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REPORT
ON
FOREST RESOURCES OF KEONJHAR DISTRICT
OF
ORISSA STATE

FOREST SURVEY OF INDIA

EASTERN ZONE

CALCUTTA

2000

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PREFACE

The inventory of forest resources of Keonjhar District of Orissa was carried out during the year 1997-98 by Forest Survey of India, Eastern Zone, Calcutta. This report highlights the details regarding forest areas inventoried, methodology adopted, processing of data and out come of the survey.

The geographical area of the district is 8303 sq.km. and population is 13,37,026. Total forest cover of Keonjhar district is 3543 sq.km. but the recorded forest area is only 3102.43 sq.km. A total of 377 plots were laid in the district (223 plots in Sal stratum and 129 plots in Misc. stratum) each plot representing about 8 sq.km. The total standing volume of the forest was 15.12 million cu.m. giving 52.9 cu.m. per hectare. The total number of stems comprising both the stratums were 73.21 millions with an average of 256 stems per hectare. The main species dominating the growing stock are Shorea robusta, Anogeissus latifolia, Terminalia crenulata, Madhuca latifolia, Diospyros melanoxylon, Lannea coromandelica etc.

The staff of Eastern Zone, Calcutta entrusted with the task of carrying out the inventory and data processing, deserve much appreciation. The cooperation/help extended by Orissa Forest Department is thankfully acknowledged. Further, Conservator of Forests, Development Circle, Cuttack, Orissa needs words of appreciation for his expert comments and valuable suggestions.

It is hoped that the report will be useful by way of providing important information for the forest resources management and development planning of the state.

(Dr. D. Pandey)
Director

Contents

GOVERNMENT OF INDIA,

MINISTRY OF ENVIRONMENT AND FORESTS,

FOREST SURVEY OF INDIA,

(EASTERN ZONE)

CALCUTTA.

ACKNOWLEDGEMENT

This organisation expresses its gratitude and sincere thanks to the officers and staff of **Orissa** Forest Department for their valuable co-operation extended to our field parties during the survey work, without which it would not have been possible to complete the survey work in stipulated time.

I express my sincere thanks to all officers and staff members of Eastern Zone of Forest Survey of India who were entrusted with carrying out the forest inventory and bringing out the report in the present form.

(Madhawa Trivedy)

Joint Director.

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PART-I

(MAIN REPORT WITH MAPS, CHARTS AND DIAGRAMS)

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MAPS AND DIAGRAMS

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b) Foroest Survey of India inventory design.
c) Map of Keonjhar district showing roads, rivers & important places
d) Map of Keonjhar district showing distribution of grids by stratum
e) Map of Keonjhar district showing distribution of grids by important land use.

CHAPTER: I

BACKGROUND INFORMATION

1.1 INTRODUCTION:

The inventory work for assessing the forest resources of Keonjhar district of Orissa State was taken up as a part of the program of Eastern Zone of the Forest Survey of India for the year 1997-98. The inventory was carried out under the existing methodology and design of Forest Survey of India. The report covers the entire district of Keonjhar and is based on sound statistical footing and expected to provide base line data for development planning. The rapid recession of forest due to impending biotic interference has been a cause for this organization to undertake the inventory work for reliable estimation of the quantity of forest resources existing in the area.

1.2 SITUATION AND BOUNDARY:

The geographical location of the Keonjhar district falls between 21°11' N and 22°10' N latitudes and between 85°11' and 86°22'E longitudes. It is situated in the northern part of Orissa. The district is bounded in the north by Bihar State, Angul and Sundargarh district in the West, Cuttack and Dhenkanal district in the South, Bhadrak, Baleshwar and Mayurbhanj district in the East.

The boundaries and location of the district is shown in the map enclosed.

1.3 SOIL:

The soil is of red type in most of the areas of Keonjhar and Champua surrounding. The soil of Anandapur belongs to coastal alluvial type. The main constituent of clay minerals is Kachinite and is found in 6 blocks of the district e.g. Telkoi, Patna, Champua, Joda, Banspal and Keonjhar. The soil is rich in phosphorous but generally poor in organic matter and nitrogen. The soil type is alluvial with loamy structure in the plain region of Baitarini River belt. The soil is fertile and more developed for agricultural purpose. The soil type is red laterite with high iron content in the hilly region of Bhuyanpirh and acidic in reaction. The PH range of the soil is between 5.5 to 6.0 which shows the acidic nature of the soil.

1.4 CLIMATE:

There are three well marked seasons in the district. They are summer, rainy and winter season. The hottest month is May with maximum mean temperature of 38°C and minimum mean temperature of 25°C . The coldest month is December. The maximum mean temperature is recorded as 27°C while the minimum mean temperature is 12°C.

The annual average rainfall of the district is 1534.5 mm which was based on the data last 50 years. Maximum rainfall is noticed during the month June to September. The total annual rainfall as recorded from the different blocks of the district is summarized below:

Year	Total annual rainfall (m.m)
1993	1461.3
1994	1288.0
1995	1179.0
1996	923.7
1997	1445.7

The relative humidity is about 75% during monsoon while it varies from 35 to 40% during rest of the period of the year.

1.5 RIVER SYSTEM:

The important river Baitarini rises from the Gonasika hills in Keonjhar district and constitutes the boundary between Mayurbhanj and Keonjhar districts as also between Keonjhar and Jajpur districts. The Baitarini is regarded as a very hily river and mythologically it is connected with the exile of Shri Ramchandra. Baitarini enters Jajpur district near Balipur and becomes the boundary between Jajpur and Bhadrak districts. Before it falls into the Bay of Bengal it joins with the Brahmani near Dhamra passing by Chandbali, a minor port, it enters the sea as the Dhamra river. This river brings flood in the districts of Jaipur, Bhadrak and Keonjhar.

1.6 MINERAL RESOURCES:

Orissa is a large producer of high grade iron and manganese ores. Iron deposits are found in the districts of Sundergarh, Keonjhar and Mayurbhanj. Important Singhbhum - Keonjhar - Banoi iron ore belt runs through this district. The Orissa iron ore has iron content to the extent of 60% and both the Rourkela Steel Plant and Tata Iron & Steel Company (TISCO) depend upon Orissa for Ores. High grade iron ore deposits are also found in Daitary Hill along the boundary between Keonjhar and Cuttack districts.

Manganese and its deposits are found in Keonjhar, Sundargarh, Bolangir and Kalahandi districts. Orissa accounts for 20% of the total output of manganese in India. Deposits of chromite also occur in Keonjhar district. Low grade lateritic nickel are also found in Keonjhar district.

Orissa Government has established a corporation under the name "Orissa Mining Corporation" for exploiting the mineral wealth of the State.(Ref: States of our Union - Orissa, Publication Division, Ministry of Information and Broadcasting).

1.7 PEOPLE AND SOCIO-ECONOMIC CONDITION:

The district is backward both economically and educationally. A bulk portion of the total population belongs to scheduled tribes and scheduled castes. Effort of advancement in education among the scheduled tribes is not so fruitful by the Government due to psychological and social behavior pattern of the scheduled tribes. Total population, literacy rate and scheduled castes, scheduled tribes population is summarized below:

Total population				**Literacy rate in percentage**		
	Persons	Male	Female	Persons	Male	Female
Total	1337026	677480	659546	44.73	59.04	30.01
Rural	1170152	588129	582023	41.91	56.51	27.18
Urban	166874	89351	77523	64.12	75.19	51.09

(Ref: Census of India 1991, Final population Totals, Series - 1 Paper 2 of 1992)

	Population	
	Scheduled Castes	**Scheduled Tribes**
Total:	153639	595184
Rural:	129543	554633
Urban:	24096	40551

Most of the people depend upon agriculture for their livelihood. Paddy is the main crop of the district. The other crops are jute, millet and oil seeds. The irrigation facility is poor in the district and the agriculture is mostly dependent on natural rain. Despite abundant mineral resources, the district has not been systematically exploited. Lack of infrastructure facility and communication also stood in the economic development of the district.

1.8 ADMINISTRATIVE SET-UP:

The district at present comprises of 3 sub divisions o e.g. Keonjhar Sadar, Anandapur, Champua, 7 tahasils, e.g. Telkoi, Borbil, Champua, Keonjhar, Ghatgaon, Anandapur, Hatodihi with 13 community Development Blocks.

The district has 7 towns and 2125 villages out of which 2067 villages are inhabited and 58 uninhabited villages. There are 6 members of Legislative Assembly and only 1 member of Parliament.

1.9 FOREST:

The forest of Keonjhar can be classified into two major forest type a) Group C Northern Tropical Moist Deciduous Forest and b) Group 5B : Northern Tropical Dry Deciduous Forest. The above classification is based on revised classification of the forest type of India by Champion and Seth.

Several variation occur due to edaphic and biotic factors within the above two main groups, as a result the forests are further sub groups as under:

a) 3C/c 2e Moist Peninsulor Valley Sal
b) 5B/C 1 C Dry Peninsular Sal Forests
c) 5B/C2 Northern Dry Mixed Deciduous Forests.

Besides, the above three main sub-groups Dry Sal Forests and E 4 Lateritic Semi evergreen Forests and DSI Dry Deciduous Scrub Forest also exist to some small extent in the district.

The main species are Shorea robusta, Anogeissus latifolia, Terminalia crenulata, Madhuca latifolia, Diospyros melanoxylon, Lannea coromandilica etc. There are 6 members of Legislative Assembly and only 1 member of Parliament.

CHAPTER - II

DESIGN AND METHODOLOGY

2.0 GENERAL:

The inventory involves collection of a wide spectrum of information. An approved manual of instructions for field inventory of Forest Survey of India, Dehradun has been followed for carrying out the Survey of Keonjhar district of Orissa State.

2.1 OBJECTIVES:

The broad objectives of the present inventory are as follows:

i) to estimate the total growing stock of the area
ii) to collect information on crop data, its composition, status of regeneration, injury to crop, fire incidence, grazing incidence etc.
iii) to collect information on distribution of forest with respect to various para meters e.g. topography, aspect, soil-depth etc.
iv) to monitor periodically (10 years cycle) the changing pattern of the forest resources.

2.2 AREA SELECTED FOR INVENTORY:

Following areas are treated as forest areas for the purpose of forest inventory :

a) area shown in green wash on the Survey of India toposheets.
b) all such areas in which woods such as thick jungle, open forests, bamboo etc. are present.
c) all those areas indicated by dotted line or spotted line or a pillar line as forest area.
d) any other areas reported to be forested areas by local forest department.

2.3 MAPS AND TOPOSHEETS:

The map of India showing the project area is shown in the attached map. The forest area on 1: 50,000 scale topographic map sheets of Survey of India were used for the forest inventory works. 21 toposheets were used, the list of which is furnished below :

S.No.	Map sheet number	Total
1	73 F/8,12	2
2	73G/1,2,5,6,7,8,9,1011,12,13,14,15,16	14
3	73 K/2,3,4,7,8	5
Total:		21 nos.

2.4 SAMPLING DESIGN:

Marking of grids:

The design is systematic with a grid size of 2.5' x 2.5' of latitude and longitude with two sample plots, each of 0.1 ha. area, selected from each grid one at random and the other linked to the first in the opposite direction at an equal distance from the grid centre. These plots form the basic sampling units. Thus, 72 plots are laid out in a toposheet with 36 grids on 1: 50,000 scale. Hence one sample plot of 0.1 ha. represents about 10 sq.km. on the ground and the intensity of sampling is 0.01%. The length of each side of the square shaped sample plot is 31.62 meters on the ground and 0.6324 mm (say 0.6 mm) on the toposheet of scale 1:50,000.

Precision and accuracy of the survey :

The result of the survey would at the precision level of 95% probability with error limit of ± 10% at the state level.

Marking of plot center:

The method of marking of the plot centers of these two sample plots on the map in each grid of 2.5' x 2.5' is as follows:

1) first, the length and width of each grid are measured to the smallest convenient scale.
2) the length of the side of the plot on the map corresponding to a 0.1 ha. square plot on the ground is calculated. Let **X** and **Y** be the length and width of the grid and **S** the side of the plot.
3) substract side **S** from both sides i.e. find **(X-S)** and **(Y-S).** Let these numbers be **X'** and **Y'**
4) two random numbers, one in the range of **O to X'** and the other in the range of **O to Y'** are selected. These numbers are called **x** and **y** respectively.
5) half of the side of the plot **(S/2)**each are added to find **x + S/2** and **y +S/2**

6) **x +S/2** and **y +S/2** will be the coordinates of the center of the first plot in the grid considering the left hand bottom corner (South - West corner) of the grid as the origin of the axes.

7) the center of the second plot is located by joining the center of the first plot with the grid center and extending this line in the opposite direction.
8) a point at an equal distance from the grid center in the opposite direction is marked. This will be the center of the second plot.

Laying out of the plot :

The plot center is the intersection of diagonals of the 0.1 ha. plot. Diagonals are aligned NW-SE and NE-SW measuring 44.72 m each. After having approached the plot center with the help of toposheet and reference point, corners of the plot are fixed with respect to the plot center by measuring 22.36 m. in each of the directions viz. North-West, South-East,. North-East and South-West directions from the plot center. The North, East, South and Western extremities of the plot are fixed by measuring 15.81 m. from plot center in each of these direction.

Regeneration Survey :

In each plot, a 4 mt x 4 mt square plot was chosen. Care was taken so that the center and diagonals of this plot coincided with the center and diagonals of the original plot. Regeneration of dominant and codominant species was counted and noted in the following categories:

No. of regeneration 8 or more - Adequate regeneration
No. of regeneration less than 8 - Inadequate regeneration
No. of regeneration 0 - No regeneration

2.5 DATA COLLECTION:

Data from the field is collected by an inventory crew headed by a crew leader. To visit a plot, a prominent reference point is selected in the vicinity of the plot center. The reference point is a clearly visible point both on the map as well as on the ground e.g. a nala junction or a identifiable natural feature on the spot. It is marked by a peg with appropriate markings. For collection of codified information from each sample plot, the following forms are used. :

Plot approach form : It gives an account of details regarding the approach to the plot. All the details from camp site to the plot center are recorded. A prominent reference point along with bearings sis recorded which serves as an aid to reach the plot at a future date.

Plot description form : The description of several parameters such as topography, soil, land use class, forest type, regeneration, crop data

etc. are collected and recorded in this form for an area of 2 ha. around the plot.

Plot enumeration form : This form is filled up for each plot. The details recorded are the name of the species, its code and diameter. Trees less than 10 cm. d.b.h. and utility less than 70% are usually not recorded. Border trees are counted "IN" when they touch NW-NE and NW-SW boundaries and considered "OUT" when they touch NE-SE and SW-SE boundary lines.

Sample tree form : Data for trees with diameter 10 cm. and above at breast height are collected from the North-West quadrant of the plot. In this form, additional data e.g. tree height, bark thickness, length of clear bole, shape of the tree etc. are recorded.

Bamboo enumeration form : This form is designed for enumeration of bamboo culms per clump. Age and soundness of culms and clump size are the parameters considered. Separate forms are used for clump forming and non-clump forming bamboo.

Bamboo weight form : To determine the green weight and dry weight of bamboo, this form is maintained. For each species, mature bamboo are selected from each diameter class 30 cm. long pieces from the bottom, middle and top are selected and their green weights recorded. These pieces are properly documented and kept in the base camp and weighed every 30 days till a constant (air dry) is obtained.

Since, bamboo did not occur widely (over large areas or with conspicuous presence) in Keonjhar , data on Bamboo collected there, has not been elaborately tabulated.

CHAPTER III

DATA PROCESSING AND COMPILATION

3.0 GENERAL:

Data processing was carried out in the following three phases :

I. Manual processing
II. Input on computer and
III. Processing on computer.

3.1 MANUAL PROCESSING:

It involves the following steps :

a) Proper documentation of the field information received
b) Codification of the information in the field forms which has not already been incorporated.
c) Manual checking of the information filled in the forms.
d) Reconciliation of the discrepancies with the help of the field officers.

3.2 INPUT FOR THE COMPUTER:

After manual checking, the information of the field forms was fed into the computer. The following data is stored in the hard disk for onward processing.

1. Plot description data
2. Plot enumeration data
3. Sample tree data.

3.3 PROCESSING ON COMPUTER:

Processing on computer includes the following steps :

1) Verification of data for the creation of clean file and the transference of the same to hard/floppy disk.
2) Consistency checking of the data on computer.
3) Correction of the data to remove discrepancies noticed during consistency checking.
4) Tabulation of plot-wise stem distribution for the district as a whole.
5) Preparation of tables of volume distribution.

3.4 VOLUME ESTIMATION:

Felled tree data for developing general volume equations were not collected during the inventory, because of restrictions on felling of trees. Local volume equations already derived and used in Sambalpur district forest inventory survey by Central Zone, Nagpur were used to estimate the volume.

The local volume equations used for different species are as under:

Adina cordifolia
$V=0.08507 + 0.19669\ D + 7.16812\ D^2$

Anogeissus latifolia
$V = 0.13928 - 2.87067\ D + 20.22404\ D^2 - 13.80572\ D^3$

Bombax ceiba
$V= 0.02834 + 4.68381\ D^2$

Boswellia serrata
$V=0.36432 - 1.32768\ \sqrt{D} + 9.48471\ D^2$

Bridelia retusa
$\sqrt{V}= 0.11620 + 4.12711\ D - 1.08508\ \sqrt{D}$

Dalbergia latifolia
$V =-0.00965 + 0.58546\ D - 2.56050\ D^2 + 24.342125\ D^3$

Diospyros melanoxylon
$\sqrt{V}= 0.06728 + 4.06351\ D - 0.99816\ \sqrt{D}$

Garuga pinnata
$V= - 0.09144 + 1.48588\ D - 5.53172\ D^2 + 24.04851\ D^3$

Lagerstroemia parviflora
$V= 0.07199 - 1.25923\ D + 9.28416\ D^2$

Lannea coromandelica
$V= - 0.01071 - 0.66528\ D + 9.54478\ D^2 - 4.58876\ D^3$

Madhuca latifolia
$V=0.10423 - 1.38429\ D + 8.39379\ D^2$

Mitragyna parviflora
$V= 0.08444 - 1.26801\ D + 8.75274\ D^2$

Pterocarpus marsupium

$\sqrt{V} = -0.16276 + 2.82002\ D + 0.04034\ \sqrt{D}$

Shorea robusta

$\sqrt{V} = 0.19994 + 4.57179\ D - 1.56823\ \sqrt{D}$

Syzigium cumini

$\sqrt{V} = 0.30706 + 5.12731\ D - 2.09870\ \sqrt{D}$

Terminalia belerica

$V = -0.14823 + 2.44138\ D - 6.86434\ D^2 + 18.05444\ D^3$

Terminalia crenulata

$V = 0.05061 - 1.11994\ D + 8.77839\ D^2$

Miscellaneous species

$\sqrt{V} = 0.06063 + 3.43666\ D - 0.75571\sqrt{D}$

V = expressed in m^3
D = in meter.

3.5 TREE VOLUME:

Volume of each enumerated tree was estimated with the help of volume tables / equations and was used for generation of stock tables by species by species and diameter class.

3.6 PLOT VOLUME:

Volume of each enumerated tree in a plot when added up provided the plot volume. These plot volume figures were the basis for estimation of sampling error.

3.7 ANALYSIS OF GROWING STOCK:

Analysis of growing stock was carried out from plot data and per hectare figures worked out for each stratum by species and diameter class. Following were the important tables generated for each stratum :

1. Stems/ha. for individual species and its distribution into diameter classes as 10-19 cm. , 20-29 cm., 30-39 cm. etc.
2. Total stems by species and diameter classes.
3. Corresponding volume / ha. by species and diameter classes.
4. Total volume by species and diameter class.

3.8 ERROR:

Statistical inference is incomplete without information on associated errors and the user of the results wants to have some control over its magnitude.

For estimation of sampling error some assumption was taken into consideration. The sample was considered as a systematic cluster sample having two sample plots in each cluster. While estimating the sampling error the sample was considered to be of unequal sizes and ratio method of estimate was used since in many grids only one plot was enumerated.

Standard errors have been estimated over the growing stock in each stratum and over the entire project area irrespective of the stratum.

CHAPTER: IV

RESULTS OF INVENTORY

4.0 GENERAL:

Inventory data of the survey of Keonjhar district has been analyzed at the district level separately for each stratum with a view to highlighting the forest type, composition and distribution of the tree vegetation in the area. Distribution and break up of forest area by various parameters like land use classes, crop composition, topography classes, size class, soil depth class, grazing incidence, fire incidence etc. has also been worked out and the results are furnished in this chapter.

4.1 INVENTORY COVERAGE:

Inventory area comprises the Keonjhar districts in Orissa State. The geographical area and the extent of forest cover of the above districts is given below :

District	Geographical area (sq.km.)	Forest cover (sq.km.)			
		Dense	Open	Mangrove	Total
Keonjhar	8303	1739	1804	-	3543

Source: State of Forest Report 1997,F.S.I.Publi-cation.

4.1.1. RECORDED FOREST AREA:

District wise and legal status wise forest area of the district is summarized below:

Legal Status	Recorded forest area (sq.km.)
Reserved forests	1839.37
Demarcated protected forests	273.63
Undemarcated protected forests	220.78
Unclassed forests	0.26
Revenue forests	768.39
Total:	**3102.43**

Source: State Forest Department.

4.1.2 INVENTORIED AREA:

The extent of forest area as represented by 377 plots marked on green wash area of toposheets of the Keonjhar district was calculated using "dot grid" method which comes out to be 3063.88 sq.km. Henceforth the inventoried forest area as calculated by 'dot grid' method would be taken as the total forest area of the district i.e. 3063.88 sq.km.

4.2 STRATIFICATION:

Stratification was based on proportional distribution of the forest plots as per forest composition and land use class. Two major forest types have been identified according to forest crop composition found in two ha. area around the plot centre. So, on the basis of that the forest plots were divided into two different strata which are i.) Sal forest and 2) Miscellaneous forests. Out of 377 plots surveyed in Keonjhar district 223 plots were found to be under Sal stratum and 129 plots under miscellaneous forest.

377 plots have been distributed over 3063.88 sq.km. forest area. One plot, therefore, represents 812.70 ha. or 8.127 sq.km. forest area. Forest area covered by 25 plots has been excluded while calculating the net forest area for growing stock estimation as those plots lie in forest land but are under agriculture habitation barren land etc. i.e. forestry plots but under non forestry use. The net forest area for growing stock estimation and its distribution among various stratum is furnished below:

Sl.No.	Stratum	Forest area (sq.km.) for growing stock estimation.
1.	Sal	1812.32
2.	Miscellaneous.	1048.38
	Total:	2860.70

4.3 ANALYSIS OF PLOT DESCRIPTION DATA:

Plot description data were analyzed on various parameters like soil land use, terrain condition, injuries to crop etc. and following information were generated.

4.3.1 DESCRIPTION OF FOREST AREA BY LAND USE CLASSES:

Code No.	Land use	Description	No.of plots	Forest area(sq. km.)	Percentage
1	Dense tree forest	Forest with canopy density 70% and above	16	13003	4.24
2	Moderately dense tree forest	Forest with canopy density 30% to 69%	190	154413	50.40
3	Open tree forest	Forest with canopy density 5 to 29%	106	86146	28.12
4	Scrub forest	Forest with canopy density less than 5%	27	21943	7.16
5	Bamboo brakes	Areas completely covered with bamboo	-	-	-
6	Shifting cultivation	Areas under current as well as previous years shifting cultivation	4	3251	1.06
7	Young plantation of forest species		10	8127	2.65
8 to 10	Trees in line	Trees along forest road, canal banks, rly lines and Govt.grass land etc.	1	813	0.26
11	Barren land	-	3	2438	0.80
12	Agriculture land without trees	-	3	2438	0.80
13	Agricultural land with trees	-	9	7315	2.39
14	Non forest plantation	-	3	2438	0.80
15	Habitation	-	2	1625	0.53
16	Water bodies	-	1	813	0.26
18	Young crop of natural or artificial regeneration	-	2	1625	0.53
		Total :	377	206388	100.00

The above table reveals that most of the forest in Keonjhar district is moderately dense and open tree forest.

4.3.2 DISTRIBUTION OF FOREST AREA BY TOPOGRAPHY:

Distribution of forest area of the district by topography is given below:-

Code	Topography	No.of plots	Area in ha.	Percentage
1	Flat	22	17879	5.84
2	Gently rolling	138	112153	36.60
3	Hilly	205	166604	54.38
4	Very hilly	10	8127	2.65
	Unrecorded	2	1625	0.53
	Total	**377**	**306388**	**100.00**

Most of the Forests in Keonjhar district are having hilly or gently rolling topography with 54.38% and 36.60 % forest area respectively.

4.3.3 DISTRIBUTION OF FOREST AREA BY ASPECT:

The distribution of the area by various aspect is summarized below :-

Code	Aspect	No.of plots	Forest area (ha.)	Percentage
1	Northern	21	17067	5.57
2	North-eastern	66	53638	17.50
3	Eastern	34	27632	9.02
4	South-eastern	58	47137	15.38
5	Southern	30	24381	7.96
6	South-western	60	48762	15.92
7	Western	17	13815	4.51
8	North-western	56	45511	14.85
9	No aspect	34	27632	9.02
	Unrecorded	1	813	0.27
	Total:	**377**	**306388**	**100.00**

4.3.4 DISTRIBUTION OF FOREST AREA BY ROCKINESS:

The forest area by rockiness classes is as under:

Code	Rockiness	No of plots	Forest area in ha.	Percentage
1	High	6	4876	1.59
2	Medium	41	33321	10.87
3	Low	83	67454	22.02
	No rock	246	199924	65.25
	Unrecorded	1	813	0.27
Total:		**377**	**306388**	**100.00**

The above table reveals medium to low rockiness in Keonjhar forest to the extent of 32.89% whereas no rock area is 65.25% of the forest area.

4.3.5 DISTRIBUTION OF FOREST AREA BY SOIL CONSISTENCY:

Soil of the district are found to be under the following categories:

Code	Soil consistency	No.of plots	Forest area in ha.	Percentage
1	Friable	51	41448	13.53
2	Slightly compact	290	235683	76.92
3	Compact	33	26819	8.75
4	Cemented	-	-	-
5	No soil	1	813	0.27
	Unrecorded	2	1625	0.53
Total :		**377**	**306388**	**100.00**

The above table shows that most of the soil is slightly compact to the extent of 76.92% whereas the friable and compact soil cover 13.53% and 8.75% of the forests respectively.

4.3.6 DISTRIBUTION OF FOREST AREA BY SOIL TEXTURE:

The distribution of district forest by soil texture is given below :

Code	Soil texture	No. of plots	Forest area in ha.	Percentage
1	Clayey	9	7314	2.38
2	Clayey loam	72	58514	19.10
3	Loam	228	185296	60.48
4	Sandy loam	65	52826	17.24
5	Sandy	-	-	-
6	No soil	1	813	0.27
	Unrecorded	2	1625	0.53
	Total:	**377**	**306388**	**100.00**

This shows that the soil texture of the forest is predominantly loamy upto the extent of 60.48%, while the occurrence of clayey loam and sandy loam is 19.10% and 17.24% respectively.

4.3.7 DISTRIBUTION OF FOREST AREA BY SOIL EROSION:

The extent of erosion in the district is given below:

Code	Soil erosion	No.of plots	Forest area in ha.	Percentage
1	Heavy erosion	9	7314	2.39
2	Moderate eros.	33	26820	8.75
3	Mild erosion	290	235683	76.92
4	No erosion	43	34946	11.41
	Unrecorded	2	1625	0.53
	Total:	**377**	**306388**	**100.00**

The survey revealed that major portion of the forest area faces mild erosion (76.92%). The forest area effected by heavy erosion and moderate erosion is 2.39% and 8.75% respectively. Area free from complete erosion is only 11.41%.

4.3.8 DISTRIBUTION OF FOREST AREA BY INJURIES TO CROP:

Injuries to crop as observed during inventory is as under:

Code No.	Details	No.of plots	Forest area in Ha.	Percentage
1	Borer attack,leaf defoliater attack or damage by other rest epidemic	-	-	-
2	Top drying	-	-	-
3	Girdling and illicit felling	340	276318	90.18
4	Scarring of trees	-	-	-
5	Lopping for fodder	-	-	-
6	Wind damage and flood damage	-	-	-
7	Other injuries	7	5689	1.86
8	No injuries	7	5689	1.86
	Unrecorded	23	18692	6.10
	Total	**377**	**306388**	**100.00**

This indicates that maximum injuries occur by human agencies in the form of illicit felling. Injuries due to wildlife, lightning, climber is found to be the second most important factor which constitute 1.86% forest area. Area free from complete injuries constitutes only 1.86% . It is, therefore, necessary to take proper protection measures to prevent damage to crops by illicit felling.

4.3.9 DISTRIBUTION OF FOREST AREA BY FIRE INCIDENCE:

Forest area as affected by fire incidence is given below :

Code	Item	No.of plots	Forest area in ha.	Percentage
1	Heavy	-	-	-
2	Moderate	15	12191	3.98
3	Light	160	130032	42.44
4	No fire	179	145473	47.48
	Unrecorded	23	18692	6.10
	Total:	**377**	**306388**	**100.00**

Fire does not seem to be a major problem in the forests of Keonjhar district as found out in this inventory.

4.3.10 DISTRIBUTION OF FOREST AREA BY GRAZING INCIDENCE:

Forest area as affected by grazing incidence is as under:

Code No.	I t e m	Na.of plots	Forest area in ha.	Percentage
1	Heavy grazing	19	15441	5.04
2	Medium grazing	145	117842	38.46
3	Light grazing	140	113778	37.14
4	No grazing	50	40635	13.26
	Unrecorded	23	18692	6.10
	Total :	**377**	**306388**	**100.00**

Heavy grazing occurs in 5.04% forest area of the district. Moderate to light grazing is preponderant (75.6%) in the district. Area not affected by grazing is only 6.10%.

4.3.11 DISTRIBUTION OF FOREST AREA BY PLANTATION POTENTIALITY:

Plantation potentiality of the inventoried area can be judged by the following table:

Code No.	Plantation potentiality	No.of plots	Forest area in ha.	Percentage
1	Plantable	99	80457	26.26
2	Unplontable	41	33321	10.87
3	Not applicable	234	190172	62.07
	Unrecorded	3	2438	0.80
	Total:	**377**	**306388**	**100.00**

Plantable area is only 26.26% in the district forest .

4.3.12 DISTRIBUTION OF FOREST AREA BY DEGRADATION:

Following table shows the degradation status of the inventoried area:

Code No.	Degraded status	No.of plots	Forest area in ha.	Percentage
I	Grazing,fire,pollarding illicit cutting, lopping			
11	Heavily degraded	107	86959	28.38
12	Moderately degraded	144	117029	38.20
13	Mild degraded	103	83708	27.32
14	Not degraded	12	9752	3.18
II	Other natural calamity such as landslide, glaciers,rainfall etc.			
21	Heavily degraded	1	813	0.27
22	Moderately degraded	2	1625	0.53
23	Mild degraded	4	3251	1.06
24	Not degraded	-	-	-
	Unrecorded	4	3251	1.06
	Total:	**377**	**306388**	**100.00**

67.38% of the forest area is under heavy to moderate degradation whereas the mild degradation occurs in 28.38% forest area. The degradation due to natural calamity is however negligible.

4.4 TREE DENSITY STUDY:

The distribution of stems/ha. by species and diameter classes in different strata have been calculated which are given in table No.1.1 to 1.2 (vide part II of this report). The number of stems/ha. by stratum are summarized below :

Stratum	Description	No.of stems/ha.
I	Sal	303.881
II	Miscellaneous	173.022

4.4.1 TREE DENSITY,STRATUM - SAL:

Number of stems/ha. in this stratum is 303.881. It is observed that Shorea robusta is the only predominant species in this stratum which accounts for 60.03% of the total stems. Concentration of stems is noticed in 10-19 cm. diameter class. The number of stems gradually decreases with the increase of diameter class. No. of trees above 60 cm. dia is negligible. 73.60% of the stems belongs to 10-19 cm. diameter class followed by 18.62% and 5.74% in 20-29 cm. and 30-39cm. diameter classes respectively. Stems/ha. and percentage distribution of predominant tree species in this stratum are appended below :

Species	No.of stems/ha.	Percentage
Shorea robusta	182.409	60.03
Buchanania langan	17.488	5.75
Terminalia crenulata	13.811	4.54
Madhuca latifolia	11.972	3.93
Anogeissus latifolia	9.775	3.22
Diospyros melanoxylon	9.596	3.16

4.4.2 TREE DENSITY, STRATUM - MISCELLANEOUS:

The number of stems per hectare in this stratum is 173.022. It is observed that there is a varied range of species having distribution of stems in different diameter classes. However, Shorea robusta is the major occurring species in this stratum also and contributes 16.67% of the stems. Concentration of trees in lower diameter class i.e. 10-19 cm. is maximum which accounts for 72.94% followed by 16.04% and 6.45% in 20-29 cm. and 30-39 cm. diameter classes respectively. No. of trees above 70 cm. diameter class is insignificant and constitute 0.27% only.

The number of stems/ha. with percentage for some of the predominant species are furnished below :

Species	Stems/ha.	Percentage
Shorea robusta	28.837	16.67
Anogeissus latifolia	16.512	9.54
Terminalia crenulata	11.008	6.36

Acacia auriculiformis	9.380	5.42
Madhuca latifolia	6.279	3.63
Diospyros melanoxylon	5.736	3.31
Lannea coromandelica	5.504	3.18

4.5 TOTAL NUMBER OF STEMS:

The total number of stems in different stratum by species and diameter classes are given in Table No.2.1 and 2.2 (Vide Part II of this report). These are summarized below:

Stratum	Description	Totalstems('000 no.)
I	Sal	55073
II	Miscellaneous	18139
Total:		**73212**

Thus, total number of stems in the forests of Keonjhar district has been estimated as 73.212 million.

Total number of stems which are predominant and occur abundantly in the respective stratum are summarized below:

A. Stratum: Sal:

Total identified species - 93.

Sl.No.	Species	Total stems('000 no)
1	*Shorea robusta*	33058
2	*Buchanania langon*	3169
3	*Terminalia crenulata*	2503
4	*Madhuca latifolia*	2170
5	*Anogeissus latifolia*	1772
6	*Diospyros melanoxylon*	1739

B. Stratum: Miscellaneous:

Number of identified species - 90

Sl.No.	Species	Total stems ('000no)
1	*Shorea robusta*	3023
2	*Anogeissus latifolia*	1731
3	*Terminalia crenulata*	1154
4	*Acacia auriculiformis*	983
5	*Madhuca latifolia*	658
6	*Diospyros melanoxylon*	601
7	*Lannea coromandelica*	577

4.6 VOLUME STUDIES:

The distribution of volume/ ha. by species and diameter classes has been calculated and is given in the part II of this report. (Table No.3.1 to 3.2 may be referred) The volume/ha. by stratum is furnished below :

Sl.No.	Stratum	Volume/ha.(in m³)
1	Sal	57.558
2	Miscellaneous	44.729

4.6.1 STRATUM WISE VOLUME ANALYSIS - SAL STRATUM:

Volume/ha. in this stratum is 57.558 m³ only. Concentration of volume is noticed in the lower diameter classes which accounts for 32.62% , 30.70%.,20.73%, 10.61% in the diameter classes 10-19, 20-29, 30-39 and 40-49 cm. respectively. The volume contribution above 60 cm. is only 1.37% only. The volume / ha. with some of the dominant species are given below :

Species	Volume/ha.(m³)	Percentage
Shorea robusta	30.090	52.28
Anogeissus latifolia	2.537	4.41
Terminalia crenulata	2.810	4.88
Madhuca latifolia	3.070	5.33
Diospyros melanoxylon	7.085	12.31
Syzygium cuminii	3.184	5.53
Buchanania langon	1.365	2.37

4.6.2 STRATUM WISE VOLUME ANALYSIS - MISCELLANEOUS STRATUM :

The volume/ha. in this stratum is 44.729 m³ only. Volume is distributed in all the diameter class though the volume is concentrated in lower diameter class.

The distribution of volume in diameter classes e.g. 10-19,20-29,30-39 and 40-49cm. is 25.43%, 22.56%, 20.20% and 17.63% respectively. The volume above 70cm. is 6.32% only. No particular species is found to be present with absolute majority in this stratum. The association of species is mixed in nature. The volume/ha. for some of the major occurring species with percentage is furnished below :

Species	Volume/ha.(m³)	Percentage
Shorea robusta	6.486	14.50
Anogeissus latifolia	5.039	11.26
Terminalia crenulata	2.076	4.64
Madhuca latifolia	3.685	8.24
Diospyros melanoxylon	7.687	17.19
Syzygium cuminii	1.367	3.06
Ficus bengalensis	1.690	3.78
Schleichera trijuga	1.518	3.40

4.7 TOTAL VOLUME:

Total volume by species and diameter classes in different strata have been estimated and furnished in table 4.1 and 4.2 which are appended in the part II of this report. Total volume by stratum is furnished below :

Sl.No.	Stratum	Total Volume/ha.(in '000 m³)
1	Sal	10431
2	Miscellaneous	4689
	Total:	15120

Thus, the total growing stock in Keonjhar district is estimated as 15.120 million m³. The contribution of some of the dominant species in different stratum is appended below:

a) Sal Stratum

Species	Total volume('000 m³)
Shorea robusta	5453
Anogeissus latifolia	460
Terminalia crenulata	509
Madhuca latifolia	556
Diospyros melanoxylon	1284
Syzygium cuminii	577
Buchanania langon	247

b) Miscellaneous Stratum

Species	Total volume('000 m³)
Shorea robusta	680
Anogeissus latifolia	528
Terminalia crenulata	218
Madhuca latifolia	386
Diospyros melanoxylon	806
Syzygium cuminii	143
Schleichera trijuga	159
Ficus bengalensis	177

4.8 ESTIMATION OF STANDARD ERROR:

The sample was considered as a systematic cluster sample having two sample plots in each cluster. In order to estimate the sampling error, the sample was considered to be of unequal sizes and ratioo method of estimate was used since in many grids only one plot was enumerated. The standard errors have been estimated for each stratum and over the entire area irrespective of the strata. The standard error percentage for different stratum is given below :

Sl.No.	Stratum	Standard Error %
1.	Sal	7.39
2.	Miscellaneous	9.46
	District	5.87

CHAPTER: V

SUMMARY AND CONCLUSIONS

5.1 SUMMARY:

1. Recorded forest area of the district is 3102.43 sq.km. whereas the inventoried area as calculated by 'dot grid' method on green wash area of toposheets is 3063.88 sq.km. which is 36.90% of the geographical area of the district. The geographical area is 8303 sq.km.

2. Two distinct strata e.g. Sal and Miscellaneous were identified in the forest area. Out of the total forest area or the inventoried forest area of 3063.88 km^2, 1812.32 km^2 is under Sal stratum and 1048.38 km^2 forest area is under Miscellaneous stratum. The inventory result has shown that 203.18 km^2 forest area has now become habitation, barren land and used as agricultural purposes. i.e. forest areas but under non-forestry use. Thus, the forest area of 203.18 km^2 has been excluded for growing stock estimation.

3. Per hectare stems and volume in the two distinct strata is given as under :

Sl.No.	Stratum	No.of stems/ha.	Volume / ha. (in m^3)
1	Sal	303.881	57.558
2	Miscellaneous	173.022	44.729

4. Total number of stems in Sal and Miscellaneous forest are 55.073 millions and 18.139 millions respectively. Thus, total number of stems in Keonjhar district is estimated as 73.212 millions.
5. Total volume in Sal and Miscellaneous forest are 10.431 and 4.689 million m^3 respectively. Thus, the total volume in Keonjhar forests is estimated as 15.120 million m^3.
6. Regarding land use classification the inventory result indicates that 4.24% forest area is covered under dense forest. The moderately dense tree forest and open tree forest accounts for 50.40% and 28.12% forest areas. The scrub forest covers 7.16% only.

7. 76.92% of the forest area faces mild erosion and moderate erosion occur in 8.75% of total forest area. Soil conservation measures is suggested in the district.

8. Incident of 'Light' and 'Moderate' fire incidence occurs in 42.44% and 3.98% of the forest area respectively. Heavy fire incidence is practically absent in the district.

9. Moderate to light grazing occurs in 75.6% of the forest area. Only 5.04% of the forest area is subject to heavy grazing.

10. Injuries to crop indicates that maximum injuries occur by human agencies in the form of illicit felling. Area completely free from injuries constitute only 1.86% of the forest area.

5.2 COMPARISON WITH PAST SURVEY RESULTS:

Earlier no survey was carried out in this district; therefore the comparison with past survey result in terms of stems and volume is not possible.

5.3 CONCLUSION:

The result of the survey of Keonjhar district lead the following conclusions

1. Though the forest area of the district is 36.9% of its geographical area which gives satisfactory picture of the state of affairs in Keonjhar. But health of these forests, their present condition and threats to them are matter of concern. Actually, out of these forests, dense and moderately dense forests are only in around 20% of the district area. Rest are either open forests, scrub forests or belong to other land use classes of non-forestry nature.

2. Soil erosion and grazing are problems that need attention and appropriate measures to check them from worsening further. However, fire does not seem to be a major problem. As a whole, heavy to mild degradation was observed in most part of these forests.

3. Illicit felling was noticed in 340 out of 377 plots tackled, and that is the gravest area to be paid attention to.

4. Some facts observed during field work are that, firstly, large areas are having mining operations leading to forest degradation.

5. Other thing which was observed was that Sal trees, being the most important and valuable species, are facing maximum damage and threats.

5.4 SUGGESTIONS:

1. Stringent protection measures are required to save dense forests and to improve the health of moderately dense or other forests. Mass publicity of

environmental awareness is advisable to involve the people in protection and conservation of forests.

2. Moderately degraded forests can be improved by simply protecting them and doing some cultural operations.

3. Heavily degraded areas may be supplemented with planting of suitable species like, Mango, Neem, Imli, Kathal, Jamun, Bamboo, Subabul, Eucalyptus etc.

4. Measures controlling soil erosion should be taken up both by way of artificial constructions and afforestation of suitable spp.

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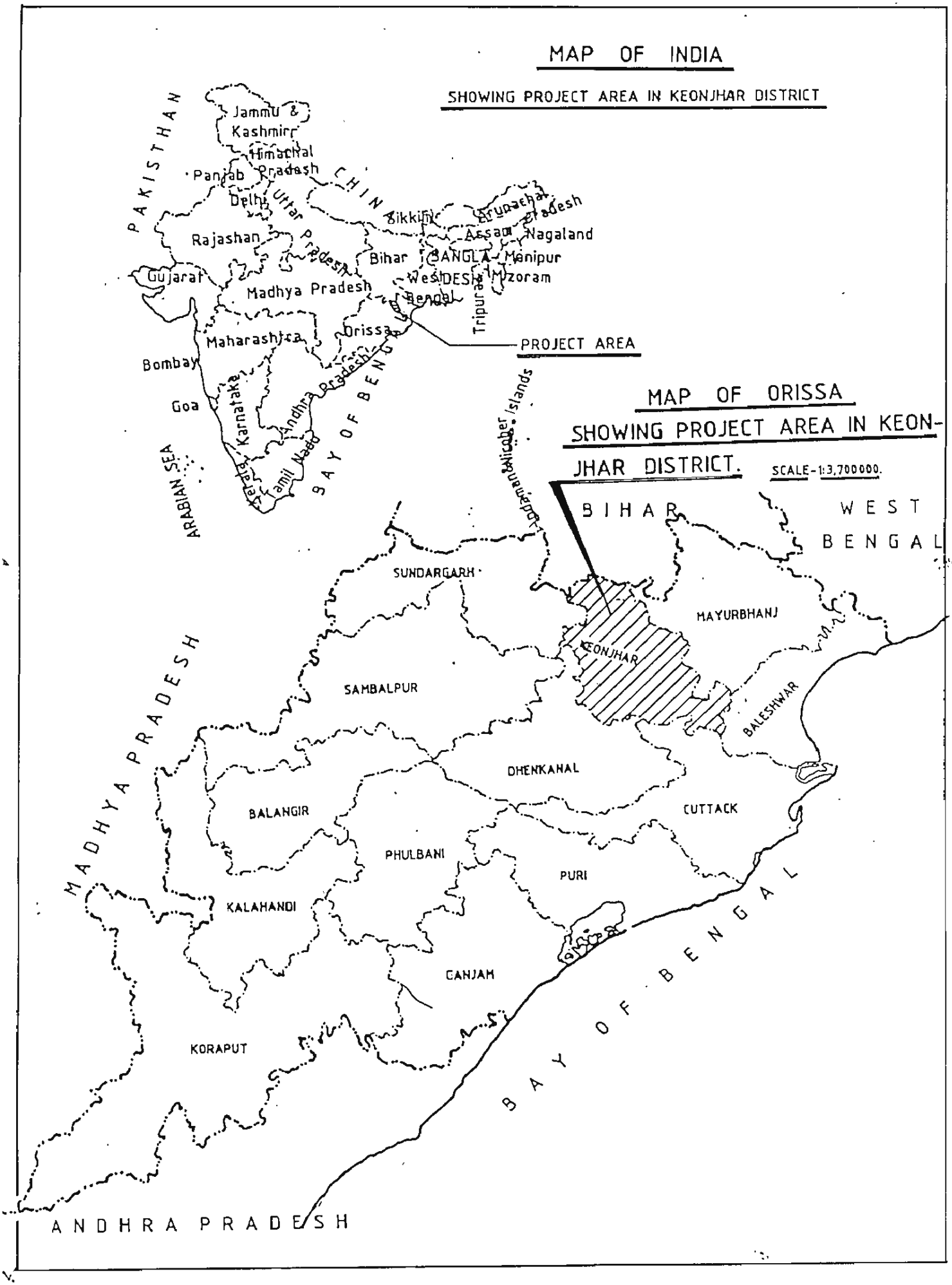
MAP OF INDIA
SHOWING PROJECT AREA IN KEONJHAR DISTRICT
PAKISTHAN
Jammu & Kashmir
Himachal Pradesh
Panjab
Delhi
Uttar Pradesh
CHIN
Sikkim
Arunachal Pradesh
Assam
Nagaland
Rajashan
Bihar
BANGLA DESH
Manipur
Mizoram
Tripura
Gujarat
Madhya Pradesh
West Bengal
Maharashtra
Orissa
PROJECT AREA
Bombay
Andhra Pradesh
BAY OF BENGAL
Andaman & Nicober Islands
Goa
Karnataka
Kerala
Tamil Nadu
ARABIAN SEA
MAP OF ORISSA
SHOWING PROJECT AREA IN KEONJHAR DISTRICT.
SCALE-1:3,700000.
BIHAR
WEST BENGAL
SUNDARGARH
MAYURBHANJ
KEONJHAR
SAMBALPUR
BALESHWAR
DHENKANAL
CUTTACK
BALANGIR
PHULBANI
PURI
MADHYA PRADESH
KALAHANDI
GANJAM
KORAPUT
BAY OF BENGAL
ANDHRA PRADESH

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FOREST SURVEY OF INDIA
INVENTORY DESIGN

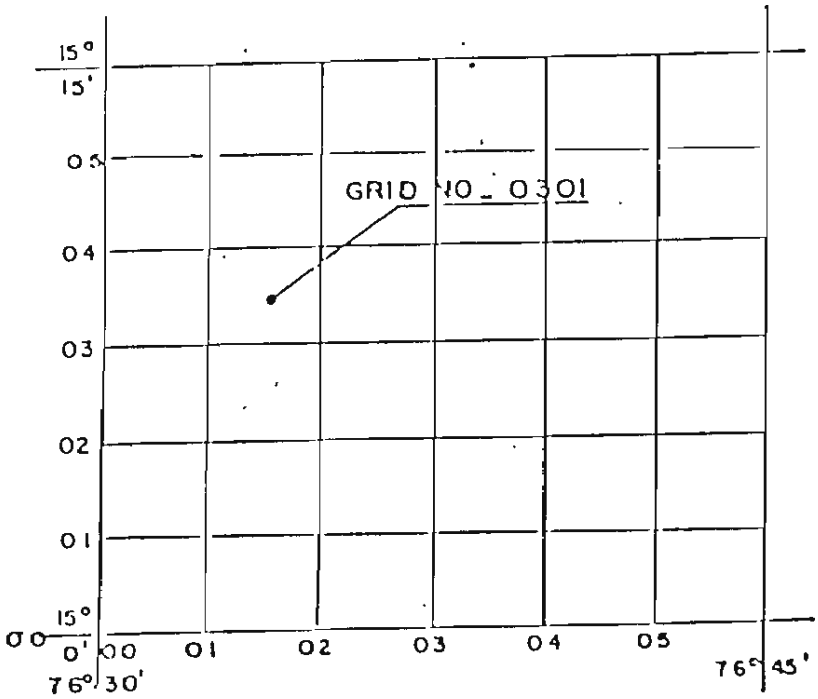
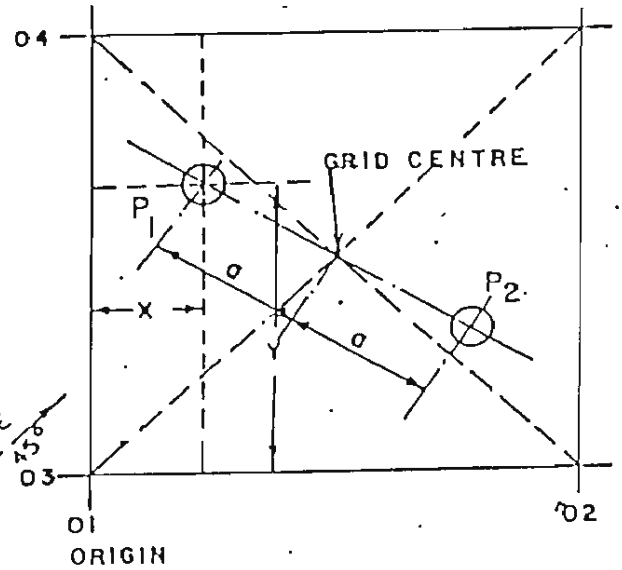


DIAGRAM_ 1

DIAGRAM SHOWING IDENTIFICATION OF GRIDS ON 1:50,000 OR 1:63,360 SCALE TOPO SHEETS

DIAGRAM_ 2

DIAGRAM SHOWING MARKING OF PLOT IN 2½' X 2½' GRID 'X' & 'Y' ARE THE DISTANCES ALONG 'X' & 'Y' AXES WITH S.W. CORNER AS THE ORIGIN.



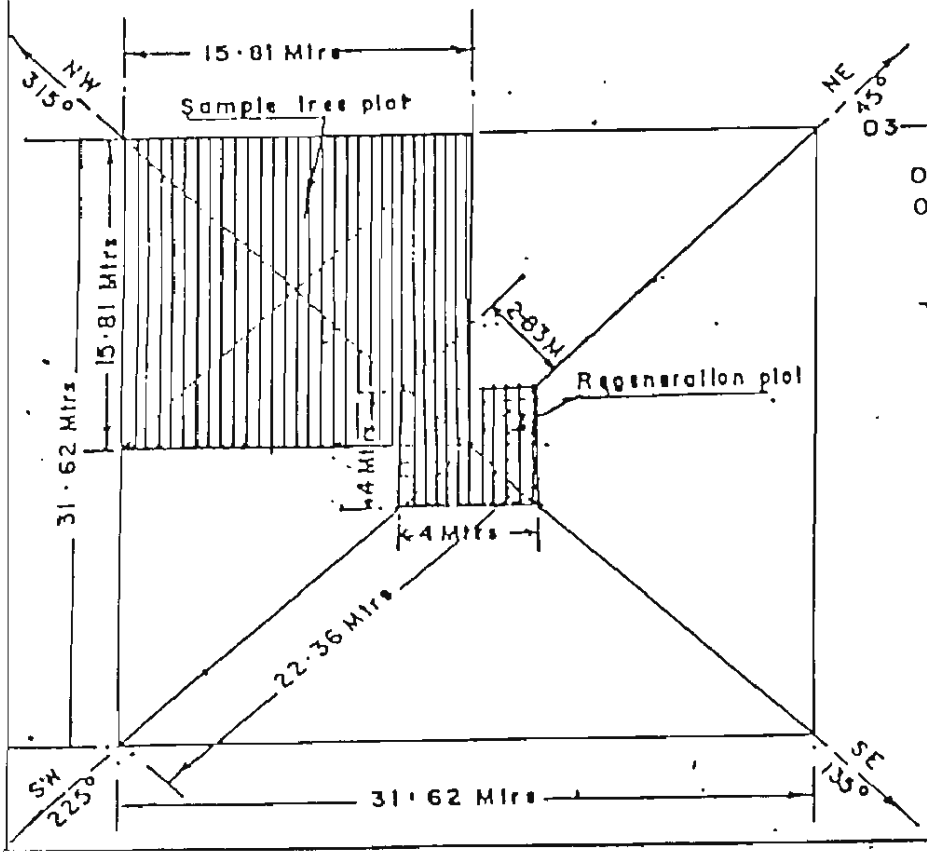


DIAGRAM_ 3

DIAGRAM SHOWING LAY OUT OF PLOT

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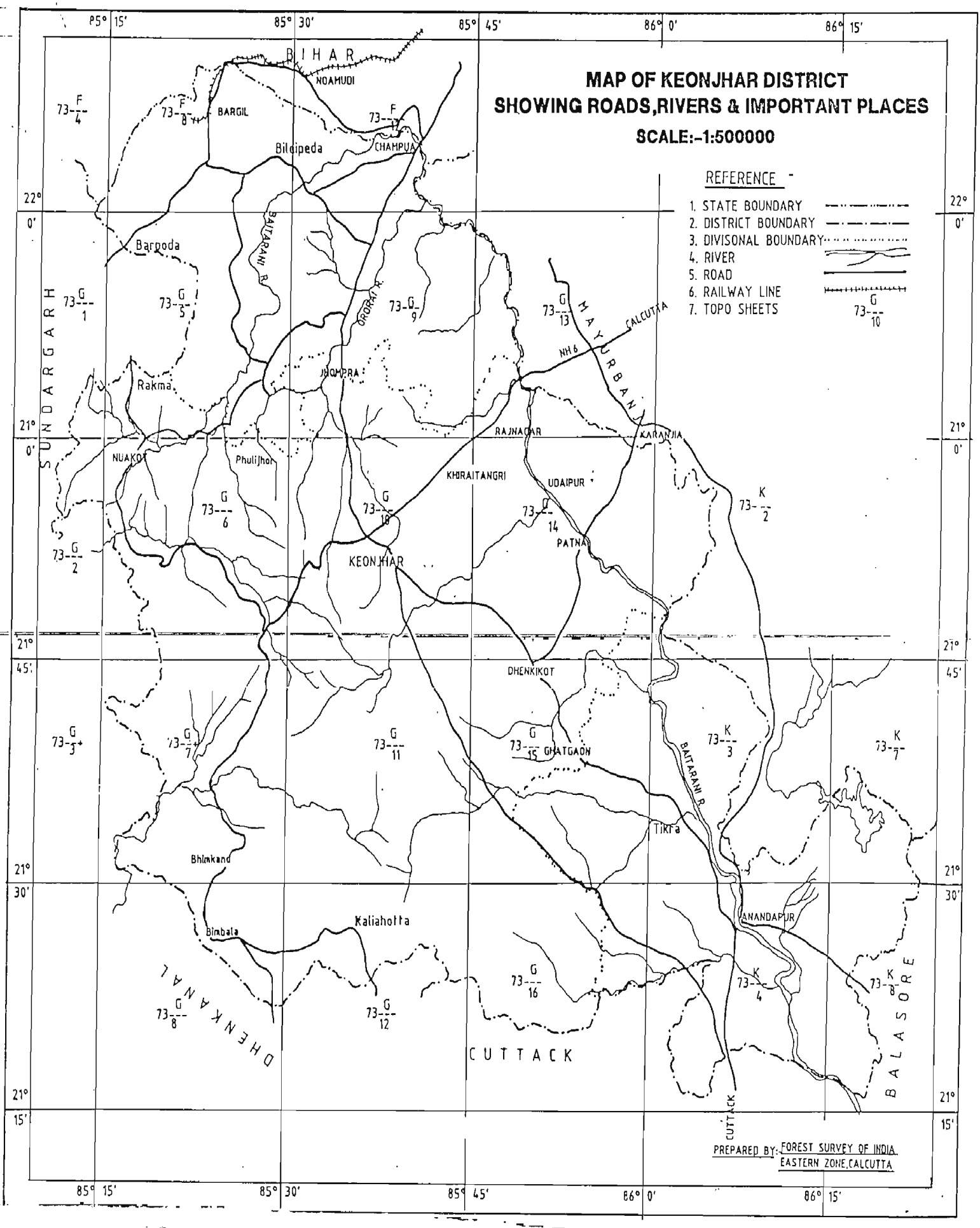
MAP OF KEONJHAR DISTRICT
SHOWING ROADS,RIVERS & IMPORTANT PLACES
SCALE:-1:500000
REFERENCE
1. STATE BOUNDARY
2. DISTRICT BOUNDARY
3. DIVISONAL BOUNDARY
4. RIVER
5. ROAD
6. RAILWAY LINE
7. TOPO SHEETS
BIHAR
NOAMUDI
BARGIL
Bilaipeda
CHAMPUA
Barpoda
BAITARANI R.
ORORAI R.
JHOMPRA
Rakma
SUNDARGARH
NUAKOT
Phulijhor
RAJNAGAR
KARANJIA
KHIRAITANGRI
UDAIPUR
PATNA
KEONJHAR
NH 6
CALCUTTA
MAYURBANJ
DHENKIKOT
GHATGAON
Tikra
Bhimkand
Kaliahotta
Bimbala
ANANDAPUR
DHENKANAL
CUTTACK
BALASORE
PREPARED BY:- FOREST SURVEY OF INDIA
EASTERN ZONE,CALCUTTA

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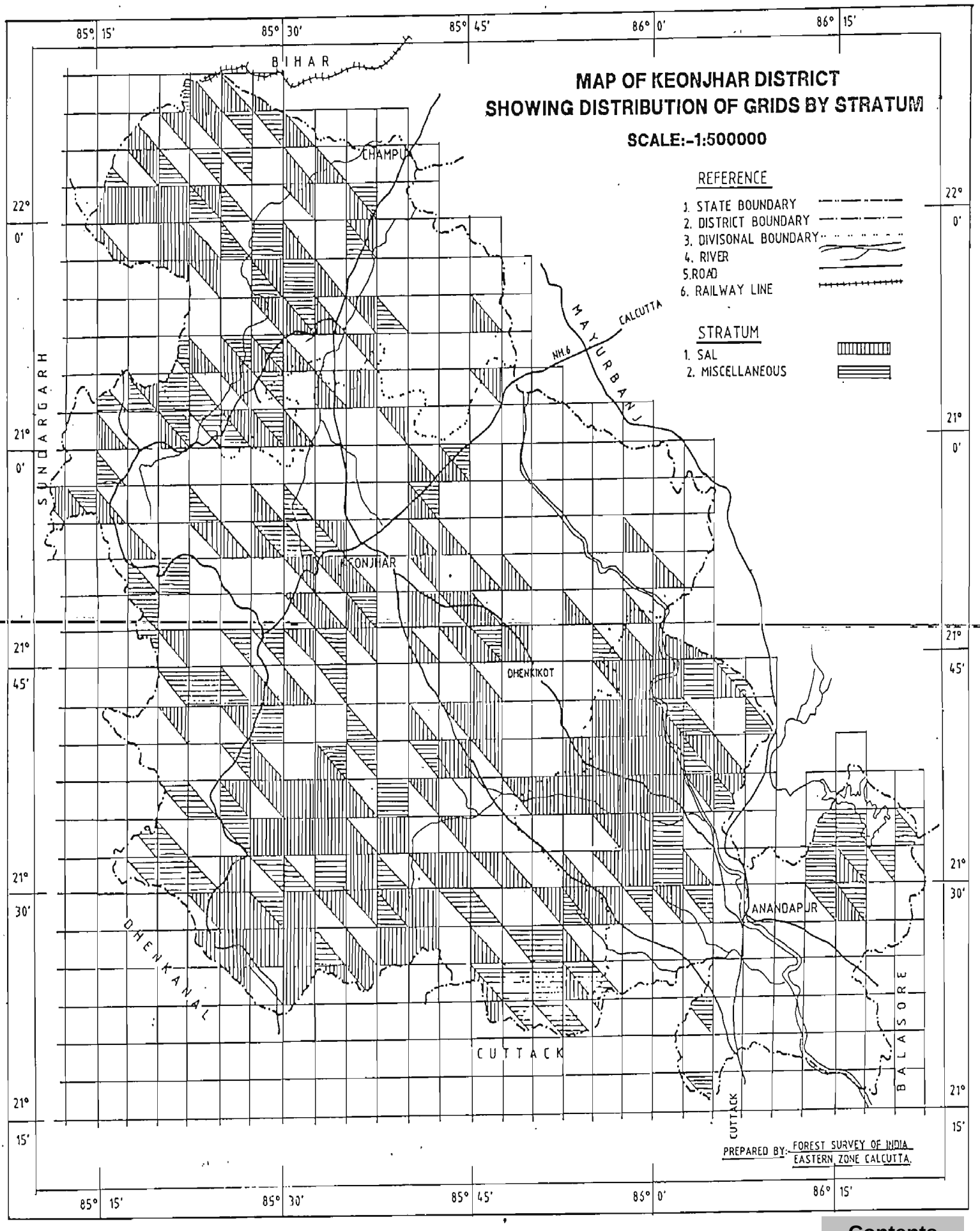
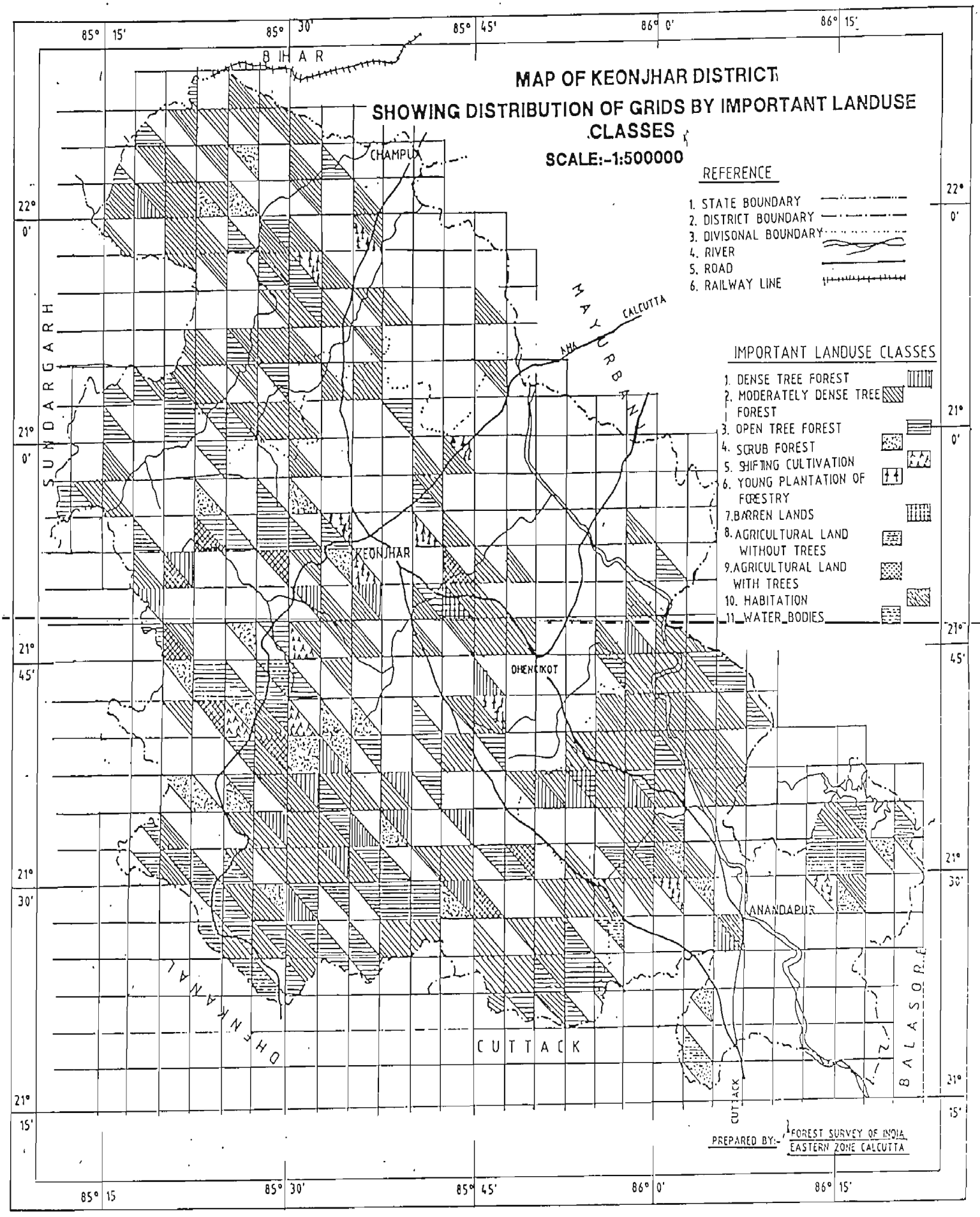

MAP OF KEONJHAR DISTRICT
SHOWING DISTRIBUTION OF GRIDS BY STRATUM
SCALE:-1:500000
REFERENCE
1. STATE BOUNDARY
2. DISTRICT BOUNDARY
3. DIVISONAL BOUNDARY
4. RIVER
5.ROAD
6. RAILWAY LINE
STRATUM
1. SAL
2. MISCELLANEOUS
BIHAR
CHAMPUA
SUNDARGARH
MAYURBANJ
CALCUTTA
NH.6
KEONJHAR
DHENKIKOT
ANANDAPUR
DHENKANAL
CUTTACK
BALASORE
PREPARED BY:- FOREST SURVEY OF INDIA
EASTERN ZONE CALCUTTA.
85° 15'
85° 30'
85° 45'
86° 0'
86° 15'
22°
21°
45'
30'
15'

Contents


MAP OF KEONJHAR DISTRICT
SHOWING DISTRIBUTION OF GRIDS BY IMPORTANT LANDUSE CLASSES
SCALE:-1:500000
REFERENCE
1. STATE BOUNDARY
2. DISTRICT BOUNDARY
3. DIVISONAL BOUNDARY
4. RIVER
5. ROAD
6. RAILWAY LINE
IMPORTANT LANDUSE CLASSES
1. DENSE TREE FOREST
2. MODERATELY DENSE TREE FOREST
3. OPEN TREE FOREST
4. SCRUB FOREST
5. SHIFTING CULTIVATION
6. YOUNG PLANTATION OF FORESTRY
7. BARREN LANDS
8. AGRICULTURAL LAND WITHOUT TREES
9. AGRICULTURAL LAND WITH TREES
10. HABITATION
11. WATER BODIES
BIHAR
SUNDARGARH
CHAMPUA
KEONJHAR
DHENKIKOT
ANANDAPUR
CUTTACK
BALASORE
ORISSA
MAYURBANJ
CALCUTTA
AHA
PREPARED BY:- FOREST SURVEY OF INDIA EASTERN ZONE CALCUTTA
85° 15'
85° 30'
85° 45'
86° 0'
86° 15'
22° 0'
21° 0'
21° 45'
21° 30'
21° 15'

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PART-II

STATISTICAL TABLES.

Contents

List of Tables

District : Keonjhar State: Orissa

01

TABLE NO.1.1

STEMS PER HACTARE(NO) BY SPECIES AND DIAMETER CLASSES(IN CM.)

STRATA-: SAL DISTRICT - KEONJHAR

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Adina cordifolia	28	.897	.179	.135	.045	.000	.000	.000	.000	.000	.000	1.256
Adina oligocephala	30	.090	.000	.000	.000	.000	.000	.000	.000	.000	.000	.090
Aegle marmelos	32	.045	.045	.000	.000	.000	.000	.000	.000	.000	.000	.090
Albizzia procera	50	.045	.090	.000	.045	.000	.000	.000	.000	.000	.000	.179
Albizzia species	51	.448	.224	.000	.045	.000	.000	.000	.000	.000	.000	.717
Anacardium occidentale	66	.045	.000	.090	.000	.000	.000	.000	.000	.000	.000	.135
Anogeissus latifolia	72	5.740	3.453	.493	.090	.000	.000	.000	.000	.000	.000	9.775
Antidesma menasu	78	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Azadirachta indica	103	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Bauhinia species	118	.269	.045	.000	.045	.000	.000	.000	.000	.000	.000	.359
Bombax ceiba	131	.045	.045	.045	.000	.000	.000	.000	.000	.000	.000	.135
Bridelia retusa	138	1.121	.135	.000	.000	.000	.000	.000	.000	.000	.000	1.256
Buchanania angustifolia	142	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Buchanania lanzan	143	15.694	1.659	.090	.045	.000	.000	.000	.000	.000	.000	17.488
Butea monosperma	146	.090	.000	.000	.000	.000	.000	.000	.000	.000	.000	.090
Butea species	147	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Callicarpa arborea	150	.224	.000	.000	.000	.000	.000	.000	.000	.000	.000	.224
Careya arborea	177	.717	.359	.000	.000	.000	.000	.000	.000	.000	.000	1.076
Casearia graveolens	181	.090	.000	.000	.000	.000	.000	.000	.000	.000	.000	.090
Casearia tomentosa	183	.179	.135	.000	.000	.000	.000	.000	.000	.000	.000	.314
Casearia species	185	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Cassia fistula	186	.538	.000	.000	.000	.000	.000	.000	.000	.000	.000	.538
Cedrela serrata	197	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Toona ciliata	198	.135	.045	.000	.000	.000	.000	.000	.000	.000	.000	.179
Chloroxylon swietenia	206	.179	.000	.000	.000	.000	.000	.000	.000	.000	.000	.179
Chukrasia species	209	.000	.045	.000	.000	.000	.000	.000	.000	.000	.000	.045
Cleistanthus collinus	218	3.363	.179	.000	.000	.000	.000	.000	.000	.000	.000	3.542
Cochlospermum religiosum	223	.314	.045	.000	.000	.000	.000	.000	.000	.000	.000	.359
Dalbergia latifolia	266	.448	.045	.000	.000	.000	.000	.000	.000	.000	.000	.493
Dalbergia paniculata	267	.179	.000	.000	.000	.000	.000	.000	.000	.000	.000	.179
Dillenia pentagyna	278	1.076	.314	.000	.000	.000	.000	.000	.000	.000	.000	1.390
Diospyros melanoxylon	285	8.161	1.121	.269	.000	.045	.000	.000	.000	.000	.000	9.596
Diospyros peregrina	289	.045	.090	.000	.000	.000	.000	.000	.000	.000	.000	.135
Diospyros species	292	.852	.135	.090	.045	.000	.000	.000	.000	.000	.000	1.121
Dipterocarpus species	298	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045

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Cont. of Table No.1.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Emblica officinalis	325	.717	.000	.000	.000	.000	.000	.000	.000	.000	.000	.717
Erythrina species	342	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Eugenia cymosa	350	.045	.045	.045	.000	.000	.000	.000	.000	.000	.000	.135
Ficus bengalensis	375	.090	.179	.000	.090	.000	.000	.000	.000	.000	.000	.359
Ficus religiosa	381	.179	.045	.000	.000	.000	.000	.000	.000	.000	.000	.224
Ficus recemosa	382	.000	.000	.045	.000	.000	.000	.000	.000	.000	.000	.045
Flacourtia species	391	.448	.000	.000	.000	.000	.000	.000	.000	.000	.000	.448
Gardenia resinifera	405	.583	.269	.000	.000	.000	.000	.000	.000	.000	.000	.852
Gardenia species	406	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Garuga pinnata	407	.538	.135	.000	.000	.000	.000	.000	.000	.000	.000	.673
Gmelina arborea	420	.090	.090	.000	.000	.000	.000	.000	.000	.000	.000	.179
Grewia species	432	.538	.045	.000	.000	.000	.000	.000	.000	.000	.000	.583
Hollarrhena antidysenterica	452	.224	.000	.000	.000	.000	.000	.000	.000	.000	.000	.224
Holoptelea integrifolia	456	.135	.000	.000	.000	.000	.000	.000	.000	.000	.000	.135
Hymenodictyon excelsum	470	.045	.000	.045	.000	.000	.000	.000	.000	.000	.000	.090
Kydia calycina	501	.090	.045	.000	.000	.000	.000	.000	.000	.000	.000	.135
Lagerstroemia hypoleuca	502	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Lagerstroemia lanceolata	504	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Lagerstroemia parviflora	505	.807	.090	.045	.000	.000	.000	.000	.000	.000	.000	.942
Lagerstroemia speciosa	506	.000	.000	.000	.045	.000	.000	.000	.000	.000	.000	.045
Lannea coromandelica	509	2.152	.538	.314	.045	.045	.000	.000	.000	.000	.000	3.094
Macaranga species	550	.090	.000	.000	.000	.000	.000	.000	.000	.000	.000	.090
Madhuca latifolia	561	6.322	3.408	1.614	.448	.179	.000	.000	.000	.000	.000	11.972
Mallotus philippinensis	565	.179	.000	.000	.000	.000	.000	.000	.000	.000	.000	.179
Mangifera indica	569	.090	.000	.090	.045	.045	.000	.000	.045	.045	.000	.359
Michelia species	602	.000	.135	.000	.045	.000	.000	.000	.000	.000	.000	.179
Mitragyna parviflora	611	.135	.045	.045	.000	.000	.000	.000	.000	.000	.000	.224
Morinda tinctoria	613	.493	.090	.000	.000	.000	.000	.000	.000	.000	.000	.583
Nyctanthes arbortristis	637	.135	.000	.000	.000	.000	.000	.000	.000	.000	.000	.135
Ougeinia dalbergoiides	653	.762	.404	.045	.000	.000	.000	.000	.000	.000	.000	1.211
Pongamia pinnata	701	.224	.000	.000	.090	.000	.000	.000	.000	.000	.000	.314
Pterocarpus marsupium	722	.897	.224	.045	.000	.000	.000	.000	.000	.000	.000	1.166
Saccopetalum tomentosum	770	.135	.045	.000	.000	.000	.000	.000	.000	.000	.000	.179
Sapium baccatum	785	.000	.000	.000	.000	.045	.000	.000	.000	.000	.000	.045
Schima wallichii	794	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Schleichera trijuga	795	.897	.493	.269	.135	.000	.000	.000	.045	.000	.000	1.838
Schrebera swienteniodes	796	.000	.000	.090	.000	.000	.000	.000	.000	.000	.000	.090

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Cont. of Table No.1.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Semecarpus anacardium	798	1.525	.045	.000	.000	.000	.000	.000	.000	.000	.000	1.569
Shorea robusta	802	132.771	34.482	11.569	3.094	.493	.000	.000	.000	.000	.000	182.409
Soymida febrifuga	809	.986	.135	.000	.000	.000	.000	.000	.000	.000	.000	1.121
Sterculia species	822	.000	.045	.000	.000	.000	.000	.000	.000	.000	.000	.045
Stereospermum suaveolens	825	.045	.000	.045	.000	.000	.000	.000	.000	.000	.000	.090
Strychnos nuxvomica	831	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Strychnos potatorum	832	.493	.000	.000	.000	.000	.000	.000	.000	.000	.000	.493
Syzygium cerasoideum	842	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Syzygium cumini	843	3.946	2.870	.583	.224	.045	.000	.000	.000	.000	.000	7.668
Syzygium species	850	.448	.135	.135	.000	.000	.000	.000	.000	.000	.000	.717
Terminalia arjuna	860	.045	.000	.045	.000	.000	.000	.000	.000	.000	.000	.090
Terminalia belerica	861	1.300	.179	.045	.000	.000	.000	.000	.000	.000	.000	1.525
Terminalia chebula	864	1.659	.045	.045	.000	.000	.000	.000	.000	.000	.000	1.749
Terminalia citrina	865	.045	.045	.000	.000	.000	.000	.000	.000	.000	.000	.090
Terminalia crenulata	866	9.506	2.915	.852	.359	.179	.000	.000	.000	.000	.000	13.811
Trewia nudiflora	880	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Walsura ptrijuga	904	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Weightia tinctoria	910	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Xylia xylocarpa	919	1.345	.269	.090	.000	.000	.000	.000	.000	.000	.000	1.704
Zizyphus species	930	.359	.000	.000	.000	.000	.000	.000	.000	.000	.000	.359
Acacia Auriculiformis(A06)	943	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Unidentified trees	944	10.313	.717	.135	.000	.000	.000	.000	.000	.000	.000	11.165
TOTAL		223.662	56.588	17.443	4.977	1.076	.000	.000	.090	.045	.000	303.881
PERCENTAGE		73.60	18.62	5.74	1.64	.35	.00	.00	.03	.01	.00	100.00

Contents

TABLE NO.1.2

STEMS PER HACTARE(NO) BY SPECIES AND DIAMETER CLASSES(IN CM.)

STRATA-: MISC. DISTRICT - KEONJHAR

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acer laevigatum	17	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
Adina cordifolia	28	.930	.310	.155	.078	.000	.000	.000	.000	.000	.000	1.473
Adina oligocephala	30	.000	.078	.078	.000	.000	.000	.000	.000	.000	.000	.155
Aegle marmelos	32	.775	.155	.000	.000	.000	.000	.000	.000	.000	.000	.930
Ailanthus excelsa	40	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Albizzia lebbek	46	.000	.000	.000	.000	.078	.000	.000	.000	.000	.000	.078
Albizzia odorotissima	49	.000	.000	.000	.078	.000	.000	.000	.000	.000	.000	.078
Albizzia procera	50	.233	.000	.000	.078	.000	.000	.000	.000	.000	.000	.310
Albizzia species	51	.775	.155	.233	.000	.000	.000	.000	.000	.000	.000	1.163
Alstonia scholaris	57	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
Annona squamosa	70	.000	.078	.000	.000	.000	.000	.000	.000	.000	.000	.078
Anogeissus latifolia	72	9.612	4.729	1.938	.155	.078	.000	.000	.000	.000	.000	16.512
Bauhinia purpurea	114	.155	.388	.000	.000	.000	.000	.000	.000	.000	.000	.543
Bauhinia retusa	116	.543	.000	.000	.000	.000	.000	.000	.000	.000	.000	.543
Bauhinia species	118	1.163	.233	.078	.000	.000	.078	.000	.000	.000	.000	1.550
Bombax ceiba	131	.310	.078	.078	.000	.000	.000	.000	.000	.000	.000	.465
Bridelia retusa	138	1.938	.233	.078	.000	.000	.000	.000	.000	.000	.000	2.248
Buchanania lanzan	143	6.589	.853	.233	.000	.000	.000	.000	.000	.000	.000	7.674
Callicarpa arborea	150	.388	.000	.000	.000	.000	.000	.000	.000	.000	.000	.388
Callicarpa species	154	.543	.078	.000	.000	.000	.000	.000	.000	.000	.000	.620
Careya arborea	177	.620	.078	.078	.000	.000	.000	.000	.000	.000	.000	.775
Casearia tomentosa	183	.155	.155	.000	.000	.000	.000	.000	.000	.000	.000	.310
Cassia fistula	186	.620	.155	.000	.000	.000	.000	.000	.000	.000	.000	.775
Cedrela serrata	197	.078	.078	.000	.000	.000	.000	.000	.000	.000	.000	.155
Toona ciliata	198	.155	.078	.155	.000	.000	.000	.000	.000	.000	.000	.388
Chloroxylon swietenia	206	2.326	.078	.000	.000	.000	.000	.000	.000	.000	.000	2.403
Cleistanthus collinus	218	4.496	.233	.078	.000	.000	.000	.000	.000	.000	.000	4.806
Cochlospermum religiosum	223	.775	.388	.000	.000	.000	.000	.000	.000	.000	.000	1.163
Dalbergia latifolia	266	.775	.310	.000	.000	.000	.000	.000	.000	.000	.000	1.085
Dalbergia paniculata	267	.233	.078	.000	.000	.000	.000	.000	.000	.000	.000	.310
Dalbergia sissoo	268	.000	.078	.000	.000	.000	.000	.000	.000	.000	.000	.078
Dillenia pentagyna	278	.465	.155	.155	.233	.000	.000	.000	.000	.000	.000	1.008
Diospyros melanoxylon	285	3.488	1.318	.620	.310	.000	.000	.000	.000	.000	.000	5.736
Diospyros peregrina	289	.000	.155	.078	.078	.000	.000	.000	.000	.000	.000	.310
Diospyros species	292	2.713	.310	.310	.078	.000	.000	.078	.000	.000	.000	3.488
Emblica officinalis	325	1.628	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.628
Erythrina suberosa	340	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078

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CONT. OF TABLE NO.1.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Eucalyptus hybrid	346	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Eucalyptus species	348	.465	.233	.000	.000	.000	.000	.000	.000	.000	.000	.698
Eugenia cymosa	350	.775	.078	.078	.078	.000	.000	.000	.000	.000	.000	1.008
Eugenia grandis	353	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
Eugenia species	358	.853	.078	.000	.000	.000	.000	.000	.000	.000	.000	.930
Ficus bengalensis	375	.078	.000	.000	.000	.000	.000	.000	.000	.078	.155	.310
Ficus religiosa	381	.465	.000	.000	.000	.000	.000	.000	.000	.078	.000	.543
Ficus species	385	.155	.233	.000	.000	.000	.000	.000	.000	.000	.000	.388
Flacourtia species	391	.465	.000	.000	.000	.000	.000	.000	.000	.000	.000	.465
Gardenia resinifera	405	1.473	.155	.078	.000	.000	.000	.000	.000	.000	.000	1.705
Gardenia species	406	.233	.078	.000	.000	.000	.000	.000	.000	.000	.000	.310
Garuga pinnata	407	.388	.155	.000	.000	.000	.000	.000	.000	.000	.000	.543
Gmelina arborea	420	.233	.000	.000	.000	.000	.000	.000	.000	.000	.000	.233
Grewia microcos	428	.388	.155	.000	.000	.000	.000	.000	.000	.000	.000	.543
Grewia species	432	1.240	.310	.078	.000	.000	.000	.000	.000	.000	.000	1.628
Hollarrhena antidysenterica	452	.543	.000	.000	.000	.000	.000	.000	.000	.000	.000	.543
Hymenodictyon excelsum	470	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Lagerstroemia parviflora	505	1.783	.388	.078	.000	.000	.000	.000	.000	.000	.000	2.248
Lannea coromandelica	509	4.031	.930	.465	.078	.000	.000	.000	.000	.000	.000	5.504
Macaranga species	550	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Madhuca latifolia	561	2.326	1.318	.698	1.240	.620	.078	.000	.000	.000	.000	6.279
Mallotus philippinensis	565	.233	.000	.078	.000	.000	.000	.000	.000	.000	.000	.310
Mallotus species	566	.155	.078	.000	.000	.000	.000	.000	.000	.000	.000	.233
Mangifera indica	569	.078	.000	.078	.233	.078	.078	.078	.000	.000	.000	.620
Michelia species	602	.853	.465	.310	.233	.000	.000	.000	.000	.000	.000	1.860
Mitragyna parviflora	611	.543	.000	.000	.000	.000	.000	.000	.000	.000	.000	.543
Morinda tinctoria	613	1.085	.078	.000	.000	.000	.000	.000	.000	.000	.000	1.163
Nyctanthes arbortristis	637	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
Ougeinia dalbergoiides	653	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
Pongamia pinnata	701	.078	.155	.000	.000	.000	.000	.000	.000	.000	.000	.233
Pterocarpus marsupium	722	2.093	.155	.000	.000	.000	.000	.000	.000	.000	.000	2.248
Schleichera trijuga	795	1.318	.853	.388	.620	.155	.000	.000	.000	.000	.000	3.333
Schrebera swienteniodes	796	.233	.078	.078	.000	.000	.000	.000	.000	.000	.000	.388
Semecarpus anacardium	798	.465	.000	.000	.000	.000	.000	.000	.000	.000	.000	.465
Shorea robusta	802	20.465	4.264	2.481	1.318	.310	.000	.000	.000	.000	.000	28.837
Soymida febrifuga	809	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Spondias pinnata	812	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Sterculia urens	820	.233	.000	.078	.000	.000	.000	.000	.000	.000	.000	.310

Contents

CONT. OF TABLE NO.1.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Sterculia species	822	.000	.000	.078	.000	.000	.000	.000	.000	.000	.000	.078
Strychnos nuxvomica	831	.310	.000	.000	.000	.000	.000	.000	.000	.000	.000	.310
Strychnos potatorum	832	.543	.078	.078	.000	.000	.000	.000	.000	.000	.000	.698
Syzygium cumini	843	1.395	1.163	.155	.155	.078	.000	.000	.000	.000	.000	2.946
Syzygium species	850	.310	.078	.000	.000	.000	.000	.000	.000	.000	.000	.388
Terminalia belerica	861	.620	.310	.233	.155	.000	.000	.000	.000	.000	.000	1.318
Terminalia bialata	862	.388	.155	.078	.000	.000	.000	.000	.000	.000	.000	.620
Terminalia catappa	863	.078	.000	.000	.078	.000	.000	.000	.000	.000	.000	.155
Terminalia chebula	864	.853	.543	.155	.000	.000	.000	.000	.000	.000	.000	1.550
Terminalia citrina	865	.155	.078	.000	.000	.000	.000	.000	.000	.000	.000	.233
Terminalia crenulata	866	7.907	2.093	.620	.233	.155	.000	.000	.000	.000	.000	11.008
Wrightia tomentosa	912	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Xylia xylocarpa	919	.853	.543	.233	.000	.000	.000	.000	.000	.000	.000	1.628
Zizyphus species	930	.930	.078	.000	.000	.000	.000	.000	.000	.000	.000	1.008
Acacia Auriculiformis(A06)	943	9.380	.000	.000	.000	.000	.000	.000	.000	.000	.000	9.380
Unidentified trees	944	14.884	1.395	.233	.155	.000	.000	.000	.000	.000	.000	16.667
TOTAL		126.201	27.752	11.163	5.659	1.550	.233	.155	.000	.155	.155	173.022
PERCENTAGE		72.94	16.04	6.45	3.27	.90	.13	.09	.00	.09	.09	100.00

TABLE NO.2.1

TOTAL STEMS(IN No.) BY SPECIES AND DIAMETER CLASSES(IN CM.)

STRATA-: SAL DISTRICT : KEONJHAR

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Adina cordifolia	28	162565	32440	24466	8155	0	0	0	0	0	0	227627
Adina oligocephala	30	16310	0	0	0	0	0	0	0	0	0	16310
Aegle marmelos	32	8155	8155	0	0	0	0	0	0	0	0	16310
Albizzia procera	50	8155	16310	0	8155	0	0	0	0	0	0	32440
Albizzia species	51	81191	40595	0	8155	0	0	0	0	0	0	129943
Anacardium occidentale	66	8155	0	16310	0	0	0	0	0	0	0	24466
Anogeissus latifolia	72	1040271	625794	89347	16310	0	0	0	0	0	0	1771542
Antidesma menasu	78	8155	0	0	0	0	0	0	0	0	0	8155
Azadirachta indica	103	8155	0	0	0	0	0	0	0	0	0	8155
Bauhinia species	118	48751	8155	0	8155	0	0	0	0	0	0	65062
Bombax ceiba	131	8155	8155	8155	0	0	0	0	0	0	0	24466
Bridelia retusa	138	203161	24466	0	0	0	0	0	0	0	0	227627
Buchanania angustifolia	142	8155	0	0	0	0	0	0	0	0	0	8155
Buchanania lanzan	143	2844255	300663	16310	8155	0	0	0	0	0	0	3169385
Butea monosperma	146	16310	0	0	0	0	0	0	0	0	0	16310
Butea species	147	8155	0	0	0	0	0	0	0	0	0	8155
Callicarpa arborea	150	40595	0	0	0	0	0	0	0	0	0	40595
Careya arborea	177	129943	65062	0	0	0	0	0	0	0	0	195005
Casearia graveolens	181	16310	0	0	0	0	0	0	0	0	0	16310
Casearia tomentosa	183	32440	24466	0	0	0	0	0	0	0	0	56906
Casearia species	185	8155	0	0	0	0	0	0	0	0	0	8155
Cassia fistula	186	97502	0	0	0	0	0	0	0	0	0	97502
Cedrela serrata	197	8155	0	0	0	0	0	0	0	0	0	8155
Toona ciliata	198	24466	8155	0	0	0	0	0	0	0	0	32440
Chloroxylon swietenia	206	32440	0	0	0	0	0	0	0	0	0	32440
Chukrasia species	209	0	8155	0	0	0	0	0	0	0	0	8155
Cleistanthus collinus	218	609483	32440	0	0	0	0	0	0	0	0	641923
Cochlospermum religiosum	223	56906	8155	0	0	0	0	0	0	0	0	65062
Dalbergia latifolia	266	81191	8155	0	0	0	0	0	0	0	0	89347
Dalbergia paniculata	267	32440	0	0	0	0	0	0	0	0	0	32440
Dillenia pentagyna	278	195005	56906	0	0	0	0	0	0	0	0	251912
Diospyros melanoxylon	285	1479034	203161	48751	0	8155	0	0	0	0	0	1739102
Diospyros peregrina	289	8155	16310	0	0	0	0	0	0	0	0	24466
Diospyros species	292	154409	24466	16310	8155	0	0	0	0	0	0	203161
Dipterocarpus species	298	8155	0	0	0	0	0	0	0	0	0	8155

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CONT. TABLE NO.2.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Emblica officinalis	325	129943	0	0	0	0	0	0	0	0	0	129943
Erythrina species	342	8155	0	0	0	0	0	0	0	0	0	8155
Eugenia cymosa	350	8155	8155	8155	0	0	0	0	0	0	0	24466
Ficus bengalensis	375	16310	32440	0	16310	0	0	0	0	0	0	65062
Ficus religiosa	381	32440	8155	0	0	0	0	0	0	0	0	40595
Ficus recemosa	382	0	0	8155	0	0	0	0	0	0	0	8155
Flacourtia species	391	81191	0	0	0	0	0	0	0	0	0	81191
Gardenia resinifera	405	105658	48751	0	0	0	0	0	0	0	0	154409
Gardenia species	406	8155	0	0	0	0	0	0	0	0	0	8155
Garuga pinnata	407	97502	24466	0	0	0	0	0	0	0	0	121969
Gmelina arborea	420	16310	16310	0	0	0	0	0	0	0	0	32440
Grewia species	432	97502	8155	0	0	0	0	0	0	0	0	105658
Hollarrhena antidysenterica	452	40595	0	0	0	0	0	0	0	0	0	40595
Holoptelea integrifolia	456	24466	0	0	0	0	0	0	0	0	0	24466
Hymenodictyon excelsum	470	8155	0	8155	0	0	0	0	0	0	0	16310
Kydia calycina	501	16310	8155	0	0	0	0	0	0	0	0	24466
Lagerstroemia hypoleuca	502	8155	0	0	0	0	0	0	0	0	0	8155
Lagerstroemia lanceolata	504	8155	0	0	0	0	0	0	0	0	0	8155
Lagerstroemia parviflora	505	146254	16310	8155	0	0	0	0	0	0	0	170720
Lagerstroemia speciosa	506	0	0	0	8155	0	0	0	0	0	0	8155
Lannea coromandelica	509	390011	97502	56906	8155	8155	0	0	0	0	0	560731
Macaranga species	550	16310	0	0	0	0	0	0	0	0	0	16310
Madhuca latifolia	561	1145748	617638	292508	81191	32440	0	0	0	0	0	2169709
Mallotus philippinensis	565	32440	0	0	0	0	0	0	0	0	0	32440
Mangifera indica	569	16310	0	16310	8155	8155	0	0	8155	8155	0	65062
Michelia species	602	0	24466	0	8155	0	0	0	0	0	0	32440
Mitragyna parviflora	611	24466	8155	8155	0	0	0	0	0	0	0	40595
Morinda tinctoria	613	89347	16310	0	0	0	0	0	0	0	0	105658
Nyctanthes arbortristis	637	24466	0	0	0	0	0	0	0	0	0	24466
Ougeinia dalbergoiides	653	138098	73217	8155	0	0	0	0	0	0	0	219471
Pongamia pinnata	701	40595	0	0	16310	0	0	0	0	0	0	56906
Pterocarpus marsupium	722	162565	40595	8155	0	0	0	0	0	0	0	211316
Saccopetalum tomentosum	770	24466	8155	0	0	0	0	0	0	0	0	32440
Sapium baccatum	785	0	0	0	0	8155	0	0	0	0	0	8155
Schima wallichii	794	8155	0	0	0	0	0	0	0	0	0	8155
Schleichera trijuga	795	162565	89347	48751	24466	0	0	0	8155	0	0	333104
Schrebera swienteniodes	796	0	0	16310	0	0	0	0	0	0	0	16310

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CONT. TABLE NO.2.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Semecarpus anacardium	798	276378	8155	0	0	0	0	0	0	0	0	284353
Shorea robusta	80	224062354	62492412	096673	560731	89347	0	0	0	0	0	33058348
Soymida febrifuga	809	178694	24466	0	0	0	0	0	0	0	0	203161
Sterculia species	822	0	8155	0	0	0	0	0	0	0	0	8155
Stereospermum suaveolens	825	8155	0	8155	0	0	0	0	0	0	0	16310
Strychnos nuxvomica	831	8155	0	0	0	0	0	0	0	0	0	8155
Strychnos potatorum	832	89347	0	0	0	0	0	0	0	0	0	89347
Syzygium cerasoideum	842	8155	0	0	0	0	0	0	0	0	0	8155
Syzygium cumini	843	715141	520135	105658	40595	8155	0	0	0	0	0	1389687
Syzygium species	850	81191	24466	24466	0	0	0	0	0	0	0	129943
Terminalia arjuna	860	8155	0	8155	0	0	0	0	0	0	0	16310
Terminalia belerica	861	235601	32440	8155	0	0	0	0	0	0	0	276378
Terminalia chebula	864	300663	8155	8155	0	0	0	0	0	0	0	316974
Terminalia citrina	865	8155	8155	0	0	0	0	0	0	0	0	16310
Terminalia crenulata	866	1722791	528291	154409	65062	32440	0	0	0	0	0	2502995
Trewia nudiflora	880	8155	0	0	0	0	0	0	0	0	0	8155
Walsura ptrijuga	904	8155	0	0	0	0	0	0	0	0	0	8155
Weightia tinctoria	910	8155	0	0	0	0	0	0	0	0	0	8155
Xylia xylocarpa	919	243757	48751	16310	0	0	0	0	0	0	0	308819
Zizyphus species	930	65062	0	0	0	0	0	0	0	0	0	65062
Unidentified trees	944	1869045	129943	24466	0	0	0	0	0	0	0	2023455
Acacia Auriculiformis(A06)	A06	8155	0	0	0	0	0	0	0	0	0	8155
TOTAL		40534712	10255557	3161230	901991	195005	0	0	16310	8155	0	55072964

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TABLE NO.2.2

TOTAL STEMS(IN NO.) BY SPECIES AND DIAMETER CLASSES(IN CM.)

STRATA-: MISC. DISTRICT : KEONJHAR

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acer laevigatum	17	16249	0	0	0	0	0	0	0	0	0	16249
Adina cordifolia	28	97499	32499	16249	8177	0	0	0	0	0	0	154426
Adina oligocephala	30	0	8177	8177	0	0	0	0	0	0	0	16249
Aegle marmelos	32	81249	16249	0	0	0	0	0	0	0	0	97499
Ailanthus excelsa	40	8177	0	0	0	0	0	0	0	0	0	8177
Albizzia lebbek	46	0	0	0	0	8177	0	0	0	0	0	8177
Albizzia odorotissima	49	0	0	0	8177	0	0	0	0	0	0	8177
Albizzia procera	50	24427	0	0	8177	0	0	0	0	0	0	32499
Albizzia species	51	81249	16249	24427	0	0	0	0	0	0	0	121926
Alstonia scholaris	57	16249	0	0	0	0	0	0	0	0	0	16249
Annona squamosa	70	0	8177	0	0	0	0	0	0	0	0	8177
Anogeissus latifolia	72	1007702	495778	203176	16249	8177	0	0	0	0	0	1731085
Bauhinia purpurea	114	16249	40677	0	0	0	0	0	0	0	0	56927
Bauhinia retusa	116	56927	0	0	0	0	0	0	0	0	0	56927
Bauhinia species	118	121926	24427	8177	0	0	8177	0	0	0	0	162498
Bombax ceiba	131	32499	8177	8177	0	0	0	0	0	0	0	48749
Bridelia retusa	138	203176	24427	8177	0	0	0	0	0	0	0	235675
Buchanania lanzan	143	690777	89426	24427	0	0	0	0	0	0	0	804526
Callicarpa arborea	150	40677	0	0	0	0	0	0	0	0	0	40677
Callicarpa species	154	56927	8177	0	0	0	0	0	0	0	0	64999
Careya arborea	177	64999	8177	8177	0	0	0	0	0	0	0	81249
Casearia tomentosa	183	16249	16249	0	0	0	0	0	0	0	0	32499
Cassia fistula	186	64999	16249	0	0	0	0	0	0	0	0	81249
Cedrela serrata	197	8177	8177	0	0	0	0	0	0	0	0	16249
Toona ciliata	198	16249	8177	16249	0	0	0	0	0	0	0	40677
Chloroxylon swietenia	206	243853	8177	0	0	0	0	0	0	0	0	251925
Cleistanthus collinus	218	471351	24427	8177	0	0	0	0	0	0	0	503851
Cochlospermum religiosum	223	81249	40677	0	0	0	0	0	0	0	0	121926
Dalbergia latifolia	266	81249	32499	0	0	0	0	0	0	0	0	113749
Dalbergia paniculata	267	24427	8177	0	0	0	0	0	0	0	0	32499
Dalbergia sissoo	268	0	8177	0	0	0	0	0	0	0	0	8177
Dillenia pentagyna	278	48749	16249	16249	24427	0	0	0	0	0	0	105676
Diospyros melanoxylon	285	365674	138176	64999	32499	0	0	0	0	0	0	601350
Diospyros peregrina	289	0	16249	8177	8177	0	0	0	0	0	0	32499

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Cont. Table No.2.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Diospyros species	292	284425	32499	32499	8177	0	0	8177	0	0	0	365674
Emblica officinalis	325	170676	0	0	0	0	0	0	0	0	0	170676
Erythrina suberosa	340	8177	0	0	0	0	0	0	0	0	0	8177
Eucalyptus hybrid	346	8177	0	0	0	0	0	0	0	0	0	8177
Eucalyptus species	348	48749	24427	0	0	0	0	0	0	0	0	73176
Eugenia cymosa	350	81249	8177	8177	8177	0	0	0	0	0	0	105676
Eugenia grandis	353	16249	0	0	0	0	0	0	0	0	0	16249
Eugenia species	358	89426	8177	0	0	0	0	0	0	0	0	97499
Ficus bengalensis	375	8177	0	0	0	0	0	0	0	8177	16249	32499
Ficus religiosa	381	48749	0	0	0	0	0	0	0	8177	0	56927
Ficus species	385	16249	24427	0	0	0	0	0	0	0	0	40677
Flacourtia species	391	48749	0	0	0	0	0	0	0	0	0	48749
Gardenia resinifera	405	154426	16249	8177	0	0	0	0	0	0	0	178748
Gardenia species	406	24427	8177	0	0	0	0	0	0	0	0	32499
Garuga pinnata	407	40677	16249	0	0	0	0	0	0	0	0	56927
Gmelina arborea	420	24427	0	0	0	0	0	0	0	0	0	24427
Grewia microcos	428	40677	16249	0	0	0	0	0	0	0	0	56927
Grewia species	432	129999	32499	8177	0	0	0	0	0	0	0	170676
Hollarrhena antidysenterica	452	56927	0	0	0	0	0	0	0	0	0	56927
Hymenodictyon excelsum	470	8177	0	0	0	0	0	0	0	0	0	8177
Lagerstroemia parviflora	505	186926	40677	8177	0	0	0	0	0	0	0	235675
Lannea coromandelica	509	422602	97499	48749	8177	0	0	0	0	0	0	577028
Macaranga species	550	8177	0	0	0	0	0	0	0	0	0	8177
Madhuca latifolia	561	243853	138176	73176	129999	64999	8177	0	0	0	0	658277
Mallotus philippinensis	565	24427	0	8177	0	0	0	0	0	0	0	32499
Mallotus species	566	16249	8177	0	0	0	0	0	0	0	0	24427
Mangifera indica	569	8177	0	8177	24427	8177	8177	8177	0	0	0	64999
Michelia species	602	89426	48749	32499	24427	0	0	0	0	0	0	194998
Mitragyna parviflora	611	56927	0	0	0	0	0	0	0	0	0	56927
Morinda tinctoria	613	113749	8177	0	0	0	0	0	0	0	0	121926
Nyctanthes arbortristis	637	16249	0	0	0	0	0	0	0	0	0	16249
Ougeinia dalbergoiides	653	16249	0	0	0	0	0	0	0	0	0	16249
Pongamia pinnata	701	8177	16249	0	0	0	0	0	0	0	0	24427
Pterocarpus marsupium	722	219425	16249	0	0	0	0	0	0	0	0	235675
Schleichera trijuga	795	138176	89426	40677	64999	16249	0	0	0	0	0	349425
Schrebera swienteniodes	796	24427	8177	8177	0	0	0	0	0	0	0	40677
Semecarpus anacardium	798	48749	0	0	0	0	0	0	0	0	0	48749
Shorea robusta	802	2145509	447029	260103	138176	32499	0	0	0	0	0	3023213

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Cont. Table No.2.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Soymida febrifuga	809	8177	0	0	0	0	0	0	0	0	0	8177
Spondias pinnata	812	8177	0	0	0	0	0	0	0	0	0	8177
Sterculia urens	820	24427	0	8177	0	0	0	0	0	0	0	32499
Sterculia species	822	0	0	8177	0	0	0	0	0	0	0	8177
Strychnos nuxvomica	831	32499	0	0	0	0	0	0	0	0	0	32499
Strychnos potatorum	832	56927	8177	8177	0	0	0	0	0	0	0	73176
Syzygium cumini	843	146249	121926	16249	16249	8177	0	0	0	0	0	308852
Syzygium species	850	32499	8177	0	0	0	0	0	0	0	0	40677
Terminalia belerica	861	64999	32499	24427	16249	0	0	0	0	0	0	138176
Terminalia bialata	862	40677	16249	8177	0	0	0	0	0	0	0	64999
Terminalia catappa	863	8177	0	0	8177	0	0	0	0	0	0	16249
Terminalia chebula	864	89426	56927	16249	0	0	0	0	0	0	0	162498
Terminalia citrina	865	16249	8177	0	0	0	0	0	0	0	0	24427
Terminalia crenulata	866	828954	219425	64999	24427	16249	0	0	0	0	0	1154056
Wrightia tomentosa	912	8177	0	0	0	0	0	0	0	0	0	8177
Xylia xylocarpa	919	89426	56927	24427	0	0	0	0	0	0	0	170676
Zizyphus species	930	97499	8177	0	0	0	0	0	0	0	0	105676
Unidentified trees	944	1560408	146249	24427	16249	0	0	0	0	0	0	1747334
Acacia Auriculiformis(A06)	A06	983380	0	0	0	0	0	0	0	0	0	983380
TOTAL		13230660	2909464	1170306	593278	162498	24427	16249	0	16249	16249	18139280

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TABLE NO.3.1

VOLUME PER HECTARE BY SPECIES AND DIAMETER CLASSES(IN CM.)

DISTRICT- KEONJHAR STRATA - SAL

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Adina cordifolia	28	.060	.072	.107	.054	.000	.000	.000	.000	.000	.000	.293
Adina oligocephala	30	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
Aegle marmelos	32	.003	.008	.000	.000	.000	.000	.000	.000	.000	.000	.011
Albizzia procera	50	.004	.018	.000	.054	.000	.000	.000	.000	.000	.000	.077
Albizzia species	51	.021	.053	.000	.041	.000	.000	.000	.000	.000	.000	.116
Anacardium occidentale	66	.002	.000	.056	.000	.000	.000	.000	.000	.000	.000	.059
Anogeissus latifolia	72	.633	1.310	.459	.135	.000	.000	.000	.000	.000	.000	2.537
Antidesma menasu	78	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002
Azadirachta indica	103	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002
Bauhinia species	118	.025	.015	.000	.041	.000	.000	.000	.000	.000	.000	.081
Bombax ceiba	131	.001	.002	.020	.000	.000	.000	.000	.000	.000	.000	.023
Bridelia retusa	138	.205	.071	.000	.000	.000	.000	.000	.000	.000	.000	.276
Buchanania angustifolia	142	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002
Buchanania lanzan	143	.917	.348	.048	.051	.000	.000	.000	.000	.000	.000	1.365
Butea monosperma	146	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Butea species	147	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001
Callicarpa arborea	150	.014	.000	.000	.000	.000	.000	.000	.000	.000	.000	.014
Careya arborea	177	.043	.075	.000	.000	.000	.000	.000	.000	.000	.000	.118
Casearia graveolens	181	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
Casearia tomentosa	183	.012	.037	.000	.000	.000	.000	.000	.000	.000	.000	.049
Casearia species	185	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001
Cassia fistula	186	.033	.000	.000	.000	.000	.000	.000	.000	.000	.000	.033
Cedrela serrata	197	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002
Toona ciliata	198	.011	.011	.000	.000	.000	.000	.000	.000	.000	.000	.022
Chloroxylon swietenia	206	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Chukrasia species	209	.000	.016	.000	.000	.000	.000	.000	.000	.000	.000	.016
Cleistanthus collinus	218	.196	.032	.000	.000	.000	.000	.000	.000	.000	.000	.228
Cochlospermum religiosum	223	.020	.008	.000	.000	.000	.000	.000	.000	.000	.000	.028
Dalbergia latifolia	266	.030	.009	.000	.000	.000	.000	.000	.000	.000	.000	.039
Dalbergia paniculata	267	.013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
Dillenia pentagyna	278	.076	.076	.000	.000	.000	.000	.000	.000	.000	.000	.151
Diospyros melanoxylon	285	4.617	1.780	.448	.000	.240	.000	.000	.000	.000	.000	7.085
Diospyros peregrina	289	.007	.027	.000	.000	.000	.000	.000	.000	.000	.000	.034
Diospyros species	292	.051	.035	.058	.046	.000	.000	.000	.000	.000	.000	.190
Dipterocarpus species	298	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001
Emblica officinalis	325	.039	.000	.000	.000	.000	.000	.000	.000	.000	.000	.039

Contents

CONT. TABLE NO.3.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Erythrina species	342	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.005
Eugenia cymosa	350	.002	.015	.022	.000	.000	.000	.000	.000	.000	.000	.039
Ficus bengalensis	375	.005	.032	.000	.098	.000	.000	.000	.000	.000	.000	.135
Ficus religiosa	381	.011	.008	.000	.000	.000	.000	.000	.000	.000	.000	.019
Ficus recemosa	382	.000	.000	.030	.000	.000	.000	.000	.000	.000	.000	.030
Flacourtia species	391	.020	.000	.000	.000	.000	.000	.000	.000	.000	.000	.020
Gardenia resinifera	405	.033	.058	.000	.000	.000	.000	.000	.000	.000	.000	.091
Gardenia species	406	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002
Garuga pinnata	407	.040	.032	.000	.000	.000	.000	.000	.000	.000	.000	.072
Gmelina arborea	420	.005	.019	.000	.000	.000	.000	.000	.000	.000	.000	.025
Grewia species	432	.043	.013	.000	.000	.000	.000	.000	.000	.000	.000	.056
Hollarrhena antidysenterica	452	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
Holoptelea integrifolia	456	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.005
Hymenodictyon excelsum	470	.004	.000	.032	.000	.000	.000	.000	.000	.000	.000	.036
Kydia calycina	501	.009	.017	.000	.000	.000	.000	.000	.000	.000	.000	.027
Lagerstroemia hypoleuca	502	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Lagerstroemia lanceolata	504	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001
Lagerstroemia parviflora	505	.060	.029	.028	.000	.000	.000	.000	.000	.000	.000	.117
Lagerstroemia speciosa	506	.000	.000	.000	.044	.000	.000	.000	.000	.000	.000	.044
Lannea coromandelica	509	.159	.163	.204	.056	.071	.000	.000	.000	.000	.000	.653
Macaranga species	550	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
Madhuca latifolia	561	.523	.820	.955	.478	.294	.000	.000	.000	.000	.000	3.070
Mallotus philippinensis	565	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Mangifera indica	569	.009	.000	.056	.057	.090	.000	.000	.234	.330	.000	.775
Michelia species	602	.000	.042	.000	.049	.000	.000	.000	.000	.000	.000	.090
Mitragyna parviflora	611	.010	.011	.039	.000	.000	.000	.000	.000	.000	.000	.060
Morinda tinctoria	613	.028	.022	.000	.000	.000	.000	.000	.000	.000	.000	.050
Nyctanthes arbortristis	637	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
Ougeinia dalbergoiides	653	.054	.089	.022	.000	.000	.000	.000	.000	.000	.000	.166
Pongamia pinnata	701	.010	.000	.000	.085	.000	.000	.000	.000	.000	.000	.095
Pterocarpus marsupium	722	.038	.048	.026	.000	.000	.000	.000	.000	.000	.000	.112
Saccopetalum tomentosum	770	.009	.010	.000	.000	.000	.000	.000	.000	.000	.000	.019
Sapium baccatum	785	.000	.000	.000	.000	.102	.000	.000	.000	.000	.000	.102
Schima wallichii	794	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Schleichera trijuga	795	.051	.110	.151	.128	.000	.000	.000	.228	.000	.000	.669
Schrebera swienteniodes	796	.000	.000	.048	.000	.000	.000	.000	.000	.000	.000	.048
Semecarpus anacardium	798	.086	.008	.000	.000	.000	.000	.000	.000	.000	.000	.093
Shorea robusta	802	7.729	9.462	7.801	4.014	1.084	.000	.000	.000	.000	.000	30.090

Contents

CONT. TABLE NO.3.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Soymida febrifuga	809	.079	.036	.000	.000	.000	.000	.000	.000	.000	.000	.114
Sterculia species	822	.000	.009	.000	.000	.000	.000	.000	.000	.000	.000	.009
Stereospermum suaveolens	825	.004	.000	.022	.000	.000	.000	.000	.000	.000	.000	.027
Strychnos nuxvomica	831	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
Strychnos potatorum	832	.033	.000	.000	.000	.000	.000	.000	.000	.000	.000	.033
Syzygium cerasoideum	842	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Syzygium cumini	843	.974	1.458	.429	.255	.069	.000	.000	.000	.000	.000	3.184
Syzygium species	850	.023	.030	.070	.000	.000	.000	.000	.000	.000	.000	.124
Terminalia arjuna	860	.003	.000	.021	.000	.000	.000	.000	.000	.000	.000	.024
Terminalia belerica	861	.126	.052	.031	.000	.000	.000	.000	.000	.000	.000	.209
Terminalia chebula	864	.095	.019	.036	.000	.000	.000	.000	.000	.000	.000	.150
Terminalia citrina	865	.002	.015	.000	.000	.000	.000	.000	.000	.000	.000	.016
Terminalia crenulata	866	.687	.794	.577	.418	.334	.000	.000	.000	.000	.000	2.810
Trewia nudiflora	880	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Walsura ptrijuga	904	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001
Weightia tinctoria	910	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Xylia xylocarpa	919	.101	.072	.048	.000	.000	.000	.000	.000	.000	.000	.222
Zizyphus species	930	.015	.000	.000	.000	.000	.000	.000	.000	.000	.000	.015
Acacia Auriculiformis(A06)	943	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
Unidentified trees	944	.557	.177	.085	.000	.000	.000	.000	.000	.000	.000	.820
TOTAL		18.778	17.669	11.930	6.105	2.284	.000	.000	.462	.330	.000	57.558

Contents

TABLE NO.3.2

VOLUME(IN M3) PER HECTARE BY SPECIES AND DIAMETER CLASSES(IN CM.)

DISTRICT- KEONJHAR STRATA - MISC.

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acer laevigatum	17	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.005
Adina cordifolia	28	.108	.093	.107	.129	.000	.000	.000	.000	.000	.000	.436
Adina oligocephala	30	.000	.019	.067	.000	.000	.000	.000	.000	.000	.000	.085
Aegle marmelos	32	.057	.050	.000	.000	.000	.000	.000	.000	.000	.000	.108
Ailanthus excelsa	40	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Albizzia lebbek	46	.000	.000	.000	.000	.156	.000	.000	.000	.000	.000	.156
Albizzia odorotissima	49	.000	.000	.000	.075	.000	.000	.000	.000	.000	.000	.075
Albizzia procera	50	.012	.000	.000	.094	.000	.000	.000	.000	.000	.000	.106
Albizzia species	51	.066	.031	.141	.000	.000	.000	.000	.000	.000	.000	.238
Alstonia scholaris	57	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
Annona squamosa	70	.000	.033	.000	.000	.000	.000	.000	.000	.000	.000	.033
Anogeissus latifolia	72	.993	1.928	1.734	.228	.157	.000	.000	.000	.000	.000	5.039
Bauhinia purpurea	114	.020	.100	.000	.000	.000	.000	.000	.000	.000	.000	.120
Bauhinia retusa	116	.031	.000	.000	.000	.000	.000	.000	.000	.000	.000	.031
Bauhinia species	118	.086	.061	.042	.000	.000	.236	.000	.000	.000	.000	.424
Bombax ceiba	131	.032	.020	.049	.000	.000	.000	.000	.000	.000	.000	.101
Bridelia retusa	138	.510	.242	.090	.000	.000	.000	.000	.000	.000	.000	.842
Buchanania lanzan	143	.374	.168	.125	.000	.000	.000	.000	.000	.000	.000	.667
Callicarpa arborea	150	.015	.000	.000	.000	.000	.000	.000	.000	.000	.000	.015
Callicarpa species	154	.032	.017	.000	.000	.000	.000	.000	.000	.000	.000	.049
Careya arborea	177	.034	.028	.048	.000	.000	.000	.000	.000	.000	.000	.110
Casearia tomentosa	183	.008	.031	.000	.000	.000	.000	.000	.000	.000	.000	.039
Cassia fistula	186	.039	.026	.000	.000	.000	.000	.000	.000	.000	.000	.065
Cedrela serrata	197	.010	.021	.000	.000	.000	.000	.000	.000	.000	.000	.031
Toona ciliata	198	.007	.030	.097	.000	.000	.000	.000	.000	.000	.000	.134
Chloroxylon swietenia	206	.118	.025	.000	.000	.000	.000	.000	.000	.000	.000	.143
Cleistanthus collinus	218	.220	.044	.036	.000	.000	.000	.000	.000	.000	.000	.300
Cochlospermum religiosum	223	.057	.104	.000	.000	.000	.000	.000	.000	.000	.000	.161
Dalbergia latifolia	266	.071	.097	.000	.000	.000	.000	.000	.000	.000	.000	.167
Dalbergia paniculata	267	.014	.017	.000	.000	.000	.000	.000	.000	.000	.000	.030
Dalbergia sissoo	268	.000	.013	.000	.000	.000	.000	.000	.000	.000	.000	.013
Dillenia pentagyna	278	.034	.035	.118	.235	.000	.000	.000	.000	.000	.000	.423
Diospyros melanoxylon	285	2.787	1.928	1.676	1.296	.000	.000	.000	.000	.000	.000	7.687
Diospyros peregrina	289	.000	.051	.039	.099	.000	.000	.000	.000	.000	.000	.188
Diospyros species	292	.166	.085	.198	.109	.000	.000	.269	.000	.000	.000	.827

Contents

Cont.Table No.3.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Emblica officinalis	325	.083	.000	.000	.000	.000	.000	.000	.000	.000	.000	.083
Erythrina suberosa	340	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.010
Eucalyptus hybrid	346	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002
Eucalyptus species	348	.031	.056	.000	.000	.000	.000	.000	.000	.000	.000	.088
Eugenia cymosa	350	.056	.030	.042	.109	.000	.000	.000	.000	.000	.000	.237
Eugenia grandis	353	.016	.000	.000	.000	.000	.000	.000	.000	.000	.000	.016
Eugenia species	358	.040	.017	.000	.000	.000	.000	.000	.000	.000	.000	.057
Ficus bengalensis	375	.005	.000	.000	.000	.000	.000	.000	.000	.520	1.165	1.690
Ficus religiosa	381	.030	.000	.000	.000	.000	.000	.000	.000	.557	.000	.587
Ficus species	385	.014	.058	.000	.000	.000	.000	.000	.000	.000	.000	.071
Flacourtia species	391	.040	.000	.000	.000	.000	.000	.000	.000	.000	.000	.040
Gardenia resinifera	405	.110	.043	.045	.000	.000	.000	.000	.000	.000	.000	.198
Gardenia species	406	.023	.030	.000	.000	.000	.000	.000	.000	.000	.000	.053
Garuga pinnata	407	.014	.046	.000	.000	.000	.000	.000	.000	.000	.000	.060
Gmelina arborea	420	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
Grewia microcos	428	.042	.031	.000	.000	.000	.000	.000	.000	.000	.000	.073
Grewia species	432	.072	.077	.039	.000	.000	.000	.000	.000	.000	.000	.187
Hollarrhena antidysenterica	452	.023	.000	.000	.000	.000	.000	.000	.000	.000	.000	.023
Hymenodictyon excelsum	470	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Lagerstroemia parviflora	505	.123	.118	.041	.000	.000	.000	.000	.000	.000	.000	.282
Lannea coromandelica	509	.273	.293	.311	.089	.000	.000	.000	.000	.000	.000	.967
Macaranga species	550	.011	.000	.000	.000	.000	.000	.000	.000	.000	.000	.011
Madhuca latifolia	561	.187	.330	.424	1.480	1.085	.178	.000	.000	.000	.000	3.585
Mallotus philippinensis	565	.024	.000	.045	.000	.000	.000	.000	.000	.000	.000	.069
Mallotus species	566	.006	.013	.000	.000	.000	.000	.000	.000	.000	.000	.019
Mangifera indica	569	.003	.000	.048	.278	.144	.236	.314	.000	.000	.000	1.024
Michelia species	602	.058	.114	.224	.244	.000	.000	.000	.000	.000	.000	.641
Mitragyna parviflora	611	.036	.000	.000	.000	.000	.000	.000	.000	.000	.000	.036
Morinda tinctoria	613	.075	.015	.000	.000	.000	.000	.000	.000	.000	.000	.089
Nyctanthes arbortristis	637	.009	.000	.000	.000	.000	.000	.000	.000	.000	.000	.009
Ougeinia dalbergoiides	653	.009	.000	.000	.000	.000	.000	.000	.000	.000	.000	.009
Pongamia pinnata	701	.003	.041	.000	.000	.000	.000	.000	.000	.000	.000	.045
Pterocarpus marsupium	722	.113	.042	.000	.000	.000	.000	.000	.000	.000	.000	.155
Schleichera trijuga	795	.072	.205	.250	.745	.246	.000	.000	.000	.000	.000	1.518
Schrebera swienteniodes	796	.026	.021	.063	.000	.000	.000	.000	.000	.000	.000	.109
Semecarpus anacardium	798	.032	.000	.000	.000	.000	.000	.000	.000	.000	.000	.032
Shorea robusta	802	1.253	1.172	1.650	1.763	.649	.000	.000	.000	.000	.000	6.486

Contents

Cont. Table No.3.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Soymida febrifuga	809	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
Spondias pinnata	812	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Sterculia urens	820	.019	.000	.059	.000	.000	.000	.000	.000	.000	.000	.078
Sterculia species	822	.000	.000	.063	.000	.000	.000	.000	.000	.000	.000	.063
Strychnos nuxvomica	831	.029	.000	.000	.000	.000	.000	.000	.000	.000	.000	.029
Strychnos potatorum	832	.042	.013	.042	.000	.000	.000	.000	.000	.000	.000	.096
Syzygium cumini	843	.319	.602	.123	.204	.119	.000	.000	.000	.000	.000	1.367
Syzygium species	850	.016	.015	.000	.000	.000	.000	.000	.000	.000	.000	.031
Terminalia belerica	861	.047	.086	.148	.174	.000	.000	.000	.000	.000	.000	.454
Terminalia bialata	862	.018	.048	.055	.000	.000	.000	.000	.000	.000	.000	.121
Terminalia catappa	863	.010	.000	.000	.099	.000	.000	.000	.000	.000	.000	.109
Terminalia chebula	864	.049	.119	.104	.000	.000	.000	.000	.000	.000	.000	.272
Terminalia citrina	865	.011	.019	.000	.000	.000	.000	.000	.000	.000	.000	.029
Terminalia crenulata	866	.493	.603	.409	.258	.312	.000	.000	.000	.000	.000	2.076
Wrightia tomentosa	912	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Xylia xylocarpa	919	.066	.159	.135	.000	.000	.000	.000	.000	.000	.000	.360
Zizyphus species	930	.040	.021	.000	.000	.000	.000	.000	.000	.000	.000	.061
Acacia Auriculiformis(A06)	943	.474	.000	.000	.000	.000	.000	.000	.000	.000	.000	.474
Unidentified trees	944	.863	.362	.148	.179	.000	.000	.000	.000	.000	.000	1.552
TOTAL		11.373	10.092	9.034	7.888	2.868	.650	.584	.000	1.077	1.155	44.729

Contents

TABLE NO.4.1

TOTAL VOLUME(IN M3) BY SPECIES AND DIAMETER CLAOSSES(IN CM.)

STRATA-: SAL DISTRICT : KEONJHAR

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Adina cordifolia	28	10873	13048	19391	9786	0	0	0	0	0	0	53100
Adina oligocephala	30	1449	0	0	0	0	0	0	0	0	0	1449
Aegle marmelos	32	543	1449	0	0	0	0	0	0	0	0	1993
Albizzia procera	50	724	3262	0	9786	0	0	0	0	0	0	13954
Albizzia species	51	3805	9605	0	7430	0	0	0	0	0	0	21022
Anacardium occidentale	66	362	0	10148	0	0	0	0	0	0	0	10692
Anogeissus latifolia	72	114719	237413	83185	24466	0	0	0	0	0	0	459785
Antidesma menasu	78	362	0	0	0	0	0	0	0	0	0	362
Azadirachta indica	103	362	0	0	0	0	0	0	0	0	0	362
Bauhinia species	118	4530	2718	0	7430	0	0	0	0	0	0	14679
Bombax ceiba	131	181	362	3624	0	0	0	0	0	0	0	4168
Bridelia retusa	138	37152	12867	0	0	0	0	0	0	0	0	50020
Buchanania angustifolia	142	362	0	0	0	0	0	0	0	0	0	362
Buchanania lanzan	143	166189	63068	8699	9242	0	0	0	0	0	0	247381
Butea monosperma	146	1087	0	0	0	0	0	0	0	0	0	1087
Butea species	147	181	0	0	0	0	0	0	0	0	0	181
Callicarpa arborea	150	2537	0	0	0	0	0	0	0	0	0	2537
Careya arborea	177	7792	13592	0	0	0	0	0	0	0	0	21385
Casearia graveolens	181	1449	0	0	0	0	0	0	0	0	0	1449
Casearia tomentosa	183	2174	6705	0	0	0	0	0	0	0	0	8880
Casearia species	185	181	0	0	0	0	0	0	0	0	0	181
Cassia fistula	186	5980	0	0	0	0	0	0	0	0	0	5980
Cedrela serrata	197	362	0	0	0	0	0	0	0	0	0	362
Toona ciliata	198	1993	1993	0	0	0	0	0	0	0	0	3987
Chloroxylon swietenia	206	1087	0	0	0	0	0	0	0	0	0	1087
Chukrasia species	209	0	2899	0	0	0	0	0	0	0	0	2899
Cleistanthus collinus	218	35521	5799	0	0	0	0	0	0	0	0	41320
Cochlospermum religiosum	223	3624	1449	0	0	0	0	0	0	0	0	5074
Dalbergia latifolia	266	5436	1631	0	0	0	0	0	0	0	0	7068
Dalbergia paniculata	267	2356	0	0	0	0	0	0	0	0	0	2356
Dillenia pentagyna	278	13773	13773	0	0	0	0	0	0	0	0	27366
Diospyros melanoxylon	285	836748	322592	81191	0	43495	0	0	0	0	0	1284028
Diospyros peregrina	289	1268	4893	0	0	0	0	0	0	0	0	6161
Diospyros species	292	9242	6343	10511	8336	0	0	0	0	0	0	34434

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Cont. Table No.4.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Dipterocarpus species	298	181	0	0	0	0	0	0	0	0	0	181
Emblica officinalis	325	7068	0	0	0	0	0	0	0	0	0	7068
Erythrina species	342	906	0	0	0	0	0	0	0	0	0	906
Eugenia cymosa	350	362	2718	3987	0	0	0	0	0	0	0	7068
Ficus bengalensis	375	906	5799	0	17760	0	0	0	0	0	0	24466
Ficus religiosa	381	1993	1449	0	0	0	0	0	0	0	0	3443
Ficus recemosa	382	0	0	5436	0	0	0	0	0	0	0	5436
Flacourtia species	391	3624	0	0	0	0	0	0	0	0	0	3624
Gardenia resinifera	405	5980	10511	0	0	0	0	0	0	0	0	16492
Gardenia species	406	362	0	0	0	0	0	0	0	0	0	362
Garuga pinnata	407	7249	5799	0	0	0	0	0	0	0	0	13048
Gmelina arborea	420	906	3443	0	0	0	0	0	0	0	0	4530
Grewia species	432	7792	2356	0	0	0	0	0	0	0	0	10148
Hollarrhena antidysenterica	452	1449	0	0	0	0	0	0	0	0	0	1449
Holoptelea integrifolia	456	906	0	0	0	0	0	0	0	0	0	906
Hymenodictyon excelsum	470	724	0	5799	0	0	0	0	0	0	0	6524
Kydia calycina	501	1631	3080	0	0	0	0	0	0	0	0	4893
Lagerstroemia hypoleuca	502	1087	0	0	0	0	0	0	0	0	0	1087
Lagerstroemia lanceolata	504	181	0	0	0	0	0	0	0	0	0	181
Lagerstroemia parviflora	505	10873	5255	5074	0	0	0	0	0	0	0	21204
Lagerstroemia speciosa	506	0	0	0	7974	0	0	0	0	0	0	7974
Lannea coromandelica	509	28815	29540	36971	10148	12867	0	0	0	0	0	118344
Macaranga species	550	724	0	0	0	0	0	0	0	0	0	724
Madhuca latifolia	561	94784	148610	173076	86628	53282	0	0	0	0	0	556382
Mallotus philippinensis	565	1087	0	0	0	0	0	0	0	0	0	1087
Mangifera indica	569	1631	0	10148	10330	16310	0	0	42408	59806	0	140454
Michelia species	602	0	7611	0	8880	0	0	0	0	0	0	16310
Mitragyna parviflora	611	1812	1993	7068	0	0	0	0	0	0	0	10873
Morinda tinctoria	613	5074	3987	0	0	0	0	0	0	0	0	9061
Nyctanthes arbortristis	637	724	0	0	0	0	0	0	0	0	0	724
Ougeinia dalbergoiides	653	9786	16129	3987	0	0	0	0	0	0	0	30084
Pongamia pinnata	701	1812	0	0	15404	0	0	0	0	0	0	17217
Pterocarpus marsupium	722	6886	8699	4712	0	0	0	0	0	0	0	20297
Saccopetalum tomentosum	770	1631	1812	0	0	0	0	0	0	0	0	3443
Sapium baccatum	785	0	0	0	0	18485	0	0	0	0	0	18485
Schima wallichii	794	543	0	0	0	0	0	0	0	0	0	543
Schleichera trijuga	795	9242	19935	27366	23197	0	0	0	41320	0	0	121244

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Cont. Table No.4.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Schrebera swienteniodes	796	0	0	8699	0	0	0	0	0	0	0	8699
Semecarpus anacardium	798	15585	1449	0	0	0	0	0	0	0	0	16854
Shorea robusta	802	1400742	1714817	1413790	727465	196455	0	0	0	0	0	5453271
Soymida febrifuga	809	14317	6524	0	0	0	0	0	0	0	0	20660
Sterculia species	822	0	1631	0	0	0	0	0	0	0	0	1631
Stereospermum suaveolens	825	724	0	3987	0	0	0	0	0	0	0	4893
Strychnos nuxvomica	831	724	0	0	0	0	0	0	0	0	0	724
Strychnos potatorum	832	5980	0	0	0	0	0	0	0	0	0	5980
Syzygium cerasoideum	842	1087	0	0	0	0	0	0	0	0	0	1087
Syzygium cumini	843	176519	264236	77748	46214	12505	0	0	0	0	0	577042
Syzygium species	850	4168	5436	12686	0	0	0	0	0	0	0	22472
Terminalia arjuna	860	543	0	3805	0	0	0	0	0	0	0	4349
Terminalia belerica	861	22835	9424	5618	0	0	0	0	0	0	0	37877
Terminalia chebula	864	17217	3443	6524	0	0	0	0	0	0	0	27184
Terminalia citrina	865	362	2718	0	0	0	0	0	0	0	0	2899
Terminalia crenulata	866	124506	143898	104570	75754	60531	0	0	0	0	0	509261
Trewia nudiflora	880	1087	0	0	0	0	0	0	0	0	0	1087
Walsura ptrijuga	904	181	0	0	0	0	0	0	0	0	0	181
Weightia tinctoria	910	543	0	0	0	0	0	0	0	0	0	543
Xylia xylocarpa	919	18304	13048	8699	0	0	0	0	0	0	0	40233
Zizyphus species	930	2718	0	0	0	0	0	0	0	0	0	2718
Unidentified trees	944	100946	32078	15404	0	0	0	0	0	0	0	148610
Acacia Auriculiformis(A06)	A06	724	0	0	0	0	0	0	0	0	0	724
TOTAL		3403174	3202188	2162097	1106421	413933	0	0	83729	59806	0	10431351

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TABLE NO.4.2

TOTAL VOLUME (IN M3) BY SPECIES AND DIAMETER CLAOSSES(IN CM.)

STRATA-: MISC. DISTRICT : KEONJHAR

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acer laevigatum	17	524	0	0	0	0	0	0	0	0	0	524
Adina cordifolia	28	11322	9749	11217	13524	0	0	0	0	0	0	45709
Adina oligocephala	30	0	1991	7024	0	0	0	0	0	0	0	8911
Aegle marmelos	32	5975	5241	0	0	0	0	0	0	0	0	11322
Ailanthus excelsa	40	629	0	0	0	0	0	0	0	0	0	629
Albizzia lebbek	46	0	0	0	0	16354	0	0	0	0	0	16354
Albizzia odorotissima	49	0	0	0	7862	0	0	0	0	0	0	7862
Albizzia procera	50	1258	0	0	9854	0	0	0	0	0	0	11112
Albizzia species	51	6919	3249	14782	0	0	0	0	0	0	0	24951
Alstonia scholaris	57	838	0	0	0	0	0	0	0	0	0	838
Annona squamosa	70	0	3459	0	0	0	0	0	0	0	0	3459
Anogeissus latifolia	72	104104	202127	181789	23903	16459	0	0	0	0	0	528278
Bauhinia purpurea	114	2096	10483	0	0	0	0	0	0	0	0	12580
Bauhinia retusa	116	3249	0	0	0	0	0	0	0	0	0	3249
Bauhinia species	118	9016	6395	4403	0	0	24741	0	0	0	0	44451
Bombax ceiba	131	3354	2096	5137	0	0	0	0	0	0	0	10588
Bridelia retusa	138	53467	25370	9435	0	0	0	0	0	0	0	88273
Buchanania lanzan	143	39209	17612	13104	0	0	0	0	0	0	0	69926
Callicarpa arborea	150	1572	0	0	0	0	0	0	0	0	0	1572
Callicarpa species	154	3354	1782	0	0	0	0	0	0	0	0	5137
Careya arborea	177	3564	2935	5032	0	0	0	0	0	0	0	11532
Casearia tomentosa	183	838	3249	0	0	0	0	0	0	0	0	4088
Cassia fistula	186	4088	2725	0	0	0	0	0	0	0	0	6814
Cedrela serrata	197	1048	2201	0	0	0	0	0	0	0	0	3249
Toona ciliata	198	733	3145	10169	0	0	0	0	0	0	0	14048
Chloroxylon swietenia	206	12370	2620	0	0	0	0	0	0	0	0	14991
Cleistanthus collinus	218	23064	4612	3774	0	0	0	0	0	0	0	31451
Cochlospermum religiosum	223	5975	10903	0	0	0	0	0	0	0	0	16878
Dalbergia latifolia	266	7443	10169	0	0	0	0	0	0	0	0	17507
Dalbergia paniculata	267	1467	1782	0	0	0	0	0	0	0	0	3145
Dalbergia sissoo	268	0	1362	0	0	0	0	0	0	0	0	1362
Dillenia pentagyna	278	3564	3669	12370	24636	0	0	0	0	0	0	44346
Diospyros melanoxylon	285	292183	202127	175708	135870	0	0	0	0	0	0	805889
Diospyros peregrina	289	0	5346	4088	10378	0	0	0	0	0	0	19709

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Cont. Table No.4.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Diospyros species	292	17403	8911	20757	11427	0	0	28201	0	0	0	86701
Emblica officinalis	325	8701	0	0	0	0	0	0	0	0	0	8701
Erythrina suberosa	340	1048	0	0	0	0	0	0	0	0	0	1048
Eucalyptus hybrid	346	209	0	0	0	0	0	0	0	0	0	209
Eucalyptus species	348	3249	5870	0	0	0	0	0	0	0	0	9225
Eugenia cymosa	350	5870	3145	4403	11427	0	0	0	0	0	0	24846
Eugenia grandis	353	1677	0	0	0	0	0	0	0	0	0	1677
Eugenia species	358	4193	1782	0	0	0	0	0	0	0	0	5975
Ficus bengalensis	375	524	0	0	0	0	0	0	0	54515	122136	177176
Ficus religiosa	381	3145	0	0	0	0	0	0	0	58394	0	61539
Ficus species	385	1467	6080	0	0	0	0	0	0	0	0	7443
Flacourtia species	391	4193	0	0	0	0	0	0	0	0	0	4193
Gardenia resinifera	405	11532	4508	4717	0	0	0	0	0	0	0	20757
Gardenia species	406	2411	3145	0	0	0	0	0	0	0	0	5556
Garuga pinnata	407	1467	4822	0	0	0	0	0	0	0	0	6290
Gmelina arborea	420	838	0	0	0	0	0	0	0	0	0	838
Grewia microcos	428	4403	3249	0	0	0	0	0	0	0	0	7653
Grewia species	432	7548	8072	4088	0	0	0	0	0	0	0	19604
Hollarrhena antidysenterica	452	2411	0	0	0	0	0	0	0	0	0	2411
Hymenodictyon excelsum	470	629	0	0	0	0	0	0	0	0	0	629
Lagerstroemia parviflora	505	12895	12370	4298	0	0	0	0	0	0	0	29564
Lannea coromandelica	509	28620	30717	32604	9330	0	0	0	0	0	0	101378
Macaranga species	550	1153	0	0	0	0	0	0	0	0	0	1153
Madhuca latifolia	561	19604	34596	44451	155160	113749	18661	0	0	0	0	386328
Mallotus philippinensis	565	2516	0	4717	0	0	0	0	0	0	0	7233
Mallotus species	566	629	1362	0	0	0	0	0	0	0	0	1991
Mangifera indica	569	314	0	5032	29144	15096	24741	32919	0	0	0	107354
Michelia species	602	6080	11951	23483	25580	0	0	0	0	0	0	67201
Mitragyna parviflora	611	3774	0	0	0	0	0	0	0	0	0	3774
Morinda tinctoria	613	7862	1572	0	0	0	0	0	0	0	0	9330
Nyctanthes arbortristis	637	943	0	0	0	0	0	0	0	0	0	943
Ougeinia dalbergoiides	653	943	0	0	0	0	0	0	0	0	0	943
Pongamia pinnata	701	314	4298	0	0	0	0	0	0	0	0	4717
Pterocarpus marsupium	722	11846	4403	0	0	0	0	0	0	0	0	16249
Schleichera trijuga	795	7548	21491	26209	78104	25790	0	0	0	0	0	159144
Schrebera swienteniodes	796	2725	2201	6604	0	0	0	0	0	0	0	11427
Semecarpus anacardium	798	3354	0	0	0	0	0	0	0	0	0	3354

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Cont. Table No.4.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Shorea robusta	802	131362	122870	172982	184829	68039	0	0	0	0	0	679979
Soymida febrifuga	809	419	0	0	0	0	0	0	0	0	0	419
Spondias pinnata	812	629	0	0	0	0	0	0	0	0	0	629
Sterculia urens	820	1991	0	6185	0	0	0	0	0	0	0	8177
Sterculia species	822	0	0	6604	0	0	0	0	0	0	0	6604
Strychnos nuxvomica	831	3040	0	0	0	0	0	0	0	0	0	3040
Strychnos potatorum	832	4403	1362	4403	0	0	0	0	0	0	0	10064
Syzygium cumini	843	33443	63112	12895	21386	12475	0	0	0	0	0	143313
Syzygium species	850	1677	1572	0	0	0	0	0	0	0	0	3249
Terminalia belerica	861	4927	9016	15516	18241	0	0	0	0	0	0	47596
Terminalia bialata	862	1887	5032	5766	0	0	0	0	0	0	0	12685
Terminalia catappa	863	1048	0	0	10378	0	0	0	0	0	0	11427
Terminalia chebula	864	5137	12475	10903	0	0	0	0	0	0	0	28515
Terminalia citrina	865	1153	1991	0	0	0	0	0	0	0	0	3040
Terminalia crenulata	866	51685	63217	42878	27048	32709	0	0	0	0	0	217643
Wrightia tomentosa	912	314	0	0	0	0	0	0	0	0	0	314
Xylia xylocarpa	919	6919	16669	14153	0	0	0	0	0	0	0	37741
Zizyphus species	930	4193	2201	0	0	0	0	0	0	0	0	6395
Acacia Auriculiformis(A06)	943	49693	0	0	0	0	0	0	0	0	0	49693
Unidentified trees	944	90475	37951	15516	18766	0	0	0	0	0	0	162708
TOTAL		1192322	1058025	947106	826962	300675	68144	61225	0	112910	122136	4689299

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