or more, and it will be designated as bi-functional urban centre such as Industry-cum-service or Mining-cum-Primary activities urban centre or as the case may be.

Where the total does not come upto 60 per cent then the third predominant group is taken into account and the centre is designated as Multifunctional Urban Centre such as Industry-cum-Service-cum-Commercial urban centre or as the case may be.

After the percentage figures of all Class-I urban centres are obtained circles proportionate to size class of each urban centre are drawn on the map. The ranges as fixed for population size within Class-I as (i) 1,000,000 and above (ii) 500,000-999,999 (iii) 100,000-499,999 or with the actual population size of the Class-I urban centre. Different types of hatching are used to differentiate various functional specialisation of urban centres. Two circles for each urban centre are drawn. Outer circle is proportionate to the population and divided in different sectors as per the percentage of sector of the economy. Inner circle is drawn to denote the functional character of the urban centre. Mono-functional urban centre is identified by one type of hatching the inner circle as per the legend. Similarly inner circle is divided into two sectors where bi-functional characteristics are found and hatched accordingly.

There are six Class-I urban centres (Urban Agglomerations/Cities) in Orissa, they are:

| Names of Class-I Urban Centres | Total no. of main workers in 1981 |
|---|---|
| 1 | 2 |
| 1. Sambalpur U.A. | 51,042 |
| 2. Rourkela Civil & Steel Townships | 96,169 |
| 3. Cuttack U.A. | 99,520 |
| 4. Brahmapur City | 42,896 |
| 5. Bhubaneswar City | 69,654 |
| 6. Puri City | 28,457 |

Among these, Sambalpur U.A. has bi-functional characteristics (with 60.14 per cent) and designated as Service-cum-Industrial centre.

Rourkela U.A. is a mono-functional, i.e., Industrial urban-centre where 49.08 per cent of its total main workers are engaged in Industrial activities.

Bhubaneswar City, the Capital of Orissa is also a mono-functional service urban centre where 52.07 per cent of its total main workers are engaged in services.

Cuttack U.A. is a bi-functional, i.e., Industry-cum-service urban centre where 62.59 per cent of its total main workers are engaged in services and industries.

Brahmapur city is also a bi-functional, i.e., commercial-cum-service centre where 57.12 per cent of its total main workers are engaged in service and commercial activities.

The holy city of Puri is a bi-functional, i.e., commercial-cum-service urban centre where 64.11 per cent of its total main workers are engaged in service and commercial activities.

MAP 46

# INMIGRANTS 1981

This map depicts two components, (A) Circles proportionate to total inmigrants according to place of birth and (B) percentage of total inmigrants to total population of the district shown by different hatching for each district in 1981. Each circle is further divided into sectors representing Rural and Urban inmigrants with male and female divisions. The rural sectors are shown by hatching whereas the urban sectors left blank. 'M' for males and 'F; for females are written inside their respective divisions. The absolute figure of total inmigrants of the district is written at the top of each circle whereas the percentage values of each sector are shown inside the respective sectors.

(B) The percentage of total inmigrants in each district is calculated. The percentage figures thus obtained are grouped into six suitable ranges, two above, one nearer to and two below the state average of 7.95. The area outside the circle of each district is shaded from dark to light using choropleth technique as shown in the index of the map.

The total population of the state is 26,370,271 as per 1981 Census of which 2,095,342 persons or (7.95 per cent) are inmigrants. Out of these, 1,242,341 persons are rural inmigrant with 412,727 or 19.70 per cent males and 829,614 or 39.59 per cent females and 853,001 persons are urban inmigrants with 469, 758 or 22.42 per cent are males and 383,243 or 18.29 per cent females. Of these inmigrants 59.29 and 40.71 per cent to total inmigrants are residing in rural and urban areas of the state.

Sundargarh district has the highest percentage (22.14) of inmigrants of the state followed by Sambalpur district (13.05). Both districts are coming in the highest range of 12.71 & above.

Two districts are coming in the second range of 9.71-12.70. They are Kendujhar (10.00) and Koraput (9.82).

Three districts, namely, Phulabani (8.09), Puri (7.19) and Balangir (6.84) are in the range of 6.71-9.70 per cent where the state average (7.95) also falls.

In the fifth range of 6.01-6.70 per cent the districts of Kalahandi (6.61), Mayurbhanj (6.54) and Baleshwar (6.43) are recorded.

The districts of Cuttack (5.73), Dhenkanal (5.52) and Ganjam (3.31) are coming in the lowest range of 6.00 & below.

MAP 47

# RURAL INMIGRANTS TO TOTAL RURAL POPULATION 1981

This map depicts the rural inmigrants and its percentage to rural population in each district of the state in 1981.

(a) Circles proportionate to total rural inmigrants are drawn in each district. The figures of total rural inmigrants are written at the top of each circle. Each circle is further divided into three sectors indicating inmigrants from (i) rural to rural (ii) urban to rural and (iii) unclassified and shaded with different types of hatching. The percentage value of each sector to total rural inmigrants of each district is mentioned in the respective sectors inside the circle.

(B) The percentage of rural inmigrants to total rural population is calculated for each district and the figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 5.34 per cent and the areas outside the circle of each district are hatched by choropleth technique from high to low order by different grades of hatching.

There are 23,259,984 persons living in rural areas of Orissa of which 1,242,341 persons are rural inmigrants which is 5.34 per cent of the total rural population of the state. There are 1,065,532 or 85.77 per cent inmigrants from rural to rural, 119,290 or 9.60 per cent from urban to rural and 57,519 or 4.63 per cent are unclassified of the total rural inmigrants in the state.

The districts of Sundargarh (10.30), Sambalpur (9.74) and Koraput (7.31) are coming in the first range where the percentage of rural inmigrants to total rural population is 7.01 and above.

Kendujhar (6.95), Phulabani (6.63), Baleshwar (5.58), Balangir (5.57), Kalahandi (5.50) and Mayurbhanj (5.47) districts are coming in the second range (5.01-7.00) nearer to the state average of 5.34 per cent.

The districts of Cuttack (4.11), Dhenkanal (3.75), Puri (2.83) and Ganjam (2.12) are coming in the lowest range (5.00 & below).

MAP 48

# URBAN INMIGRANTS TO TOTAL URBAN POPULATION 1981

This map depicts the urban inmigrants and its percentage to urban population in each district of the state 1981.

Circles proportionate to total urban inmigrants in each district are drawn. The absolute figures of the total urban inmigrants are written on the top of each circle. Each circle is further divided into three sectors and shown in different hatchings indicating inmigrants from (i) rural to urban (ii) urban to urban (iii) and unclassified urban inmigrants. The percentage value of each sector to total urban inmigrants of each district is mentioned in the respective sector inside the circle.

The percentage of urban inmigrants to total urban population is calculated for each district and the figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average. Areas outside the circles are hatched from high to low order by different grades of hatching using the choropleth technique as shown in the index of the map.

There are 3,110,287 persons residing in urban areas of the state of which 853,001 or 27.43 per cent are urban inmigrants. Inmigrants from rural area to urban area are 561,317 persons or 65.81 per cent, from urban area to urban are 272,488 persons or 31.94 per cent and unclassified are 19,196 persons or 2.25 per cent of the total urban inmigrants.

The highest percentage of urban inmigrants are noticed in the district of Sundargarh (49.00) followed by Phulabani (34.27) and Kendujhar (33.78) districts which are coming in the first range of 33.01 per cent & above.

Six districts are falling in the next range from 20.01 to 33.00 per cent which is nearer to state average of 27.43 per cent and four districts are shown in the lowest range 20.00 per cent & below.

As regards to different categories of urban inmigrants, Kendujhar district has the highest percentage (76.52) of urban inmigrants from rural areas whereas Ganjam district has the lowest percentage (46.61) to the total urban inmigrants. In case of urban inmigrants from urban areas, Ganjam district has the highest (51.35 per cent) and Kendujhar district (21.38) the lowest percentage. In the unclassified category, Koraput district has 4.45 per cent followed by Sambalpur (2.73), Baleshwar (2.43), Cuttack (2.43) and Ganjam (2.04) districts. Other districts have very negligible percentage of unclassified urban inmigrants.

# ECONOMIC ASPECTS

MAP 49

# MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS IN TOTAL POPULATION 1981

This map depicts the main workers, marginal workers and non-workers in each district of Orissa in 1981.

Pyramids are drawn for the state and districts with horizontal bars showing absolute figures for males and females which are further divided into three divisions showing main workers, marginal workers and non-workers. Nine bars are drawn for nine age-groups of 0-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-49, 50-59 and 60+. The figures for males and females are shown along 'X' axis and the age-groups are shown along 'Y' axis. To distinguish the main workers, marginal workers and non-workers, different hatchings are done as per the legend.

For main workers at district level, Cuttack has the highest number (218,880) of male main workers in age-group 40-49.

In respect of marginal workers at district level, Koraput has the highest number (31,213) of female marginal workers in age-group 40-49.

Among the non-workers, Cuttack district has the highest number of males (872,646) and females (883,488) in age-group 0-14.

MAP 50

# RURAL MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS 1981

This map depicts the rural main workers, marginal workers and non-workers in each district and the state in 1981.

Pyramids are drawn for the state and districts with horizontal bars showing absolute figures of males and females and each horizontal bar is further divided into three divisions as main workers, marginal workers and non-workers for each sex. Bars are drawn for age-groups of 0-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-49, 50-59 and 60+. The figures for males and females are shown along 'X' axis and the age-groups along 'Y' axis. To distinguish the three divisions, separate hatchings are used for main workers and non-workers and solid black is used for marginal workers.

The highest number (1,158,549) of male main workers is noticed in age-group 40-49, the highest number (188,030) of rural marginal workers is noticed in the female age-group 40-49 and the highest number of rural non-workers is noticed in the young age-group of 0-14 of which 4,218,525 are males and 4,375,428 females in the state.

At the level of districts Cuttack has the highest number (191,949) of male main workers in age-group 40-49. Among the rural marginal workers, Koraput district has the highest number (27,206) of female marginal workers in age-group 0-14 and among the rural non-workers, Cuttack district again has the highest number of male (786,755) and female (801,017) rural non-workers in the age-group 0-14.

MAP 51

# URBAN MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS 1981

This map depicts the urban main workers, marginal workers and non-workers in each districts of Orissa, 1981.

Pyramids are drawn for the state and the districts with horizontal bars showing absolute figures for males and females. Each bar is further divided into three divisions showing main workers, marginal workers and non-workers. Nine bars are drawn for age-groups of 0-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-49, 50-59 and 60+. The figures for males and females are shown along 'X' axis and the age-groups are along 'Y' axis. To distinguish the main workers, marginal workers and non-workers separate hatchings are used as per legend.

Among urban main workers, marginal workers and non-workers in Orissa, the highest number of main workers is noticed in the male main workers (171,746) in age-group 40-49, among the marginal workers the highest number is noticed in the female marginal workers (4,448)in age-group 40-49 and among the non-workers the highest number is noticed in male (583,783) and female (573,817) in age-group 0-14.

At the district level, Sundargarh has the highest number of urban male main workers (28,193) in age-group 40-49. Among the urban marginal workers, Ganjam district has the highest number of urban female marginal workers (1,014) in age-group 40-49 and among urban non-workers, Cuttack district has the highest number of urban male (85,891) and female (82,470) non-workers in age-group 0-14.

MAP 52

# MAIN WORKERS 1981

This map depicts the main workers in working age-group 15-59 and its percentage value to total population in age-group 15-59 in each district of Orissa.

(A) Circles proportionate to total main workers in age 15-59 in each district are drawn. Each circle is divided into two sectors–rural and urban. The rural sector is shaded in solid black. (B) The percentage values of the main workers to total population in age-group 15-59 are further grouped suitably into three ranges, one above, one nearer to and one below the state average of 52.90 percent and are hatched as per index. The figures for total main workers of each district are written at the top of the respective circle.

It is seen that almost all circles in coastal belt are larger than that with other areas: it proves more persons in the age-group 15-59 are engaged in work. Among them, Cuttack district has the largest circle with 1,123,439 main workers and Phulabani district has the smallest circle with 241, 112 main workers. Similarly, coming to the percentage value of main workers it is observed that Ganjam, Phulabani, Mayurbhanj and Koraput districts are hatched in highest range whereas Puri, Cuttack, Baleshwar and Sundargarh are hatched in lowest range.

MAP 53

# MALE MAIN WORKERS 1981

This map depicts the male main workers in working age 15-59 and its percentage value to total male population in age 15-59 in each district of Orissa.

(A) Circles proportionate to total male main workers in age 15-59 for each district are drawn and divided into two sectors–rural and urban, where rural sector is shaded in solid black colour.

(B) Percentage value of male main workers to total male population in age 15-59 of each district are grouped into three suitable ranges–one above, one nearer to and one below the state average of 87.15 per cent and the districts are hatched by choropleth technique from high to low intensity as shown in the legend of the map. The figures of total male main workers in age 15-59 are written at the top of the circles.

The district of Kalahandi has the highest percentage (92.94) of male main workers in age 15-59 to total population in age 15-59 while Cuttack district has the lowest percentage (82.93).

Four districts, namely, Kalahandi (92.94), Koraput (92.91), Phulabani (91.94) and Balangir (91.69) fall in the first range (91.01 and above), five districts, namely, Sambalpur (89.72), Dhenkanal (88.14), Mayurbhanj (87.67), Kendujhar (86.44) and Ganjam (85.95) fall in the second range (85.01–91.00) which is nearer to the state average. In the last range (85.00 and below), the districts of Puri (84.61), Baleshwar (84.48), Sundargarh (84.05) and Cuttack (82.93) are hatched.

MAP 54

# FEMALE MAIN WORKERS 1981

This map depicts the female main workers in working age 15-59 and its percentage value to total female population in age 15-59 in each district of Orissa.

(A) Circles proportionate to total female main workers in age 15-59 are drawn in each district and are divided into two sectors–rural and urban. The rural sector is shaded in solid black colour. The figures for total female main workers are written at the top of the respective circles.

(B) Percentage figures of female main workers to total female population in age 15-59 of each district are grouped into three suitable ranges, one above, one nearer to and one below the state average of 17.30. The districts are hatched using choropleth technique from high to low intensity as marked in the legend of the map.

Mayurbhanj district has the highest percentage (32.75) of female main workers in age 15-59 in the state whereas Baleshwar district has the lowest percentage (6.44).

Four districts, namely, Mayurbhanj (32.75), Ganjam (29.66), Phulabani (28.24) and Koraput (26.93) fall in the first range of percentage (25.01 and above).

In the second range (10.01–25.00) are the districts of Sambalpur (22.75), Kalahandi (18.63), Kendujhar (18.54), Balangir (17.14), Sundargarh (16.11) and Dhenkanal (13.81).

In the last range (10.00 and below) the coastal districts of Puri (7.52), Cuttack (6.74) and Baleshwar (6.44) are shown.

MAP 55

# MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

The map displays the districtwise industrial structure of male and female main workers in 1981.

In each district, pyramid is drawn to present the size of main workers in each sex engaged in the nine industrial categories. Two vertical lines are drawn in the centre of each district and industrial categories in roman letters are shown between the vertical lines. On both sides of the vertical lines, horizontal bars are drawn proportionate to total main workers engaged in each category. Right side bars are for females and left are for males. Both absolute and percentage scales are shown respectively above and below the diagram of each district. The nine categories are grouped under 'Primary', 'Secondary' and 'Tertiary' activities and different types of hatchings are used as shown in the index of the map.

There are as many as 8,635,284 main workers in the state of which 6,729,019 or 77.92 per cent of main workers are engaged in primary sector, 694,363 or 8.05 per cent are in secondary sector and 1,211,904 or 14.03 percent are in tertiary sector. As many as 5,589,886 males (64.73 per cent) and 1,139,133 females (13.19 per cent) belong to primary sector. There are 570,184 male (6.60 per cent) and 124,179 female (1.44 per cent) workers in the secondary sector. In the tertiary sector there are 1,078,257 males (12.49 per cent) and 133,647 females (1.55 percent).

As regards to the districts, Baleshwar has the highest percentage (76.28) of male main workers and Mayurbhanj has the highest percentage (23.48) of female main workers engaged in the primary sector of economy.

In respect of male and female main workers engaged in secondary activities, Sundargarh (18.09 per cent) and Sambalpur (3.15 per cent) come first.

The districts of Puri (18.94 per cent) and Sundargarh (2.47 per cent) rank top among the districts in the state in respect of percentage of male and female main workers engaged in the tertiary sector of economy.

MAP 56

# URBAN MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

This map shows the urban male and female main workers engaged in different classified industrial categories in each district of Orissa as per the 1981 Census.

The industrial structures of male and female main workers are shown by pyramids for each district. Two vertical lines are drawn in the centre of each district. From these lines horizontal bars proportionate to main workers of each sex are drawn on either side of the vertical for each industrial categories of workers. The male bars on the left and the female bars are on the right. Categories of industrial workers I, II, III, IV, V, VI, VII, VIII & IX are written between the vertical lines. These nine categories are then grouped as primary, secondary, and tertiary activities as below.

| | |
|---|---|
| I | Primary |
| II | |
| III | |
| IV | |
| V | Secondary |
| VI | |
| VII | Tertiary |
| VIII | |
| IX | |

Bars are then hatched group-wise as shown in the legend of the map. Absolute and percentage scales are drawn above and below the respective diagrams.

There are as many as 936,306 urban main workers engaged in different classified industrial categories in the state. Of this 162,234 male and 31,728 female workers are engaged in primary sector of economy which together constitute 20.71 per cent of the urban main workers of the state. 206,646 males (22.06 per cent) and 19,437 females (2.08 per cent) are engaged in the secondary sector of economy. As many as 516,260 (55.15 per cent) main urban workers are engaged in the tertiary sector of economy consisting of 457,489 males (48.87 per cent) and 58,771 females (6.28 per cent).

The highest percentage of main urban workers are noticed in "other services" (category IX) in the tertiary sector where the male urban main workers constitute 24.80 per cent and the lowest percentage is noticed in mining and quarrying (category IV) where female urban main workers constitute only 0.28 per cent in the state.

As regards to districts Baleshwar has the highest percentage of male cultivators (category I) 16.48 per cent to its total urban main workers. It has also the highest percentage (12.93) of male main agricultural labourers (category II).

Sundargarh district has 122,111 main urban workers of which 48,175 (39.45 per cent) male workers are engaged in manufacturing and processing (category V) which is the highest in the state. Balangir district has the lowest percentage (0.01) of female urban main workers engaged in constructions (category VI).

In the tertiary sector of economy, Puri district has the highest number of urban male main workers (46,773) engaged in 'Other Services' constituting 36.63 per cent.

MAP 57

# RURAL MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

**This map shows** rural male and female main workers engaged in **different classified** industrial categories in each district of Orissa in 1981.

The pyramids are drawn to show category-wise male and female main workers of each district. Two vertical lines in the centre of each district keeping space between for writing categories I, II, III, IV, V, VI, VII, VIII & IX are drawn. From the central axis horizontal bars are drawn on either side proportionate to main workers engaged in each industrial category for males and females. Nine categories are grouped as 'Primary', 'Secondary and 'Tertiary' activities and are hatched as per the legend. The absolute and percentage scales to indicate the share of male and female main workers in the various industrial categories are given above and below the pyramids respectively.

There are as many as 7,698,978 main workers engaged in different classified industrial categories in rural areas in the state, of this 5,427,651 males (70.50 per cent) and 1,107,405 females (14.38 per cent) are engaged in the primary sector. As many as 363,539 males (4.72 per cent) and 104,743 females (1.36 per cent) are engaged in the secondary sector of economy. In the tertiary sector of economy 620, 767 (8.07 per cent) males and 74,875 (0.97 per cent) females are engaged.

In the primary sector of economy the highest percentage of cultivators (category I) is noticed in the district of Baleshwar. There are 312,675 male cultivators which constitute 55.76 percent of the total rural main workers in the district. Kalahandi district has the highest number of agricultural labourer. As many as 119,171 males or 26.06 percent of the total main rural workers are engaged in this category.

In the secondary sector of economy, Sundargarh district has the highest number of rural main workers engaged in the manufacturing and processing (category V) which is numbering to 22,564 males (7.24 percent).

In the tertiary sector of economy, Cuttack district has the highest number of rural main workers engaged in 'Other Services' (category IX).

MAP 58

# MAIN WORKERS WITH EDUCATIONAL LEVELS 1981

This map depicts the educational levels of main workers in rural and urban areas of each district of Orissa in 1981.

Main workers in five educational levels for rural and urban areas are calculated separately. Two half adjusted circles, one for urban main workers and other for rural main workers are drawn for each district. Each of those two half circles are divided into five sectors for five groups of educational levels and are hatched as shown in the index.

Five educational levels for both urban and rural main workers are given below.

1. Primary and Middle.
2. Matriculation/Secondary/Higher Secondary/Intermediate/Pre-University, non-technical diploma or certificate not equal to degree and Technical diploma or certificate not equal to degree.
3. Graduate degree other than technical degree, post graduate degree other than technical degree and technical degree or diploma equal to degree or Post graduate degree.
4. Literates (without educational level) and
5. Illiterates.

There are as many as 7, 698,978 rural main workers in Orissa of which 1,496,983 (19.44 per cent) are having educational levels as mentioned in 1 above, 266,986 (3.47 per cent) have educational level as mentioned in 2 above. There are 54,662 main workers (0.71 per cent) having educational level as mentioned in level 3 above. The number of literates without educational level and illiterates are 1,373,494 (17.84 per cent) and 4,506,851 (58.54 percent) respectively.

Baleshwar district has the distinction of having the highest number of rural main workers (182, 297 or 32.51 per cent) with educational levels of primary and middle standard, above matriculation but below the degree (34,894 or 6.22 per cent) and graduate and above (7,235 or 1.29 per cent) level of education. Highest number of literates without educational level 268, 475 or 23.70 percent are found in Cuttack and illiterates (749,621 or 85.66 per cent) in Koraput districts.

In the urban areas Cuttack district has the highest number of main workers, having primary and middle standard of education (49,778 or 33.90 per cent), matriculation and above but below the degree (27,905 or 19.00 per cent) and literates without educational level (16,952 or 11.55 per cent).

Highest number of main workers having degree and above qualifications (18,908 or 14.81 percent) are found in Puri district while Koraput district has the highest number (42,002 or 46.69 percent) of illiterates among main workers in urban areas.

MAP 59

## CULTIVATORS 1981

This map depicts the percentage of cultivators to total main workers in age 15-59 for each district of the state in 1981.

The percentage values are grouped into five ranges, two above, one nearer to and two below the state average of 46.30. The districts are hatched as per the legend.

Yellow bars proportionate to absolute number of cultivators in age 15-59 are drawn for each district.

There are three revenue Divisions in the state, namely, Northern, Southern and Central. The Northern Division consists of the districts of Sambalpur, Sundargarh, Kendujhar, Dhenkanal and Balangir, the Southern Division consists of the districts of Phulabani, Koraput, Kalahandi and Ganjam and the Central Division consists of the districts of Mayurbhanj, Baleshwar, Cuttack and Puri. Solid yellow coloured bars are shown under the index for each such division.

Out of 7,524,035 main workers in age-group 15-59 of the state, 3,483,281 or 46.30 percent are cultivators. The highest percentage of cultivators are noticed in the district of Koraput (53.86) and the lowest percentage (36.10) is noticed in Sundargarh district.

Among the three revenue divisions in the state, the Central Division has the highest number of cultivators in age 15-59 (1,341,780), the Southern Division has the next below (1,116,886) and the Northern Division has the lowest number (1,024,613) of cultivators.

The following statement depicts the percentage of cultivators in age-group 15-59 to the total main workers in age-group 15-59 in 1981.

| Sl. No. | Name of the State/ District | Total main workers in age 15-59, 1981 | Total cultivators in age 15-59, 1981 | Percentage of cultivators to total main workers in the age 15-59, 1981 |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 7,524,035 | 3,483,281 | 46.30 |
| 2. | Sambalpur | 716,776 | 300,807 | 41.97 |
| 3. | Sundargarh | 386,206 | 139,437 | 36.10 |
| 4. | Kendujhar | 325,554 | 162,763 | 50.00 |
| 5. | Mayurbhanj | 535,429 | 253,372 | 47.32 |
| 6. | Baleshwar | 539,737 | 282,914 | 52.42 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 7. | Cuttack | 1,123,439 | 483,050 | 43.00 |
| 8. | Dhenkanal | 439,723 | 200,192 | 45.53 |
| 9. | Phulabani | 241,112 | 127,737 | 52.98 |
| 10. | Balangir | 434,537 | 221,414 | 50.95 |
| 11. | Kalahandi | 400,070 | 206,591 | 51.64 |
| 12. | Koraput | 835,664 | 450,125 | 53.86 |
| 13. | Ganjam | 795,431 | 332,433 | 41.79 |
| 14. | Puri | 750,358 | 322,444 | 42.97 |

MAP 60

## CULTIVATORS IN RURAL POPULATION 1981

This map depicts the percentage of rural cultivators to total rural population in age 15-59 for each district and the state in 1981.

The percentage values are grouped into four ranges, two above, one nearer to and one below the state average of 27.54. The districts are hatched from high to low intensity by choropleth technique as shown in the legend.

In age-group 15-59, out of 12,446,349 rural population 3,427,177 (27.54 per cent) are cultivators in Orissa. The highest percentage of cultivators is noticed in the district of Koraput (35.97) and the lowest is in the district of Cuttack (21.85).

Three districts, namely, Koraput (35.97), Phulabani (33.72) and Kalahandi (30.65) are hatched in the highest range of cultivators among the rural population (30.61 & above). The districts of Balangir (30.58), Mayurbhanj (30.22) and Kendujhar (29.66) come in next range (29.01–30.60). Four districts, namely, Sambalpur (27.95), Sundargarh (27.30), Ganjam (27.30) and Baleshwar (25.87) come under the range of (25.87–29.00) which is nearer to the state average (27.54 per cent). The districts of Dhenkanal (25.86), Puri (23.91) and Cuttack (21.85) have the lowest percentage of cultivators and fall in the range of 25.86 & below.

The following table depicts the percentage of rural cultivators to total rural population in age-group 15-59 in 1981.

| Sl. No. | Name of the State/ District | Total rural population in age 15-59, 1981 | Total rural cultivators in age 15-59, 1981 | Percentage of rural cultivators to total population in age 15-59, 1981 |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 1. | ORISSA | 12,446,349 | 3,427,177 | 27.54 |
| 2. | Sambalpur | 1,055,789 | 295,085 | 27.95 |
| 3. | Sundargarh | 503,486 | 137,436 | 27.30 |
| 4. | Kendujhar | 539,562 | 160,029 | 29.66 |
| 5. | Mayurbhanj | 832,479 | 251,592 | 30.22 |
| 6. | Baleshwar | 1,065,383 | 275,647 | 25.87 |
| 7. | Cuttack | 2,190,050 | 478,518 | 21.85 |

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 8. | Dhenkanal | 763,471 | 197,399 | 25.86 |
| 9. | Phulabani | 376,224 | 126,847 | 33.72 |
| 10. | Balangir | 713,830 | 218,295 | 30.58 |
| 11. | Kalahandi | 666,909 | 204,412 | 30.65 |
| 12. | Koraput | 1,225,657 | 440,824 | 35.97 |
| 13. | Ganjam | 1,185,041 | 323,521 | 27.30 |
| 14. | Puri | 1,328,469 | 317,572 | 23.91 |

MAP 61

# MALE AND FEMALE CULTIVATORS 1981

This map depicts two compcnents–(A) the percentage of male and female cultivators to total male and female main workers in age-group 15-59 and (B) the absolute number of male and female cultivators in age 15-59, in each district of the state in 1981.

The percentages thus calculated out are grouped into five different ranges separately for each of male and female cultivators, two above, one nearer to and two below the state averages of 50.43 and 24.62 for males and females respectively. The ranges for male cultivators are shown in different shades of orange colour from deep to light intensity and the ranges for females are hatched in black in different grades from high to low order.

Three districts, namely, Koraput (60.02), Phulabani (57.77) and Kalahandi (57.26) come under the first percentage range (57.01 & above) of male cultivators. The districts of Balangir (56.82) and Baleshwar (55.16) come in the second highest range (55.01–57.00). The third range (47.01–55. 00) covers the districts of Kendujhar (54.51), Mayurbhanj (53.63) and Dhenkanal (48.54). In the fourth range (46.01–47.00) come the districts of Ganjam (46.94) and Sambalpur (46.60). Three districts, namely, Puri (45.90), Cuttack (45.80) and Sundargarh (38.28) come under the lowest range (46.00 & below).

In regards to the percentage of female cultivators the districts of Phulabani (36.96) and Koraput come in the highest range (31.01 & above). In the next higher range (28.01–31.00) the districts of Mayurbhanj (30.09) and Kendujhar come. Two districts, namely, Ganjam (27.62) and Dhenkanal come under the third range (24.01–28.00). The fourth range (19.01–24.00) covers the districts of Sundargarh (23.42), Kalahandi (22.85) and Sambalpur (22.19). The districts of Balangir (18.39), Baleshwar (15.06), Puri (7.48) and Cuttack come under the lowest range (19.00 & below).

The total number of male and female cultivators in age 15-59 are shown in solid red and green coloured vertical bars respectively in each district as shown in the legend.

The following statement depicts percentage of male and female cultivators in age-group 15-59 to total male and female main workers in age-group 15-59 in 1981.

| Name of the State/District | Total main workers (age 15-59) | | Total cultivators (age 15-59) | | Percentage of cultivators (age 15-59) | |
|---|---|---|---|---|---|---|
| | Males | Females | Males | Females | Males | Females |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. ORISSA | 6,317,663 | 1,206,372 | 3,186,229 | 297,052 | 50.43 | 24.62 |
| 2. Sambalpur | 580,834 | 135,942 | 270,641 | 30,166 | 46.60 | 22.19 |
| 3. Sundargarh | 329,554 | 56,652 | 126,169 | 13,268 | 38.28 | 23.42 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| 4. Kendujhar | 269,881 | 55,673 | 147,125 | 15,638 | 54.51 | 28.09 |
| 5. Mayurbhanj | 391,897 | 143,532 | 210,186 | 43,186 | 53.63 | 30.09 |
| 6. Baleshwar | 502,848 | 36,889 | 277,359 | 5,555 | 55.16 | 15.06 |
| 7. Cuttack | 1,041,787 | 81,652 | 477,094 | 5,956 | 45.80 | 7.29 |
| 8. Dhenkanal | 384,611 | 56,112 | 186,691 | 13,501 | 48.54 | 24.50 |
| 9. Phulabani | 185,593 | 55,519 | 107,215 | 20,522 | 57.77 | 36.96 |
| 10. Balangir | 368,244 | 66,293 | 209,220 | 12,194 | 56.82 | 18.39 |
| 11. Kalahandi | 334,735 | 65,335 | 191,662 | 14,929 | 57.26 | 22.85 |
| 12. Koraput | 651,206 | 184,458 | 390,852 | 59,273 | 60.02 | 32.13 |
| 13. Ganjam | 583,378 | 212,053 | 273,855 | 58,578 | 46.94 | 27.62 |
| 14. Puri | 693,092 | 57,266 | 318,158 | 4,286 | 45.90 | 7.48 |

MAP 62

# AGRICULTURAL LABOURERS IN TOTAL AGRICULTURAL WORKERS 1981

This map depicts the percentage of agricultural labourers to total agricultural worker of each district and the state in 1981.

(A) The percentage of agricultural labourers to total agricultural workers (cultivators and agricultural labourers) has been calculated for each district and the percentage values thus obtained are suitably grouped into five ranges two above, one nearer to and two below the state average of 36.99 and accordingly the districts coming under each range are shaded by different grades of hatching using choropleth method.

(B) Solid brown bars are drawn for each district proportionate to total agricultural labourers.

There are 5,527,713 agricultural workers (cultivators and agricultural labourers) in the state of which 2,044,437 (36.99 per cent) are agricultural labourers in the state.

In the first range (40.01 and above) the districts of Ganjam (43.16), Mayurbhanj (41.44) and Sambalpur (41.28) are shown.

In the second range of percentage values (38.01 to 40.00) the only district of Kalahandi (39.36) comes.

The district of Dhenkanal (37.12), Balangir (36.84) and Cuttack (35.92) are coming in the third range (35.51 to 38.00) which is also nearer to the state average.

The districts of Phulabani (35.13), Puri (35.08) and Koraput (33.79) are coming under the fourth range (33.01 to 35.00).

The districts of Baleshwar (32.98), Sundargarh (31.41) and Kendujhar (30.93) are hatched in the lowest range (33.00 and below).

The district of Ganjam has the highest 43.16 percent of agricultural labourers to its total agricultural workers and Kendujhar has the lowest 30.93 per cent.

MAP 63

# NON-AGRICULTURAL WORKERS IN PRIMARY SECTOR 1981

(A) This map depicts the percentage of non-agricultural workers (category III and IV) to total main workers in primary sector (category i+ii+iii+iv) for each district. The percentage figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 4.14 per cent. The districts are shaded with flat colour from dark to light as shown in the index.

(B) Further it shows that circles are drawn proportionate to total number of non-agricultural workers in primary sector (category III & IV) in each district and each circle is divided into five sectors representing workers engaged in (i) Livestock and Hunting (ii) Fishing (iii) Forestry (iv) Plantations, Orchards and Allied Activities and (v) Mining and Quarrying. The sectors are hatched as shown in the index.

Primary sector consists of four industrial categories. Those are (i) cultivator (ii) agricultural labourer, (iii) Livestock, Hunting, Forestry, Fishing, Plantation, Orchards and Allied Activities (iv) Mining and Quarrying.

There are as many as 6,729,019 main workers engaged in the primary sector of economy in the state of which 278,735 (4.14 per cent) are non-agricultural workers.

Kendujhar district has the highest number (29,452 or 10.03 percent) and Kalahandi district has the lowest number (5, 635) of non-agricultural workers which is 1.34 per cent to total main workers engaged in the primary sector of economy.

In primary sector, Mayurbhanj district has the highest number (7,075 or 46.39 per cent) of non-agricultural workers engaged in Livestock and Hunting. Baleshwar district has the highest number (11,163 or 73.24 per cent) of non-agricultural workers engaged in fishing.

In Koraput there are 6,017 (32.08 per cent) non-agricultural workers engaged in Forestry which is highest in the state in this category.

In Plantations, Orchards and Allied Activities Balangir district has the highest number (5,409 or 50.41 per cent) of non-agricultural workers.

In Mining and Quarrying activities Kendujhar district has the highest number 21,554 or 73.19 per cent.

MAP 64

# MAIN WORKERS IN MANUFACTURING, PROCESSING, SERVICING AND REPAIRS 1981

This map depicts the proportion of main workers engaged in manufacturing, processing, servicing and repairs to the total main workers for each district of the state in 1981.

Three components are shown on this map. (A) Circles proportionate to main workers engaged in manufacturing, processing, servicing and repairs are drawn in each district and are shaded with solid brown colour.

(B) The percentage of main workers engaged in manufacturing, processing, servicing and repairs to total main workers in each district are calculated and the percentage values thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 6.93 per cent and the areas outside the circles in the district are hatched as per the grades shown in the index.

(C) The districts where the percentage of factory workers (workers engaged in V (b) other than household industries) is 5 per cent or more, are shaded in red.

Three districts, namely, Sundargarh (18.23), Sambalpur (10.78) and Cuttack (8.23) are coming under the highest range (8.01 & above). These three districts also record more than 5 per cent of its main workers engaged in manufacturing (category V (b) other than household industry).

In the middle range (5.01–8.00) the districts of Mayurbhanj (6.92), Dhenkanal (6.45), Balangir (6.21), Puri (6.12), Ganjam (6.01) and Kendujhar (5.23) including the state average (6.93), are hatched.

The districts of Phulabani (4.47), Baleshwar (4.22), Kalahandi (3.91) and Koraput (3.53) come under the lowest range (5.00 & below).

MAP 65

# MAIN WORKERS IN CONSTRUCTIONS, TRANSPORT, STORAGE AND COMMUNICATIONS 1981

This map depicts the percentage of main workers engaged in constructions, transport, storage and communications to total main workers in each district of Orissa in 1981.

This map shows two components.

(A) The percentage of main workers engaged in constructions, transport, storage and communications to total main workers in each district are calculated and the figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 2.68 per cent. The districts are hatched in black according to their grades from high to low order to intensity as shown in the legend.

(B) Circles proportionate to total main workers engaged in constructions, transport, storage and communications are drawn in each district and are shaded in red colour. There are 8,635,284 main workers in Orissa of which 231,710 or 2.68 per cent are engaged in constructions, transport, storage and communications.

Sundargarh district has the highest number 25, 500 or 5.88 per cent of main workers engaged in these particular activities and Balangir has 6, 380 or 1.25 per cent, the lowest among the districts in the state. The districts of Sundargarh (5.88) and Puri (3.63) come under the highest range of per centage (3.51 & above), followed by the districts of Dhenkanal (3.38), Kendujhar (3.14), Cuttack (3.13), Koraput (2.57), Sambalpur (2.55) Baleshwar (2.28) and Ganjam (2.12) in the range (2.01–3.50). The districts having lowest percentage (2.00 & below) of main workers in constructions, transport, storage and communications are Kalahandi (1.70), Phulabani (1.59), Mayurbhanj (1.42) and Balangir (1.25).

MAP 66

# MAIN WORKERS IN TRADE AND COMMERCE 1981

This map presents the workers in trade and commerce and its percentage to total workers in each district of the state, 1981.

(A) The percentage of main workers engaged in trade and commerce to total main workers in each district or Orissa in 1981 are calculated and the values thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 4.11 per cent. The districts are hatched as per ranges by different grades of hatching as shown in the legend of the map.

(B) Circles are drawn proportionate to total main workers engaged in trade and commerce in each district and are shaded in solid orange colour. There are 8,635,284 main workers in Orissa of which 355, 209 or 4.11 per cent are engaged in trade and commerce.

The highest percentage of main workers in this category is recorded in Puri district (5.90) and the lowest in Mayurbhanj district (2.26)

Three districts, namely, Puri (5.90), Ganjam (5.72) and Cuttack come under the highest range of percentage (5.01 per cent & above). In the middle range (3.01–5.00) the districts of Sundargarh (4.97), Baleshwar (3.78), Sambalpur (3.73), Koraput (3.27) and Dhenkanal (3.15) are recorded. Five districts, namely, Kendujhar (2.94), Phulabani (2.65), Balangir (2.64), Kalahandi (2.30) and Mayurbhanj come under the lowest range (3.00 & below).

MAP 67

# MAIN WORKERS IN SERVICES 1981

This map depicts main workers in other services and its percentage to total main workers for each district of the state, 1981.

(A) The percentage figures of main workers in other services (category IX) are calculated to the total main workers for each district. The figures thus obtained are grouped suitably into five ranges, two above, one nearer to and two below the state average (8.35). All the districts are shaded with various grades of hatching according to the ranges in decending order by choropleth technique as per the index of the maps.

(B) Circles are drawn in each district proportionate to total main workers engaged in 'Other services'. These circles are further divided into four sectors proportionate to the workers in each categories of (a) public services, (b) educational and scientific services (c) medical and health services, (d) personal and other miscellaneous services and these four sectors are distinguished by providing different transparent flat colours as shown in the legend of the map.

There are 8,635,284 main workers in the state in 1981 of which 720,774 (8.35 per cent) are in other services (category IX). Among the workers in other services 205,581 (28.52 per cent) are in public services, 182,579 (25.33 per cent) in educational and scientific services, 57,336 (7.96 per cent) in medical and health services and 275, 279 (38.19 per cent) in personal and other miscellaneous services in Orissa.

Puri district has the highest percentage (36.17) of workers engaged in public services. In educational and scientific services, Baleshwar district has the highest percentage (35.19). In medical and health services, Ganjam district has the highest percentage (10.04) and in personal and other miscellaneous services, Dhenkanal district has the highest percentage (44.65).

Puri (12.49) and Cuttack (11.61) districts have the highest percentage of main workers in 'other services' to total main workers and come under the highest range (11.00 & above), followed by the districts of Sundargarh (10.70) and Dhenkanal (8.90) in the range (8.51–10.99). Baleshwar (8.10), Ganjam (7.77) and Kendujhar districts come under the next lower range (7.26 - 8.50). Sambalpur and Phulabani districts come under the fourth range (6.26 - 7.25) and the lowest range (6.25 & below) covers the districts of Koraput (6.23), Balangir (5.95) and Kalahandi (4.59).

MAP 68 (A)

# MAIN WORKERS IN PUBLIC SERVICES 1981

This map depicts the percentage of main workers engaged in public services to total main workers in services (category IX) in the state in 1981.

The percentages thus obtained are grouped into three ranges, one above, one nearer to and one below the state average. The districts are hatched accordingly as shown in the index of the map.

There are 720, 774 main workers in services in the state of which 205,581 (28.52 percent) are engaged in public service.

The districts having main workers in public services, coming under the highest range (30.01 & above), are Puri (36.17), Koraput (32.44) and Sambalpur (31.21). In the next below range (24.01 - 30.00) come the districts of Cuttack (29.68), Kalahandi (28.83), Baleshwar (27.50), Sundargarh (24.49), Balangir (24.44), Dhenkanal (24.41) and Ganjam (24.25). The lowest range (24.00 & below) covers three districts, namely. Mayurbhanj (23.15), Phulabani (21.97) and Kendujhar (20.78).

MAP 68 (B)

# MAIN WORKERS IN EDUCATIONAL AND SCIENTIFIC SERVICES 1981

This map depicts the percentage of main workers engaged in educational and scientific services to total main workers in services of each district of the state, 1981.

The percentage figures of main workers engaged in educational and scientific services to total main workers in services (category IX) are grouped into three ranges, one above, one nearer to and one below the state average. The districts are hatched accordingly by choropleth technique from high to low order of intensity as shown in the index of the map.

There are 720,774 main workers in the state of which 182,579 (25.33 per cent) are engaged in educational and scientific services.

Four districts, namely, Baleshwar (35.19), Phulabani (32.36), Kendujhar (31.64) and Kalahandi (30.03) come under the highest range (30.01 & above).

The districts of Mayurbhanj (28.36), Balangir (27.97), Sambalpur (26.15), Sundargarh (25.64), Cuttack (24.50) and Dhenkanal (24.05) come under the second range (24.01 - 30.00). The lowest range (24.00 & below) covers three districts, namely, Puri (22.41), Ganjam (21.62) and Koraput (18.88).

MAP 68 (C)

# MAIN WORKERS IN MEDICAL AND HEALTH SERVICES 1981

This map depicts the percentage of main workers engaged in medical and health services to total main workers in services of each district of the state, 1981.

Percentage figures of main workers engaged in medical and health services to total main workers in services (category IX) are grouped into three ranges, one above, one nearer to and one below the state average. The districts are hatched as per ranges by choropleth technique from high to low order as shown in the legend of the map.

Out of 720,774 main workers in services in the state as many as 57,336 are engaged in medical and health services. The state average comes 7.96 per cent.

The districts of Ganjam (10.04), Kalahandi (9.36) and Kendujhar (9.23) are hatched in the highest range (9.01 & above). Six districts, namely, Baleshwar (8.63), Sambalpur (8.53), Sundargarh (8.46), Phulabani (8.22), Cuttack (8.15) and Balangir (8.00) come in the middle range (7.01 - 9.00) and three districts, namely, Koraput (6.93), Dhenkanal (6.89) and Puri (6.22) are in the lowest range (7.00 & below).

MAP 68 (D)

# MAIN WORKERS IN PERSONAL AND OTHER MISCELLANEOUS SERVICES 1981

This map depicts the percentage of main workers engaged in personal & other miscellaneous services to total main workers in services (category IX) in each district of the state, 1981.

The percentage figures of main workers engaged in personal and other miscellaneous services to total main workers in each district are grouped into three ranges from high to low order of intensity, one above, one nearer to and one below the state average (38.19 per cent). The districts are hatched accordingly as shown in the legend of the map.

Out of 720,774 main workers in the state as many as 275,279 or 38.19 per cent are engaged in personal and other miscellaneous services.

Four districts, namely, Dhenkanal (44.65), Ganjam (44.09), Mayurbhanj (41.78) and Koraput (41.75) come in the highest range (41.51& above), five districts, namely, Sundargarh (41.41), Balangir (39.59), Kendujhar (38.35), Cuttack (37.67) and Phulabani (37.45) fall in the middle range (36.01 - 41.50) and four districts, namely, Puri (35.20), Sambalpur (34.11), Kalahandi (31.78) and Baleshwar are in the lowest range (36.00 & below).

MAP 69

# MALE AND FEMALE MARGINAL WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

This map depicts two components.

(A) Percentages for marginal workers to total population in each district are calculated and the figures thus obtained are grouped suitably into three ranges, two above and one nearer to the state average (5.26 percent). The districts are shaded in colour by choropleth technique from dark to light intensity as shown in the index of the map.

(B) Circles are drawn proportionate to total marginal workers in each district and are divided into three sectors, such as primary, secondary and tertiary. Each of these sectors represents the group of industrial categories as mentioned below:—

| Industrial categories | Groups |
|---|---|
| I, II, III, IV | Primary activities |
| V, VI | Secondary activities |
| VII, VIII, IX | Tertiary activities |

Each sector of the circle is distinguished as per the legend. The percentage shares of males and females are calculated in each sector of the district. The radius of the circle is treated as per cent. Two separate arcs are drawn in each sector, i.e., one for males another for females; taking the radius as per their percentage share. The female portion of each sector is shown by black dots to distinguish from their counterparts. A flat pink colour in used for both males and females as per the legend.

Out of 26, 370, 271 total population in the state (5.26 percent) are marginal workers.

Three districts, namely, Mayurbhanj (9.51), Koraput (9.38) and Phulabani (9.11) are coming in the highest range of percentage (7.51 & above). The districts of Ganjam (7. 29), Sambalpur (7.27), Sundargarh (6.58) and Kendujhar (6.58) come next in the range (6.51 - 7.50) and the lowest range (6.50 & below) covers the districts of Balangir (6.20), Kalahandi (5.92), Dhenkanal (5.06), Baleshwar (1.82), Cuttack (1.55) and Puri (1.34).

# SOCIO-CULTURAL ASPECTS

MAP 70

# SCHEDULED CASTES 1981

This map depicts the percentage of scheduled caste population to the total population in each police station of the state in 1981.

The percentage figures of scheduled caste population to total population of each police station are grouped into five suitable ranges, two above, one nearer to and two below the state average (14.66). Each police station is hatched by choropleth technique with dark to light hatching according to percentage values.

Solid red circles of fixed size grouped into three population sizes of scheduled castes, such as 20,000 and above, 5,000 - 19, 999 and below 5,000 are coveiniently drawn in each police station.

There are as many as 3, 865, 543 scheduled caste population in Orissa which constitute 14.66 per cent to total population of the state.

There are 23 police stations which fall in the highest percentage range (22.01 and above) of scheduled castes, 75 police stations in the second range (17.01–22.00), 102 police stations and one urban police station are in the third range (12.01 - 17.00), 70 police stations and 4 urban police stations are in the fourth range (7.01 - 12.00) and 38 police stations and one urban police station are in the last range (7.00 and below).

Khajuripada police station in Phulabani district has the highest percentage (30.04) and Sharata police station in Mayurbhanj district has the lowest percentage (1.65) of scheduled castes among all the police stations of Orissa.

MAP 71

# SCHEDULED TRIBES 1981

This map shows the percentage values of scheduled tribes to the total population of each police station of the state in 1981.

The percentage figures of scheduled tribe population to the total population of each police station are grouped into five suitable ranges, two above, one nearer to and two below the state average (22.43). Each police station is hatched by choropleth technique as per index.

Solid red circles of three fixed size such as 30,000 and above, 10,000-29,999 and below 10,000 are conveniently drawn in each police station.

Out of 26,370,271 persons of Orissa enumerated in 1981 Census, 5,915,067 or 22.43 per cent are recorded as scheduled tribes.

There are 38 police stations which have high percentage of scheduled tribes and come in the highest range (63.01 per cent and above).

There are 74 police stations which are hatched in the second range (43.01 - 63.00 per cent).

In the range (11.01 - 43.00 per cent) where the state average falls (22.43), 90 police stations and one urban police station come, 70 police stations and two urban police stations are in the percentage range (1.01 - 11.00) and 36 police stations and three urban units are in the last range (1.00 and below).

Puttasingi police station in the district of Koraput has the highest number of persons (17,477 persons out of 20,933 or 83.50 per cent) belong to the scheduled tribes.

The lowest percentage of scheduled tribes is noticed in the Pattamundai police station of Cuttack district with 37 persons or 0.02 per cent to the total population of 152,259.

MAP 72

# RELIGIONS 1981

This map depicts the percentage of population of different religions to total population of each district of Orissa in 1981.

Squares proportionate to total population of each district in 1981 are drawn. Each square is then divided into 100 small squares and each small square represents 1 per cent. The percentage of population in each religion namely, Hindu, Muslim, Christian, Jain, Buddhist, Sikh,'Other religions and persuasions' and 'religion not stated' to total population of each district are calculated. The small squares are shaded equal to the percentage share of each religion by various colours as shown in the index. Where the percentage share is very negligible, the proportion of square is enlarged and shown adjacent to main square.

It shows that there are 25,161,725 (95.42 per cent) Hindus, 422, 266 (1.60 per cent) Muslims, 480, 426 (1.82 per cent) Christians, 6, 642 (0.03 per cent) Jains, 8,028 (0.03 per cent) Buddhists, 14,270 (0.05 per cent) Sikhs, 273, 526 (1.04 per cent) belong to other religions and persuasions and 3.318 (0.01 per cent) belong to 'religion not stated' in Orissa in 1981.

The percentage decadal variations of each religion during 1971-81 of the state are 19.13 per cent for Hindus , 29.33 per cent for Muslims, 26.80 per cent for Christians, 1.86 per cent for Jains, 39.85 per cent for Sikhs, 197.84 per cent for 'other religions and pursuasions' and 196.78 per cent, for 'religion not stated' whereas in Buddhist religion, there is a decrease of 5.13 per cent during the decade.

The highest increase of percentage in Hindu religion is noticed in Sundargarh district (30.87) and decrease is noticed in Mayurbhanj district (1.76).

The highest increase of percentage in Muslim religion is noticed in Kendujhar district (50.45) and decrease is noticed in Ganjam (15.36) and Phulabani (7.85) districts.

In Christian religion the highest increase is noticed in Mayurbhanj district (80.20) and decrease in Balangir district (14.55).

In Jain religion the highest increase is noticed in Kendujhar district (600.00) and decrease in the districts of Mayurbhanj (97.73) and Ganjam (55.56), Sambalpur (-13.79) and Baleshwar (-3.57).

There was one Buddhist in Phulabani district in 1971 whereas in 1981 there are 37 Buddhists and the percentage increase is 3,699.00. The decrease is noticed in the districts of Mayurbhanj (-85.71), Koraput (-35.86), Cuttack (-11.30), Ganjam (-4.85) and Kendujhar (-4.17).

The highest increase in Sikh religion is noticed in Mayurbhanj district (563.64). No decrease in percentage of Sikh religion is noticed in any district of Orissa during 1971-81.

Kalahandi (20,900.00) and Mayurbhanj (8,000.00) districts have the highest percentage in respect of 'Other religions and persuasions' and 'religions not stated'.

In percentage of 'other religion and persuasions' remarkable increase is noticed in Kalahandi district (+20,900.00) followed by Cuttack (+15,163.64) and Baleshwar (+11,494.12). The only decrease is noticed in the district of Sundargarh (-12.83).

In 'religion not stated' the highest increase in percentage is noticed in Mayurbhanj district (+8,000.00) and decrease is noticed in the districts of Kalahandi (-75.97) and Sundargarh (-33.76).

The following statement shows the percentage of major religions to total population in 1981:-

| Sl. No. | Name of State/ District | Percentage increase/decrease during the decade 1971-81 in each Religion | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Muslim | Hindu | Christian | Jain | Buddhist | Sikh | Other Religions & Persuasions | Religion not stated |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1. | ORISSA | + 29.33 | + 19.13 | + 26.80 | + 1.86 | – 5.13 | + 39.85 | + 197.84 | + 196.78 |
| 2. | Sambalpur | + 25.67 | + 23.63 | + 36.57 | – 13.79 | + 142.86 | + 84.78 | – | + 72.31 |
| 3. | Sundargarh | + 37.96 | + 30.87 | + 24.74 | + 32.73 | + 75.44 | + 21.17 | – 12.83 | – 33.76 |
| 4. | Kendujhar | + 50.45 | + 15.76 | + 31.64 | + 600.00 | – 4.17 | + 5.28 | + 919.87 | – |
| 5. | Mayurbhanj | + 20.77 | – 1.76 | + 80.20 | – 97.00 | – 85.71 | + 563.64 | + 190.82 | + 8,000.00 |
| 6. | Baleshwar | + 30.01 | + 22.40 | + 60.43 | – 3.57 | + 163.64 | + 116.90 | + 11,494.12 | + 2,000.00 |
| 7. | Cuttack | + 26.29 | + 20.69 | + 20.69 | + 12.69 | – 11.30 | + 38.40 | + 15,163.64 | + 1,965.71 |
| 8. | Dhenkanal | + 37.43 | + 22.23 | + 61.82 | + 242.86 | + 9.93 | + 46.32 | – | + 2,220.00 |
| 9. | Phulabani | – 7.85 | + 16.20 | + 4.20 | – | + 3,600.00 | + 93.33 | – | – |
| 10. | Balangir | + 27.92 | + 15.72 | – 14.55 | + 1.91 | + 8.82 | + 58.68 | – | – |
| 11. | Kalahandi | + 45.44 | + 14.93 | + 17.67 | + 35.66 | + 212.50 | + 49.61 | + 20,900.00 | – 75.97 |
| 12. | Koraput | + 44.13 | + 21.82 | + 11.06 | + 35.78 | – 35.86 | + 12.84 | – | + 318.52 |
| 13. | Ganjam | – 15.36 | + 15.32 | + 72.56 | – 55.56 | – 4.85 | + 37.89 | – | – |
| 14. | Puri | + 36.36 | + 24.45 | + 69.25 | + 23.49 | + 9.32 | + 85.32 | + 1,457.14 | – |

MAP 73

# DISTRIBUTION OF POPULATION BY LANGUAGE MAINLY SPOKEN IN THE HOUSEHOLDS 1981

This map depicts the percentage of population speaking languages in the households to the total population of each district in the state in 1981.

The percentage of population speaking languages in the households to the total population (excluding institutional households population) of each district are calculated and the percentage values thus obtained are grouped into five ranges such as (i) 75.01 and above (ii) 50.01 - 75.00 (iii) 25.01 - 50.00 (iv) 5.01 - 25.00 and (v) 1.01 - 5.00. The languages spoken by one per cent and below have not been taken into account. These ranges are shown by colour duly graded and followed by different symbols for different languages with class intervals.

The districts with different colour shadings show the different percentage of Oriya speakers. The rest are shown by different symbols in black and white as shown in the index.

In Orissa, out of 26,370,271 persons 21,519,571 (82.23 per cent) speak Oriya in their households. In the entire coastal districts, namely, Baleshwar (88.31), Cuttack (92.32), Puri (95.04) and Ganjam (80.80) and in Kendujhar (77.53), Dhenkanal (96.61) Sambalpur (85.51), Balangir (98.44) and Kalahandi (89.69) districts 75.01 and above per cent of people speak Oriya in their households. Phulabani (66.61), Koraput (63.76) and Mayurbhanj (53.16) districts fall in the range (50.01 - 75.00 per cent). Only 44.79 per cent people of Sundargarh district speak Oriya in their households and come under the range (25.01 - 50.00).

'Kui' a tribal language is the next predominant language spoken in the households followed by another tribal language 'Santali'. In the district of Phulabani 32.78 per cent of the total population speak 'Kui' and in Mayurbhanj 25.70 per cent of the total population speak 'Santali'.

In respect of number of speakers, Telugu (604,758 or 2.31 per cent to total population) comes second followed by Hindi (596, 460 or 2.28 per cent) Santali (524,771) or 2.01 per cent), Kui (507,528 or 1.94 per cent) Bengali (378,181 or 1.45 per cent), Urdu (371,706 or 1.42 per cent) and Ho (262,008 or 1.00 per cent). Percentage of other language speakers are less than 1.00 per cent to the total population of the state.

MAP 74

# LITERACY 1981

This map depicts the percentage of literates to total population (excluding age 0-4) in each district of Orissa in 1981.

Two components are shown in this map.

(A) Percentage of literates to total population (excluding age 0-4) in each district of Orissa is calculated. The figures thus obtained are grouped into three suitable ranges one above, one nearer to and one below the state average of 38.83. The districts are shaded with different types of hatching from high to low intensity using choropleth technique as shown in the legend of the map.

(B) Vertical bars proportionate to total literates of each district are drawn and are shaded in green colour. Absolute scale of literates is shown in the left side of each bar. There are 23,250,844 persons in Orissa (excluding age 0-4) of which 9,027,205 (38.83 per cent) are literates.

Cuttack district has the highest number of literates (2,102,667) to total population (excluding age 0-4) and Phulabani has the lowest (194,231).

There are three coastal district, namely, Cuttack (51.51), Puri (51.37) and Baleshwar (48.13) in the highest range of literates (42.01 & above).

In the next range (30.01 - 42.00) per cent which is nearer to the state average of 38.83 are the districts Dhenkanal (41.97), Sundargarh (41.26), Sambalpur (38.16), Ganjam (35.63), Kendujhar (34.48) and Phulabani (30.58).

The districts Balangir (29.05), Mayurbhanj (28.99), Kalahandi (21.98) and Koraput (18.25) come in the last range of percentage (30.00 & below).

MAP 75

# CHANGE IN LITERACY 1981

This map shows the change in percentage of literates during the decade 1971-81 in each district of Orissa.

The percentage values of total literates to total population excluding age-group 0-4 for each district in 1981 and 1971 are calculated separately. By subtracting the percentage values of 1971 from that of 1981 the percentage change of literates during the decade 1971-81 is worked out for each district. The figures thus obtained are grouped into three ranges, one above, one nearer to and one below the state average (8.30). The districts are hatched by different hatchings from high to low intensity using choropleth technique as shown in the legend.

There were 5,745,399 literates (30.53 per cent) out of 18,819,069 population (excluding age-group 0-4) in 1971 and 9,027,205 literates (38.83 per cent) out of 23,250,844 population (excluding age-group 0-4) in 1981 showing an increase of 8.30 per cent of literates during the decade 1971-81.

The highest percentage of increase in literates is noticed in the district of Dhenkanal (11.11) and the lowest is in the district of Koraput (5.78).

There are four districts in the highest range of percentage (9.51 & above), *viz.*, Dhenkanal (11.11), Puri (10.19), Sundargarh (9.71) and Kendujhar (9.52).

In the second range (6.51-9.50), the districts of Cuttack (8.95), Baleshwar (8.58), Mayurbhanj (7.82), Phulabani (7.39), Sambalpur (6.99), and Ganjam (6.83) are hatched.

The districts, namely, Balangir (6.02), Kalahandi (5.88) and Koraput (5.78) are shown in the last range (6.50 and below per cent).

MAP 76

# MALE LITERACY 1981

This map depicts the percentage of male literates to total male population (excluding age 0-4) in each district of Orissa in 1981.

Two components are shown in this map.

(A) Percentage of male literates to total male population (excluding 0-4 age-group) in rural and urban areas separately for each district is calculated. The percentage figures thus obtained are used to draw the bar diagram in each district. Two side lapping bars proportionate to the percentage figures for male literates in rural and urban areas are drawn for each district. To differentiate the rural and urban, the urban bars are hatched and rural bars are left blank.

(B) The percentage of male literates to total male population (excluding age 0-4) are calculated for each district and the figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 53.34 and shaded by hatching from high to low order of intensity as shown in the index of the maps.

There are 6,268,643 male literates (53.34 per cent) to total male population (excluding age 0-4) of 11,752,572 in the state.

Puri district has the highest percentage (66.78) of male literates and Koraput district has the lowest (26.67).

Four districts, namely, Puri (66.78), Cuttack (65.86), Baleshwar (63.44) and Dhenkanal (58.45) come in the highest range of percentage of literates (55.01 & above).

In the second range (45.01-55.00 per cent) the districts Sambalpur (53.78), Sundargarh (53.75), Ganjam (52.48), Kendujhar (48.97), Phulabani (48.17) and Balangir (45.09) come alongwith state average 53.34.

The districts Mayurbhanj (42.07), Kalahandi (35.34) and Koraput (26.67) come in the lowest range (45.00 & below).

MAP 77

# CHANGE IN MALE LITERACY 1971-81

This map depicts the change of percentage in male literacy during the decade 1971-81.

The percentage values of the male literates to total male population (excluding age 0-4) are calculated for each district of 1971 and 1981 separately. The calculated values of male literacy of 1971 is subtracted from that of 1981 to obtain the change of male literacy during the decade 1971—81. The figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 8.84. Accordingly, the districts are hatched from high to low intensity using choropleth technique as shown in the legend of the map.

There were 44.50 per cent of literate males to total male population (excluding age-group 0-4) in 1971 as against 53.34 per cent in 1981 in Orissa showing an increase of 8.84 per cent in male literacy during the decade 1971-81. There were steady growth in all the districts of the state during this period.

The maximum increase is noticed in Dhenkanal district (11.91) and the lowest is in Sambalpur district (7.36).

Three districts, namely, Dhenkanal (11.91), Kendujhar (11.30) and Sundargarh (10.30) come in the highest range of percentage (10.01 & above).

Five districts, namely, Phulabani (9.64), Mayurbhanj (9.34), Puri (8.86), Kalahandi (8.78) and Baleshwar (8.04) come in the next range (8.01-10.00) in which the state average (8.84) falls.

In the lowest range (8.00 & below), the districts Balangir (7.96), Cuttack (7.83), Koraput (7.76), Ganjam (7.71) and Sambalpur (7.36) are recorded.

# FEMALE LITERACY 1981

This map depicts the percentage of female literates to total female population (excluding age 0-4) in each district of Orissa in 1981.

Two components are shown in this map.

(A) The percentage of female literates to total female population excluding 0-4 age-group in rural and urban areas separately for each district are calculated. The percentage figures thus obtained are used to draw bar diagrams for each district. Two bars side lapping each other proportionate to the total female literacy in urban and rural areas are drawn in each district. The urban bars are shaded and the rural bars are left blank.

(B) The percentage scale is shown to the left of each diagram. The percentage figures of female literates to total female population (excluding age 0-4) are calculated for each district and the figures thus obtained are grouped into three suitable ranges one above, one nearer to and one below the state average of 23.99. The districts are hatched in different hatchings from high to low intensity using choropleth technique as shown in the legend of the map.

There are 2,758,562 female literates (23.99 per cent) to the total female population (excluding age 0-4) of 11,498,272 in Orissa in 1981.

Cuttack district has shown the highest percentage (36.73) of female literates and Kalahandi district has shown the lowest percentage (8.71). Puri district has the highest percentage of female literates in urban areas (60.78) and Cuttack district has the highest rural female literates (34.73).

Three coastal districts come in the highest range (30.01 & above), namely, Cuttack (36.73), Puri (35.26) and Baleshwar (32.41).

Six districts, namely, Sundargarh (27.71), Dhenkanal (24.61), Sambalpur (22.06), Kendujhar (19.70), Ganjam (19.38) and Mayurbhanj (15.71) come in the second range (15.01-30.00). The state average (23.99) comes under this range.

In the lowest range (15.00 and below) the districts are Phulabani (12.93), Balangir (12.84), Koraput (9.73) and Kalahandi (8.71).

MAP 79

# CHANGE IN FEMALE LITERACY 1971-81

This map depicts the change in percentage of female literates during the decade 1971-81 in each district of Orissa.

The percentage values of the total female literates to total female population (excluding age 0-4) is calculated for each district of 1971 and 1981 separately. The calculated figure of 1971 is subtracted from that of 1981 to obtain the change in female literacy during the decade 1971-81. The figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 7.70. The districts are hatched from high to low intensity using choropleth technique as shown in the index of the map.

There are 16.29 per cent of female literates to total female population (excluding age 0-4) in 1971 as against 23.29 per cent in 1981. The increase during the decade 1971-81 is 7.70 per cent. All the districts show a steady growth in female literacy during the decade.

The highest increase is noticed in the district of Puri (11.28) and the lowest is in the district of Kalahandi (3.28).

There are four districts, namely, Puri (11.28), Cuttack (9.93), Dhenkanal (9.91) and Baleshwar (9.37) in the highest range of percentage (9.01 & above).

Nearer to state average of 7.70 per cent are the districts Sundargarh (8.94), Kendujhar (7.99), Sambalpur (6.61), Mayurbhanj (6.31), Ganjam (5.74) and Phulabani (5.07). These districts come in the range (5.01-9.00).

In the lowest range (5.00 & below) the districts of Balangir (4.15), Koraput (3.88) and Kalahandi (3.28) are recorded.

MAP 80

# EDUCATIONAL ATTAINMENT 1981

This map depicts the educational attainment at different levels of education in each district of Orissa in 1981. The total number of persons with different educational levels are grouped into five categories such as (I) Primary and Middle (II) Matriculation/Secondary, Higher Secondary/ Intermediate/Pre-University, Non-technical diploma or certificate not equal to degree and Technical diploma or certificate not equal to degree (III) Graduate and above (IV) Literates (without educational level) and (V) Illiterates.

Each of these five categories of educational levels are shown by columnar diagram with solid equal sized coloured circles in vertical direction in each district and the state. One symbol represents 100,000 persons for the district and 500,000 persons for the state.

There are 4,234,974 persons with Primary and Middle education level, 825,240 persons having Matriculation/Secondary, Higher Secondary/Intermediate/Pre-University, Non-technical diploma or certificate not equal to degree and Technical diploma certificate not equal to degree level of education.

There are 197,855 persons having Graduate and higher level of education, 3,769,136 are literates (without educational level) and 17,343,064 illiterates in Orissa in 1981.

Cuttack district stands highest in respect of all the levels of education including illiterates and Phulabani stands lowest in respect of all the levels of education including illiterates in 1981.

MAP 81

# URBAN LITERATES PER 1000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34 1981

This map depicts the proportion of increase and decrease of literates per 1000 population in age 5-14 over that of population in age 15-34 in urban areas of each district of Orissa in 1981.

Number of literates per 1,000 of population in age-groups 5-14 and 15-34 of urban areas are compiled for all the districts separately. The number of literates thus obtained in age 15-34 is subtracted from that of in age 5-14. The values obtained are grouped into three suitable ranges of deficit literates one above, one nearer to and one below the state average (-90) of deficit literates. The districts are shaded by different hatchings from high to low intensity using choropleth technique as shown in the index of the map.

There are 612 literates per 1000 of population in age 5-14 as against 702 literates per 1000 of population in age 15-34. After subtracting the former from the later a deficit result of (-90) is found for Orissa in 1981. All the districts and the state show a deficit trend.

The districts of Baleshwar shows the highest deficit of 151 and the district of Koraput shows the lowest deficit of 19.

There are four districts, namely, Baleshwar (151), Puri (131), Balangir (129) and Phulabani (126) under the highest deficit range (126 & above).

Cuttack (125), Dhenkanal (122), Ganjam (93), Mayurbhanj (81), Kalahandi (63) and Sambalpur (60) come under the next higher range of (51-125). The state average (-90) also comes in the same range.

The districts Sundargarh (39), Kendujhar (32) and Koraput (19) come in the lowest range (50 & below).

MAP 82

# RURAL LITERATES PER 1000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34 1981

This map depicts the excess and deficit of proportion of literates per 1000 population in the age 5-14 over in age 15-34 in rural areas of each district in the state, 1981.

The proportionate figures of rural literates per 1000 population in age 5-14 and in the age 15-34 are calculated for each district. The excess and deficit of rural literate has been calculated by subtracting the proportion of rural literates in age 15-34 from that of age 5-14. The resultant values showing deficit are grouped into three suitable ranges, one above, one nearer to and one below the state average of 64. The districts are shaded according to the ranges as per the index. The "excess" is shown in a different hatching.

In Orissa there are 6,517,857 persons in the age of 5-14 of them 2,365,233 are literates. The proportion value is 363 literates per 1000 population. There are 7,194,287 persons in the age of 15-34, of them, 3,073,945 are literates. The proportion value is 427 literates per 1000 population. The difference is calculated by subtracting the former from the later. Among 13 districts in the state only Koraput district shows an excess value of 34. All other districts show deficit values.

The districts Baleshwar (146), Cuttack (122) and Puri (117) come under the highest deficit range (101 & above).

In the next range (31-100) where the state average is also coming are the districts Dhenkanal (84), Kendujhar (52), Sambalpur (49), Ganjam (36), Phulabani (35) and Sundargarh (33).

In the lowest range (30 & below) the districts Kalahandi (26), Balangir (24) and Mayurbhanj (4) are recorded.

MAP 83

# PRIMARY SCHOOL ENROLMENT OF BOYS 1981

This map depicts the percentage of boys of age-group 5-14 attending primary schools to the total population of boys in the age-group 5-14 for each district in Orissa 1981.

The percentage of boys of age 5-14 attending primary and middle school level excluding formal and non-formal literates (without educational level) during the academic year beginning in 1981 have been calculated district-wise. The figures thus obtained are grouped into five suitable ranges, two above, one nearer to and two below the state average (18.04). Districts are hatched from high to low intensities as shown in the legend on the map.

There are 3,682,207 boys in the age-group 5-14 of which 664,451 (18.04 per cent) boys are attending primary and middle school excluding the formal and non-formal literates (without educational level).

Two districts, namely, Cuttack (25.00) and Puri (21.86) come under the highest range of percentage (21.00 & above).

In the next range (18.51-20.99) only Baleshwar district comes.

Five districts, namely, Sundargarh (18.32), Sambalpur (17.83), Dhenkanal (17.52), Mayurbhanj (16.73) and Ganjam (16.16) come under the middle range (16.00-1850) where the state average (18.04) is also recorded.

In the next range (13.01-16.00) are the districts Balangir (14.75), Kendujhar (14.22) and Phulabani (13.20).

Two districts, namely, Koraput (11.16) and Kalahandi (10.69) fall in the range of 13.00 & below.

MAP 84

# PRIMARY SCHOOL ENROLMENT OF GIRLS 1981

This map depicts the percentage of girls attending primary schools to the total population of girls for each district in Orissa, 1981.

Percentage of girls of age 5-14 attending primary and middle schools level excluding formal and non-formal literates (without educational level) to total population of girls in age-group 5-14 during the academic year beginning in 1981 are calculated district-wise. The figures thus obtained are grouped into five suitable ranges, two above, one nearer to and two below the state average of 9.49. The choropleth technique is adopted to show the intensity from high to low in different types of hatchings as shown in the legend.

In Orissa there are 3, 652,189 girls in age-group 5-14 of which 346,435 girls (9.49 per cent) are attending primary and middle school level excluding formal and non-formal literates (without educational level).

In the highest range of percentage (12.21 & above) two districts, namely, Cuttack (15.55) and Puri (13.29) are hatched. The districts Baleshwar (11.71) and Sundargarh (11.28) fall under the next range (11.21-12.20 per cent).

The state average of 9.49 and the districts Dhenkanal (9.24) and Mayurbhanj (8.41) come in the range (8.21-11.20 per cent).

In the next below range (5.21-8.20), the districts Sambalpur (8.18), Ganjam (6.83) and Kendujhar (6.76) are shown.

In the lowest range (5.20 & below) the districts are Koraput (5.19), Phulabani (4.83), Balangir (4.72) and Kalahandi (2.92).

MAP 85

# EDUCATIONAL ENROLMENT OF MALES AT MATRICULATION, SECONDARY, HIGHER SECONDARY AND HIGHER LEVELS 1981

This map depicts the percentage of males at matriculation/secondary, higher secondary and higher levels of education to total male population in age-group 15-24 for each district of Orissa, 1981.

The percentage values of male population in the age 15-24 at the levels of matriculation/secondary, higher secondary and higher level of education during the academic year beginning in 1981 to the total population in age-group 15-24 for each district of Orissa are grouped into five suitable ranges, two above, one nearer to and two below the state average (7.86 per cent). The districts are shaded with the hatching of different intensities as shown in the legend of the map.

There are 2,386,656 males in the age-group of 15-24 in Orissa of which 187,504 males (7.86 per cent) are at matriculation/secondary, higher secondary and higher levels of education in 1981.

Two districts, namely, Cuttack (11.35) and Puri (10.16) are in the first range of percentage (10.01 and above). Next come the districts Baleshwar (9.84) and Sundargarh (9.82) in the range (8.51-10.00). In the third range (6.51-8.50) the districts Ganjam (8.48), Sambalpur (7.28) and the state average (7.86) are recorded. In the next below range (4.51-6.50) the districts Mayurbhanj (6.35), Kendujhar (5.92) and Dhenkanal (5.81) fall. The districts Balangir (4.49), Phulabani (3.46), Koraput (3.34) and Kalahandi (3.11) come in the lowest range (4.50 & below).

MAP 86

# EDUCATIONAL ENROLMENT OF FEMALES AT MATRICULATION/SECONDARY/HIGHER SECONDARY AND HIGHER LEVELS 1981

This map depicts the percentage of female population at the level of matriculation/secondary, higher secondary and higher level of education to total population in age-group 15-24 for each district of Orissa, in 1981.

The percentage values of female population in age 15-24 at the level of matriculation/secondary, higher secondary and higher level of education during the academic year beginning in 1981 to the total population in age-group 15-24 for each district are grouped into three suitable ranges, one above, one nearer to and one below the state average (2.23). The districts are shaded with the hatching of different intensities as shown in the legend of the map.

There are 2,327,637 females in the age-group 15-24 in Orissa of which 52,011 (2.23) per cent are enrolled at matriculation/secondary, higher secondary and higher levels of education in 1981.

Three districts, namely, Puri (4.34), Cuttack (3.60) and Sundargarh (3.10) come under the highest range (3.01 & above). The districts Baleshwar (2.22), Sambalpur (1.93), Mayurbhanj (1.74), Ganjam (1.43) and Balangir (1.19) are in the middle range (1.01-3.00) where the state average (2.23) is also recorded. The lowest range (1.00 & below) covers the districts of Phulabani (0.94), Kendujhar (0.91), Koraput (0.86) and Kalahandi (0.54).

MAP 87

# LITERATES HOLDING NON-TECHNICAL AND TECHNICAL DIPLOMA OR CERTIFICATE NOT EQUAL TO DEGREE 1981

This map depicts the proportion of literates holding non-technical and technical diploma or certificate not equal to the degree to 10,000 of total literates in each district of Orissa, 1981.

Two components are shown in this map.

(A) Circles proportionate to total number of literates holding non-technical and technical diploma or certificate not equal to degree are drawn in each district and their absolute number is given on the top of the circles. Each circle is further divided into two sectors, proportionate to "technical diploma or certificate not equal to degree" and non-technical diploma or certificate not equal to degree". The non-technical sector is hatched in black while the technical sector is left blank to differentiate the two sectors. The percentage values of technical diploma or certificate and non-technical diploma or certificate holders to total absolute number given on the top of the circle is given inside the respective sector.

(B) The proportion of technical and non-technical diploma or certificate not equal to degree holders to 10,000 of total literates of each district are calculated and grouped into three suitable ranges, one above, one nearer to and one below the state average (77). The area of the districts outside the circles are shaded with different hatching using choropleth technique as indicated in the legend of the map.

There are 9,027,205 literates of which 69,126 are holders of technical and non-technical diploma or certificate not equal to degree, in Orissa in 1981. Of them 68,462 are holders of technical diploma or certificate not equal to degree and 664 are holders of non-technical diploma or certificate not equal to degree. The proportion of holders of technical and non-technical diploma or certificate not equal to degree per 10,000 literates of the state is only 77.

In respect of these proportions, the districts Sundargarh (148), Koraput (120) and Kendujhar (93) come under the highest range (91 & above).

In the next range (66-90) seven districts are included. Those are Mayurbhanj (89), Dhenkanal (80), Baleshwar (79), Kalahandi (79), Balangir (79), Ganjam (69) and Sambalpur (67). The state average (77) lies in this range. The districts Puri (62), Cuttack (62) and Phulabani (53) are included in the lowest range (65 & below).

MAP 88

# LITERATES HOLDING UNIVERSITY DEGREE/DIPLOMA OF THE GRADUATE LEVEL AND ABOVE 1981

This map shows the proportion of literates holding university degree/ diploma of the graduate level and above to 10,000 of literates in each district of the state, 1981.

Two components are shown in this map:—

(A) Circles proportionate to total number of literates holding university degree/diploma of graduate level and above are drawn in each district. Each circle is then divided into two sectors proportionate to rural and urban literates and are hatched by different designs to differentiate each other. Absolute figures shown on the top of each circle indicate the total number of literates holding university degree/diploma of the graduate level and above. The percentage figures of literates holding university degree/ diploma of the graduate level and above in rural and urban area are written in respective sector of the circle.

(B) The proportion of literates holding university degree/diploma of the graduate level and above per 10,000 of total literates in each district was calculated and the figures thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average of 219.

In the highest range of 226 & above the districts of Sundargarh (348), Puri (297) and Cuttack (226) are shown.

The districts of Koraput (215), Mayurbhanj (199), Sambalpur (198), Ganjam (191), Baleshwar (184), Kendujhar (184) and Dhenkanal (178) are coming under the second range of 176-225 where state average falls.

In the lowest range of "175 & below" are the districts of Balangir (159), Kalahandi (141) and Phulabani (125).

Among the districts having rural literates holding university degree/ diploma of the graduate level and above, Baleshwar district comes first with 69.52 per cent and Sundargarh stands lowest with 19.70 per cent only.

Among the districts having urban literates holding analogous qualifications, Sundargarh district stands top with 80.30 per cent and Baleshwar holding the lowest position with only 30.48 per cent.

MAP 89

# NUMBER OF OCCUPIED RESIDENTIAL CENSUS HOUSES PER 100 RURAL POPULATION 1981

This map presents the number of occupied residential census houses per 100 rural population in each police station of Orissa in 1981.

The ratio of occupied residential census houses per 100 rural population in each police station is obtained by dividing the number of occupied rural residential census houses by rural population and multiplied by 100 at police station level. The institutional and the houseless rural population are excluded from the total rural population. The ratio thus obtained are grouped into five suitable ranges, two above, one nearer to and three below the state average (17). All the police stations are hatched by different grades of hatching as per range from high to low intensity, using choropleth technique as shown in the index of the map.

There are 4,028,546 occupied residential census houses in the State in 1981 occupied 23,259,984 rural population resulting a ratio of 17 houses per 100 rural population. All total 62 police stations are coming under the highest range (21 and above), 73 police stations in the second range (19-20), 79 police stations in the third range (17-18), 60 police stations in the fourth range (15-16) and 34 police stations in the lowest range of 14 & below. All the six urban units of the state are shown as "Entirely Urban" and are shaded in solid black.

The police stations of Garabandha in Ganjam district, Gunupur, Koraput, Machhkunda and Mudulipada in Koraput district have recorded the highest ratio of 24 whereas Brahmagiri in Puri district has recorded the lowest ratio of 12.

MAP 90

# CENSUS HOUSES AND THEIR USES 1981

This map depicts the percentage of occupied census houses according to their uses in each district of the state, 1981.

The percentage values of houses of different use to total number of houses (excluding census houses vacant at the time of houselisting and census houses used as other) are calculated for each district. Five bars proportionate to the absolute number of census houses of five different uses are drawn for each district. The absolute number of census houses is written at the top of each bar diagram.

Each bar shaded with hatching as per the index of the map. The absolute scales (in thousand) and the percentage scales are drawn on the left and right hand side of the bar diagrams respectively.

There are five categories of census houses as indicated in the legend of the map. there are 4,835,955 census houses in the state(excluding vacant houses or houses used as others ) out of which 4,287,035 or 88.65 per cent are used for residential purposes. 228,210 or 4.72 per cent are used for shop-cum-residence purposes, 117,350 or 2.43 per cent as hotel, sarai, and dharmasala, etc. purposes, 145,875 or 3.04 per cent are used for shops (excluding eating houses) and 57,485 or 1.19 per cent are used for factories, workshop, etc.

The percentage of residential houses is the highest in the district of Koraput (93.73).

In the category of shop -cum-residence the the highest percentage (8.91) is found in the district of Sambalpur.

In respect of census houses used for hotels. sarais, Dharamasala, etc. Puri district has the highest percentage of 4.65. This district also records the highest percentage in respect of census houses used as shops (excluding eating houses)(5.43) and factories, workshops, etc. (1.77)

MAP 91

# AMENITIES IN URBAN HOUSEHOLDS 1981

This map depicts the amenities like drinking water, toilet and electricity available in the urban households in each district of Orissa in 1981

The data are represented here with quantitative diagrams consisting of small rhombuses for each district. The facility of electricity available to urban households is shown in black dots inside the rhombuses, toilet facility is shown in black hatching and drinking water facility is shown in flat yellow colour. Each small rhombus represents 10,000 urban households and the figure on the top of each diagram indicates the total number of households in respective district.

There are 604,820 urban households in Orissa of which 312,960 have the electricity facilities, 253,295 households have toilets in their houses and 245,785 households have drinking water facilities.

In respect of availability of electricity and toilet Puri district comes first among the districts in the state with 57,710 and 45,275 households respectively. Cuttack district has the highest number of households (50,335) having drinking water facilities.

MAP 92

# AMENITIES IN RURAL HOUSEHOLDS 1981

This map depicts the amenities available in rural households in each district of the state in 1981.

Quantitative diagrams with small rhombuses representing the total number of rural households are drawn in each district. Each small rhombus represents 10,000 households.

Two amenities available in the rural households are shown, such as drinking water and electricity. The facility for drinking water is shown in flat orange colour and the facility for electricity is shown in black dots inside the rhombuses. The remaining rhombuses, where none of the amenities available are left blank. The figure on the top of each diagram indicates total number of rural households.

There are 4,356,825 rural households in Orissa of which 567,675 households have electricity and 632,865 households have drinking water facilities in their houses.

As regards to districts the highest number of rural households in Cuttack district are getting electricity and drinking water. Out of 693,425 rural households 133,365 households have electricity and 226,370 households have drinking water facilities in this district.

Kalahandi district (263,195 households) has the lowest number of households (62.90) having electricity in their houses. Out of 147,705 rural households in Phulabani district only 15,080 households have drinking water facilities.

MAP 93

# RURAL HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981

This map depicts the percentage of different groups of households classified by number of rooms occupied to the total rural households in each district of the State in 1981.

Rural households of each district are grouped into five categories, viz., one room two rooms, three rooms, more than three rooms and unspecified number of rooms. The percentage of households of each group to total rural households (excluding the institutional households and houseless households) are calculated. Rhombus proportionate to total rural households is drawn in each district and divided into 25 equal pockets, each pocket representing 4 per cent. The pockets are shaded in different designs as shown in the index, corresponding to the percentage values of rural households occupying rooms as above mentioned categories. Figures at the top of each rhombus indicate the total number of rural households in each district.

There are 4,356,825 rural households in the state. Of them 1,638,410 (37.61 per cent) are 'two rooms' households which is the largest among the six groups of households. Next to it is 'one room' households whose percentage share is 32.78 followed by 'three rooms' households (14.80) and 'more than three rooms' households (13.53) . The share of "unspecified number of rooms" households is 1.22 per cent.

The highest percentage of rural households in the category of "one room" in Phulbani district (52.93), "two rooms" in Koraput district (42.07), "three rooms" in Puri district (19.90), "more than three rooms" in Puri district (25.06) and 'unspecified rooms' in Balangir district (1.66) is recorded.

MAP 94

# URBAN HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981

This map depicts the percentage distribution of urban households among the different groups of households classified by number of rooms occupied to the total urban households in each district of the state, 1981.

Urban households of each district are grouped into five categories, viz., one room, two rooms, three rooms more than three rooms and unspecified number of rooms. The percentage of the households of each group mentioned above to total urban households (excluding the institutional and houseless households) are calculated. Rhombus proportionate to total urban households (excluding the institutional and houseless households) is drawn in each district and divided into 25 equal pockets, each pocket representing 4 per cent. The pockets are shaded in different designs as shown in the index of the map. Figures at the top of each rhombus indicate the total number of urban households in each district.

There are 604,820 urban households in the state of which 245,595 (40.61 per cent) are "one room" households, 203,445 (33.69 per cent) are "two rooms" households 77,765 (12.85 per cent) are "three rooms" households 71,585 (11.84 per cent) are "more than three rooms" households, 6,065 (1.00 per cent) are households with unspecified number of rooms.

The highest percentage of urban households in the category of "one room" in Sundargarh district (49.28) "two rooms" also in Sundargarh (36.61) "three rooms". In Ganjam (19.64), "more than three rooms" in Balangir (17.86) and "unspecified number of rooms" in Kalahandi district (1.60) is recorded.

MAP 95

# PERSONS BY RURAL HOUSEHOLDS 1981

This map depicts the distribution of rural households according to the number of persons for each district of the state in 1981.

A vertical and a horizontal axis are down in each district. The vertical axis represents the number of rural households and the horizontal axis represents the size of the rural households. six solid vertical bars each representing the number of households are drawn for different size of the households such as one person, two persons, 3 persons, 4 persons, 5 persons and 6+ persons household. Absolute scale showing the number of households are drawn on the left side and the number of persons per household are shown at the bottom of the diagram for each district.

There are 4,378,775 rural households in the state of which 204,905 are consisting of only one person, 383,795 of two persons, 556,675 of three persons, 708,855 of four persons 729,310 of five persons and 1,795,235 of 6 and above persons.

In each district the solid bar of household size of 6+ persons is the highest. Similarly one member household bar is the lowest in all districts.

The district of Cuttack occupies the highest position as regards to the number of rural households in the categories of 4,5 and 6+ members household. Koraput district occupies the highest position as regards to the number of rural households in category of 2 and 3 members household. The number of one member rural household is recorded in higher scale for the districts of Cuttack, Ganjam and Koraput.

MAP 96

# PERSONS BY URBAN HOUSEHOLDS 1981

This map represents the distribution of urban households according to the number of persons in each district of the state in 1981.

Two axes, one vertical and the other horizontal are drawn in each district. The vertical axis represents the number of urban households and the horizontal axis represents the number of persons per household. Six solid black vertical bars for 1 person, 2 persons, 3 persons, 4 persons, 5 persons and 6+ persons households are drawn in each district. The absolute scale showing the number of households are shown on the left and the number of persons per household are shown at the bottom of each diagram.

There are 620, 680 urban households in the state of which 63,375 are occupied by one person, 65,650 by two persons, 77,410 by three persons, 90,860 by four persons, 91,975 by five persons and 231,410 by 6 and more persons.

Number of households is the highest having 6+ members each in each district of the state. In this category Cuttack is the highest (36,290 households) among all the districts of the state.

In the category of 5 persons, Sundargarh district has the highest number (13,125) of urban households.

In the categories of 2,3 and 4 persons Sundargarh district again stands as the highest with 10,180, 13,450 and 10, 915 households respectively.

The number of one members household is highest in the district of Cuttack (12,225),

MAP 97

# MEDICAL INSTITUTIONS PER 10,000 OF CENSUS HOUSES 1981

This map depicts the ratio of medical institutions per 10,000 occupied census houses in each district of the state in 1981.

Medical institutions include/hospitals, health centres, doctors' clinics, dispensaries etc. The number of such institutions per 10,000 of occupied census houses is calculated for each district of the state and are grouped into three suitable ranges, one above, one nearer to and one below the state average of 1.81. The districts under different ranges are shaded by choropleth method from high to low order of values as shown in the index of the map.

There are 1069 medical institutions for 5,902, 900 occupied census houses in the state in 1981. the ratio is 1.81 medical institutions for every 10,000 of occupied census houses.

The district of Sundargarh has the highest ratio of 2.88 and Kalahandi district has the lowest ratio of 1.39 medical institutions for every 10,000 occupied census houses.

Three districts, namely, Sundargarh (2.88) , Phulbani (2.42) and Puri come under the highest range of ratio (2.11 and above). The districts of Kendujhar (2.08) Sambalpur (2.05) Dhenkanal (1.85) Mayurbhanj (1.75) Baleshwar (1.65) and Cuttack (1.63) come under the middle range (1.61-2.10) in which the state average (1.81) also falls. The lowest range (1.60 & below) cover the districts of Koraput (1.60), Balangir (1.58), Ganjam (1.50) and Kalahandi (1.39).

The following statement depicts proportion of medical institutions per 10,000 of occupied census houses in 1981:-

| State/ District | Occupied Census Houses, 1981 | No. of medical Institutions | Medical Institutions per 10,000 of occupied census houses |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| ORISSA | 5,902,900 | 069 | 1.81 |
| Sambalpur | 508,210 | 104 | 2.05 |
| Sundargarh | 301,720 | 87 | 2.88 |
| Kendujhar | 264,620 | 55 | 2.08 |
| Mayurbhanj | 355,110 | 62 | 1.75 |
| Baleshwar | 478,415 | 79 | 1.65 |
| Cuttack | 932,185 | 152 | 1.63 |
| Dhenkanal | 313,560 | 58 | 1.85 |
| Phulabani | 185,570 | 45 | 2.42 |
| Balangir | 322,425 | 51 | 1.58 |
| Kalahandi | 346,145 | 48 | 1.39 |
| Koraput | 664,085 | 106 | 1.60 |
| Ganjam | 686,370 | 103 | 1.50 |
| Puri | 544,485 | 119 | 2.19 |

MAP 98

# HOSPITAL BEDS PER 100,000 OF POPULATION 1981

This map depicts the number of hospital beds per 100,000 of population in each district of the state in 1981

The number of hospital beds available for every 100,000 of population for each of the districts has been worked out and grouped into three suitable ranges, one above, one nearer to and one blow the state average and the districts are hatched in different types of hatching as per the ranges as shown in the legend of the map. There are 13,616 hospital beds (indoor beds) for 26,370,271. population of the state in 1981. It works out as 52 beds for 100,000 population.

The districts of Sundargarh (110), Sambalpur (80) , Ganjam (64) and Phulbani (63) are coming in the first range of 61 and above. In the second range (41-60) come the districts of Cuttack (56), Puri (50), Kalahandi (44), Kendujhar (43) and Koraput (41). Four districts come under the lowest range (40 & below), they are Mayurbhanj (40), Dhenkanal (34), Balangir (30) and Baleshwar (20). The number of hospital beds per 100,000 of population in each district in 1981 is given below.

| Name of State/District | Total no. of hospital beds | No. of hospital beds per 100,000 of population |
|---|---|---|
| 1 | 2 | 3 |
| ORISSA | 13,616 | 52 |
| Sambalpur | 1,817 | 80 |
| Sundargarh | 1,474 | 110 |
| Kendujhar | 478 | 43 |
| Mayurbhanj | 630 | 40 |
| Baleshwar | 458 | 20 |
| Cuttack | 2,572 | 56 |
| Dhenkanal | 536 | 34 |
| Phulabani | 452 | 63 |
| Balangir | 437 | 30 |
| Kalahandi | 585 | 44 |
| Koraput | 1,016 | 41 |
| Ganjam | 1,705 | 64 |
| Puri | 1,456 | 50 |

MAP 99

# INCREASE IN HOSPITAL BEDS PER 100,000 OF POPULATION 1971-81

This map depicts the increase of ratio of hospital beds per 100,000 of population during 1971-81 in each district of the state.

The number of hospital beds per 100,000 of population in 1971 and 1981 are compiled separately for each district and number thus obtained in 1971 is subtracted from that of 1981. The resultant numbers thus obtained for each district are grouped into three suitable ranges, one above, one nearer to and one below the state average. The increase and decrease are shown by different types of hatching using choropleth technique as shown in the index of the map.

There were 50 hospital beds per 100,000 of population in Orissa in 1971 as against 52,in 1981, so there is an increase of 2 hospital beds per 100,000 of population during the decade.

Dhenkanal is the only district in the state where there is no change in number of ratio of hospital beds during 1971-81.

The highest number of increase in hospital beds is noticed in the district of Sambalpur (14) followed by Sundargarh (10). Both of the districts are coming in the highest range of increase (10 and above).

In the second range of increase (2-9) the districts of Kendujhar (5). Mayurbhanj(5), Ganjam(4), Balangir(3) and Puri (2) are recorded.

In the lowest range (1 and below) only one district, namely, Koraput (1) is coming under.

The decrease in hospital beds per 100,000 of population during 1971-81 in noticed in Kalahandi district (-5) followed by the district of Cuttack (-4), Phulabani(-3) and Baleshwar (-1)

MAP 100

# REGISTERED MEDICAL PRACTITIONERS PER 100,000 OF POPULATION 1981

This map presents the number of registered medical practitioners per 100,000 of population in each district of the state in 1981.

The data thus obtained are grouped into three suitable ranges, one above, one nearer to and one below the state average. The districts are then hatched with different grades of hatching by choropleth method from high to low order as shown in the legend of the map.

There are 2,232 medical practitioners in medical institutions (Allopathic) for 26,370,271 population of the state showing 8 doctors to serve every 1000,000 of population. In this respect Phulabani has the highest number of doctors (12) and Koraput has the lowest (6) among the districts of the state.

Three districts come under the highest range (10 & above). They are Phulabani (12) , Sambalpur (11) and Puri (10).

Six districts come under the second range (8-9), namely, Cuttack (9), Ganjam (9), Kendujhar (8), Mayurbhanj (8), Balangir (8) and Kalahandi (8).

The districts of Sundargarh (7) and Koraput (6) come under the lowest range (7 & below).

The following statement shows the districtwise ratio of medical practitioners per 100,000 of population in the state in 1981.

| Name of State/ District | Total population | No. of registered medical Practitioners (Allopathic) | Medical Practitioner (Allopathic) per 100,000 of population |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| ORISSA | 26,370,271 | 2,232 | 8 |
| Sambalpur | 2,280,976 | 250 | 11 |
| Sundargarh | 1,337,871 | 99 | 7 |
| Kendujhar | 1,114,622 | 92 | 8 |
| Mayurbhanj | 1,581,873 | 129 | 8 |
| Baleshwar | 2,252,808 | 158 | 7 |
| Cuttack | 4,628,800 | 417 | 9 |
| Dhenkanal | 1,582,787 | 123 | 8 |
| Phulabani | 717,280 | 87 | 12 |
| Balangir | 1,459,113 | 110 | 8 |
| Kalahandi | 1,339,192 | 107 | 8 |
| Koraput | 2,484,005 | 142 | 6 |
| Ganjam | 2,669,899 | 238 | 9 |
| Puri | 2,921,045 | 280 | 10 |

MAP 101

# PRIMARY HEALTH CENTRES PER 100,000 OF POPULATION 1981

This map depicts the number of primary health centres per 100,000 population in each district of the state in 1981.

The ratio is worked out for each district and arranged in three suitable ranges, one above, one nearer to and one below the state average. the districts are hatched in accordance with these ranges from high to low order as shown in the legend of the map.

There are 314 primary health centres for 26,370,271 population of the state. The number of primary health centres per 100,000 population comes to be 1.19.

The districts of Phulabani (2.09), Koraput (1.69) and Mayurbhanj (1.64) come under the highest range (1.51 and above) while the districts of Balangir (1.37), Kalahandi (1.34), Sambalpur (1.27), Sundargarh (1.27), Kendujhar (1.17), Ganjam (1.09) and Dhenkanal (1.01) are in the second range of (1.01-1.50). In the lowest range of 1.00 and below the coastal districts of Puri (0.99), Cuttack (0.89) and Baleshwar (0.84) are shown.