

**DHANBAD, AURANGABAD, GIRIDIH,
GAYA, MUNGER, NALANDA, NAWADA
DISTRICTS OF BIHAR**

**FOREST SURVEY OF INDIA
EASTERN ZONE
KOLKATA
2002**

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REPORT
ON

FOREST RESOURCES OF

*DHANBAD, AURANGABAD, GIRIDIH,
GAYA, JUNGER, NALANDA, MAHESA DISTRICTS*

OF
BIHAR

FOREST SURVEY OF INDIA
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PREFACE

The Eastern Zone unit of Forest Survey of India, Calcutta carried out the fieldwork in the 7 districts of Bihar e.g. Gurdik, Gaya, Dhanbad, Aurangabad, Munger, Nawada and Nalanda. These seven districts covering altogether a geographical area of 32507 sq. km contain a sizeable chunk of the forest area of the State. This inventory was carried out under the standard FSI design during the year 1993-94. This report incorporates details of area surveyed, methodology adopted, findings and comparison with the results of last survey carried out during 1971 to 1974.

The recorded forest area of the above seven districts totals to 5419 sq. kms which is 16.76% of the geographical area. The total forest cover in the above 7 districts, however, was estimated as 3780 sq km in the State of Forest Report, 1997 published by Forest Survey of India.

The total growing stock in the 7 districts has been estimated as 8.88 million m³ whereas the total stems have been calculated to be 67.19 million in number. Four distinct strata were observed in the region based on vegetation and composition of crops. The figures of stems/ ha in Sal, Miscellaneous, Salai and Khair strata are 142.856, 128.183, 132.857 and 95.909 respectively. The similar figures for volume/ ha for the same strata are 15.735 m³, 19.476 m³, 14.298 m³ and 12.515 m³ respectively.

Field staff of the Eastern Zone of FSI did hard work in completion of the inventory work of the area in time. The hard work put in by all of them is acknowledged. Officers and other staff members of this zone who were entrusted with this job to bringing out the report in the present form deserve appreciation. Co-operation extended by Forest Department and other civil authorities of Government of Bihar during the course of field inventory is also thankfully acknowledged. It is hoped that the report will be quite useful for the user agencies.

Director

**FOREST SURVEY OF INDIA
EASTERN ZONE
KOLKATA**

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*(Madhava Trivedy)
Regional Director*

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PART - I

(MAIN REPORT WITH MAPS,CHARTS & DIAGRAMS)

CHAPTER-I

BACKGROUND INFORMATION

1.1 INTRODUCTION

In the background of the changing scenario of entire world in every sphere, India being a part of it is also committed to sustainable development; development that would maintain the potential of natural resources to provide for the changing needs of human beings. Such development was urgent because of the huge and growing number of people coupled with often irreversible deterioration of resources and the earth's life support systems. For the grave purpose of all round sustainable management of forest resources, time-to-time assessment is an essential prerequisite. Keeping this in view, the Forest Survey of India (Eastern Zone) took up a survey on the growing stock of forest resources in seven districts of the State of Bihar, viz. Nalanda, Aurangabad, Gaya, Nawada, Munger, Dhanbad and Giridih. Before going into the details of this survey, let us look into the physical and socio-economic

features of these seven districts in which the survey was carried out.

1.2 AREA AND LOCATION

The State of Bihar lying in the eastern zone of India extends over an area of 1,73,877 sq.km. which comes to 5.3 percent of total area of the country. So far as the area is concerned, the State acquires 9th position among the States and Union territories. To its north lies the sovereign nation of Nepal, to its West the State of Uttar Pradesh and some parts of Madhya Pradesh, to its south lies Orissa and to the east of Bihar is the State of West Bengal. According to the available information, there are 55 districts in this State in the year 1998. Out of these districts, the present study is concentrated on the seven districts mentioned above. The exact location of these districts in the State of Bihar may be seen from the maps appended. The geographical area and location in the form of latitudes and longitudes of these districts are as follows:

Table 1 Latitudes and Longitudes

DISTRICT	AREA (SQ KM.)	LATITUDES	LONGITUDES
NALANDA	2,367	24° 57.5' to 25° 27.5' N	85° 7.5' to 85° 57.5' E
AURANGABAD	3,305	24° 27.5' to 25° 7.5' N	84° to 84° 45' E
GAYA	6,545	24° 15' to 25° 20' N	84° 17.5' to 85° 25' E
NAWADA	2,494	24° 30' to 25° 7.5' N	85° 15' to 86° 5' E
MUNGER	7,508	24° 22' & 25° 49' N	85° 36' & 86° 51' E
DHANBAD	2,996	23° 22.5' to 24° 5' N	84° to 84° 45' E
GIRIDIH	6,892	23° 27.5' to 24° 47.5' N	85° 35' to 86° 32.5' E

1.3 PHYSICAL CONFIGURATION

The State of Bihar, as a whole, is mainly plain area with some plateau areas and low ranges of hills also. The concerned seven districts of the state is a conglomeration of ridges and spurs of the plateau area in one side and plain area in the other. Considering the district of Nawada, the northern part is plain, formed of fertile alluvial soil, and the southern part is hilly and undulating with a gentle ascent towards the south merging into hilly ranges, which form southern fringes of the Chhotanagpur plateau. In the district of Nalanda, on the other hand, the Rajgir hills are the only natural eminence in an otherwise entirely alluvial and flat region. The Munger district is

treated as a constituent of South Bihar plain. The hills in the southern part of the district consist of low ranges and isolated peaks. The district of Aurangabad mainly consists of alluvial plain, which is extremely fertile. The district of Dhanbad can be described as a combination of different types of natural divisions, viz. hilly region in its north and north-western parts and the uplands and plains lying to the south of the Damodar river. The district of Giridih may also be divided into three different natural divisions, viz. the central plateau, the lower plateau and the Damodar valley. Again considering Gaya district, southern part of it is hilly region. Much of this tract is barren and uncultivable because of the upward slope towards the south. The

northern part of the Sadar Sub-Division, however, consists of flat alluvial plain.

14 CLIMATIC CONDITION

Almost all the seven districts, owing to their distance from the sea, generally suffer from extremes of climate. It becomes very hot during the summer and quite cold during the winter. This is mainly due to the barren rocky hills and vast sandy beds of the rivers. Only

Giridih district comes within the tropical monsoon region. It is cold during the winter but not very hot during the summer. The monotony of the summer in all these districts is broken when there is strong gale and storm, which is known as Baisakhi. The major portions of these districts fall in the rain shadow zone. The average rainfall for the districts are presented below:

Table 2 Rainfall

DISTRICT	AVERAGE ANNUAL RAINFALL (IN INCHES)
NALANDA	38.98
AURANGABAD	44.96
GAYA	44.82
NAWADA	41.24
MUNGER	47.51
DHANBAD	51.59
GIRIDIH	47.71

15 SOIL STRUCTURE

The soil structure in the concerned seven districts of the state have a wide variety in nature. Some parts of the districts are rocky whereas some other parts consist of alluvial soil. The soil in a large area of Giridih district is rocky and sandy bearing jungles and bushes. Some areas near the river are alluvial, and are cultivable. The Aurangabad district consists of flat alluvial plains. In the southwestern part of this district, below the hills, sandy loam is found. Likewise, Nalanda district also consists of fertile alluvium soil in general. The Dhanbad district has rather poor and infertile soils largely lateritic in composition. Alluvial deposits occur at the confluence of the Damodar and Barakar rivers. The soils of the district are broadly classified into four category according to texture : (i) Stony and gravelly found near the foothills, (ii) Sandy found near the river, (iii) Loamy found near the hills, and (iv) Clayey which found near the tanks and rivers which are very productive. The soils of Munger district are (i) heavy clay called karail, (ii) Clay called kewal, keriya, (iii) Clayey loam called dhuis kewal, (iv) Loam called dhura, dhursri, doras, (v) Sandy loam called balsumbhra and (vi) Sand or bali. In the northern tract of Gaya district the soil is generally alluvial, consisting chiefly of peuru, a loam with a small proportion of sand and kewal, a species of hard stiff clay.

16 RIVER SYSTEM

The Damodar is the most important river of the Chhotanagpur plateau. It enters the Dhanbad district at its confluence with the Jamuiia, a stream that marks the western boundary of Bokaro with Hazaribagh district. In the district of Gaya, Phalgu is an important river, which flows from south to north passing through the eastern part of the district headquarters. In Munger district the Ganga flows from west to east. Near Munger town and towards its east, the river is continuously extending its course and eroding the banks. The Giridih district is divided into three main water heads, viz. the Damodar, the Barakar and the Sakri rivers. The Damodar and Barakar rivers drain the major portion of the district. In Aurangabad district, the only important and principal river of the district is the Sone. The Nalanda district does not have any major river of importance. There are however, some small rivers flowing through it, such as Panchane, Sakri etc. The Nawada district also does not have any important river.

17 IRRIGATION FACILITIES

Rains are the main source of irrigation and the success of crops largely depends on their adequacy and even distribution throughout the agricultural operations. But the topography of this state, the soil and scantiness of total rainfall with its

irregularity are the chief causes, which have led the people to resort to artificial irrigation. In certain pockets of Aurangabad district the cultivators have the benefit of Sone canal and are thus certain of an ample and regular supply of water. Elsewhere the people are dependent on methods of irrigation, which have been practiced in the earlier days also such as pynes, shars, wells etc. In Dhanbad district, bands and shars, therefore, constitute the main source of irrigation. Rainwater is stored in abars and then led to the field by channels. The general slope of the land is such that in most of the areas in Nawada district water runs off quickly. However, the ingenuity and diligence of the people who have devised the systems of shars and pynes by which the natural drainage is blocked and the water impounded for use, have overcome the difficulty. With the extension of power supply to the rural areas after independence, electrically operated tube-wells have become a major source of irrigation in Nalanda district. The means of irrigation practiced in Giridih district is exploitation of ground water and taking recourse to lift irrigation. Tank irrigation is quite popular in the district but it has got its limitations. Sometimes the water surface goes down considerably due to failure of rains and deep boring is also not possible due to hard rocks. In the district of Munger also, some minor irrigation schemes have been undertaken to serve the purpose. The agricultural prosperity of Gaya district depends largely on an extensive system of artificial irrigation with the help of Sone canal, pynes, shars, wells etc.

1.8 FOREST RESOURCES

The state's forests have been depleted to a considerable extent although new planting of trees goes on all the time. Bihar has a rich flora, especially in the Chotanagpur region and the forest produce adds to its wealth. The Giridih district contains a huge portion of forested area which is distributed almost uniformly all over. Sal (*Shorea robusta*) is the predominant species in the jungles of the district. Among other common species are Bamboo, *Acacia catechu* (Khair), Salai, Simul, Mahua, Palas, Kusum, Kendu, Asan, Pial and Bhelwa. Forests in Dhanbad district

are largely confined to the north, bordering on the districts of Giridih and Dumka. Some of the important trees in the forests are Sal, *Dalbergia sissoo* (Shisham), *Albizia odorotisima* (Siris), *Butea monosperma* (Palas), *Madhuca latifolia* (Mahua), *Syzygium cumini* (Jambu) and *Bombax ceiba* (Simul). Bamboo also prevails here. The northern part of Nawada district is devoid of forests as the land is largely under cultivation. However, it is dotted with bamboo groves. The forests of Munger district consist mainly of Sal or Sakhua (*Shorea robusta*). Another conspicuous tree in the forest is the Kendu (*Diospyros melanoxylon*). The salga (*Boswellia serrata*) is found on the higher slope and on the top of the hills. The gorgeous flowering Palas (*Butea frondosa*) abounds in the lower slopes and also on the plains. The Mahua trees are also prevalent. The other most important associate of the forest is bamboo (*Dendrocalamus strictus*). The Gaya district presents in its forest types a great contrast in the hilly tracts to the south. In the hilly tracts, clumps of bamboo and mango orchards are found. In the latter, Mango (*Mangifera indica*), Peepul (*Ficus religiosa*), Banyan are common, the principal trees being Bel, Neem, Siris, Shisham, etc. The land in Nalanda district is too fertile to be left for wild growth. Except for some jungles in the Rajgir hills the district is devoid of any forest. Also there is no forest area worth mentioning in Aurangabad district.

1.9 MINES AND MINERALS

Bihar is famous for its tremendous mineral resources, which are utilized in several industries all over the country. In Dhanbad district, the Jharia coalfields cover a wide area of about 448 sq. km. with a vast reserve of coal seams in this field. Among other important minerals found in the district are Fire clay for the manufacture of Fire bricks and iron-ore. Mica, China clay and graphite are also available in certain pockets of the district. The Giridih district has been famous as the place of the well-known ruby mica and has several large coalfields, which contain the best quality metallurgical coal in India. The extensive deposits of mica in this district are of importance not only to Bihar but to India and other countries. The

Nawada district is also quite rich in minerals. The district has a number of mica and iron-ore mines. The Munger district also has some mica mines. Limestone is also exported from Munger in considerable quantities. The district of Gaya has also a large deposit of mica and limestone. In Nalanda district, the geological formation is alluvial in general. No mineral of any kind is found in the district. The district of Aurangabad also does not contain any mineral. However, traces of tin and tungsten are reported to be available in the Deo block of this district.

110 DEMOGRAPHIC DEPICTION

With a total area of 178377 km², Bihar according to 1991 census, has a population of 19,63,54,466. Thus makes Bihar the second largest state of India in terms of population, next only to Uttar Pradesh. Density of population in the State is 497 per sq.km. Among the concerned seven districts, the district of Dhanbad and Nalanda are comparatively densely populated than the other districts. The total population, its male-female bifurcation, population density and the percentage of urban population of the concerned seven districts are presented below:

Table 3 Population

DISTRICT	POPULATION			DENSITY (PER KM ²)	URBAN POPULATION AS PERCENTAGE OF TOTAL POPULATION
	PERSONS	MALE	FEMALE		
NALANDA	1997995	1052731	945264	844	14.83
AURANGABAD	1520968	804038	735950	466	7.67
GAYA	2664803	1396528	1278275	536	13.36
NAWADA	1359694	702249	657445	545	6.95
MUNGER	3060027	1625534	1434493	476	16.59
DHANBAD	2874651	1465076	1209575	893	51.26
GIRDHAR	2225480	1147701	1077779	323	15.45

The decennial growth rate of population of the seven districts in relation to the State as a whole between the period 1981 and

1991 is presented to reflect the respective situation in these districts.

Table 4 Decennial Population growth

STATE/DISTRICT	DECENNIAL GROWTH RATE OF POPULATION (1981-1991)		
	TOTAL	RURAL	URBAN
BIHAR	23.19	22.51	38.79
NALANDA	22.6%	20.41	32.53
AURANGABAD	24.32	23.35	37.74
GAYA	23.94	24.51	29.35
NAWADA	23.59	23.18	25.28
MUNGER	19.4%	19.9%	20.01
DHANBAD	28.09	26.34	29.89
GIRDHAR	28.45	26.68	39.09

It is revealed that the decennial growth rate of population recorded a relatively high percentage in case of Dhanbad and Girdih districts in comparison to others. With a low percentage of literacy at 38.48,

Bihar is much behind the national average of 52.21 percent according to 1991 census. The literacy rates of the seven districts are enclosed as follows:

Table 5 Literacy

DISTRICT	LITERACY RATE (%)
NALANDA	46.94
AURANGABAD	45.14
GAYA	40.47
NAWADA	38.96
MUNGER	41.58
DHANBAD	55.47
GIRIDIH	35.96

Bihar has a tribal population of more than eight percent who live mostly in the Chotanagpur region of the State. The Santhals, Oraons, Mundas, the Hos and the Kols are among the main tribes of Bihar who enrich its life and add variety

and strength to its culture. The percentage of Scheduled Castes and Scheduled Tribes population of the concerned seven districts are shown below to indicate the proportion of such population to total population of these districts.

Table 6 Scheduled Castes and Scheduled Tribes

DISTRICT	SCHEDULED CASTE (%)	SCHEDULED TRIBE (%)
NALANDA	19.49	0.02
AURANGABAD	23.26	0.03
GAYA	29.58	0.06
NAWADA	24.42	0.09
MUNGER	3.97	0.45
DHANBAD	16.54	8.42
GIRIDIH	13.31	12.22

It is revealed from above that the district of Gaya recorded the highest percentage of Scheduled Caste population among the seven districts while the district of Giridih has a very high percentage of Scheduled Tribe population in comparison to others. The main religions followed by the people are Hinduism, Islam, Christianity, Sikhism, Jainism and Buddhism.

1.11 SOCIO-ECONOMIC STATUS

Bihar ranks the lowest in India in literacy. Thus, despite its tremendous resources and a large opportunity for cultivation, Bihar lags behind in the process of all-round development of its economy. Dhanbad is the most industrialized district in the state of Bihar. Among agricultural crops - Rice and Wheat are the two main important crops. The industrialization of the district has resulted in non-agricultural use of even the cultivable lands. The dominant industry of the district is coal mining and there are numerous other industries within its limits

e.g. fertilizers and chemicals industry, phosphate factory, refractory and ceramic industry, fire clay and silica works, glass works etc. On the other hand, agriculture still tends to be the principal economic activity of the majority of people in Aurangabad district. The principal crops grown here are rice (Bhadai and Agham) and wheat. The district has a few cottage industries like the manufacture of blankets, carpets and brass utensils located at Dandnagar and Obra. In Giridih district too, the main occupation of the people is cultivation. The main agricultural seasons in this district are Kharif and Rabi. Among other important crops are maize, wheat, sugarcane, pulses etc. There is a great scope for growing vegetables in this district. The important industries in this district are Thermal Power Station, D.V.C., Indian Explosives Ltd., The Indian Mica Supply Co. Ltd. etc. Gaya district is also agricultural in character. The entire agricultural operation is divided into two

crop seasons viz., Kharif and Rabi in Munger district, rice and wheat are the main crops. Non-food crops cover very small proportion and comprise mostly oil-seeds. The industries like manufacture of iron utensils, furniture, cigarette factory, and ceramic potteries etc. flourish in the district. The largest industrial concern in the district consists of the workshops of Eastern Railway at Jamalpur. Nalanda district is predominantly agricultural. The principal crops are rice, wheat, maize, pulses and potatoes. In fact, the district occupies a predominant position in the State in the production of potato. There is no large-scale industry or heavy industry worth mentioning in the district. Similarly, the Nawada district is also having an agriculture-based economy. Paddy is the main crop of the district. During recent years Wheat sowing has also been encouraged. Nawada is considered to be a backward district mainly on account of lack of industrial development.

1.12 COMMUNICATION NETWORK

All the seven districts of the State are well served by good communication network. The communication facilities are coming up fast in the districts. There are inter-linkage through roadways among the

districts. Over and above these, kutcha roads spread all over the districts. Metalled roads including National Highways cover a considerable chunk of these districts. Bridges, culverts and causeways have been constructed on the important roads. The Grand Trunk Road has put the districts on the road map of India and provides easy transport facility to Calcutta in the east and Delhi in the west. Besides, the National Highway 23 which passes through Giridih district and the National Highway 27 which runs through Munger district have greatly benefited the people of the districts. The district of Dhanbad is well developed from the point of road communications. In Gaya district the State Public Works Department maintains the black topped roads. Important among them are the roads connecting Nawada-Gaya, Gaya-Delhi, Gaya-Jehannabad etc. Regarding railway communication, the district of Dhanbad is well served by railways. There is a good network of railway lines running through colliery areas in Dhanbad district. Gaya and Nawada districts lie on the Grand Chord Section of the Eastern Railway and the railway network also covers the other four districts.

CHAPTER - II

DESIGN AND METHODOLOGY

2.1 SURVEY OBJECTIVE

The objective of this forest inventory was to provide a wide range of information on total growing stock, volume/hectare, distribution of stems, stems/hectare, details of area estimates according to land use, legal status, topography, forest strata, incidence of fire & grazing, regeneration status etc. This information forms the basis of development planning for sustainable forest management and conservation. To carry out the present inventory on forest areas in seven districts of Bihar, usual forest inventory design has been followed.

2.2 AREA SELECTION

The areas in which the inventory was carried out are enlisted as follows:

Table 7 Survey of India Topographic Sheets.

S.N.	DISTRICT	TOPOSHEET NUMBER	SCALE
1	AURANGABAD	72 C/8, 12 72D/1,2,3,5,6,7,9,10	1:50,000 except 73D/3 1"=1 mile
2	DILIANBAD	73 I/1,2,3,5,6,7,9,10,13,14, & 72 L/8	1:50,000
3	GAYA	72 C/8,11,12,15,16; 72 D/6,7,9,10,11,13,14,15 72 G/3, 4, 8, 72 H/7, 2, 3, 5, 6, 7,	-
4	GIRIDH	72 H/12, 14, 15, 16; 72 L/1, 2, 3, 4, 6, 7, 8, 11, 12, 72 M/9, 10, 13, 14, 15; 73 V/1, 2, 3, 5,	-
5	MUNGER	72 G/11, 12, 15, 16; 72 H/9, 13, 72 K/3, 4, 7, 8, 11; & 72 H/12, 72 L/1, 2, 5, 6, 7, 9, 10	-
6	NALANDA	72 G/3, 4, 7, 8, 11, 12, 15, 16, 72 H/5, 9	-
7	NAWADA	72 G/12, 16, 72 h/5, 6, 9, 10, 13, 14, & 72 V/1	-

2.4 SURVEY DESIGN

The field survey was essentially a systematic sampling under which the Survey of India topo sheets of 1:50,000 scale is divided into 36 grids of 2.5' x 2.5' of latitude and longitude. In each of such grids, two sample points were selected on the topo-sheets. Selection of the first point is random and the second point is the mirror image of the first, i.e. the second point is linked to the first one in the opposite direction at an equal distance from the grid center. The inventory data were collected from a square plot of 0.1 hectare laid out at each of these sample points on the ground. Mention may be made that only the plots falling within the forest areas were surveyed. One sample

- Area shown in green wash on the Survey of India topo-sheets.
- All such areas in which words such as thick jungle, open forests, bamboo etc. are printed.
- All those areas indicated by dotted line or spotted line or a pillar line as forest areas.
- Any other areas reported to be forested areas by local forest department.

2.3 MAPS USED

The latest published Survey of India topo-sheets on 1:50,000 scale have been used for the present inventory of forest areas in seven districts of Bihar. The topo-sheets used for the survey for each of these districts are enclosed as follows:

plot of 0.1 hectare represents about 10 sq.km. on the ground and the intensity of sampling is 0.01%. The length of each side of the square plot is 31.62 meter on the ground and 0.6324 mm. (say 0.6 mm.) on the topo-sheet of scale 1:50,000.

2.5 PRECISION AND ACCURACY

The result of the present survey would be at the precision level of 95% probability with error limit of $\pm 10\%$. This accuracy is, however, obtained for the entire state and not by individual districts.

2.6 PLOT LAYOUT

The method of marking of the plot centers of the two sample plots on the map in each grid of 2.5' x 2.5' is depicted in

Diagram-2. The length and width of each grid are measured to the smallest convenient scale. The length of the side of a plot on the map corresponding to 0.1 hectare 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. Subtract side s from both sides, i.e. find $(x-s)$ and $(y-s)$. Let these numbers be x' and y' . Two random numbers, one in the range of 0 to x' and the other in the range of 0 to y' are selected. These numbers are called x and y respectively. Half of the side of the plot ($s/2$) is added to x and y to get $x+s/2$ and $y+s/2$, which will be the coordinates of the center of first plot in the grid (considering the left hand bottom corner i.e. south-west corner of the grid as origin of the axis). The center of second plot is located by joining the center of first plot with the grid center and extending this line in the opposite direction. A point at an equal distance from the grid center in the opposite direction is marked which is the center of second plot. After fixing the plot center with the help of topo-sheet and reference point, the four corners of the plot are obtained by measuring 22.36 meter from the plot center in each of the directions viz. North-West, South-West, North-East and South-West.

2.7 DATA COLLECTION

An inventory crew (team) headed by a crew leader collects the forest inventory data in the field. To demarcate a plot, a prominent reference point is selected in the vicinity of the plot center. The field reference point must be clearly visible on the map as well as on the ground, e.g. junction of roads or rivers, prominent topographical features in hilly area such as spurs and knots, village tri-junction points, old bridges and culverts, springs, milestones etc. The data is collected and recorded in a legible manner in the codified field forms such as Plot Approach Form, Plot Description Form, Plot Enumeration Form etc. Since bamboo do not occur widely in the concerned seven districts of Bihar, the details of this kind of data have not been tabulated. However, the details of all these forms are discussed here.

- a) **Plot approach form** It gives an account of the details regarding the approach to the plot. All the

conspicuous features observed during the journey from camp site to the plot center are recorded. Prominent reference point along with bearings is 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 hectare around the center of the plot.

Plot enumeration form This form is filled up for each plot. The details recorded are the name of the species and its diameter. Trees less than 10 cm. d.b.h. over-bark and utility less than 70% are not recorded usually. 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 over bark are collected from 1% area of the total plot i.e. 0.025 hectare area. On each sample tree, sample tree card will be nailed. In this form, data on 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 by age, dia class and soundness of culms by clump size. Separate forms are used for clump forming and non-clump forming bamboo.

Bamboo weight form This form is maintained to determine the green weight and dry weight of bamboo. Mature bamboo are selected from each diameter class and for each species. Three 35 cm long pieces obtained from the top, middle and bottom portions of the utilizable culms are cut out and their green weights are recorded. These pieces are properly documented and kept in the base camp and weighed every 30 days till a constant weight is attained.

CHAPTER - III

DATA PROCESSING

The information collected in the field serves as the basic input. The processing of these data and its compilation is carried out in two phases viz. Manual processing and processing on computer. Let us focus into these two ways of processing.

3.1 MANUAL PROCESSING

It involves overall checking of the field forms which is done manually. The basis of such approach is to improve the accuracy and consistency of data. The following steps are incorporated under this approach.

- Proper documentation of the field information received.
- Codification of the information in the field forms which have not already been incorporated.
- Manual checking of the information filled in the forms.
- Reconciliation of the discrepancies with the help of the field officers.

3.2 PROCESSING ON COMPUTER

After the manual checking is done, the information incorporated in the field forms, are fed into the computer for onward processing and final compilation of data. In fact, the following three types of inventory data are stored in the disk/floppy for that purpose.

- PLOT DESCRIPTION DATA
- PLOT ENUMERATION DATA
- SAMPLE TREE DATA

The information encoded in these three forms is the ideal requisite to estimate the existing forest stock. Therefore, assessment on several aspects of these forms is essential. The various stages followed under processing on computer are presented as follows.

- Loading of the inventory data on computer. Verification and correction

of data for the creation of clean file and then transference of the same to hard/floppy disk.

- Consistency checking of the data on computer and correction of data to remove discrepancies noticed during consistency checking.
- Tabulation of Plot Description Data and thus to find out area under different land use classes.
- Tabulation of stem distribution plot wise and for the district as a whole.
- Tabulation of volume distribution plot wise and for the district as a whole.
- Calculation of standard error.

3.3 CONSISTENCY CHECKING

The consistency checking of inventory data is a top priority for generating reliable statements about the characteristics and resource potentiality of the forest stock. Suitable computer programs were developed for this purpose to check the range of variables and the relationship between different variables. The discrepancies discovered were resolved in consultation with the field officers. Afterwards, listing of the data from floppy/hard disk was taken to verify if the corrections have been incorporated or not.

3.4 CONSTRUCTION OF VOLUME EQUATION/TABLES

No trees were felled during the survey of this area. The local volume equations as derived during the survey of South-West Bihar, 1974-1977 were used for volume estimation of forest resources of the present inventory. The following equations were used for volume estimation.

Table 8 Volume equations

SPECIES	EQUATIONS
<i>Shorea robusta</i>	$V = -0.046597 + 2.227173 D$
<i>Boswellia serrata</i>	$V = 0.026499 + 2.592167 D^*$
Other species	$V = -0.077380 + 2.592167 D$

The local volume tables of these species are given as follows:

Table 9 Local Volume Tables

DIAMETER CLASS (cm.)	SPECIES (VOLUME IN M ³)		
	<i>Shorea robusta</i>	<i>Boswellia serrata</i>	Rest of species
10-19	0.0763	0.0809	0.0890
20-29	0.2493	0.1820	0.3110
30-39	0.5209	0.3350	0.6673
40-49	0.9419	0.5398	1.1581
50-59	1.3624	0.7964	1.7832
60+	1.9319	1.1049	2.5540

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 and diameter classes.

3.6 PLOT VOLUME

Volume of each enumerated trees in a plot when added up provided the plot volume. These plot

volumes are the basis for estimation of sampling error.

3.7 ANALYSIS OF GROWING STOCK

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

- i) Stems/ha, for individual species and its distribution into different diameter classes.
- ii) Total stems by species and diameter classes.

- iii) Corresponding volume/ha. by species and diameter classes.
- iv) Total volume by species and diameter classes.

3.8 STANDARD ERROR

Statistical inference is incomplete without information on associated errors. Hence, error has been calculated

for every stratum. The acceptable error is within the range of ± 10% at state level.

CHAPTER - IV

RESULTS OF INVENTORY

4.1 GENERAL

The inventory data of seven districts have been analyzed in this chapter. Plot description data in respect of various parameter, e.g. topography, rockiness, aspect, land use etc. were analyzed collectively, taking all the seven districts as one project area. The information in respect of stems/ha., total stems, volume/ha. And total volume were, however, estimated separately for each

district. Distribution and break up of forest area by various parameters have also been worked out and furnished in the subsequent paragraphs.

4.2 INVENTORY COVERAGE

Inventory area comprises the districts of Giridih, Gaya, Dhanbad, Aurangabad, Munger, Nawada and Nalanda of the Bihar State. The geographical area and the extent of forest cover of the above districts are given below:

Table 10 Forest Cover

DISTRICT	GEOG AREA (KMP)	FOREST COVER (KM ²) AS PER 1997 ASSESSMENT			
		DENSE	OPEN	TOTAL	PERCENTAGE
GIRIDIH	6892	506	951	1457	21.14
AYA	6545	294	329	623	9.52
DHANBAD	2996	7	95	102	3.40
AURANGABAD	3305	50	76	126	3.81
MUNGER	7908	522	452	974	12.32
NAWADA	2494	259	211	470	18.85
NALANDA	2367	14	14	28	1.13

Source State of Forest Report 1997, Forest Survey of India, Dehradun

4.2.1 Recorded forest area

District wise and legal status wise forest area of Reserved, Protected and Un-classed

forest of the seven districts is summarized below:

Table 11 Legal Status

DISTRICT	RESERVED FORESTS (HA.)	PROTECTED FORESTS (HA.)	UNCLASSED FORESTS (HA.)	TOTAL FOREST AREA (HA.)
GIRIDIH	9261	219469	-	228930
AYA	937	31305	-	32242
DHANBAD	10825	15621	-	26446
AURANGABAD	5896	47968	-	53861
MUNGER	53213	75837	-	129050
NAWADA	6378	63365	-	60743
NALANDA	-	4640	-	4640
TOTAL	86510	458405	-	544915

Ref Annual Administration Report for the year 1989-90 to 1992-93, Government of Bihar

4.2.2 Inventoried area

The extent of forest area as represented by 509 plots marked on green wash area of topo sheets of the seven districts was calculated using 'dot grid' method and found to be closed to the forest area as mentioned in the para 4.2.1. Henceforth the un inventoried forest area would be the forest area as mentioned in the Annual

Administrative Report of Government of Bihar as shown in Para 4.2.1.

4.3 STRATIFICATION

Stratification was based on the forest composition and land use classes. The total number of plots surveyed in the seven districts is summarized below according to crop composition and land use classes.

Table 12 Landuse

CROP COMPOSITION & LANDUSE CLASS	DISTRICTS								TOTAL
	GIRIDH	GAYA	DHANBAD	AURANGABAD	MUNGER	NAWADA	NALANDA		
SAL	129	2	12	-	21	18	5	187	
MISC.	113	33	14	7	27	38	-	233	
SALAI	1	5	-	7	4	3	-	20	
BAMBOO	1	-	-	-	-	-	-	1	
AGRI. LANI	14	2	2	-	2	-	-	20	
BARRIER LAND	11	1	2	-	-	3	-	17	
HABITATION	3	-	-	-	-	-	-	3	
WATERBODIES	2	-	-	-	-	-	-	2	
KHAIR	-	22	-	-	-	3	-	23	
UNDETERMINED	3	-	-	-	-	1	-	4	
TOTAL	277	65	30	14	56	64	6	509	

On the basis of the above table, the following strata were formed in the concerned seven districts.

Table 13 Strata

DISTRICT	STRATUM	NO OF PLOTS	FOREST AREA/ PLOT (HA)	FOREST AREA (HA)	%
GIRIDH	SAL	129	*26.4621	106614	46.57
	MISCELLANEOUS	113	*26.1621	4704.1	41.43
	FORESTRY PLOT BUT NON FORESTRY USE	2	*26.4621	*52.94	11.51
	TOTAL	277	*26.4621	228930	100.00
GAYA	MISCELLANEOUS	41	*96.0708	2013.8	67.05
	KHAIR	22	*96.0708	1091.1	32.85
	FORESTRY PLOT BUT NON FORESTRY USE	2	*96.0308	*192	3.07
	TOTAL	65	*96.0308	3224.1	100.00
DHANBAD	SAL	12	*81.5278	1057.8	49.00
	MISCELLANEOUS	14	*81.5278	1124.2	46.67
	FORESTRY PLOT BUT NON FORESTRY USE	4	*81.5278	*32.6	1.33
	TOTAL	30	*81.5278	2404.6	100.00
AURANGABAD	MISCELLANEOUS	7	*847.4285	2043.2	40.00
	SALAI	7	*847.4285	2043.2	40.00
	FORESTRY PLOT BUT NON FORESTRY USE	-	-	-	-
	TOTAL	14	*847.4285	5386.4	100.00
MUNGER	SAL	21	*289.8148	5018.0	38.39
	MISCELLANEOUS	31	*289.8148	7408.1	57.41
	FORESTRY PLOT BUT NON FORESTRY USE	2	*289.8148	*578.0	4.70
	TOTAL	54	*289.8148	12994.0	100.00
NAWADA	SAL	18	*689.7541	1261.5	28.12
	MISCELLANEOUS	42	*689.7543	4570.9	65.63
	FORESTRY PLOT BUT NON FORESTRY USE	4	*689.7543	*411.9	9.25
	TOTAL	64	*689.7543	6074.3	100.00
NALANDA	SAL	5	*628.00	*31.40	100.00
	TOTAL	509	1070.5599	544915	

N.B. 1) * Forest area excluded for growing stock estimation.

2) The flower plots surveyed in Aurangabad and Munger districts is due to certain unavoidable constraints.

4.4 ANALYSIS OF PLOT DESCRIPTION DATA

The plot description data collected during inventory in respect of terrain, soil, land use, crop composition etc. were analyzed.

4.4.1 Distribution of forest area by land use classes

Table 14 Forest Area & land use class

Code No	Land Use	Description	No. of Plots	Forest area (Ha.)	Percentage
1	Dense tree forest	Forest with canopy density 70% & above	9	9635	1.77
2	Moderately dense tree forest	Forest with canopy density 30 to 60%	146	156302	28.69%
3	Open tree forest	Forest with canopy density 5 to 20%	167	178783	32.81
4	Scrub forest	Forest with canopy density less than 5%	96	9206.8	16.90%
5	Bamboo brakes	Areas completely covered with bamboo	1	2141	0.10
6	Shifting cultivation	Areas under current as well as previous years shifting cultivation	-	-	-
7	Young plantation of forestry species	-	26	27834	5.11
8 to 10	Trees in line	-	-	-	-
11	Barren land	-	17	18200	3.34
12	Agricultural land without trees	-	10	96.5	1.94
13	Agricultural land with trees	-	10	10706	1.96
14	Non-forest plantation	-	-	-	-
15	Habitation	-	3	3212	0.59
16	Water bodies	-	2	2141	0.39
17	Young crop of naturally/ artificial regeneration	-	32	31258	6.28
TOTAL			509	544915	100.00

It is clear from the above findings that bulk of the forest in these seven districts is under moderately dense and open tree forests, which account 28.69% and 32.81% respectively. Scrub forest also occupies

The plot description data of the seven districts have been analyzed as one project area and not separately for individual district as state in para 4.1.

16.90% of the forest area. The extent of the forest area occupied by young plantation of forestry species is 5.11%, which is also a sizeable amount.

4.4.2 The distribution of forest area by topography

The distribution of Forest Area by topography is given below:

Table 15 Forest Area & topography

Code No	Topography	No. of Plots	Forest Area (Ha.)	Percentage
1	Flat	51	54598	10.02
2	Gently rolling	212	246370	45.58
3	Hilly	206	220535	40.47
4	Very hilly	19	20341	3.73
	Unrecorded	1	1071	0.20
Total			544915	100.00

The general topography of the forest of the seven districts is gently rolling to hilly which accounts for 45.58% and 40.47% of the total

forest area. Only 10.02% of the forests are in flat land whereas 2.73% forest area is under very hilly region.

4.4.3 Distribution of forest area by aspect:

The distribution of forest area by various aspect classes is given below:

Table 16 Forest area and aspect.

Code No.	Aspect	No. of Plots	Forest Area (Ha.)	Percentage
1	Northern	51	54599	10.02
2	North-Eastern	88	94209	17.29
3	Eastern	27	28905	5.30
4	South-Eastern	83	88856	16.31
5	Southern	45	48175	9.31
6	South-Western	59	63163	11.59
7	Western	34	36309	6.68
8	North-Western	74	79222	14.54
9	No aspect	45	48175	9.34
	Unrecorded	3	3212	0.59
	TOTAL	509	544915	100.00

The above table reveals that the forest area is more or less distributed in all the aspect classes. South-Eastern and North-

Eastern aspects occupy comparatively higher portions of the forest area

4.4.4 Distribution of forest area by rockiness:

The distribution of forest area by rockiness classes is as under:

Table 17 Forest area and rockiness.

Code No.	Rockiness	No. of Plots	Forest Area (Ha.)	Percentage
1	High	7	7494	1.38
2	Medium	70	74939	13.75
3	Low	99	105985	19.45
4	No rock	331	354356	65.03
	Unrecorded	2	2141	0.39
	TOTAL	509	544915	100.00

The above table reveals that medium to low rockiness is 33.20% in the forest area. The forest area having no rockiness is maximum and found to be in the extent of 65.03%.

4.4.5 Distribution of forest area by soil consistency:

The soils in the surveyed area are found to be under following categories:

Table 18 Forest area and soil consistency.

Code No.	Soil Consistency	No. of Plots	Forest Area (Ha.)	Percentage
1	Friable	62	66375	12.18
2	Slightly compact	428	458200	84.09
3	Compact	17	18199	3.34
4	Cemented	-	-	-
5	No soil	-	-	-
	Unrecorded	2	2141	0.39
	TOTAL	509	544915	100.00

The above table reveals that most of the soil is slightly compact to the extent of 84.09% which supports good forest crops. Friable and compact soil consists of 12.18% and 3.34% respectively.

4.4.6 Distribution of forest area by soil texture:

The distribution of forest area by soil texture class is given below:

Table 19 Forest area and soil texture

Code	Soil Texture	No Of Plots	Forest Area (Ha.)	Percentage
1	Clayey	-	-	-
2	Clayey loam	51	54599	10.02
3	Loam	378	404672	74.26
4	Sandy loam	63	67445	12.38
5	Sandy	15	16056	2.95
6	No soil	-	-	-
	Unrecorded	2	2141	0.39
	TOTAL	509	544915	100.00

The texture of the soil of the forest area is mostly loamy which accounts 74.26% while sandy loamy soil prevails with 12.38% of occurrence.

4.4.7 Distribution of forest area by soil erosion

The distribution of forest area by soil erosion status is given in the following table:

Table 20 Forest area and soil erosion

Code No	Soil Erosion	No. of Plots	Forest Area (Ha.)	Percentage
1	Heavy	35	37469	6.88
2	Moderate	218	233382	42.83
3	Mild	235	251582	46.16
4	No erosion	18	19270	3.54
	Unrecorded	3	3212	0.59
	TOTAL	509	544915	100.00

From the above findings, it is clear that major portion of the forest area faces either moderate (42.83%) or mild erosion (46.16%). Heavy erosion is found to occur in 6.88% forest area only. Soil conservation measures should be adopted

accordingly by structural means as well as by adopting afforestation techniques.

4.4.8 Distribution of forest area by injuries to crop

Injuries to crop as observed during inventory is as under:

Table 21 Forest area and crop injury

Code No	Crop Injury	No of Plots	Forest Area (Ha.)	Percentage
1	Borer attack, leaf defoliator attack or damage by other pest epidemic	-	-	-
2	Top drying	3	3212	0.59
3	Girdling and illicit felling	452	483302	88.80
4	Scarring of trees	1	1071	0.20
5	Lepping for fodder	-	-	-
6	Wind damage or flood damage	-	-	-
7	Other injuries	2	2141	0.39
8	No injuries	10	10706	1.96
	Unrecorded	41	43893	8.06
	TOTAL	509	544915	100.00

The results of the finding clearly show that girdling and illicit felling is the main source of injury to crop. Injuries due to other sources are found to be negligible. Therefore, measures are to be taken to

prevent the damage caused by illicit felling.

4.4.9 Distribution of forest area by fire incidence

The extent of fire incidence in the surveyed area is as under:

Table 22 Forest area and fire incidence

Code No.	Fire Incidence	No. of plots	Forest Area (Ha.)	Percentage
1	Heavy	8	856.1	1.57
2	Moderate	105	112.809	20.61
3	Light	255	272.993	50.10
4	No fire	103	116.268	20.23
	Unrecorded	38	49.681	7.47
	Total	509	544.915	100.00

Light fire incidences are found to occur in 50.10% of the forest area. It is also observed that incidence of moderate fire is in 20.63% of the forests whereas

forest area free from fire damage constitutes 20.23% only.

4.4.10 Distribution of forest area by grazing incidence.

Intensity of grazing in the forest area is as under:

Table 23 Forest area and grazing incidence

Code No.	Grazing Incidence	No. of plots	Forest Area (Ha.)	Percentage
1	Heavy	100	107.056	19.65
2	Moderate	170	203.806	37.33
3	Light	130	139.173	25.54
4	No fire	50	53.528	9.82
	Unrecorded	39	41.752	7.66
	Total	509	544.915	100.00

Analysis of the result shows that 56.98% forest area suffers from moderate to heavy grazing

while light grazing was observed in a sizeable area.

4.4.11 Distribution of forest area by plantation potentiality.

Plantation potentiality as noticed during the course of inventory is as follows:

Table 24 Forest area and plantation potentiality

Code No.	Plantation potentiality	No. of plots	Forest Area (Ha.)	Percentage
1	Plantable	292	216.253	39.69
2	Unplantable	10	10.706	1.96
3	Not Applicable	287	307.750	56.39
	Unrecorded	10	10.706	1.96
	Total	509	544.915	100.00

Plantation potentiality in the forest of the project area is 39.69% and these forest area are suitable for raising

artificial forests with suitable species. The forest area not found suitable for plantation is 1.96% only.

4.4.12 Distribution of Forest Area by Degradation Status:

Distribution of Forest area by degradation status is as follows:

Table 25 Forest area and degradation

Code No.	Degradation status	No. of plots	Forest Area (Ha.)	Percentage
A. Grazing, Fire, Pollarding, illicit cutting and logging				
11	Heavily degraded	255	272.993	50.10
12	Moderately degraded	158	169.148	31.01
13	Mildly degraded	78	83.504	15.32
14	Not degraded	4	4.782	0.79
B. Other natural calamities such as land slide, glacier, flood, rain etc.				
21	Heavily degraded	-	-	-
22	Moderately degraded	1	10.71	0.20
23	Mildly degraded	2	21.41	0.39
24	Not degraded	-	-	-
	Unrecorded	11	11.776	2.16
	Total	509	544.915	100.00

Heavy to moderate degradation due to biotic interference like grazing, fire, illicit cutting etc. constitute 81.14% of the total forest area of the 7 districts. Mild

degradation occur in 15.71% forest area whereas no degradation area is 0.79% only. Degradation due to natural calamity is negligible.

4.4.13 Distribution of forest area by regeneration status:

Table 26 Forest area and regeneration.

Code No.	Intensity of regeneration	No. of Plots	Forest Area (Ha.)	Percentage
1	Adequate (8 or more seedlings in 4m x 4m plot)	16	17129	3.14
2	In adequate (less than 8 seedlings)	230	346229	45.19
3	No seedling	213	238929	41.85
	Unrecorded	50	53428	9.82
	Total	509	544915	100.00

There is adequate regeneration to the extent of about 3.14% only whereas the percentage of inadequate regeneration is

45.19%. No seedling is about 41.85% of the forest area. The overall position of regeneration is thus not satisfactory.

4.5 TREE DENSITY STUDY

The distribution of stems per ha. by species and diameter class has been calculated district wise and stratum wise for each district, details of which are

furnished in the table No. 1.1.1 to 7.1.1 Part-II of the report. Abstract for the same is given below:

Table 27 Tree density

District	Stratum	Stems per Ha.
GIRIDIH	Sal	77.054
	Miscellaneous	71.904
	District	74.343
GAYA	Miscellaneous	46.585
	Khair	95.909
	District	63.810
DHANBAD	Sal	31.667
	Miscellaneous	79.286
	District	57.308
AURANGABAD	Miscellaneous	40.000
	Salgi	132.857
	District	86.428
MUNGER	Sal	303.809
	Miscellaneous	253.226
	District	273.654
NAWADA	Sal	171.111
	Miscellaneous	145.238
	District	152.999
NALANDA	Sal (for the district also)	48.00

4.5.1 Tree density, district - Giridih:

(a) Sal Stratum:

The following observation can be made for this stratum from Table No. 1.1.1 vide Part-II of this report.

i. Number of stems/ha. is 77.054.

ii. Stems are mostly concentrated in the lower diameter classes i.e. 10-19 cm. which contribute 90.24% followed by 20-29 cm. diameter classes having 6.54% of the stems.

- III. Stems/ha above 30 cm. diameter is only 2.482, which is 3.22% of the stems per hectare.

The number of stems/ha with percentage for some of the dominant species in this stratum are given below:

Table 28 Stems per Ha of dominant species, Sal stratum, Giridih District

SPECIES NAME	NO OF STEMS/HA.	PERCENTAGE
<i>Shorea robusta</i>	40,620	52.63
<i>Madhuca latifolia</i>	4,729	6.13
<i>Semicarpus anacardium</i>	3,333	4.32
<i>Buchanania lanza</i>	3,101	4.02

Sal is found to be the dominant species.

(b) Miscellaneous stratum

- I. The number of stems/ha. is 71,304.
 II. Concentration of trees in the diameter class 10-19 cm. is maximum which is 85.12% of the stems of this stratum followed by 9.39% and 3.17% in the diameter

class 20-29 and 30-39 diameter classes.

- III. No. of Stems above 40 cm. is only 2.32 in number which is only 3.26% of the stems/ha.

The important species with stems/ha. With percentage are summarized below

Table 29 Stems per Ha of dominant species, Miscellaneous stratum, Giridih District

SPECIES	NO OF STEMS/HA.	PERCENTAGE
<i>Shorea robusta</i>	6,609	9.270
<i>Lannea coromandelica</i>	4,783	6.71
<i>Boswellia serrata</i>	4,348	6.10
<i>Madhuca latifolia</i>	3,913	5.49
<i>Buchanania lanza</i>	2,957	4.15

4.5.2 Tree density, District Dhanbad

(a) Sal stratum

- I. The number of stems/ha. is 31,667.
 II. Concentration of trees is observed in 10-19 cm. diameter class, which is 86.84% of the stems/ha. Of this stratum.
 III. Stems are found to occur upto 30-39 cm. diameter class. Stems/ha. in the diameter class 20-29 and 30-

39 cm. is 1,667 and 2,500 in number which constitute 5.26% and 7.90% of the stems of this stratum. Stems above 40 cm. are practically absent.

Some of the dominant species with stems/ha and percentage are furnished below:

Table 30 Stems per Ha of dominant species, Sal stratum, Dhanbad District

SPECIES	NO OF STEMS/HA.	PERCENTAGE
<i>Shorea robusta</i>	15,000	47.37
<i>Ficus religiosa variegata</i>	7,773	10.53
<i>Semicarpus anacardium</i>	2,500	7.90
<i>Stereosperma urens</i>	1,667	5.26

(b) Miscellaneous stratum

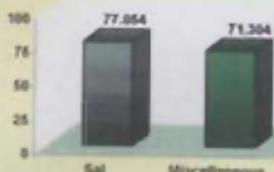
- The salient features of this stratum is summarized below:
 I. Number of stems/ha. is 79,286 only.
 II. 81.08% of the trees are concentrated in 10-19 cm. diameter classes followed by 13.51% and

5.41% in 20-29 and 30-39 cm. diameter classes.

- III. Stems above 40 cm. diameter class are practically absent.

The stems/ha with percentage for some of predominant species are given below:

STRATUM WISE DISTRIBUTION OF NO. OF STEMS/HA. IN GIRDH DISTRICT



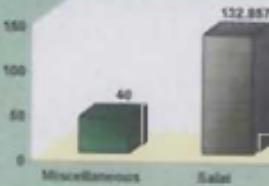
STRATUM WISE DISTRIBUTION OF NO. OF STEMS/HA. IN GAYA DISTRICT



STRATUM WISE DISTRIBUTION OF NO. OF STEMS/HA. IN DHANBAD DISTRICT



STRATUM WISE DISTRIBUTION OF NO. OF STEMS/HA. IN AURANGABAD DISTRICT



STRATUM WISE DISTRIBUTION OF NO. OF STEMS/HA. IN MUNGER DISTRICT



STRATUM WISE DISTRIBUTION OF NO. OF STEMS/HA. IN NAVADA DISTRICT

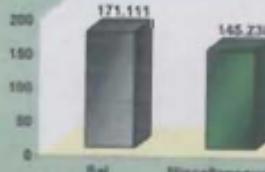


Table 31 Stems per ha of dominant species, Miscellaneous stratum, Dhanbad District

SPECIES	NO. OF STEMS/HA.	PERCENTAGE
<i>Acacia auriculiformis</i>	12,143	16.32
<i>Lagerstroemia parviflora</i>	10,000	15.61
<i>Lannea coromandelica</i>	7,143	9.01
<i>Gmelina arborea</i>	6,429	8.11
<i>Semecarpus anacardium</i>	5,714	7.21

4.5.3 Tree density study, District Gaya

(a) Miscellaneous stratum

This paragraph presents the stem analysis in the consolidated form.

I. Number of stems/ha. is 46,585.

II. Stems are concentrated in 10-19 cm diameter class which accounts for 73.82% followed by 15.18% and

4.71% in 20-29 and 30-39 cm. diameter classes.

III. Stems are however found to occur in higher diameter classes also.

The stems/ha. With percentage for some of the important species are summarized below:

Table 32 Stems per ha of dominant species, Sal stratum, Gaya District

SPECIES	NO OF STEMS/HA.	PERCENTAGE
<i>Boswellia serrata</i>	8,537	18.33
<i>Butea monosperma</i>	4,878	10.47
<i>Acacia catechu</i>	4,634	9.95
<i>Lannea coromandelica</i>	2,927	6.28
<i>Madhuca latifolia</i>	2,927	6.28

(b) Khasir stratum

The following observation could be drawn from the stem distribution table:

I. The stems/ha. is 95,909 only.

II. Stems are mainly confined to 10-19 cm diameter class, which is

87.68% of the stems/ha followed by 8.05% in 20-29 cm diameter class. III. Stems above 50 cm. diameter class is insignificant.

Stems/ha with percentage for important species are given below:

Table 33 Stems per ha of dominant species, Khasir stratum, Gaya District

SPECIES	NO OF STEMS/HA.	PERCENTAGE
<i>Acacia catechu</i>	40,909	42.6%
<i>Butea monosperma</i>	11,364	11.85
<i>Cassia siamea</i>	9,545	9.95
<i>Aegle marmelos</i>	4,091	4.27

4.5.4 Tree density study, District - Aurangabad

(a) Miscellaneous stratum

Salient features of this stratum are given below:

I. Number of stems/ha is 40,000.

II. 89.29% of the stems/ha is concentrated in 10-19 cm. diameter class followed by 7.14% in 20-29 cm. diameter class.

III. Trees present upto 40-49 cm. diameter class amounting to 3.57%.

Important species with stems/ha and percentage distribution are as follows:

Table 34 Stems per Ha. of dominant species, Mirajli ravine stratum, Aurangabad District.

SPECIES	NO OF STEM/HA.	PERCENTAGE
<i>Lannea coromandelica</i>	10,000	25.00
<i>Boswellia serrata</i>	8,571	21.42
<i>Acacia catechu</i>	2,857	7.11

(b) Salai Stratum

The salient features of this stratum are as follows:

- I. The number of stems/ha is 132,857.
- II. Most of the trees are concentrated in 10-19 cm. diameter class accounting for 70.96% of the stems/ha of this stratum followed

by 26.88% in 20-29 cm. diameter class.

- III. Trees above 50 cm. diameter class are absent.

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

Table 35 Stems per Ha. of dominant species, Salai stratum, Ausnengabad District

SPECIES	NO OF STEM/HA.	PERCENTAGE
<i>Boswellia serrata</i>	82,857	62.17
<i>Buchanania lanza</i>	8,571	6.45
<i>Anogeissus latifolia</i>	5,714	4.30
<i>Madhuca latifolia</i>	5,714	4.30
<i>Acacia catechu</i>	4,286	3.23

4.5.5 Tree density study, district - Munger

The following observations may be drawn in respect of stems distribution of the stratum.

(a) Sal stratum

- I. The number of stems/ha is 303,809.
- II. Concentration of trees in lower diameter class i.e. 10-19 cm. is

maximum which accounts for 82.91% followed by 13.64% in 20-29 cm. diameter class.

- III. Trees above 50 cm. diameter are practically absent.

The number of stems/ha with percentage for some of the dominant species are given below:

Table 36 Stems per Ha. of dominant species, Sal stratum, Munger District

SPECIES	NO OF STEM/HA.	PERCENTAGE
<i>Shorea robusta</i>	109,048	35.89
<i>Terminalia crenulata</i>	26,190	8.62
<i>Buchanania lanza</i>	25,714	8.46
<i>Madhuca latifolia</i>	15,238	5.01

(b) Miscellaneous stratum

- I. The number of stems/ha is 253,226.
- II. Maximum concentration is observed in 10-19 cm. diameter class followed by 20-29 cm.

diameter class which account 72.61% and 20.89% respectively.

- III. Trees are found to be present up to 60-69 cm diameter class.

Number of stems/ha. with percentage for some of the dominant species are given:

Table 37 Stems per Ha of dominant species, Miscellaneous stratum, Munger District

SPECIES	NO OF STEMS/HA.	PERCENTAGE
<i>Boswellia serrata</i>	26.774	10.57
<i>Buchanania lanzae</i>	23.548	9.29
<i>Lannea coromandelica</i>	17.742	7.01
<i>Anogeissus latifolia</i>	15.806	6.24
<i>Bridelia retusa</i>	13.548	5.35
<i>Lagerstroemia parviflora</i>	11.290	4.45

4.5.6 Tree density study, District - Nawada

(a) Sal Stratum

The salient features of this stratum are given below:

I. The number of stems/ha is 171.111.

II. Trees are mostly concentrated in 10-19 cm diameter classes followed

by 20-29 cm. diameter classes which contributes 91.88% and 6.16% of stems in this stratum.

III. Trees are found to occur up to 70-79 cm diameter class.

Number of stems/ha with percentage for some of the important species are given below:

Table 38 Stems per Ha of dominant species, Sal stratum, Nawada District

SPECIES	STEMS/HA	PERCENTAGE
<i>Shorea robusta</i>	84.444	49.35
<i>Madhuca latifolia</i>	12.778	7.47
<i>Buchanania lanzae</i>	10.000	5.84
<i>Lannea coromandelica</i>	8.889	5.20
<i>Terminalia crenulata</i>	8.33	4.87
<i>Diospyros melanoxylon</i>	7.222	4.22

(b) Miscellaneous Stratum

Analysis of the results reveals the following information.

I. The number of stems/ha is 145.238.

II. Concentration of trees is observed in 10-19 cm. diameter class followed by 20-29 cm. and 30-39

cm. diameter class which accounts for 78.69%, 13.77% and 3.93% respectively.

III. Stems are found to occur even up to 90-99 cm. diameter class.

Stems/ha with percentage for some of the dominant species are given below:

Table 39 Stems per Ha of dominant species, Miscellaneous stratum, Nawada District

SPECIES	STEMS/HA	PERCENTAGE
<i>Shorea robusta</i>	19.762	13.61
<i>Boswellia serrata</i>	17.381	11.97
<i>Lannea coromandelica</i>	15.000	10.33
<i>Anogeissus latifolia</i>	9.524	6.56
<i>Aegle marmelos</i>	9.048	6.23
<i>Buchanania lanzae</i>	7.619	5.25

4.5.7 Tree density study District - Nalgonda

The salient features of this district is summarized below:

I. Stems/ha is 48.000.

II. 95.83% of the stems is concentrated in 10-19 cm. diameter class followed by 4.17% of the trees in 20-29 cm. diameter class.

III. Stems above 30 cm. diameter class is insignificant.

Stems/ha with percentage for some of the dominant species are summarized below:

Table 40 Stems per Ha. of dominant species, Soil stratum, Nalanda District

SPECIES	STEMS/HA	PERCENTAGE
<i>Shorea robusta</i>	28,000	56.33
<i>Bridelia retusa</i>	4,000	8.33
<i>Lannea coromandelica</i>	4,000	8.33
<i>Madhuca latifolia</i>	4,000	8.33

4.6 TOTAL STEMS

Total number of stems in different districts by species and diameter classes in

different strata are given in Table No. 1.1.2 to 7.1.2 (vide at Part-II of this report). These are summarized below:

Table 41 Total Stems

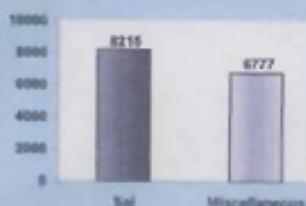
DISTRICT	STRATUM	TOTAL STEMS ('000 NO.)
GIRIDHII	Sal	8215
	Miscellaneous	6777
	Total	14992
GAYA	Miscellaneous	947
	Khair	1047
	Total	1994
DILANGAD	Sal	335
	Miscellaneous	979
	Total	1314
AURANGABAD	Miscellaneous	1077
	Salai	3578
	Total	4655
MUNGER	Sal	15247
	Miscellaneous	18760
	Total	34007
NAWADA	Sal	3356
	Miscellaneous	6647
	Total	10003
NALANDA	Sal	223

4.7 VOLUME STUDIES

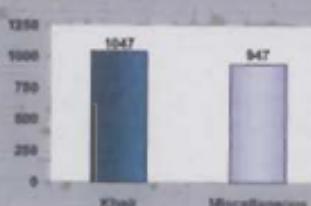
The distribution of volume/ha by species and diameter classes in different district and stratum has been calculated in Table

No. 1.1.3 to 7.1.3 and furnished at the end of the report (vide Part-II of this report). An abstract of volume/ha by stratum and district is summarized as follows:

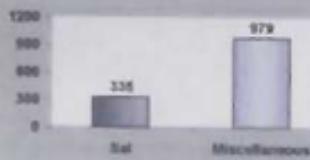
STRATUM WISE DISTRIBUTION OF TOTAL STEMS (IN '000 NOS.) IN GIRDH DISTRICT



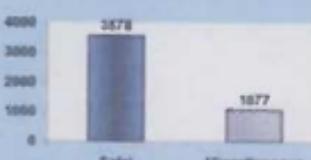
STRATUM WISE DISTRIBUTION OF TOTAL STEMS (IN '000 NOS.) IN GAYA DISTRICT



STRATUM WISE DISTRIBUTION OF TOTAL STEMS (IN '000 NOS.) IN DHANBAD DISTRICT



STRATUM WISE DISTRIBUTION OF TOTAL STEMS (IN '000 NOS.) IN AURANGABAD DISTRICT



STRATUM WISE DISTRIBUTION OF TOTAL STEMS (IN '000 NOS.) IN MUNGER DISTRICT



STRATUM WISE DISTRIBUTION OF TOTAL STEMS (IN '000 NOS.) IN NAWADA DISTRICT

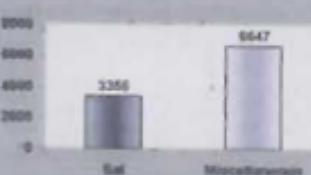


Table 42 Volume

DISTRICT	STRATUM	VOLUME (M ³ /HA)
GIRDHAR	Sal	8.007
	Miscellaneous	10.689
	District	9.27
GAYA	Miscellaneous	11.327
	Khair	12.515
	District	11.74
DEORAHAD	Sal	3.947
	Miscellaneous	9.440
	District	6.90
AURANGABAD	Miscellaneous	4.061
	Salai	14.298
	District	9.18
MUNGER	Sal	25.355
	Miscellaneous	38.442
	District	37.20
NAWADA	Sal	16.845
	Miscellaneous	22.455
	District	20.77
NALANDA	Sal	3.285

- 4.7.1 Volume studies, District - Girdharpur
 (a) Sal stratum
 Salient features of this stratum are given below:
 i. Volume/ ha. in this stratum is 8.007 m³.
 ii. Volume is maximum concentrated in 10-19 cm. diameter class

followed by 20-29 cm. diameter class which accounts for 46.45% and 16.57% respectively.
 iii. Volume distribution is observed in almost all the diameter classes except in 80-89 and 90-99 cm. diameter classes.
 The volume/ ha. with percentage for some of the dominant species are given below:

Table 43 Volume Sal stratum, Girdharpur District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Shorea robusta</i>	9.356	39.42
<i>Madhuca longifolia</i>	1.578	19.71
<i>Syzygium cumini</i>	0.751	9.38
<i>Pithecellobium bengalense</i>	0.582	7.27
<i>Boswellia serrata</i>	0.200	2.50

- (b) Miscellaneous Stratum
 i. Volume/ ha. in this stratum is only 10.689 m³.
 ii. Volume is found to be concentrated in 10-19 cm. diameter class followed by 20-29 cm. and 30-39 cm. diameter classes which

accounts for 39.06%, 16.37% and 12.29% respectively.
 iii. Volume distribution is however noticed in higher diameter classes also.
 Volume/ ha. with percentage for some of the volume contributing species are summarised as follows:

Table 44 VolHa Miscentrum Gurdaspur District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Madhuca latifolia</i>	3.105	29.05
<i>Shorea robusta</i>	0.658	6.16
<i>Boswellia serrata</i>	0.645	6.03
<i>Lannea coromandelica</i>	0.562	5.26
<i>Dipterocarpus melanoxylon</i>	0.450	4.21

4.7.2 Volume Studies, District - Gaya

(a) Miscellaneous stratum

Salient features of this stratum are given below:

- Volume/ ha in this stratum is 11.327m³.
- Volume is mainly concentrated in 10-19 cm. diameter class followed by 20-29 and 30-39 cm. diameter class, which accounts for 20.36%.

13.36% and 11.38% respectively.

Percentage of volume concentration becomes suddenly high in 30-39 cm. diameter class which accounts 23.72% of the total volume of this stratum.

Volume/ ha with percentage for some of the major volume contributing species are summarized below:

Table 45 VolHa Miscellaneous Stratum, Gaya District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Madhuca latifolia</i>	4.859	42.90
<i>Boswellia serrata</i>	1.471	12.99
<i>Lannea coromandelica</i>	0.727	6.42
<i>Shorea robusta</i>	0.725	6.40

(c) Khar Stratum

- Volume/ ha in this stratum is 12.515m³.
- Volume is mainly concentrated in 10-19 cm. diameter which contributes 45.05% of the volume

of this stratum followed by 20-29, 30-39 and 40-49 cm diameter class which accounts for 17.67%, 5.64% and 17.91% respectively

Volume/ ha with percentage for some of the species are given below:

Table 46 VolHa Khar stratum, Gaya District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Acacia catechu</i>	4.110	32.89
<i>Madhuca latifolia</i>	3.065	24.49
<i>Butea monosperma</i>	2.376	18.99
<i>Catappa siamica</i>	0.514	4.11

4.7.3 Volume studies, District - Dhanbad

(a) Sal Stratum.

Salient features in this stratum are summarized below:

- Volume/ha is only 3.947 m³.
- Maximum volume contribution is found in 10-19 cm and 30-39 cm.

diameter class which accounts for 43.70% and 40.54% respectively.

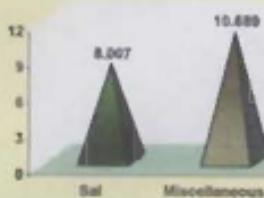
Distribution of volume after 40 cm. is practically absent.

Volume/ha with percentage for some of the species are given below:

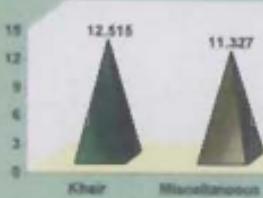
Table 47 VolHa Sal stratum, Dhanbad District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Shorea robusta</i>	1.357	44.38
<i>Pterocarpus marsupium</i>	0.648	16.42
<i>Acacia marmelos</i>	0.504	12.77
<i>Semicarpus anacardium</i>	0.432	10.95

STRATUM WISE DISTRIBUTION OF VOLUME (M³)/HA. IN GIRIDH DISTRICT



STRATUM WISE DISTRIBUTION OF VOLUME (M³)/HA. IN GAYA DISTRICT



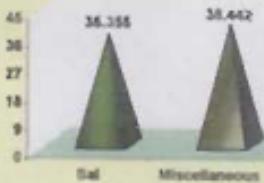
STRATUM WISE DISTRIBUTION OF VOLUME (M³)/HA. IN DHANBAD DISTRICT



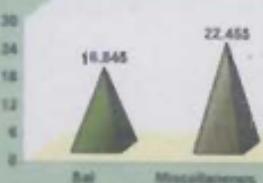
STRATUM WISE DISTRIBUTION OF VOLUME (M³)/HA. IN AURANGABAD DISTRICT



STRATUM WISE DISTRIBUTION OF VOLUME (M³)/HA. IN MUNGER DISTRICT



STRATUM WISE DISTRIBUTION OF VOLUME (M³)/HA. IN NAWADA DISTRICT



- (b) Miscellaneous stratum
 (i) Volume/ha. in this stratum is 9.440 m³.
 (ii) Volume is concentrated in 10-19 cm. diameter class followed by 20-29 and 30-39 cm. diameter classes which accounts for 44.11%, 29.53% and 26.37% respectively.
 (iii) Volume above 40 cm. diameter class is practically absent.
 Volume/ha. with percentage for some of the important species are given below:

Table 48 VolVIIa Miscellaneous stratum, Dhanbad District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Gmelina arborea</i>	1.951	20.67
<i>Shorea robusta</i>	0.980	10.38
<i>Acacia archeidiformis</i>	0.788	8.35
<i>Erythrina variegata</i>	0.662	5.95

4.7.4 Volume studies, District - Aurangabad

- (a) Miscellaneous stratum
 (i) Volume/ha is 4.061 m³.
 (ii) Volume is mostly concentrated in 10-19 cm. diameter classes followed by 20-29 cm. and 40-49 cm. diameter classes which accounts for 68.36%, 16.13% and 15.51% respectively.
 (iii) Volume above 50 cm. diameter class is practically absent.
 Volume/ha. with percentage for the important volume contributing species are given below.

Table 49 VolVIIa Miscellaneous stratum, Aurangabad District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Boswellia serrata</i>	1.437	35.39
<i>Lannea coromandelica</i>	0.724	17.83
<i>Terminalia crenulata</i>	0.394	9.70
<i>Pterocarpus marsupium</i>	0.216	5.32

- (b) Salai Stratum.
 I. Volume/ha is 14.298 m³.
 II. Volume is concentrated mostly in 20-29 cm. diameter class followed by 10-19 cm. diameter class which accounts 48.01% and 43.79% volume/ha. of this stratum.
 III. Volume above 50 cm. diameter is found to be absent.
 Volume/ha. with percentage for the important species are given below:

Table 50 VolVIIa Salai stratum, Aurangabad District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Boswellia serrata</i>	10.431	72.95
<i>Lannea coromandelica</i>	0.943	6.66
<i>Madhuca latifolia</i>	0.742	5.19
<i>Bridelia retusa</i>	0.511	3.57

- 4.7.5 Volume studies, District - Munger
 (a) Sal Stratum.
 Salient features of this stratum are given below:
 I. Volume/ha. in this stratum is 35.355 m³.
 II. Volume contribution is maximum in the diameter class 10-19 cm. followed by 20-29 cm. and 30-39 cm. diameter classes which accounts for 48.73%, 28.63% and 12.51% respectively.
 III. Volume above 50 cm. diameter is insignificant.

Volume/ha with percentage for some of the volume contributing species is summarized

Table 51 Vol/Ha Sal stratum, Munger District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Shorea robusta</i>	11.664	32.99
<i>Madhuca latifolia</i>	5.180	14.65
<i>Terminalia crenulata</i>	2.369	6.70
<i>Buchanania lanzen</i>	1.751	4.95
<i>Boswellia serrata</i>	1.527	4.32

(b) Miscellaneous stratum

- I. Volume/ha in this stratum is 38.442 m³.
 II. Volume is concentrated in 10-19 cm. and 20-29 cm. diameter classes followed by 30-39 cm. and 40-49 cm. diameter classes which

contributes 36.93%, 35.70%, 16.80% and 6.40% respectively.
 III. Volume is present up to 70 cm. diameter class.

Volume/ha with percentage for some of the important species are given below:

Table 52 Vol/Ha Miscellaneous stratum, Munger District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Boswellia serrata</i>	5.539	14.41
<i>Lannea coromandelica</i>	2.906	7.56
<i>Buchanania lanzen</i>	2.539	6.61
<i>Bridelia retusa</i>	2.278	5.93
<i>Anogeissus latifolia</i>	2.206	5.74

4.7.6 Volume studies, District - Nawada
 Salient features of these districts are furnished below:

- (a) Sal Stratum.
 I. Volume/ ha in this stratum is 16.845 m³.
 II. As in other stratum the volume here is also concentrated in 10-19 cm. diameter class followed by 20-29 cm. and 30-39 cm. diameter

III. classes which accounts for 56.49% and 16.66% and 7.43% respectively.

IV. Volume is found up to 70-79 cm. diameter class.

Volume/ ha with percentage for some of the dominant species are appended below:

Table 53 Vol/Ha Sal stratum, Nawada District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Shorea robusta</i>	5.558	33.00
<i>Madhuca latifolia</i>	3.579	21.19
<i>Terminalia crenulata</i>	2.032	12.06
<i>Buchanania lanzen</i>	0.691	4.09
<i>Diospyros melanoxylon</i>	0.632	3.75
<i>Terminalia bellierica</i>	0.538	3.19

(b) Miscellaneous stratum

- I. Volume/ ha in this stratum is 22.455 m³.
 II. As in other stratum, the volume here is also concentrated in 10-19 cm. diameter class followed by 20-29 cm., 30-39 cm. and 40-49 cm.

diameter classes which accounts for 34.61% and 22.26%, 13.50% and 10.71% respectively.

III. Volume is found up to 90-99 cm. diameter class.

Volume/ ha with percentage for some of the dominant species are appended below:

Table 54 Vol/Ha Miscellaneous stratum, Nawada District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Bomarea rotunda</i>	4.171	11.49
<i>Madhuca latifolia</i>	2.733	12.17
<i>Lannea coromandelica</i>	2.317	10.32
<i>Shorea robusta</i>	1.940	8.64
<i>Anogeissus latifolia</i>	1.507	6.71
<i>Bombax ceiba</i>	1.379	6.14

4.7.7 Volume studies, District - Nalanda
Salient features of these districts are furnished below:

- I. Volume/ ha in this stratum is 3.285 m³.
- II. The volume is concentrated in 10-19 cm. diameter class followed by 20-29 cm. diameter classes which

accounts for 88.16% and 11.84% respectively.

III. Volume distribution is observed only up to 20-29 cm. diameter class.

Volume/ ha with percentage for some of the dominant species are appended below:

Table 55 Vol/Ha Nalanda District

SPECIES	VOLUME (M ³ / HA)	PERCENTAGE
<i>Shorea robusta</i>	1.485	45.21
<i>Lannea coromandelica</i>	0.412	12.54
<i>Cochlospermum religiosum</i>	0.389	11.84
<i>Bridelia retusa</i>	0.329	10.02

4.8 TOTAL VOLUME

The total volume in different stratum by species and diameter classes are given in

Table No. 1.1.4 to 7.1.4 (Vide Part-II of this report). These are summarized:

Table 56 Total Volume

DISTRICT	STRATUM	TOTAL VOLUME ("000M ³)
GIRIDH	Sal	854
	Miscellaneous	1016
	Total	1870
GAYA	Miscellaneous	230
	Khair	137
	Total	367
DHANBAD	Sal	42
	Miscellaneous	116
	Total	158
AURANGABAD	Miscellaneous	109
	Salai	385
	Total	494
MUNGER	Sal	1774
	Miscellaneous	2848
	Total	4622
NAWADA	Sal	330
	Miscellaneous	1029
	Total	1358
NALANDA	Sal	15

Thus, the total volume in the seven districts is estimated as 8.88 million m³.

49 ESTIMATION OF ERROR

The standard error percentage (i.e. S.E%) has been calculated by ratio method, of

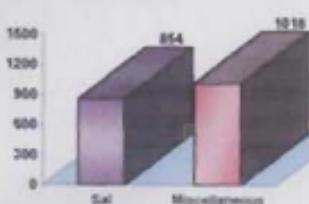
estimation for the various districts, which are given below:

Table 57 Standard Error Percentage

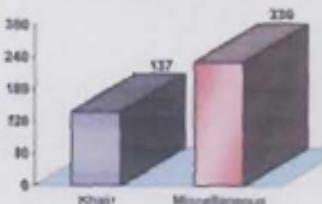
DISTRICT	S E %
GIRIDHII	6.80
GAYA	12.94
DHANBAD	19.02
AURANGABAD	36.07
MUNGER	14.75
NAWADA	13.92
NALANDA	In sufficient number of plots

It is worthwhile to mention that for larger area i.e. at the State level, the percentage is expected to be within 10% precision limit at 95% probability level.

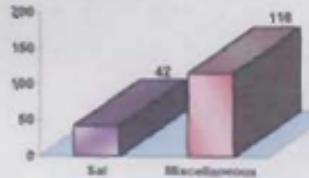
STRATUM WISE DISTRIBUTION OF
TOTAL VOLUME ('000 M³) IN
GIRIDH DISTRICT



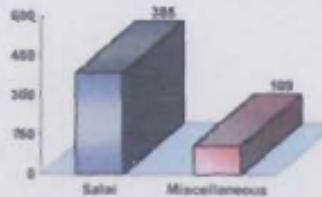
STRATUM WISE DISTRIBUTION OF
TOTAL VOLUME ('000 M³) IN
GAYA DISTRICT



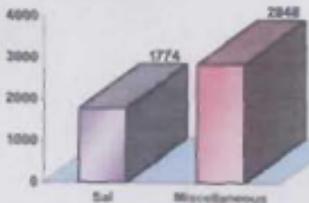
STRATUM WISE DISTRIBUTION OF
TOTAL VOLUME ('000 M³) IN
DHANBAD DISTRICT



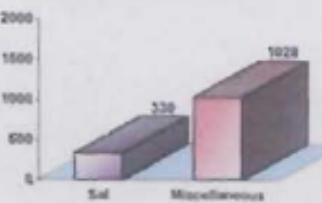
STRATUM WISE DISTRIBUTION OF
TOTAL VOLUME ('000 M³) IN
AURANGABAD DISTRICT



STRATUM WISE DISTRIBUTION OF
TOTAL VOLUME ('000 M³) IN
MUNGAR DISTRICT



STRATUM WISE DISTRIBUTION OF
TOTAL VOLUME ('000 M³) IN
NAKHGAZI DISTRICT



CHAPTER-V

SUMMARY AND CONCLUSIONS

After all the investigations on the current inventory of seven districts of Bihar is over, now is the time to summarize the bits of the inventory area as well as the survey results. For this, the major reflections have been amalgamated on the basis of the various angles of the present survey.

5.1 AREA COVERAGE

Inventory area comprises of seven districts of the State of Bihar viz. Giridih, Gaya, Dhanbad, Aurangabad, Munger, Nawada and Nalanda districts.

The extent of forest cover of the above districts are presented as per 1997 assessment of S.F.R. published by Forest Survey of India, Dehradun.

Table 58 Area coverage

DISTRICT	% of Forest cover w.r.t. geographical area
GIRIDIH	21.14
GAYA	9.52
DHANBAD	3.40
AURANGABAD	3.81
MUNGER	12.32
NAWADA	18.85
NALANDA	1.18

The total reserved forest area in these seven districts are furnished below:

Table 59 Reserved Forests

DISTRICT	RESERVED FOREST (IN HA.)
GIRIDIH	9261
GAYA	917
DHANBAD	10825
AURANGABAD	5896
MUNGER	53213
NAWADA	6378
NALANDA	-

5.2 PLOT DESCRIPTION

- Bulk of the forest of the seven districts is under moderately dense and open tree forest accounting 28.69% and 32.91% respectively. Scrub forests occupy 16.90% of the forest area.
- Maximum portion of the soil in the area is under slightly compact to the extent of 84.09% which supports good forest crops. Friable and compact soil consists of 12.15% and 3.34% accordingly.
- Major portion of the forest area faces either moderate (42.83%) or mild (46.16%) erosion. Heavy erosion is found to occur in 6.88% forest area only.
- Light fire incidence is found to occur in 50.10% of the forest area. It is observed that incidence of moderate fire in the forest is 20.63% whereas forest area free from fire damage constitutes 20.23% only.
- 56.95% of forest area suffers from moderate to heavy grazing while light grazing accounts to 25.54%. It is further observed that only 9.82% of the forest area is free from any grazing incidence.
- Heavy to moderate degradation due to biotic interference like grazing, fire, illicit cutting, etc. constitute 81.14% of the total forest area. Mild degradation occurs in 15.71% forest area whereas no

degradation is noticed in only 0.79% of the forest area.

STEM ANALYSIS

The Number of stems per hectare in the concerned seven district of Bihar State is presented as follows:

Table 60 Stems per hectare

DISTRICT	NO OF STEMS PER HA
GIRIDH	74.34
GAYA	63.81
DHANBAD	57.31
AURANGABAD	86.43
MUNGER	273.65
NAWADA	163.00
NALANDA	48.00

The density study in these areas reflects that among the four recognized strata Sal Stratum has recorded maximum number of Stems/ ha. (142.84), closely followed by Sala Stratum (132.86) and miscellaneous stratum (128.18). The Khaar Stratum (95.91) represents comparatively less

number of stems per hectare (refer table No. 8.1 to 8.4)

The total number of stems is computed as 67.19 million in these seven districts of Bihar State. The number of trees recorded for the individual district is furnished below:

Table 61 Total stems

DISTRICT	TOTAL STEMS (000 No.)
GIRIDH	14992
GAYA	1994
DHANBAD	1314
AURANGABAD	4655
MUNGER	34007
NAWADA	10003
NALANDA	223

Total number of stems in the area is found to be the maximum under miscellaneous stratum (35.19 million). Next to it is the Sal Stratum which has recorded 27.38

million trees. The other two strata Sala and Khaar accordingly constitute of 3.58 million and 1.04 million number of trees (refer tables No. 8.1 to 8.4).

5.4 VOLUME STUDIES

Per hectare volume for the concerned seven districts of Bihar is estimated as follows:

Table 62 Volume per hectare

DISTRICT	VOLUME (M ³) PER HECTARE
GIRIDH	9.27
GAYA	11.74
DHANBAD	6.90
AURANGABAD	9.18
MUNGER	37.20
NAWADA	20.77
NALANDA	3.29

Volume studies reflect that among the four categorized strata, per hectare volume for

Miscellaneous Stratum is on the top (19.48 m³). Next to it is Sal strata which has

recorded 15.73 m³ volume per hectare. The corresponding figures for Salai and Khair Stratum are 14.30 m³ and 12.52 m³ respectively (refer table No. 9.1 to 9.4).

Table 63 Total Volume.

DISTRICT	TOTAL VOLUME ('000 M ³)
GIRIDIH	1870
GAYA	367
DHANBAD	158
AURANGABAD	494
MUNGER	4622
NAWADA	1358
NALANDA	15

Total volume of trees is found to be maximum in case of miscellaneous stratum (5.35 million m³) among the four recognized strata. Sal stratum (3.01 million m³) occupies second position in this respect. For the rest two strata Salai and Khair, volume of trees is computed as 0.39 million m³ and 0.14 million m³ respectively (refer table No. 9.1 to 9.4).

6.5 COMPARISON WITH PAST SURVEY RESULTS

A survey was conducted during the period 1971 to 1974 covering a forest area of 17963.37 sq.km. in Bihar State. The above inventory area comprised of the 14 Forest Divisions, viz. Chhatra North, Chhatra South, Kodarma, Giridih, Munger, Shahabad, Gaya, Daltonganj North, Daltonganj South, Garwa North, Garwa

The total volume of trees in the seven district of Bihar is estimated as 8.88 million m³. District wise break-up of the total volume is computed as follows:

South, Latebar, Hazaribagh East and Hazaribagh West Division of Bihar. The entire forest area of the 14 divisions was stratified into 5 broad categories e.g. Sal forest, Miscellaneous forest, Khair forest, Salai forest and Bamboo forest without having any separate data processing on district and division level.

Similarly, the findings of the present survey were stratified into 4 broad categories. They were Sal forests, Miscellaneous forests, Khair forests and Salai forests. Stratification was irrespective of the districts and the entire forest area of 7 districts was taken for the purposes of comparison with the previous survey both in terms of stems/ ha, and volume/ha, in different diameter classes and stratum.

(a) Number of stems/ha by diameter class:

Table 64 Number of stems/ha by diameter class.

Stratum - Sal		Stratum - Miscellaneous			
Dia. Class(cm.)	No. of stems/ha	Dia. Class(cm.)	No. of stems/ha		
	1971-74		1994		
10-20	190.3965	123.380	10-20	181.1309	98.635
20-30	35.0064	14.874	20-30	43.4828	21.216
30-40	8.1438	3.238	30-40	12.4203	5.225
40-50	1.9274	0.910	40-50	4.4851	2.132
50-60	0.4086	0.143	50-60	4.9404	0.359
60+	0.3145	0.311	60+	1.2075	0.616
Total	236.1962	142.856	Total	247.667	128.183

Table 65 Number of stems/ha by diameter class.

Stratum - Salai			Stratum - Khair		
Diameter Class(cm.)	No. of stems/ha		Diameter Class(cm.)	No. of stems/ha	
	1971-74	1994		1971-74	1994
10-20	144.8626	94.288	10-20	100.6923	84.001
20-30	34.115	35.714	20-30	11.7813	7.727
30-40	13.6997	1.429	30-40	2.9316	1.818
40-50	3.6230	1.428	40-50	0.6838	1.818
50-60	0.9137	-	50-60	0.4350	-
60+	0.3674	-	60+	0.3120	0.455
Total	197.5814	132.857	Total	125.8369	95.909

The above tables present a clear picture of changing pattern of growing stock in terms of stems/ha, during the last two decades. The above tables also show that stems/ha, as noted during the survey of 1971-74 is higher in every stratum than stems/ha as observed during the survey of 1994 by a considerable margin. There is considerable decrease of stems in almost all the diameter classes than the earlier survey. Number of stems above 60 cm. diameter class decreases remarkably in Miscellaneous and Salai stratum whereas it is more or less same in Sal and Khair stratum. The

percentage decrease in terms of stems/ha in Sal, Miscellaneous, Salai and Khair Stratum is in the tune of 39.52%, 48.24%, 32.76% and 23.78% respectively. The main reason might be the fairly heavy exploitation of forests in recent years including illicit cutting and lopping. It is recommended that the forests of 7 districts should be maintained under conservation oriented system, the exploitation of forests being restricted to the flat areas, valley lands and undulating terrain in the foothills.

(b) Volume/ ha. by diameter class:

Table 66 Volume/ ha. by diameter class.

Stratum - Sal			Stratum - Miscellaneous		
Diameter Class(cm.)	Volume (m³)/ha		Diameter Class(cm.)	Volume (m³)/ha	
	1971-74	1994		1971-74	1994
10-20	12.4558	7.720	10-20	10.1908	7.218
20-30	8.9834	3.720	20-30	8.8562	5.443
30-40	4.5881	1.685	30-40	5.0819	2.911
40-50	1.9211	0.876	40-50	3.0873	1.533
50-60	0.6437	0.245	50-60	1.7603	0.528
60+	1.0074	1.489	60+	2.3876	1.843
Total	29.5994	15.735	Total	31.9741	19.476

Table 67 Volume/ ha. by diameter class:

Stratum - Salai			Stratum - Khair		
Diameter Class(cm.)	Volume (m³)/ha		Diameter Class(cm.)	Volume (m³)/ha	
	1971-74	1994		1971-74	1994
10-20	14.0616	6.261	10-20	4.1801	5.638
20-30	12.6127	6.865	20-30	2.7515	2.211
30-40	10.4546	0.417	30-40	1.7903	0.706
40-50	4.7062	0.755	40-50	0.7623	2.242
50-60	1.7395	-	50-60	0.7784	-
60+	1.1055	-	60+	1.2060	1.718
Total	44.6671	14.298	Total	11.4694	12.515

A similar picture emerges in case of volumefha. analysis as noticed in the stems/ha. analysis. The volumefha decreases in Sal, Miscellaneous and Salai stratum but slightly increases in the Khair stratum. There is a sharp decline to the extent of 46.84% in Sal stratum, 39.06% in miscellaneous stratum and 67.90% in Salai Stratum. There is slight increase in volumefha. of the growing stock to the tune

of 0.11% in course of two decades from 1974-77 to 1984-95 in the Khair stratum. The reason of decreased volume is already explained in earlier paragraph.

It is expected that the advent of forestry development through the five year plan, integrated with sound Silvicultural Management, scientific exploitation and utilization of forest would improve the growing stock of these forest areas.

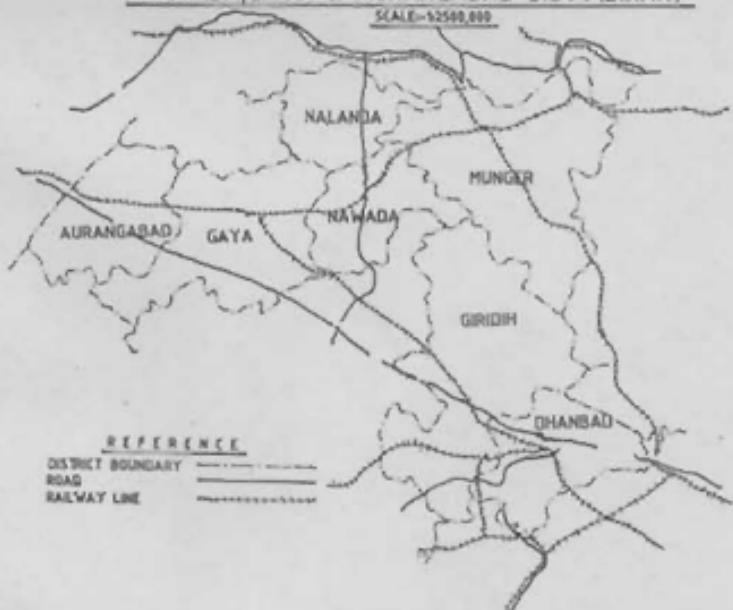
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8. Census of India 1981 (Series-4), Bihar, District Census Handbook – Munger District, Parts XIII – A & B, Village & Town Directory.
9. Census of India 1981 (Series-4), Bihar, District Census Handbook – Nawada District, Parts XIII – A & B, Village & Town Directory.
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MAP OF INDIA



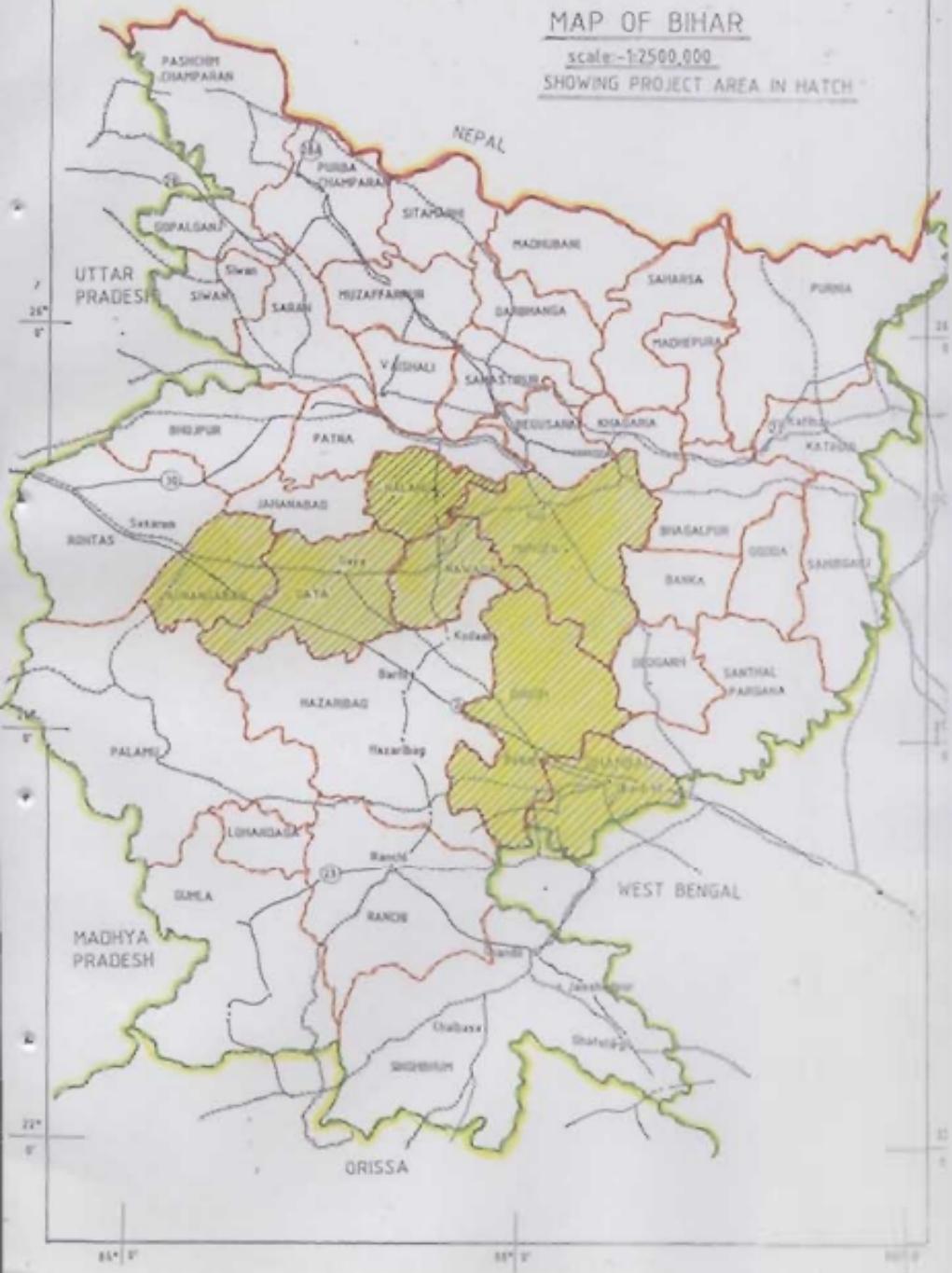
PROJECT MAP OF DHANBAD, GIRIDIH, MUNGER, NAWADA, NALANDA, GAYA & AURANGABAD DIST. (BIHAR)



MAP OF BIHAR

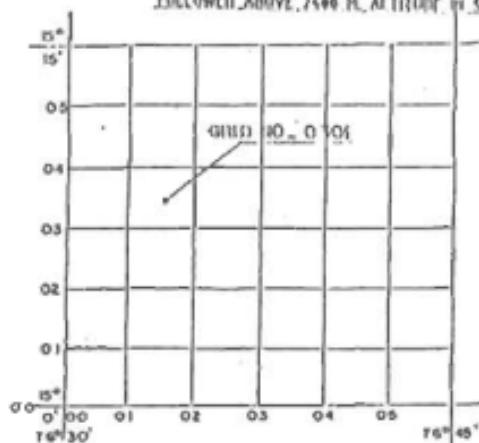
scale-1:2500,000

SHOWING PROJECT AREA IN HATCH



FOREST SURVEY OF INDIA
INVENTORY DESIGN

FOLLOWING ABOVE, 2400 M. ALTITUDE, IN SKIN.

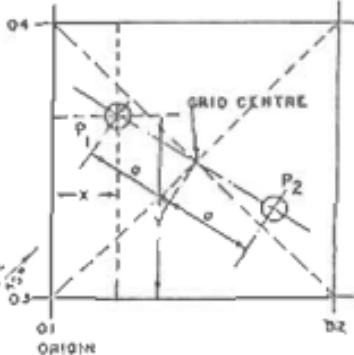
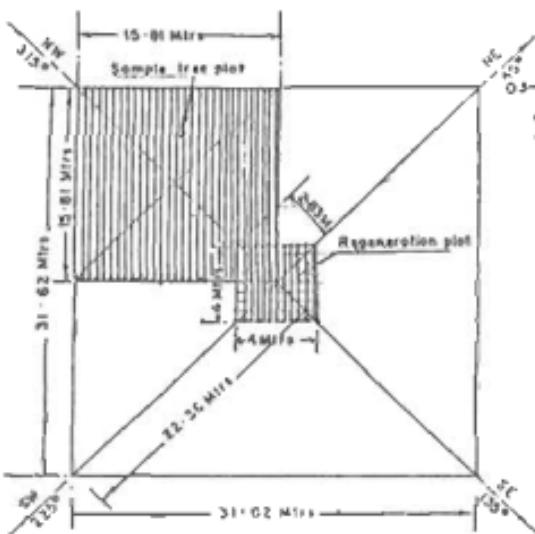


DIAGRAM_ 1

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

DIAGRAM_ 2

DIAGRAM SHOWING MARKING
OF PLOT IN $2\frac{1}{2} \times 2\frac{1}{2}$ GRID
'X' & 'Y' ARE THE DISTANCES ALONG
'X' & 'Y' AXES WITH S.W. CORNER AS
THE ORIGIN

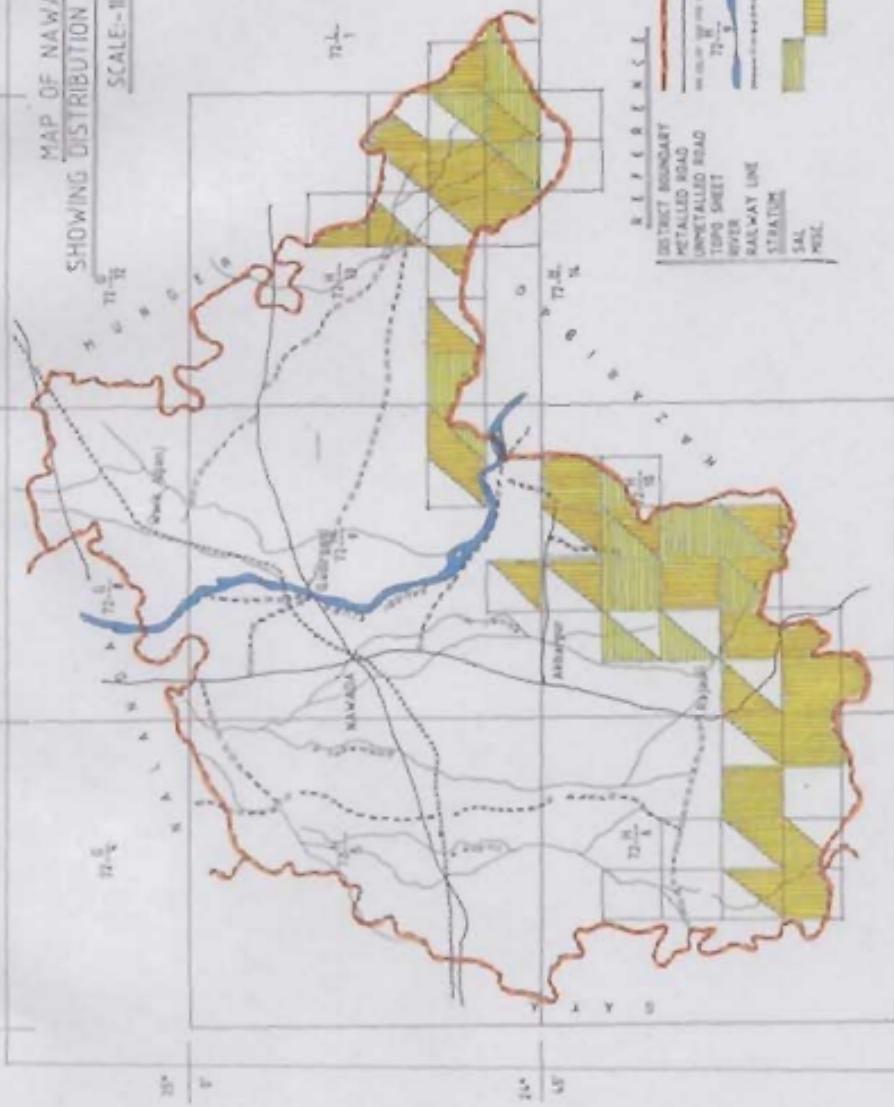


DIAGRAM_ 3

DIAGRAM SHOWING
LAY OUT OF PLOT

MAP OF NAWADA DISTRICT
SHOWING DISTRIBUTION OF GRIDS BY STRATUM

SCALE - 1 INCH = 8 MILE E



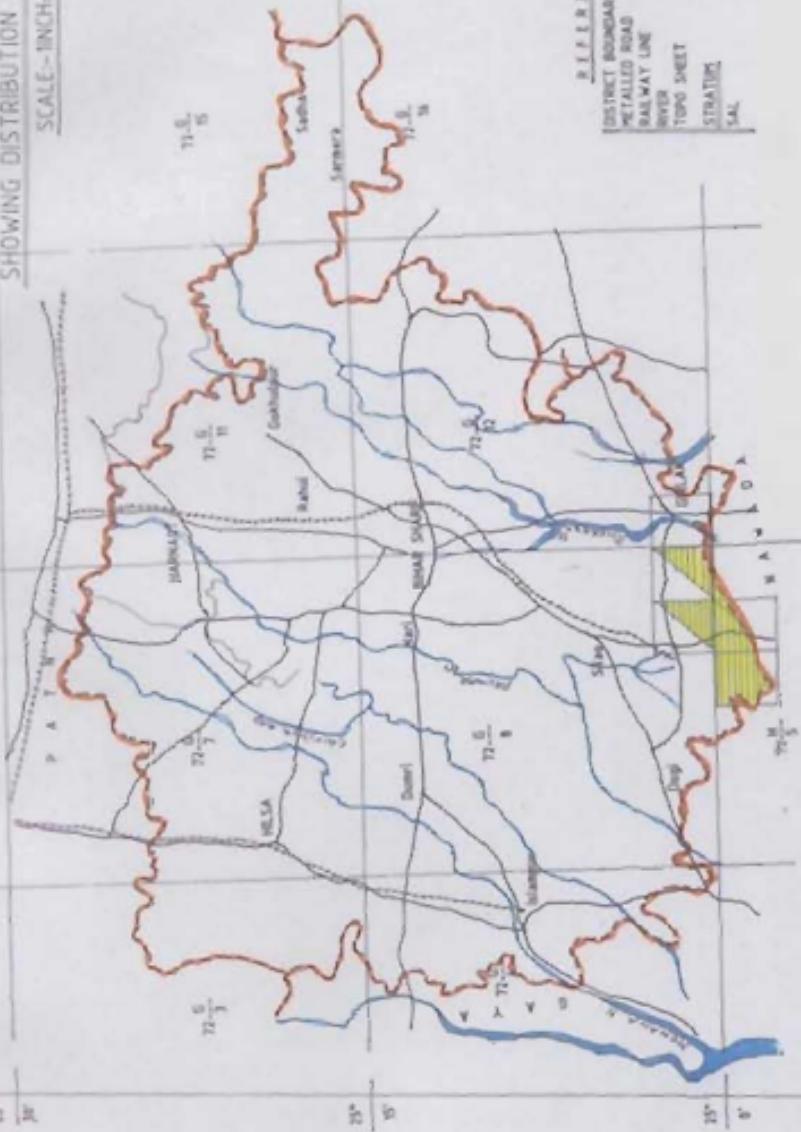
LEGEND

- DISTRICT BOUNDARY
- METALLED ROAD
- UNMETALLED ROAD
- TOPO SHEET
- RIVER
- RAILWAY LINE
- STRATUM
- SAND
- MUD

MAP OF NALANDA DISTRICT

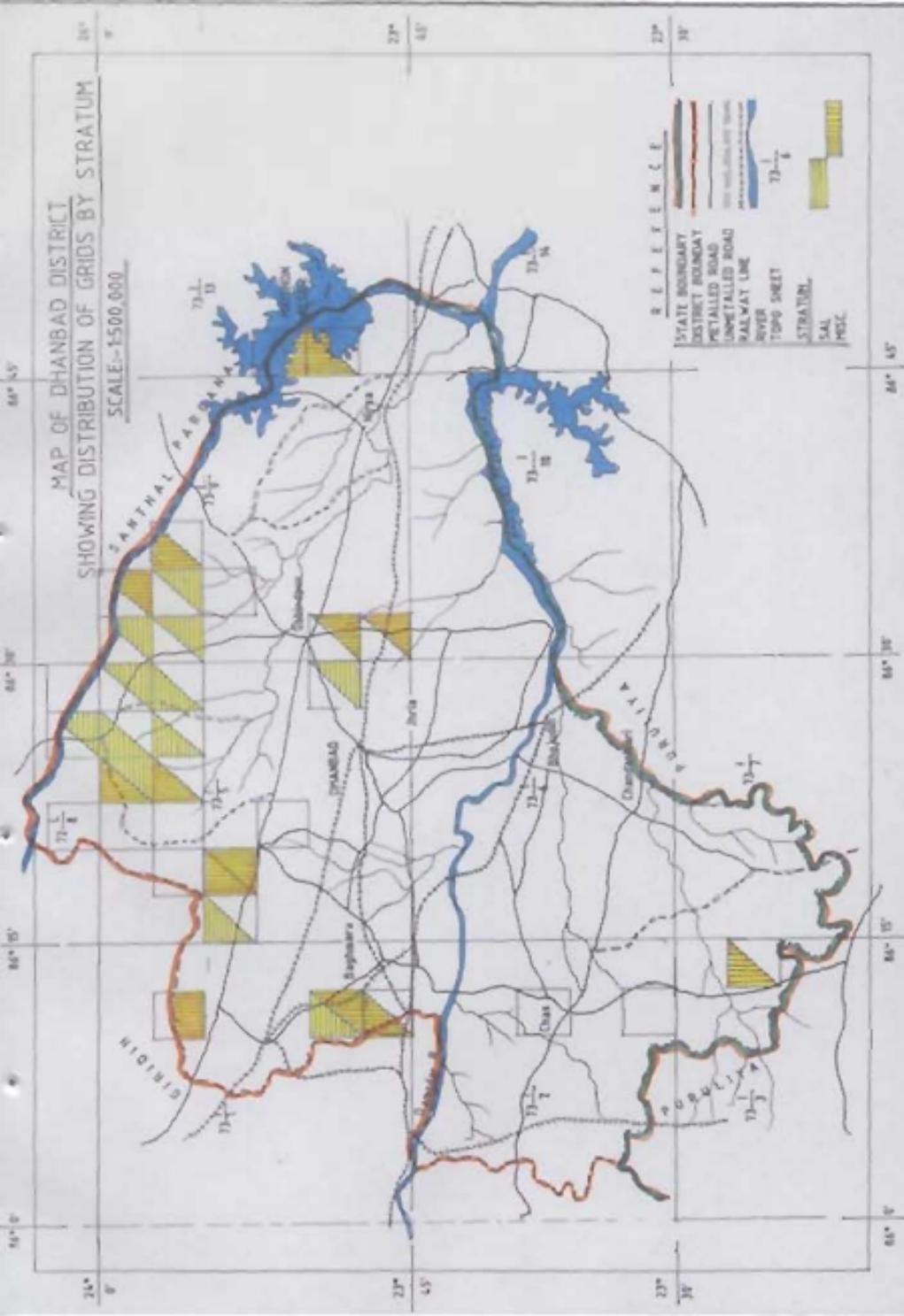
SHOWING DISTRIBUTION OF GRIDS BY STRATUM

SCALE - INCH = 8 MILE

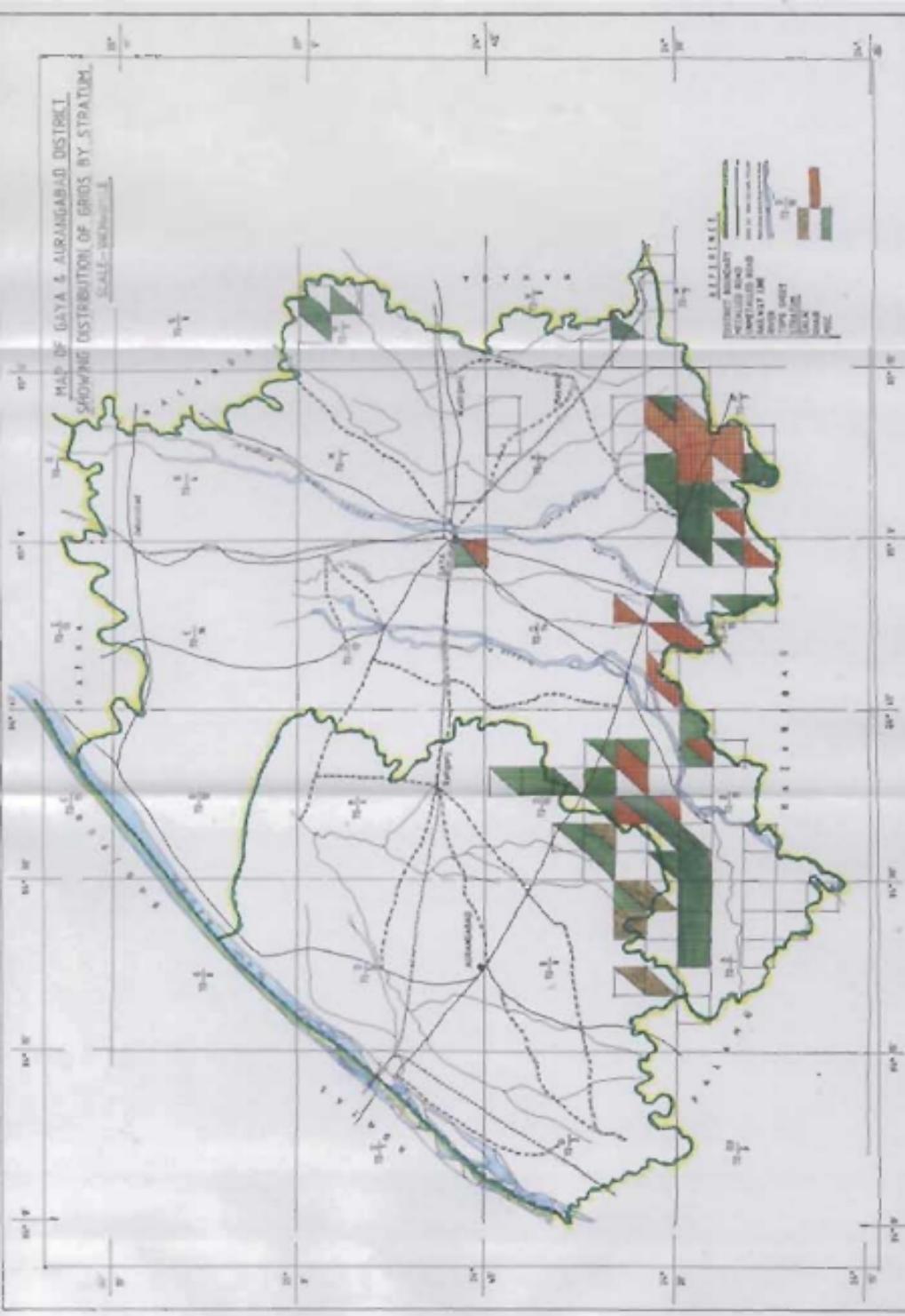


MAP OF DHANBAD DISTRICT
SHOWING DISTRIBUTION OF GRIDS BY STRATUM

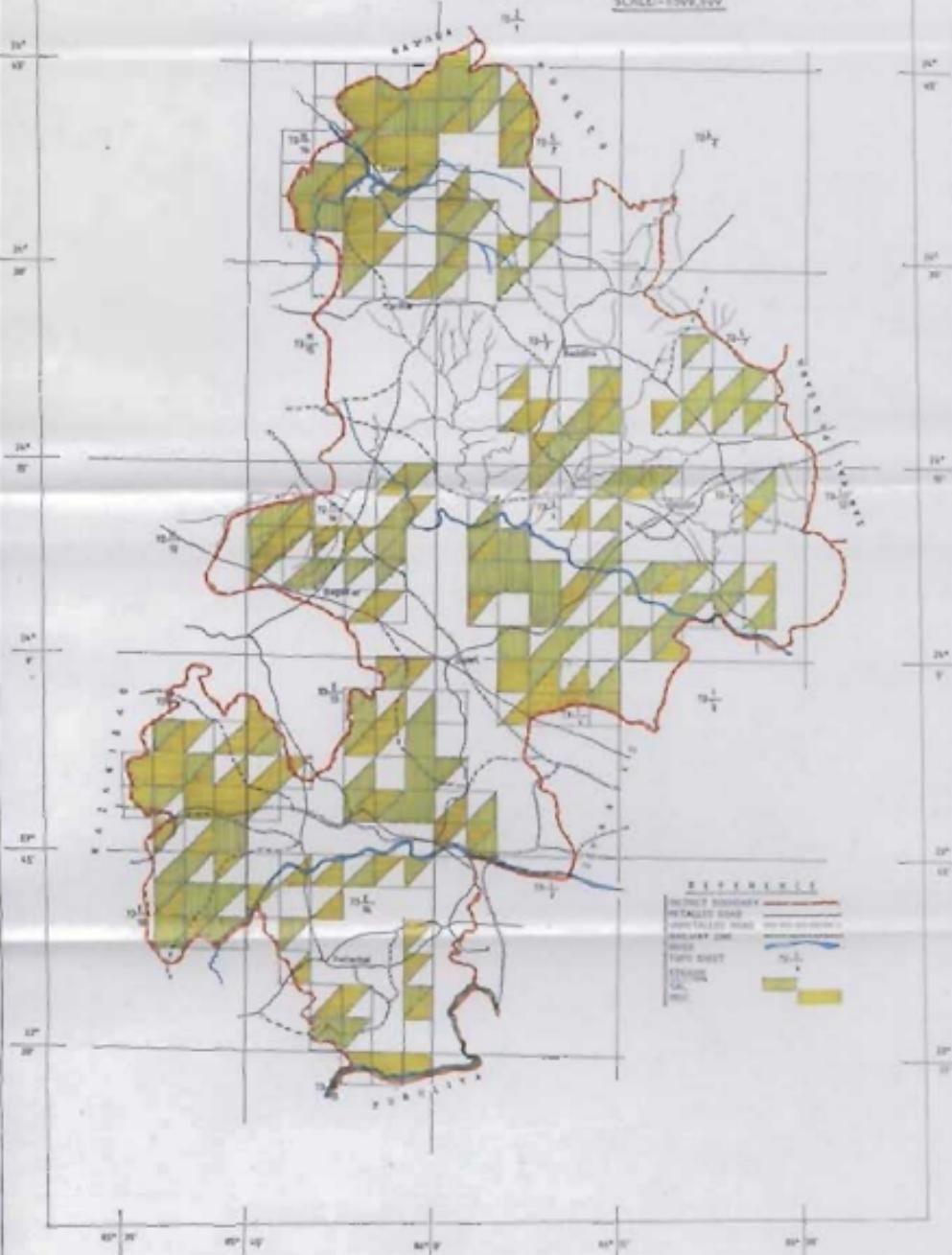
SCALE = 1:500,000



MAP OF GAYA & AURANGABAD DISTRICT
SHOWING DISTRIBUTION OF GRIDS BY STRATUM
SCALE 1:100,000

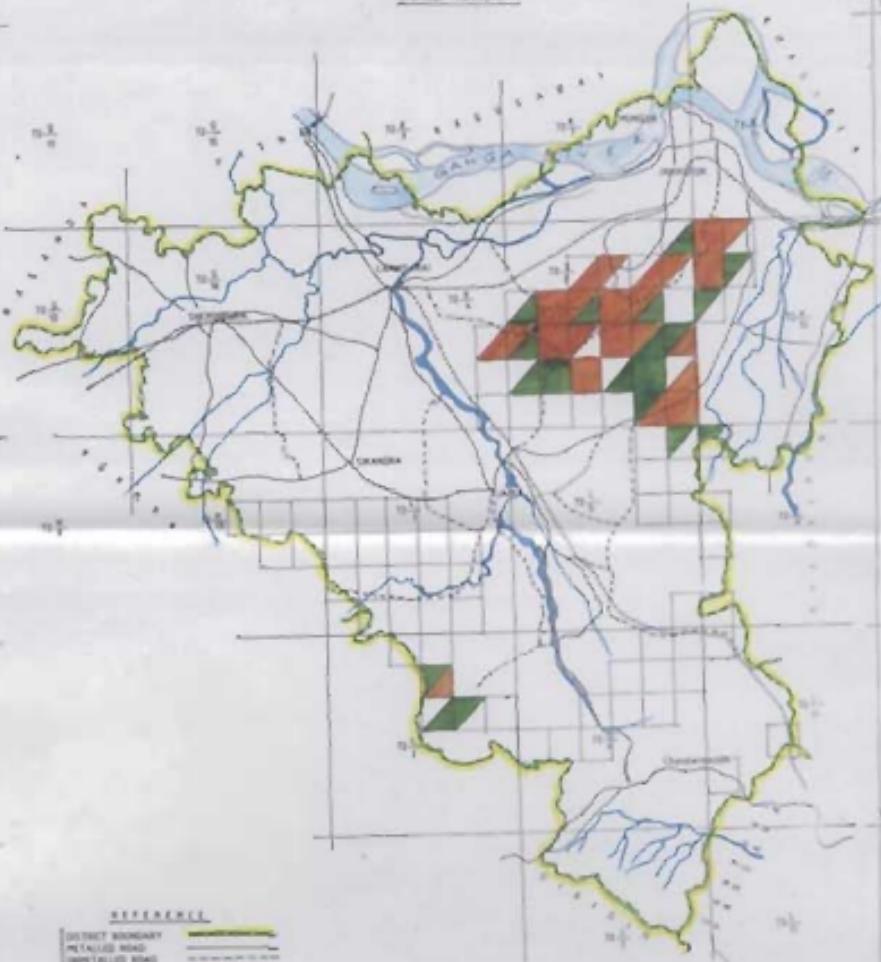


MAP OF GIRDH DISTRICT
SHOWING DISTRIBUTION OF GRIDS BY STRATUM.
SCALE - 1:500,000



MAP OF MUNGER DISTRICT
SHOWING DISTRIBUTION OF GRIDS BY STRATUM

SCALE - 1:500,000



LEGEND

DISTRICT BOUNDARY	[Solid black line]
METALLIC ROAD	[Dashed blue line]
UNMETALLIC ROAD	[Dotted blue line]
RAILWAY LINE	[Blue line with diagonal hatching]
TOPSHEET	[Small square icon]
STRATUM	
SAL	[Green square]
MUD + SAL	[Red square]

PART II
(STATISTICAL TABLES)

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3.2.1	-DO-	Dhanbad	Misc	8
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7.1.3	-DO-	Nalanda	Sol	54
1.1.4	Distribution of Total Volume/ha (in m ³) by Species and diameter classes	Girdih	Sol	55-56
1.2.4	-DO-	Girdih	Misc	57-58
2.2.4	-DO-	Gaya	Misc	59
2.3.4	-DO-	Gaya	Khair	60
3.1.4	-DO-	Dhanbad	Sol	61
3.2.4	-DO-	Dhanbad	Misc	62
4.2.4	-DO-	Aurangabda	Misc	63
4.4.4	-DO-	Aurangabda	Solai	64
5.1.4	-DO-	Munger	Sol	65-66
5.2.4	-DO-	Munger	Misc	67-68
6.1.4	-DO-	Nawada	Sol	69
6.2.4	-DO-	Nawada	Misc	70 / 1
7.1.4	-DO-	Nalanda	Sol	72
8.1	Diameter class distribution of total stems (in no) & No. of stems/ha,	Project area	Sol	73
8.2	- do -	-do-	Misc	73
8.3	- do -	-do-	Khair	74
8.4	- do -	-do-	Solai	74
9.1	Diameter class distribution of total volume (in m ³) & no. of volume (m ³)	-do-	Sol	75
9.2	- do -	-do-	Misc	75
9.3	- do -	-do-	Khair	76
9.4	- do -	-do-	Solai	76

TABLE NO 1.1

STEMS PER HECTARE (IN NO) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA - SAIL
DISTRICT - GRIDIH

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	.543	.078	.000	.000	.000	.000	.000	.000	.000	.000	.620
<i>Adina cordifolia</i>	28	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Adina oligocephala</i>	30	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Albizia procera</i>	50	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
<i>Anogeissus latifolia</i>	72	.775	.155	.000	.078	.000	.000	.000	.000	.000	.000	1.008
<i>Bauhinia purpurea</i>	114	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Bauhinia retusa</i>	116	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Bombax ceiba</i>	131	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
<i>Boswellia serrata</i>	133	.543	.310	.155	.078	.000	.000	.000	.000	.000	.000	1.085
<i>Bridelia retusa</i>	138	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Buchanania lanzae</i>	143	2.946	.155	.000	.000	.000	.000	.000	.000	.000	.000	3.101
<i>Butea monosperma</i>	146	1.473	.155	.000	.000	.000	.000	.000	.000	.000	.000	1.628
<i>Careya arborea</i>	177	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Cassia fistula</i>	186	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
<i>Cochlospermum religiosum</i>	223	.775	.155	.078	.000	.000	.000	.000	.000	.000	.000	.000
<i>Cordia tomentosa</i>	238	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
<i>Dalbergia paniculata</i>	267	.233	.000	.000	.000	.000	.000	.000	.000	.000	.000	.233
<i>Diospyros melanoxylon</i>	285	1.938	.310	.000	.000	.000	.000	.000	.000	.000	.000	2.248
<i>Diospyros species</i>	292	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Emblica officinalis</i>	325	.698	.078	.000	.000	.000	.000	.000	.000	.000	.000	1.008
<i>Erythrina suberosa</i>	340	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
<i>Ficus bengalensis</i>	375	.000	.000	.000	.078	.000	.000	.000	.000	.000	.000	.078
<i>Ficus species</i>	385	.620	.078	.000	.000	.000	.000	.000	.000	.000	.000	.698
<i>Gardenia resinifera</i>	405	.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
<i>Gardenia species</i>	406	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Garuga pinnata</i>	407	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078

CONT. OF TABLE NO. 1 i.i

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Hollardhena antidyserterica</i>	452	.233	.000	.000	.000	.000	.000	.000	.000	.000	.000	.233
<i>Lagerstroemia parviflora</i>	505	1.085	.078	.000	.000	.000	.000	.000	.000	.000	.000	1.163
<i>Lannea coromandelica</i>	509	2.326	.078	.000	.000	.000	.000	.000	.000	.000	.000	2.403
<i>Machluca latifolia</i>	561	2.713	1.085	.310	.543	.000	.000	.078	.000	.000	.000	4.729
<i>Mangifera indica</i>	569	.000	.000	.000	.000	.155	.000	.000	.000	.000	.000	.155
<i>Mitragyna parviflora</i>	611	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Pterocarpus marsupium</i>	722	.543	.000	.000	.000	.000	.000	.000	.000	.000	.000	.543
<i>Schleichera trijuga</i>	795	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Senecarpus anacardium</i>	798	3.178	.155	.009	.000	.000	.000	.000	.000	.000	.000	3.333
<i>Shorea robusta</i>	802	38.992	1.240	.310	.078	.000	.000	.000	.000	.000	.000	40.620
<i>Shorea talura</i>	803	233	.000	.000	.000	.000	.000	.000	.000	.000	.000	233
<i>Syzygium cumini</i>	843	1.163	.233	.155	.233	.000	.078	.000	.000	.000	.000	1.860.
<i>Terminalia belerica</i>	861	1.155	.000	.000	.000	.000	.000	.000	.000	.000	.000	.155
<i>Terminalia chebula</i>	864	.233	.000	.000	.000	.000	.000	.000	.000	.000	.000	.233
<i>Terminalia citrina</i>	865	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Terminalia crenulata</i>	866	2.636	.078	.000	.000	.000	.000	.000	.000	.000	.000	2.713
<i>Acacia Auriculiformis (A06)</i>	943	.620	.000	.000	.000	.000	.000	.000	.000	.000	.000	.620
Unidentified trees	944	2.946	.620	.000	.000	.000	.000	.000	.000	.000	.000	3.566
TOTAL		69.535	5.039	1.008	1.085	.155	.078	.078	.000	.000	.078	77.054
PERCENTAGE		90.24	6.54	1.31	1.41	20	10	10	00	00	10	100.00

TABLE NO. 21
STEMS PER HECTARE (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA- MISCELLANEOUS
DISTRICT- ERIDDI

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
		CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+
Acacia catechu	6	.696	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.696
Acer laeavigatum	17	.087	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.087
Adina cordifolia	28	.522	.087	0.00	.000	.000	.000	.000	.000	.000	.000	.609
Agie marmelos	32	.261	.000	.087	.000	.000	.000	.000	.000	.000	.000	.348
Albizia lebbek	46	.087	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.087
Albizia species	51	.261	.000	.000	.000	.000	.000	.000	.000	.000	.000	.261
Amoora canarana	61	.097	.000	.000	.000	.000	.000	.000	.000	.000	.000	.097
Anogeissus latifolia	72	2.435	.174	.000	.000	.000	.000	.000	.000	.000	.000	.087
Bauhinia malabarica	113	.348	-.087	0.00	.000	.000	.000	.000	.000	.000	.000	2.609
Bauhinia purpurea	114	.348	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.435
Bauhinia species	118	.870	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.348
Bombax ceiba	131	1.217	-.087	0.00	.000	.000	.000	.000	.000	.000	.000	.870
Boswellia serrata	133	2.783	.783	60.9	.087	.087	.000	.000	.000	.000	.000	1.391
Bridelia retusa	138	9.957	0.00	.000	-.087	0.00	.000	.000	.000	.000	.000	9.348
Buchanania lanzae	143	2.957	0.00	.000	.000	.000	.000	.000	.000	.000	.000	2.957
Butea monosperma	146	1.391	.957	.087	0.00	.000	.000	.000	.000	.000	.000	2.435
Careya arborea	177	.522	.000	.087	0.00	.000	.000	.000	.000	.000	.000	.509
Cassia fistula	186	.087	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.174
Toona ciliata	198	0.00	.087	0.00	.000	.000	.000	.000	.000	.000	.000	.087
Cocculus laurifolius	222	.609	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.609
Cochlospermum religiosum	223	.261	0.00	.000	.000	-.000	0.00	.000	.000	.000	.000	.261
Diospyros melanoxylon	285	1.478	.087	.174	0.00	.000	.000	.000	.000	.000	.000	1.913
Diospyros species	292	.261	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.261
Emilia officinalis	325	.348	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.348
Erythrina suberosa	340	.609	.348	.087	0.00	.000	.000	.000	.000	.000	.000	1.043
Erythrina variegata	341	.087	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.087
Erythrina species	342	.087	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.087
Eucalyptus hybrid	346	.957	0.00	.000	.000	.000	.000	.000	.000	.000	.000	.957

CONT OF TABLE NO.1.2.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Eucalyptus species	348	.957	.348	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1 304
Ficus bengalensis	375	.000	.087	.000	.000	.000	.000	.000	.000	.000	.000	174
Ficus religiosa	381	.087	.087	.000	.000	.000	.000	.000	.000	.000	.000	-174
Ficus species	385	.348	.000	.000	.000	.000	.000	.000	.000	.000	.000	348
Gardenia resinifera	405	.435	.000	.000	.000	.000	.000	.000	.000	.000	.000	435
Gardenia species	406	.087	.000	.000	.000	.000	.000	.000	.000	.000	.000	087
Garuga pinnata	407	.348	.000	.087	.000	.000	.000	.000	.000	.000	.000	435
Gmelina arborea	420	.087	.000	.000	.000	.000	.000	.000	.000	.000	.000	087
Grewia tiliaceifolia	431	2 174	.000	.000	.000	.000	.000	.000	.000	.000	.000	2 174
Hollarrhena antidysenterica	452	.261	.000	.000	.000	.000	.000	.000	.000	.000	.000	261
Hymenodictyon excelsum	470	.348	.000	.000	.000	.000	.000	.000	.000	.000	.000	348
Lagerstroemia parviflora	505	1 .478	.000	.000	.000	.000	.000	.000	.000	.000	.000	1 478
Lannea coromandelica	509	3 .826	.670	.087	.000	.000	.000	.000	.000	.000	.000	4 783
Madhuca latifolia	561	1 .826	.522	.696	.348	.174	.000	.087	.174	.000	.087	3 913
Mallotus philippinensis	565	1 .739	.000	.000	.000	.000	.000	.000	.000	.000	.000	1 739
Ougeinia dalbergioides	653	.087	.000	.000	.000	.000	.000	.000	.000	.000	.000	087
Pterocarpus marsupium	722	.522	.000	.000	.000	.000	.000	.000	.000	.000	.000	522
Schleichera trijuga	795	.957	.261	.087	.000	.000	.000	.000	.000	.000	.000	1 304
Schrebera swinhonis	796	.087	.000	.000	.000	.000	.000	.000	.000	.000	.000	087
Semecarpus anacardium	798	1 .913	.000	.000	.000	.000	.000	.000	.000	.000	.000	1 913
Shorea robusta	802	5 .913	.435	.174	.000	.087	.000	.000	.000	.000	.000	6 609
Sterculia urens	820	.348	.000	.000	.000	.000	.000	.000	.000	.000	.000	348
Strychnos potatorum	832	.174	.000	.000	.000	.000	.000	.000	.000	.000	.000	174
Syzygium cumini	843	.435	.261	.087	.000	.000	.000	.000	.000	.000	.000	783
Terminalia bellierica	861	.435	.000	.000	.000	.000	.000	.000	.000	.000	.000	435
Terminalia chebula	864	.261	.174	.000	.000	.000	.000	.000	.000	.000	.000	2 783
Terminalia crenulata	866	2 .348	.435	.000	.000	.000	.000	.000	.000	.000	.000	087
Hebea corymbosa	905	.087	.000	.000	.000	.000	.000	.000	.000	.000	.000	174
Wrightia gigantea	911	.174	.000	.000	.000	.000	.000	.000	.000	.000	.000	174
Ziziphus species	930	.174	.000	.000	.000	.000	.000	.000	.000	.000	.000	1 478
Acacia auriculiformis(A06)	943	1 .478	.000	.000	.000	.000	.000	.000	.000	.000	.000	11 130
Unidentified trees	944	10 .696	.348	.000	.087	.000	.000	.000	.000	.000	.000	11 130
TOTAL		60 695	6 696	2 261	970	348	000	087	261	000	087	71 304
PERCENTAGE		85.12	9.39	3.17	1.22	4.9	0.0	1.2	3.7	0.0	12.100	0.0

TABLE NO. 2.2.1
STEMS PER HECTARE (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: MISCELLANEOUS

SPECIES NAME	CODE	TOTAL									
		10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+
Acacia catechu	6	4.634	.000	.000	.000	.000	.000	.000	.000	.000	4.634
Adina cordifolia	28	.244	.244	.000	.244	.000	.000	.000	.000	.000	.732
Aegle marmelos	32	1.707	.244	.000	.000	.000	.000	.000	.000	.000	1.951
Albizia procera	50	.244	.000	.000	.000	.000	.000	.000	.000	.000	.244
Anogeissus latifolia	72	1.707	.244	.000	.000	.000	.000	.000	.000	.000	1.951
Azadirachta indica	103	.488	.000	.244	.000	.000	.000	.000	.000	.000	.732
Bauhinia purpurea	114	.000	.244	.000	.000	.000	.000	.000	.000	.000	.244
Bauhinia species	118	1.463	.000	.000	.000	.000	.000	.000	.000	.000	1.463
Boswellia serrata	133	4.146	3.415	.244	.488	.244	.000	.000	.000	.000	8.537
Buchanania lanzani	143	.976	.000	.000	.000	.000	.000	.000	.000	.000	.976
Butea monosperma	146	4.634	.244	.000	.000	.000	.000	.000	.000	.000	4.878
Cassia siamea	168	.976	.000	.000	.000	.000	.000	.000	.000	.000	.976
Diospyros melanoxylon	285	.732	.000	.000	.000	.000	.000	.000	.000	.000	.732
Emblica officinalis	325	.244	.000	.000	.000	.000	.000	.000	.000	.000	.244
Flacourzia indica	389	.732	.000	.000	.000	.000	.000	.000	.000	.000	.732
Gardenia resinifera	405	.244	.000	.000	.000	.000	.000	.000	.000	.000	.244
Gmelina arborea	420	.488	.000	.000	.000	.000	.000	.000	.000	.000	.488
Grewia species	432	.000	.244	.000	.000	.000	.000	.000	.000	.000	.244
Hollarrhena antidysenterica	452	.244	.000	.000	.000	.000	.000	.000	.000	.000	.244
Hymenodictyon excelsum	470	.488	.000	.000	.000	.244	.000	.000	.000	.000	.976
Lagerstroemia parviflora	505	.976	.000	.000	.000	.000	.000	.000	.000	.000	.976
Lannea coromandelica	309	1.707	.488	.732	.000	.000	.000	.000	.000	.000	2.927
Machhu latifolia	361	.976	.244	.244	.000	.000	.000	.000	.000	.000	.732
Nyctanthus arbor-tristis	537	.732	.000	.000	.000	.000	.000	.000	.000	.000	.732
Semecarpus anacardium	798	.488	.244	.000	.000	.000	.000	.000	.000	.000	.732
Shorea robusta	302	.976	.732	.244	.000	.244	.000	.000	.000	.000	2.195
Terminalia arjuna	560	.000	.244	.244	.000	.000	.000	.000	.000	.000	.488
Wrightia tomentosa	912	.732	.000	.000	.000	.000	.000	.000	.000	.000	.732
Ziziphus species	930	.732	.000	.000	.000	.000	.000	.000	.000	.000	.732
Unidentified trees	944	2.683	.244	.000	.000	.000	.000	.000	.000	.000	3.171
TOTAL:		34,390	7,073	2,195	1,220	.976	.000	.000	.244	.488	.000
PERCENTAGE		73.82	15.18	4.71	2.62	2.09	.00	.00	.52	1.05	.00
											100.00

TABLE NO.2.3.1
STEMS PER HECTARE (BHK) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA:- RHAIK DISTRICT:- GAYA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	35.455	4.545	.909	.000	.000	.000	.000	.000	.000	.000	40.909
Aegle marmelos	32	4.091	.000	.000	.000	.000	.000	.000	.000	.000	.000	4.091
Anogeissus latifolia	72	4.091	.000	.000	.000	.000	.000	.000	.000	.000	.000	4.091
Boswellia serrata	133	.909	.455	.909	.000	.000	.000	.000	.000	.000	.000	2.273
Buchanania lanzani	143	.000	.455	.000	.000	.000	.000	.000	.000	.000	.000	.455
Butea monosperma	146	8.636	1.818	.000	.909	.000	.000	.000	.000	.000	.000	11.364
Cassia siamea	188	9.545	.000	.000	.000	.000	.000	.000	.000	.000	.000	9.545
Flacourtia indica	389	.455	.000	.000	.000	.000	.000	.000	.000	.000	.000	.455
Hollarrhena antidysenterica	452	1.364	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.364
Lagerstroemia parviflora	505	1.364	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.364
Lanne corsoandelica	509	1.364	.455	.000	.000	.000	.000	.000	.000	.000	.000	1.818
Machhuca latifolia	561	2.727	.000	.000	.909	.000	.000	.455	.000	.000	.000	4.091
Nyctanthes arbortristis	637	2.727	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.727
Semecarpus anacardium	799	.909	.000	.000	.000	.000	.000	.000	.000	.000	.000	.909
Shorea robusta	802	2.273	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.273
Tectona grandis	858	.455	.000	.000	.000	.000	.000	.000	.000	.000	.000	.455
Ternstroemia crenulata	866	1.364	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.364
Zizyphus species	930	3.182	.000	.000	.000	.000	.000	.000	.000	.000	.000	3.182
Unidentified trees	944	3.182	.000	.000	.000	.000	.000	.000	.000	.000	.000	3.182
TOTAL		84.091	7.727	1.818	.000	.000	.455	.000	.000	.000	.000	95.909
PERCENTAGE		87.68	8.06	1.90	1.90	.00	.47	.00	.47	.00	.00	100.00

TABLE NO. 3.1.1

STENS PER HECTARE (IN No.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA-SAL DISTRICT- DHANBAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+ TOTAL
Aegle marmelos	32	.000	.000	.833	.000	.000	.000	.000	.000	.000	.000 .833
Bombax ceiba	131	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 .833
Cochlospermum religiosum	223	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 .833
Erythrina variegata	341	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 .833
Lagerstroemia hypoleuca	502	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 .833
Lagerstroemia parviflora	505	3.333	.000	.000	.000	.000	.000	.000	.000	.000	.000 3.333
Pterocarpus marsupium	722	.000	.000	.833	.000	.000	.000	.000	.000	.000	.000 .833
Semecarpus anacardium	798	1.667	.833	.000	.000	.000	.000	.000	.000	.000	.000 2.500
Shorea robusta	802	14.167	.000	.833	.000	.000	.000	.000	.000	.000	.000 15.000
Sterculia urens	820	1.667	.000	.000	.000	.000	.000	.000	.000	.000	.000 1.667
Terminalia bellirica	861	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 .833
Terminalia crenulata	866	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 .833
Acacia Auriculiformis (A06)	943	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 .833
Unidentified trees	944	.833	.000	.000	.000	.000	.000	.000	.000	.000	.000 1.667
	TOTAL	27.500	1.667	2.500	.000	.000	.000	.000	.000	.000	.000 31.667
	PERCENTAGE	86.84	5.26	7.89	.00	.00	.00	.00	.00	.00	.00 100.00

TABLE NO. 3.2.1
STEMS PER HECTARE (IN '000) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA-MISCELLANEOUS
DISTRICT - DHANBAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Adina cordifolia</i>	28	.714	1.429	.000	.000	.000	.000	.000	.000	.000	.000	2.143
<i>Anogeissus lacifolia</i>	72	2.057	.714	.000	.000	.000	.000	.000	.000	.000	.000	3.571
<i>Bombax ceiba</i>	131	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
<i>Boswellia serrata</i>	133	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Buchanania lanzae</i>	143	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Butea monosperma</i>	146	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Dalbergia latifolia</i>	266	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Dalbergia sissoo</i>	268	.000	1.429	.000	.000	.000	.000	.000	.000	.000	.000	1.429
<i>Diospyros melanoxylon</i>	285	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
<i>Erythrina variegata</i>	341	6.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	6.429
<i>Ficus benghalensis</i>	389	2.143	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.143
<i>Gardenia species</i>	406	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Garuga pinnata</i>	407	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Gmelina arborea</i>	420	.000	5.000	1.429	.000	.000	.000	.000	.000	.000	.000	6.429
<i>Grewia tiliaceola</i>	431	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Lagerstroemia parviflora</i>	505	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	10.000
<i>Lannea coromandelica</i>	509	6.429	.714	.000	.000	.000	.000	.000	.000	.000	.000	7.143
<i>Madrhuca latifolia</i>	561	.000	.000	.714	.000	.000	.000	.000	.000	.000	.000	.714
<i>Mallotus phillipinensis</i>	565	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Semicarpus anacardium</i>	798	5.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	5.714
<i>Shorea robusta</i>	802	2.143	.714	1.429	.000	.000	.000	.000	.000	.000	.000	4.286
<i>Terminalia chబula</i>	864	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Terminalia cranulata</i>	866	2.143	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.143
<i>Xyilia xylocarpa</i>	919	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
<i>Zanthoxylum badrungense/rhetsa</i>	924	.000	.714	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Ziziphus zyzypry</i>	929	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
<i>Acacia auriculiformis (A06)</i>	943	12.143	.000	.000	.000	.000	.000	.000	.000	.000	.000	12.143
Unidentified trees	944	2.143	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.143
TOTAL		64.286	10.714	4.286	.000	.000	.000	.000	.000	.000	.000	79.286
PERCENTAGE		91.08	13.51	5.41	.00	.00	.00	.00	.00	.00	.00	100.00

TABLE NO.4.2.1
STEMS PER HECTARE (IN No) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA:-MISCELLANEOUS DISTRICT:-AURANGABAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	2.857	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.857
Boswellia serrata	133	5.714	1.429	.000	1.429	.000	.000	.000	.000	.000	.000	8.571
Bridelia retusa	138	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
Grewia species	432	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
Hymenodictyon excelsum	470	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
Lannea coromandelica	509	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	10.000
Pterocarpus marsupium	722	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.429
Schleichera trijuga	795	2.857	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.857
Terminalia crenulata	866	1.429	1.429	.000	.000	.000	.000	.000	.000	.000	.000	2.857
Unidentified trees	944	7.143	.000	.000	.000	.000	.000	.000	.000	.000	.000	7.143
TOTAL		35.714	2.857	.000	1.429	.000	.000	.000	.000	.000	.000	40.000
PERCENTAGE		89.29	7.14	.00	3.57	.00	.00	.00	.00	.00	.00	100.00

TABLE NO. 4.4.1

STEMS PER HECTARE (N_{20m}) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA:-SALAI DISTRICT - AURANGABAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	4.286	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 4.286
Anogeissus latifolia	72	5.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 5.714
Boswellia serrata	133	48.571	31.429	1.429	.000	.000	.000	.000	.000	.000	.000	.70 82.57
Bridelia retusa	138	2.857	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.70 4.286
Buchanania lanzaan	143	8.571	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 8.571
Cassia fistula	186	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 1.429
Diospyros melanoxylon	285	4.286	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 4.286
Lagerstroemia parviflora	505	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 1.429
Lannea coromandelica	509	2.857	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.70 4.286
Madhuca latifolia	561	4.286	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.70 5.714
Schleichera trijuga	795	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 1.429
Shorea robusta	802	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 1.429
Ziziphus species	930	1.429	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 1.429
Unidentified trees	944	5.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.70 5.714
TOTAL		94.286	35.714	1.429	.000	.000	.000	.000	.000	.000	.000	.70 132.557
PERCENTAGE		70.97	26.88	1.08	.00	.00	.00	.00	.00	.00	.00	.70 100.00

TABLE NO. 5.1.1
STEMS PER HECTARE (PH/H) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: SAL DISTRICT: MUNGER

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Aegle marmelos	32	2.381	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.381
Albizia lebbek	46	1.905	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.905
Albizia species	51	.952	.000	.000	.000	.000	.000	.000	.000	.000	.000	.952
Anogeissus latifolia	72	11.905	.952	.000	.000	.000	.000	.000	.000	.000	.000	12.857
Azadirachta indica	103	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
Bombax ceiba	131	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
Boswellia serrata	133	3.333	2.381	1.905	.476	.000	.000	.000	.000	.000	.000	8.095
Bridelia retusa	138	9.048	1.429	.000	.000	.000	.000	.000	.000	.000	.000	10.476
Buchanania lanzae	143	25.238	.000	.476	.000	.000	.000	.000	.000	.000	.000	25.714
Buxus sempervirens	148	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
Careya arborea	177	2.381	.476	.000	.000	.000	.000	.000	.000	.000	.000	2.857
Diospyros melanoxylon	285	6.667	1.429	.476	.000	.000	.000	.000	.000	.000	.000	8.571
Diospyros species	292	1.905	.952	.000	.476	.000	.000	.000	.000	.000	.000	3.333
Emblica officinalis	325	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
Erythrina species	342	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
Eugenia cymosa	350	.476	.476	.000	.000	.000	.000	.000	.000	.000	.000	1.429
Hollarrhena antidysenterica	452	3.333	.000	.000	.000	.000	.000	.000	.000	.000	.000	3.333

CONT.OF TABLE NO.5.1.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Holoptelea integrifolia</i>	456	.476	.476	.000	.000	.000	.000	.000	.000	.000	.000	.952
<i>Kydia calycina</i>	501	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
<i>Lagerstroemia Parviflora</i>	505	6.190	1.905	.000	.000	.000	.000	.000	.000	.000	.000	.095
<i>Lannea coromandelica</i>	509	7.619	2.381	.000	.000	.000	.000	.000	.000	.000	.000	10.000
<i>Madhuca latifolia</i>	561	10.476	3.810	.476	.000	.000	.000	.000	.000	.000	.476	15.238
<i>Pterocarpus marsupium</i>	722	8.095	1.429	.000	.000	.000	.000	.000	.000	.000	.000	9.524
<i>Schleichera trijuga</i>	795	.476	.000	.476	.000	.000	.000	.000	.000	.000	.000	.952
<i>Semicarpus anacardium</i>	798	10.952	.000	.476	.000	.000	.000	.000	.000	.000	.000	11.429
<i>Shorea robusta</i>	802	86.190	19.524	3.333	.000	.000	.000	.000	.000	.000	.000	109.048
<i>Sloanea assamica</i>	805	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
<i>Sterculia urens</i>	820	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
<i>Syzygium cumini</i>	843	2.857	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.857
<i>Syzygium ornottianum</i>	846	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
<i>Syzygium species</i>	850	1.429	.476	.000	.000	.000	.000	.000	.000	.000	.000	1.905
<i>Terminalia belerica</i>	861	.000	.000	.476	.000	.000	.000	.000	.000	.000	.000	.476
<i>Terminalia chebula</i>	864	1.905	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.905
<i>Terminalia crenulata</i>	866	23.809	1.905	.476	.000	.000	.000	.000	.000	.000	.000	26.190
<i>Zizyphus mauritiana</i>	927	.952	.000	.000	.000	.000	.000	.000	.000	.000	.000	.952
Unidentified trees	944	16.667	1.429	.000	.000	.000	.000	.000	.000	.000	.000	16.095
TOTAL		251.905	41.429	9.048	.952	.000	.000	.000	.000	.476	.000	303.809
PERCENTAGE		82.92	13.64	2.98	.31	.00	.00	.00	.00	.16	.00	100.00

TABLE NO. 5.2.1
STEMS PER HECTARE (IN HUNDRED SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: MISCELLANEOUS
DISTRICT: MUNGER

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	.645	.645	.000	.000	.000	.000	.000	.000	.000	.000	1.290
<i>Acer nivaleum</i>	18	.323	.000	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Adina cordifolia</i>	28	1.613	.645	.000	.000	.323	.000	.000	.000	.000	.000	2.581
<i>Aegle marmelos</i>	32	7.097	1.935	.000	.000	.000	.000	.000	.000	.000	.000	9.032
<i>Albizia species</i>	51	.968	.323	.000	.000	.000	.000	.000	.000	.000	.000	1.290
<i>Anogeissus latifolia</i>	72	11.613	3.548	.645	.000	.000	.000	.000	.000	.000	.000	15.806
<i>Bauhinia purpurea</i>	114	.323	.000	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Bauhinia species</i>	118	.645	.000	.000	.000	.000	.000	.000	.000	.000	.000	.645
<i>Bombax ceiba</i>	131	.323	.000	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Boswellia serrata</i>	133	9.677	11.290	2.581	2.903	.000	.323	.000	.000	.000	.000	26.774
<i>Bridelia retusa</i>	138	10.000	1.935	1.290	.323	.000	.000	.000	.000	.000	.000	13.548
<i>Buchanania lanzan</i>	143	20.645	2.581	.323	.000	.000	.000	.000	.000	.000	.000	23.548
<i>Butea species</i>	147	.323	.000	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Careya arborea</i>	177	.645	.323	.000	.000	.000	.000	.000	.000	.000	.000	.968
<i>Cassia fistula</i>	186	.645	.000	.000	.000	.000	.000	.000	.000	.000	.000	.645
<i>Cochlospermum religiosum</i>	223	3.871	.000	.000	.000	.000	.000	.000	.000	.000	.000	3.871
<i>Dillenia indica</i>	277	.000	.323	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Dillenia pentagyna</i>	278	.323	.968	.645	.000	.000	.000	.000	.000	.000	.000	1.935
<i>Diospyros melanoxylon</i>	295	8.065	1.613	.968	.000	.000	.000	.000	.000	.000	.000	10.645
<i>Diospyros species</i>	292	4.194	2.581	1.290	.000	.000	.000	.000	.000	.000	.000	8.065
<i>Erythrina species</i>	342	.323	1.290	.000	.000	.000	.000	.000	.000	.000	.000	1.613

CONT.OF TABLE NO 5.2.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Fagara budrunga</i>	372	.323	.000	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Ficus bengalensis</i>	375	.645	.000	.000	.323	.000	.000	.000	.000	.000	.000	.968
<i>Ficus religiosa</i>	391	.323	.000	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Ficus species</i>	385	.000	.323	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Gmelina arborea</i>	420	.645	.323	.000	.000	.000	.000	.000	.000	.000	.000	.968
<i>Hollarrhena antidysenterica</i>	452	.6.774	.323	.000	.000	.000	.000	.000	.000	.000	.000	.097
<i>Kydia calycina</i>	501	1.290	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.290
<i>Lagerstroemia lanceolata</i>	504	.000	.323	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Lagerstroemia Parviflora</i>	505	10.323	.968	.000	.000	.000	.000	.000	.000	.000	.000	11.290
<i>Lannea coromandelica</i>	509	13.226	3.871	.323	.323	.000	.000	.000	.000	.000	.000	17.742
<i>Madhuca latifolia</i>	561	1.613	1.935	.645	.000	.000	.000	.000	.000	.000	.000	4.194
<i>Premna bengalensis</i>	705	.323	.000	.000	.000	.000	.000	.000	.000	.000	.000	.645
<i>Pterocarpus Marsupium</i>	722	4.516	.968	.000	.000	.000	.000	.000	.000	.000	.000	5.484
<i>Schleichera trijuga</i>	795	3.226	.323	.323	.000	.000	.000	.000	.000	.000	.000	3.371
<i>Semecarpus anacardium</i>	798	2.903	.968	.645	.000	.000	.000	.000	.000	.000	.000	4.316
<i>Shorea robusta</i>	802	6.774	2.903	.000	.000	.000	.000	.000	.000	.000	.000	9.677
<i>Spondias pinnata</i>	812	3.871	1.613	.645	.000	.000	.000	.000	.000	.000	.000	6.229
<i>Sterculia villosa</i>	821	1.290	.645	.000	.000	.000	.323	.000	.000	.000	.000	2.258
<i>Syzygium species</i>	850	.645	.000	.323	.000	.000	.000	.000	.000	.000	.000	.968
<i>Terminalia belerica</i>	861	.968	1.290	.323	.000	.000	.000	.000	.000	.000	.000	2.381
<i>Terminalia Chebula</i>	864	.645	.323	.000	.000	.000	.000	.000	.000	.000	.000	.968
<i>Terminalia crenulata</i>	866	5.484	.645	.000	.000	.000	.000	.000	.000	.000	.000	6.229
<i>Trewia nudiflora</i>	880	.000	.323	.000	.000	.000	.000	.000	.000	.000	.000	.323
<i>Ziziphus mauritiana</i>	927	1.613	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.613
Unidentified trees	944	34.194	4.839	.323	.000	.000	.000	.000	.000	.000	.000	39.355
TOTAL		183.871	52.903	11.613	3.871	.323	.645	.000	.000	.000	.000	200 253.226
PERCENTAGE		72.61	20.89	4.59	1.53	.13	.25	.00	.00	.00	.00	100.100

TABLE NO. 6.1.1.
STEMS PER HECTARE (DN NO) BY SPECIES AND DIAMETER CLASSES (IN CM.)
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
<i>Acacia catechu</i>	6	1.667	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.667
<i>Adina cordifolia</i>	28	1.111	.556	.000	.000	.000	.000	.000	.000	.000	.000	1.667
<i>Anogeissus latifolia</i>	72	4.444	.556	.000	.000	.000	.000	.000	.000	.000	.000	5.000
<i>Bauhinia purpurea</i>	114	.556	.000	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Bauhinia retusa</i>	116	.556	.000	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Bombax ceiba</i>	131	1.111	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.111
<i>Boswellia serrata</i>	133	.556	.556	.000	.000	.000	.000	.000	.000	.000	.000	.111
<i>Bridelia retusa</i>	138	1.111	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.111
<i>Buchanania lanza</i>	143	9.444	.556	.000	.000	.000	.000	.000	.000	.000	.000	10.000
<i>Cassia siamesa</i>	188	.556	.000	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Dillenia pentagyna</i>	278	.000	.556	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Diospyros melanoxylon</i>	285	6.111	1.111	.000	.000	.000	.000	.000	.000	.000	.000	7.222
<i>Diospyros species</i>	292	2.778	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.778
<i>Emblema officinalis</i>	325	2.778	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.778
<i>Eugenia species</i>	358	.556	.000	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Gmelina arborea</i>	420	.556	.000	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Hollardhena antidysenterica</i>	452	1.667	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.667
<i>Lagerstroemia parviflora</i>	505	.556	.000	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Lannea coromandelica</i>	509	6.089	.000	.000	.000	.000	.000	.000	.000	.000	.000	6.089
<i>Madrhuca latitolia</i>	561	9.444	2.222	.556	.000	.000	.000	.000	.000	.000	.000	12.778
<i>Pterocarpus marsupium</i>	722	.000	.556	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Schleichera trijuga</i>	795	.000	1.111	.000	.000	.000	.000	.000	.000	.000	.000	1.111
<i>Sesbania acacioides</i>	798	2.778	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.778
<i>Shorea robusta</i>	802	42.222	1.111	.556	.000	.000	.000	.000	.000	.000	.000	44.444
<i>Terminalia bellierica</i>	861	3.333	1.111	.000	.000	.000	.000	.000	.000	.000	.000	4.444
<i>Terminalia crenulata</i>	866	6.667	.556	.556	.000	.000	.000	.000	.000	.000	.000	8.333
<i>Ulmus lancifolia</i>	886	.556	.000	.000	.000	.000	.000	.000	.000	.000	.000	.556
<i>Ziziphus species</i>	930	1.111	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.111
Unidentified trees	944	6.111	.000	.000	.000	.000	.000	.000	.000	.000	.000	6.111
TOTAL		57.222	10.556	1.667	.556	.000	.000	.000	.000	.000	.000	171.111
PERCENTAGE		91.88	6.17	.97	.32	.32	.00	.32	.00	.00	.00	100.00

TABLE NO. 6.2.1
STEMS PER HECTARE (IN NAD) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: MISCELLANEOUS
DISTRICT: NAWAPA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	5.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	5.000
Adina cordifolia	28	1.429	.238	.000	.000	.000	.000	.000	.000	.000	.000	1.667
Aegle marmelos	32	8.810	.238	.000	.000	.000	.000	.000	.000	.000	.000	9.048
Albizia procera	50	.952	.476	.000	.000	.000	.000	.000	.000	.000	.000	1.429
Albizia species	51	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
Anogeissus latifolia	72	7.857	1.190	.000	.238	.238	.000	.000	.000	.000	.000	9.524
Bauhinia retusa	116	1.667	.238	.000	.000	.000	.000	.000	.000	.000	.000	1.905
Bauhinia species	118	.952	.238	.000	.000	.000	.000	.000	.000	.000	.000	1.190
Bombax ceiba	131	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
Boswellia serrata	133	7.143	5.000	2.143	2.143	.238	.714	.000	.000	.000	.000	17.381
Bridelia retusa	138	.238	.000	.000	.000	.000	.000	.000	.000	.000	.000	.238
Buchanania lanzae	143	7.619	.000	.000	.000	.000	.000	.000	.000	.000	.000	7.619
Butea monosperma	146	.000	.000	.000	.238	.000	.000	.000	.000	.000	.000	.238
Cassia fistula	186	1.667	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.667
Cochlospermum religiosum	223	.952	.714	.238	.238	.000	.000	.000	.000	.000	.000	2.143
Diospyros melanoxylon	285	2.619	.714	.000	.000	.000	.000	.000	.000	.000	.000	3.333
Diospyros species	292	.238	.000	.000	.000	.000	.000	.000	.000	.000	.000	.238
Emilia officinalis	325	2.619	.476	.000	.000	.000	.000	.000	.000	.000	.000	3.095
Erythrina variegata	341	.714	.476	.238	.000	.000	.000	.000	.000	.000	.000	4.429
Erythrina species	342	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.952
Eugenia species	358	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476

CONT.OF TABLE NO 6.2.1

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Ficus bengalensis</i>	375	.000	.238	.000	.000	.000	.000	.000	.000	.000	.000	.238
<i>Ficus religiosa</i>	381	.238	.000	.000	.000	.000	.000	.000	.000	.000	.000	.238
<i>Ficus species</i>	385	.476	.000	.238	.000	.000	.000	.000	.000	.000	.000	.714
<i>Gaultheria fragrantissima</i>	398	.476	.238	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Gmelina arborea</i>	420	.238	.000	.000	.000	.000	.000	.000	.000	.000	.000	.238
<i>Hollarrhena antidysenterica</i>	452	2.619	.238	.000	.000	.000	.000	.000	.000	.000	.000	2.857
<i>Holoptelea integrifolia</i>	456	.000	.238	.000	.000	.000	.000	.000	.000	.000	.000	.238
<i>Lagerstroemia parviflora</i>	505	2.619	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.619
<i>Lannea coromandelica</i>	509	10.714	3.571	.714	.000	.000	.000	.000	.000	.000	.000	15.000
<i>Madhuca latifolia</i>	561	1.429	.952	.476	.000	.000	.000	.476	.000	.000	.000	3.810
<i>Pterocarpus marsupium</i>	722	.238	.000	.238	.000	.000	.000	.000	.000	.000	.000	.476
<i>Schleichera trijuga</i>	795	1.190	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.190
<i>Semecarpus anacardium</i>	798	2.857	.238	.000	.000	.000	.000	.000	.000	.000	.000	3.095
<i>Shorea robusta</i>	802	16.905	2.143	.714	.000	.000	.000	.000	.000	.000	.000	19.762
<i>Sterculia villosa</i>	821	.952	.000	.000	.000	.000	.000	.000	.000	.000	.000	.952
<i>Stereospermum suaveolens</i>	825	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Tammarindus indica</i>	856	.238	.000	.000	.000	.000	.000	.000	.000	.000	.000	.238
<i>Terminalia bellierica</i>	861	.476	.000	.000	.000	.000	.000	.000	.000	.000	.000	.476
<i>Terminalia chebula</i>	864	.238	.000	.000	.000	.000	.000	.000	.000	.000	.000	.238
<i>Terminalia crenulata</i>	866	5.000	.238	.000	.000	.000	.000	.000	.000	.000	.000	5.238
<i>Ziziphus mauritiana</i>	927	.714	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714
<i>Ziziphus species</i>	930	1.667	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.667
Unidentified trees	944	11.905	1.905	.238	.000	.000	.000	.000	.000	.000	.000	14.048
TOTAL		114.286	20.000	5.714	3.333	.476	.714	.476	.000	.238	.000	145.238
PERCENTAGE		78.69	13.77	3.93	2.30	.33	.49	.33	.00	.16	.00	100.00

TABLE NO.7.1.1
STEMS PER HECTARE (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)

STRATA:- SAL		DISTRICT:- NALANDA										
SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Anogeissus latifolia</i>	72	2,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	2,000
<i>Bridelia retusa</i>	138	4,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	4,000
<i>Buchanania lanza</i>	143	2,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	2,000
<i>Cochlospermum religiosum</i>	223	0,000	2,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	2,000
<i>Lannea coromandelica</i>	509	4,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	4,000
<i>Madhucia latifolia</i>	561	4,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	4,000
<i>Shorea robusta</i>	802	28,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	28,000
Unidentified trees	944	2,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	2,000
	TOTAL	46,000	2,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	48,000
	PERCENTAGE	95.83	4.17	.00	.00	.00	.00	.00	.00	.00	.00	100.00

TABLE NO.1.1.2
TOTAL STEMS (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: SAL
DISTRICT: GIRIDIH

SPECIES NAME	CODE	TOTAL								
		10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
<i>Acacia catechu</i>	6	57852	8264	0	0	0	0	0	0	0
<i>Adina cordifolia</i>	28	8264	0	0	0	0	0	0	0	0
<i>Adina oligocephala</i>	30	8264	0	0	0	0	0	0	0	0
<i>Albizia procera</i>	50	16529	0	0	0	0	0	0	0	0
<i>Anogeissus latifolia</i>	72	82646	16529	0	8264	0	0	0	0	0
<i>Bauhinia purpurea</i>	114	8264	0	0	0	0	0	0	0	0
<i>Bauhinia retusa</i>	116	8264	0	0	0	0	0	0	0	0
<i>Bombax ceiba</i>	131	16529	0	0	0	0	0	0	0	0
<i>Boswellia serrata</i>	133	57852	33058	16529	8264	0	0	0	0	0
<i>Bridelia retusa</i>	138	8264	0	0	0	0	0	0	0	0
<i>Buchanania lanzenii</i>	143	314055	16529	0	0	0	0	0	0	0
<i>Butea monosperma</i>	146	157027	16529	0	0	0	0	0	0	0
<i>Careya arborea</i>	177	8264	0	0	0	0	0	0	0	0
<i>Cassia fistula</i>	186	16529	0	0	0	0	0	0	0	0
<i>Cochlospermum religiosum</i>	223	82646	16529	8264	0	0	0	0	0	0
<i>Cordia tomentosa</i>	238	16529	0	0	0	0	0	0	0	0
<i>Dalbergia paniculata</i>	267	24793	0	0	0	0	0	0	0	0
<i>Diospyros melanoxylon</i>	285	206615	33058	0	0	0	0	0	0	0
<i>Diospyros species</i>	292	8264	0	0	0	0	0	0	0	0
<i>Emblema officinalis</i>	325	74381	8264	0	0	0	0	0	0	0
<i>Gryphrina suberosa</i>	340	16529	0	0	0	0	0	0	0	0
<i>Ficus bengalensis</i>	375	0	0	0	0	0	0	0	0	0
<i>Ficus species</i>	385	66116	8264	0	0	0	0	0	0	0
<i>Gardenia resinifera</i>	405	16529	0	0	0	0	0	0	0	0
<i>Gardenia species</i>	406	8264	0	0	0	0	0	0	0	0
<i>Garuga pinnata</i>	407	8264	0	0	0	0	0	0	0	0
<i>Gmelina arborea antidysemenica</i>	420	8264	0	0	0	0	0	0	0	0
<i>Hollarrhena antidysenterica</i>	452	24793	0	0	0	0	0	0	0	0
										24793

CONT. OF TABLE NO. I.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
<i>Lagerstroemia parviflora</i>	505	115704	8264	0	0	0	0	0	0	0	0	123969
<i>Lannea coromandelica</i>	509	247938	8264	0	0	0	0	0	0	0	0	256202
<i>Madhuca latifolia</i>	561	269261	115704	33058	57852	0	0	8264	0	0	0	504141
<i>Mangifera indica</i>	569	0	0	0	0	16529	0	0	0	0	0	16529
<i>Mitragyna parviflora</i>	611	8264	0	0	0	0	0	0	0	0	0	8264
<i>Pterocarpus marsupium</i>	722	57852	0	0	0	0	0	0	0	0	0	57852
<i>Schleichera trijuga</i>	795	8264	0	0	0	0	0	0	0	0	0	8264
<i>Semecarpus anacardium</i>	798	338849	16529	0	0	0	0	0	0	0	0	355376
<i>Shorea robusta</i>	802	4157099	132233	33058	8264	0	0	0	0	0	0	4330656
<i>Shorea talura</i>	803	24793	0	0	0	0	0	0	0	0	0	24793
<i>Syzygium cumini</i>	843	123969	24793	16529	24793	0	8264	0	0	0	0	198350
<i>Terminalia belerica</i>	861	16529	0	0	0	0	0	0	0	0	0	16529
<i>Terminalia chebula</i>	864	24793	0	0	0	0	0	0	0	0	0	24793
<i>Terminalia citrina</i>	865	8264	0	0	0	0	0	0	0	0	0	8264
<i>Terminalia crenulata</i>	866	280996	8264	0	0	0	0	0	0	0	0	289261
<i>Acacia auriculiformis(A06)</i>	943	66116	0	0	0	0	0	0	0	0	0	66116
Unidentified trees	944	314055	66116	0	0	0	0	0	0	0	0	380172
TOTAL		7413356	537199	107439	115704	16529	8264	8264	0	0	8264	8215024

TABLE NO.1.2.2
TOTAL STEMS (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA-MISCELLANEOUS
DISTRICT-SIRIDIM

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	66116	0	0	0	0	0	0	0	0	0	66116
Acer laeavigatum	17	8264	0	0	0	0	0	0	0	0	0	8264
Adina cordifolia	28	49587	8264	0	0	0	0	0	0	0	0	57851
Aegle marmelos	32	24793	0	8264	0	0	0	0	0	0	0	33058
Albizia lebbeck	46	8264	0	0	0	0	0	0	0	0	0	8264
Albizia species	51	24793	0	0	0	0	0	0	0	0	0	24793
Amoora canarana	61	8264	0	0	0	0	0	0	0	0	0	8264
Anogeissus latifolia	72	231407	16529	0	0	0	0	0	0	0	0	247936
Bauhinia malabarica	113	33058	8264	0	0	0	0	0	0	0	0	41322
Bauhinia purpurea	114	33058	0	0	0	0	0	0	0	0	0	33058
Bauhinia species	118	82645	0	0	0	0	0	0	0	0	0	82645
Bombax ceiba	131	115703	8264	8264	0	0	0	0	0	0	0	132232
Boswellia serrata	133	264465	-4381	57851	8264	0	0	0	0	0	0	413227
Brindelia retusa	138	90910	0	0	8264	0	0	0	0	0	0	99174
Buchanania lanzaan	143	280995	0	0	0	0	0	0	0	0	0	280995
Butchya monosperma	146	132232	30910	8264	0	0	0	0	0	0	0	231407
Careya arborea	177	49587	0	0	8264	0	0	0	0	0	0	57851
Cassia fistula	186	8264	0	0	0	0	0	0	0	0	0	16529
Toona ciliata	198	0	8264	0	0	0	0	0	0	0	0	8264
Cocculus laurifolius	222	57851	0	0	0	0	0	0	0	0	0	57851
Cochlospermum religiosum	223	24793	0	0	0	0	0	0	0	0	0	24793
Diospyros melanoxylon	285	140497	16529	8264	16529	0	0	0	0	0	0	181820
Diospyros species	292	24793	0	0	0	0	0	0	0	0	0	24793
Emblica officinalis	325	33058	0	0	0	0	0	0	0	0	0	33058
Erythrina suberosa	340	57851	33058	8264	0	0	0	0	0	0	0	99174
Erythrina variegata	341	8264	0	0	0	0	0	0	0	0	0	8264
Erythrina species	342	8264	0	0	0	0	0	0	0	0	0	8264
Eucalyptus hybrid	346	90910	0	0	0	0	0	0	0	0	0	90910
Eucalyptus species	348	90910	33058	0	0	0	0	0	0	0	0	123968

CONT. OF TABLE NO. 1.2.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-9?	20+	TOTAL
<i>Ficus bengalensis</i>	375	0	8264	0	0	0	0	0	8264	0	0	16529
<i>Ficus religiosa</i>	381	8264	8264	0	0	0	0	0	0	0	0	16529
<i>Ficus species</i>	385	33058	0	0	0	0	0	0	0	0	0	33058
<i>Gardenia resinifera</i>	405	41322	0	0	0	0	0	0	0	0	0	41322
<i>Gardenia species</i>	406	8264	0	0	0	0	0	0	0	0	0	8264
<i>Garuga pinnata</i>	407	33058	0	8264	0	0	0	0	0	0	0	41322
<i>Gmelina arborea</i>	420	8264	0	0	0	0	0	0	0	0	0	3264
<i>Grewia tiliaezaolia</i>	431	206613	0	0	0	0	0	0	0	0	0	206613
<i>Holleherena antidipterisenterica</i>	452	24793	0	0	0	0	0	0	0	0	0	24793
<i>Hymenodictyon excelsum</i>	507	33058	0	0	0	0	0	0	0	0	0	33058
<i>Lagasstroemia parviflora</i>	509	140497	0	0	0	0	0	0	0	0	0	140497
<i>Lamnes Coromandellica</i>	509	363640	82645	8264	0	0	0	0	0	0	0	434550
<i>Madhuca latifolia</i>	561	173555	49587	66116	33058	16529	0	8264	16529	0	0	1264
<i>Mallotus philippinensis</i>	565	165291	0	0	0	0	0	0	0	0	0	165291
<i>Ougeinia daibergoides</i>	653	8264	0	0	0	0	0	0	0	0	0	8264
<i>Pterocarpus marsupium</i>	722	49587	0	0	0	0	0	0	0	0	0	49587
<i>Schleichera trijuga</i>	795	90910	24793	8264	0	0	0	0	0	0	0	123968
<i>Schrebera swinhonis</i>	796	8264	0	0	0	0	0	0	0	0	0	3264
<i>Semeacarpus enacardium</i>	798	181820	0	0	0	0	0	0	0	0	0	181820
<i>Shorea robusta</i>	802	561990	41322	16529	0	8264	0	0	0	0	0	623106
<i>Sterculia urens</i>	820	33058	0	0	0	0	0	0	0	0	0	33058
<i>Strychnos potatorum</i>	832	16529	0	0	0	0	0	0	0	0	0	16529
<i>Syzygium cumini</i>	843	41322	24793	8264	0	0	0	0	0	0	0	4381
<i>Terminalia bellirica</i>	861	41322	0	0	0	0	0	0	0	0	0	41322
<i>Terminalia chebula</i>	864	24793	16529	0	0	0	0	0	0	0	0	1322
<i>Terminalia crenulata</i>	866	223143	41322	0	0	0	0	0	0	0	0	24465
<i>Webera corymbosa</i>	905	8264	0	0	0	0	0	0	0	0	0	3264
<i>Wrightia gigantea</i>	911	16529	0	0	0	0	0	0	0	0	0	16529
<i>Ziziphus species</i>	930	16529	0	0	0	0	0	0	0	0	0	16529
<i>Acacia auriculiformis (A06)</i>	943	140497	0	0	0	0	0	0	0	0	0	140497
Unidentified trees.	944	1016540	33058	0	8264	0	0	0	0	0	0	1016540
TOTAL	5768663	636371	214878	82645	33058	0	8264	24793	0	1264	67-6939	

TABLE NO. 2.2.2
TOTAL STEMS (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA-MISCELLANEOUS DISTRICT-GAYA

SPECIES NAME	CORE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	TOTAL
<i>Acacia catechu</i>	6	94244	0	0	0	0	0	0	0	0	94244
<i>Adina cordifolia</i>	28	4960	4960	0	4960	0	0	0	0	0	14690
<i>Aegle marmelos</i>	32	34721	4960	0	0	0	0	0	0	0	39681
<i>Albizia procera</i>	50	4960	0	0	0	0	0	0	0	0	4960
<i>Anogeissus latifolia</i>	72	34721	4960	0	0	0	0	0	0	0	39681
<i>Azadirachta indica</i>	103	9920	0	4960	0	0	0	0	0	0	14690
<i>Bauhinia purpurea</i>	114	0	4960	0	0	0	0	0	0	0	4960
<i>Bauhinia species</i>	118	29761	0	0	9920	4960	0	0	0	0	29761
<i>Boswellia serrata</i>	133	84323	69443	4960	9920	4960	0	0	0	0	173608
<i>Buchanania lanzenii</i>	143	19840	0	0	0	0	0	0	0	0	19840
<i>Butea monosperma</i>	146	94244	4960	0	0	0	0	0	0	0	99204
<i>Cassia siamea</i>	188	19840	0	0	0	0	0	0	0	0	19840
<i>Diopyros melanoxylon</i>	285	14880	0	0	0	0	0	0	0	0	14880
<i>Embelia officinalis</i>	325	4960	0	0	0	0	0	0	0	0	4960
<i>Ficus religiosa</i>	389	14880	0	0	0	0	0	0	0	0	14880
<i>Gardenia resinifera</i>	405	4960	0	0	0	0	0	0	0	0	4960
<i>Gmelina arborea</i>	420	9920	0	0	0	0	0	0	0	0	9920
<i>Grewia species</i>	432	0	4960	0	0	0	0	0	0	0	4960
<i>Hollardia antidiysenterica</i>	452	4960	0	0	0	0	0	0	0	0	4960
<i>Hymenodictyon excelsum</i>	470	9920	0	0	4960	0	0	0	0	0	14880
<i>Lagerstroemia parviflora</i>	505	19840	0	0	0	0	0	0	0	0	19840
<i>Lannea corosendélica</i>	509	34721	9920	14880	0	0	0	0	0	0	59222
<i>Machhu latifolia</i>	561	19840	4960	4960	9920	4960	0	0	0	0	14690
<i>Nyctanthes arbor-tristis</i>	637	14880	0	0	0	0	0	0	0	0	14880
<i>Semicarpus anacardium</i>	798	9920	4960	0	0	0	0	0	0	0	14690
<i>Shorea robusta</i>	802	19840	14880	4960	0	4960	0	0	0	0	44642
<i>Terminalia arjuna</i>	860	0	4960	4960	0	0	0	0	0	0	9920
<i>Wrightia tomentosa</i>	912	14880	0	0	0	0	0	0	0	0	14880
<i>Ziziphus species</i>	930	14880	0	0	0	0	0	0	0	0	14880
Unidentified trees	944	54562	4960	4960	0	0	0	0	0	0	64883
TOTAL	699393	143846	44642	24801	19840	0	0	4960	9920	0	947404

TABLE NO. 2, J-2
TOTAL STEMS (IN NO.) BY SPECIES AND DIAMETER CLAS SES (IN CM.)

STRATA: KHAIK DISTRICT: GAYA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	386915	49604	9920	0	0	0	0	0	0	0	447440
<i>Aegle marmelos</i>	32	44644	0	0	0	0	0	0	0	0	0	44644
<i>Anogeissus latifolia</i>	72	44644	0	0	0	0	0	0	0	0	0	44644
<i>Boswellia serrata</i>	133	9920	4960	9920	0	0	0	0	0	0	0	44302
<i>Buchanania lanzae</i>	143	0	4960	0	0	0	0	0	0	0	0	4360
<i>Butea monosperma</i>	146	94248	19841	0	9920	0	0	0	0	0	0	446211
<i>Cassia siamea</i>	188	104169	0	0	0	0	0	0	0	0	0	44669
<i>Flacourtia indica</i>	389	4960	0	0	0	0	0	0	0	0	0	4360
<i>Hollarrhena antidysenterica</i>	452	14881	0	0	0	0	0	0	0	0	0	4381
<i>Lagerstroemia parviflora</i>	505	14881	0	0	0	0	0	0	0	0	0	4381
<i>Lannea coromandelica</i>	509	14881	4960	0	0	0	0	0	0	0	0	4341
<i>Madhuca latifolia</i>	561	29762	0	0	9920	0	0	4960	0	0	0	44644
<i>Nyctanthes arborristis</i>	637	29762	0	0	0	0	0	0	0	0	0	42762
<i>Seme-carpus anacardium</i>	798	9920	0	0	0	0	0	0	0	0	0	4220
<i>Shorea robusta</i>	802	24802	0	0	0	0	0	0	0	0	0	4302
<i>Tectona grandis</i>	858	4960	0	0	0	0	0	0	0	0	0	360
<i>Terminalia crenulata</i>	866	14881	0	0	0	0	0	0	0	0	0	381
<i>Ziziphus species</i>	930	34723	0	0	0	0	0	0	0	0	0	4223
Unidentified trees	944	34723	0	0	0	0	0	0	0	0	0	4723
TOTAL	917683	84327	19841	0	0	4960	0	0	0	0	0	1112654

TABLE NO. 3.1.2
TOTAL STEMS (IN NO.) BY SPECIES AND DIAMETER CLASS (IN CM.)
STRATA-SAL
DISTRICT- DHANBAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+ TOTAL
Aegle marmelos	32	0	0	8814	0	0	0	0	0	0	0 8814
Bombax ceiba	131	8814	0	0	0	0	0	0	0	0	0 8814
Cochlospermum religiosum	223	8814	0	0	0	0	0	0	0	0	0 8814
Erythrina variegata	341	8814	0	0	0	0	0	0	0	0	0 8814
Lagerstroemia hypoleuca	502	8814	0	0	0	0	0	0	0	0	0 8814
Lagerstroemia parviflora	505	35259	0	0	0	0	0	0	0	0	0 35259
Pterocarpus marsupium	722	0	8814	0	0	0	0	0	0	0	0 8814
Semecarpus anacardium	798	17629	8814	0	0	0	0	0	0	0	0 26444
Shorea robusta	802	149854	0	8814	0	0	0	0	0	0	0 158669
Sterculia urens	820	17629	0	0	0	0	0	0	0	0	0 17629
Terminalia belerica	861	8814	0	0	0	0	0	0	0	0	0 8814
Terminalia crenulata	866	8814	0	0	0	0	0	0	0	0	0 8814
Acacia auriculiformis(A06)	943	8814	0	0	0	0	0	0	0	0	0 8814
Unidentified trees	944	8814	0	0	0	0	0	0	0	0	0 17629
TOTAL		290894	17629	26444	0	0	0	0	0	0	0 334969

TABLE NO. 3.2.2

TOTAL STEMS (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: MISCELLANEOUS
DISTRICT: DHANBAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Adina cordifolia</i>	28	8815	17631	0	0	0	0	0	0	0	0	26447
<i>Anogeissus latifolia</i>	72	35262	8815	0	0	0	0	0	0	0	0	44078
<i>Bombax ceiba</i>	131	17631	0	0	0	0	0	0	0	0	0	17631
<i>Boswellia serrata</i>	133	8815	0	0	0	0	0	0	0	0	0	8815
<i>Buchanania lanza</i>	143	8815	0	0	0	0	0	0	0	0	0	8815
<i>Butea monosperma</i>	146	0	8815	0	0	0	0	0	0	0	0	8815
<i>Dalbergia latifolia</i>	266	8815	0	0	0	0	0	0	0	0	0	8815
<i>Dalbergia sissoo</i>	268	0	17631	0	0	0	0	0	0	0	0	17631
<i>Diospyros melanoxylon</i>	285	17631	0	0	0	0	0	0	0	0	0	17631
<i>Erythrina variegata</i>	341	7931	0	0	0	0	0	0	0	0	0	79341
<i>Flacourtidia indica</i>	389	26447	0	0	0	0	0	0	0	0	0	26447
<i>Gardneria species</i>	406	8815	0	0	0	0	0	0	0	0	0	8815
<i>Gazania pinnata</i>	407	8815	0	0	0	0	0	0	0	0	0	8815
<i>Gmelina arborea</i>	420	0	61709	17631	0	0	0	0	0	0	0	79441
<i>Grewia tiliaceifolia</i>	431	8815	0	0	0	0	0	0	0	0	0	8815
<i>Lagerstroemia parviflora</i>	505	123419	0	0	0	0	0	0	0	0	0	123419
<i>Lannea corcondelica</i>	509	7931	8815	0	0	0	0	0	0	0	0	88157
<i>Madrhuca latifolia</i>	561	0	8815	0	0	0	0	0	0	0	0	8815
<i>Mallotus philippinensis</i>	565	8815	0	0	0	0	0	0	0	0	0	8815
<i>Sebastodes anacardium</i>	798	70525	0	0	0	0	0	0	0	0	0	70525
<i>Shorea robusta</i>	802	26447	8815	17631	0	0	0	0	0	0	0	52894
<i>Terminalia chebula</i>	864	8815	0	0	0	0	0	0	0	0	0	8815
<i>Xyilia xylocarpa</i>	919	17631	0	0	0	0	0	0	0	0	0	17631
<i>Zanthoxylum budrunga/rhetsa</i>	924	0	8815	0	0	0	0	0	0	0	0	8815
<i>Ziziphus zizyphra</i>	929	17631	0	0	0	0	0	0	0	0	0	17631
<i>Acacia auriculiformis (A06)</i>	943	149866	0	0	0	0	0	0	0	0	0	149866
Unidentified trees	944	26447	0	0	0	0	0	0	0	0	0	26447
TOTAL		793413	13225	52894	0	0	0	0	0	0	0	97543

TABLE NO.4.2.2
TOTAL STEMS (IN 1000) BY SPECIES AND DIAMETER CLAS SES (IN CM.)
STRATA-MISCELLANEOUS
DISTRICT-AURANGABAD

SPECIES	NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>		6	76948	0	0	0	0	0	0	0	0	0	76948
<i>Boswellia serrata</i>		133	153897	38474	0	36474	0	0	0	0	0	0	230845
<i>Bridelia retusa</i>		138	38474	0	0	0	0	0	0	0	0	0	38474
<i>Grewia species</i>		432	38474	0	0	0	0	0	0	0	0	0	38474
<i>Hymenodictyon excelsum</i>		470	38474	0	0	0	0	0	0	0	0	0	38474
<i>Lannea coromandelica</i>		509	269319	0	0	0	0	0	0	0	0	0	269319
<i>Pterocarpus marsupium</i>		722	38474	0	0	0	0	0	0	0	0	0	38474
<i>Schleichera trijuga</i>		795	76948	0	0	0	0	0	0	0	0	0	76948
<i>Terminalia crenulata</i>		866	38474	0	0	0	0	0	0	0	0	0	76948
Unidentified trees		944	192371	0	0	0	0	0	0	0	0	0	192371
TOTAL		961056	76948	0	38474	0	0	0	0	0	0	0	1077279

TABLE NO. 4.4.2

TOTAL STEMS (IN NO) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: SALAI
DISTRICT: AURANGABAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+ TOTAL
Acacia catechu	6	115422	0	0	0	0	0	0	0	0	0 115422
Anogeissus latifolia	72	153897	0	0	0	0	0	0	0	0	0 153897
Boswellia serrata	133	1308125	846434	38474	38474	0	0	0	0	0	0 2231508
Bridelia retusa	138	76948	28474	0	0	0	0	0	0	0	0 115422
Buchanania lanzae	143	230845	0	0	0	0	0	0	0	0	0 230845
Cassia fistula	186	38474	0	0	0	0	0	0	0	0	0 38474
Diospyros melanoxylon	285	115422	0	0	0	0	0	0	0	0	0 115422
Lagerstroemia parviflora	505	38474	0	0	0	0	0	0	0	0	0 38474
Lannea coromandelica	509	76948	38474	0	0	0	0	0	0	0	0 115422
Madhuca latifolia	561	115422	38474	0	0	0	0	0	0	0	0 153897
Schleichera trijuga	795	38474	0	0	0	0	0	0	0	0	0 38474
Shorea robusta	802	38474	0	0	0	0	0	0	0	0	0 38474
Zizyphus species	930	38474	0	0	0	0	0	0	0	0	0 38474
Unidentified trees	944	153897	0	0	0	0	0	0	0	0	0 153897
TOTAL		2539302	961656	38474	38474	0	0	0	0	0	0 3576108

TABLE NO. 5.1.2
TOTAL STEMS (IN NO) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA- SAL DISTRICT- MUNGER

SPECIES	NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	10+ TOTAL
<i>Aegle marmelos</i>		32	119490	0	0	0	0	0	0	0	0	119490
<i>Albizia lebbek</i>		46	95592	0	0	0	0	0	0	0	0	95592
<i>Albizia species</i>		51	47796	0	0	0	0	0	0	0	0	47796
<i>Anogeissus latifolia</i>		72	597451	47796	0	0	0	0	0	0	0	645247
<i>Azadirachta indica</i>		103	23698	0	0	0	0	0	0	0	0	23698
<i>Bombax Ceiba</i>		131	23898	0	0	0	0	0	0	0	0	23898
<i>Boswellia serrata</i>		133	167286	119490	95592	23898	0	0	0	0	0	406247
<i>Bridelia retusa</i>		138	454063	71694	0	0	0	0	0	0	0	525757
<i>Buchanania lanata</i>		143	1266597	0	23898	0	0	0	0	0	0	1290425
<i>Buxus sempervirens</i>		146	23898	0	0	0	0	0	0	0	0	23898
<i>Careya arborea</i>		177	119490	23898	0	0	0	0	0	0	0	143368
<i>Diospyros melanoxylon</i>		285	334572	71694	23898	0	0	0	0	0	0	430465
<i>Diospyros species</i>		292	95592	47796	0	23898	0	0	0	0	0	167246
<i>Emblica officinalis</i>		325	23898	0	0	0	0	0	0	0	0	22139
<i>Erythrina species</i>		342	23898	0	0	0	0	0	0	0	0	23123
<i>Eugenia cymosa</i>		350	23898	23898	0	0	0	0	0	0	0	71474
<i>Hollarhena antidysenterica</i>		452	167286	0	0	0	0	0	0	0	0	167446
<i>Holoptelea integrifolia</i>		456	23898	23898	0	0	0	0	0	0	0	47726
<i>Kydia calycina</i>		501	23898	0	0	0	0	0	0	0	0	23538
<i>Lagerstroemia paevitiora</i>		505	310674	95592	0	0	0	0	0	0	0	406427
<i>Lannea coromandelica</i>		509	382369	119490	0	0	0	0	0	0	0	501159
<i>Madhuca latifolia</i>		561	525757	191184	23898	0	0	0	0	0	0	76438

CONT.OF TABLE NO.5.1.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Pterocarpus marsupium</i>	722	406267	71694	0	0	0	0	0	0	0	0	477961
<i>Schleichera trijuga</i>	795	23898	0	23898	0	0	0	0	0	0	0	477956
<i>Semecarpus anacardium</i>	798	549655	0	23898	0	0	0	0	0	0	0	573553
<i>Shorea robusta</i>	802	4325550	979820	167286	0	0	0	0	0	0	0	5472658
<i>Sloanea assamica</i>	805	23898	0	0	0	0	0	0	0	0	0	23898
<i>Sterculia urens</i>	820	23898	0	0	0	0	0	0	0	0	0	23898
<i>Syzygium cumini</i>	843	143388	0	0	0	0	0	0	0	0	0	143388
<i>Syzygium ornottianum</i>	846	23898	0	0	0	0	0	0	0	0	0	23898
<i>Syzygium species</i>	850	71694	23898	0	0	0	0	0	0	0	0	95592
<i>Terminalia beccaria</i>	861	0	23898	0	0	0	0	0	0	0	0	23898
<i>Terminalia chebula</i>	864	95592	0	0	0	0	0	0	0	0	0	95592
<i>Terminalia crenulata</i>	866	1194963	95592	23898	0	0	0	0	0	0	0	1314393
<i>Ziziphus mauritiana</i>	927	47796	0	0	0	0	0	0	0	0	0	47796
Unidentified trees	944	836432	71694	0	0	0	0	0	0	0	0	908126
TOTAL		12642080	2079132	454063	47796	0	0	0	0	23898	0	15246971

TABLE NO. 5.2.2
TOTAL STEMS (IN NO) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA:-MISCELLANEOUS
DISTRICT:-MUNGER

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	47796	47796	0	0	0	0	0	0	0	0	95592
<i>Acer nivaleum</i>	18	23898	0	0	0	0	0	0	0	0	0	23898
<i>Adina cordifolia</i>	28	119490	47796	0	0	23898	0	0	0	0	0	191184
<i>Aegle marmelos</i>	32	525757	143388	0	0	0	0	0	0	0	0	669146
<i>Albizia species</i>	51	71694	23898	0	0	0	0	0	0	0	0	95592
<i>Anogeissus latifolia</i>	72	860331	262878	47796	0	0	0	0	0	0	0	1171006
<i>Bauhinia purpurea</i>	114	23898	0	0	0	0	0	0	0	0	0	23898
<i>Bauhinia species</i>	116	47796	0	0	0	0	0	0	0	0	0	47796
<i>Bombax Ceiba</i>	131	23898	0	0	0	0	0	0	0	0	0	23898
<i>Boswellia serrata</i>	133	716942	836433	191184	215082	0	23898	0	0	0	0	1983541
<i>Bridelia retusa</i>	138	740840	143388	95592	23898	0	0	0	0	0	0	103719
<i>Buchanania lanzzan</i>	143	1529477	191184	23898	0	0	0	0	0	0	0	1744560
<i>Butes species</i>	147	23898	0	0	0	0	0	0	0	0	0	23898
<i>Careya arborea</i>	177	47796	23898	0	0	0	0	0	0	0	0	71694
<i>Cassia fistula</i>	186	47796	0	0	0	0	0	0	0	0	0	47796
<i>Cochlospermum religiosum</i>	223	286777	0	0	0	0	0	0	0	0	0	286777
<i>Dillenia indica</i>	277	0	0	23898	0	0	0	0	0	0	0	23898
<i>Dillenia pentagyna</i>	278	23898	71694	47796	0	0	0	0	0	0	0	143388
<i>Diospyros melanoxylon</i>	285	597452	119490	71694	0	0	0	0	0	0	0	7088636
<i>Diospyros species</i>	292	310675	191184	95592	0	0	0	0	0	0	0	597452
<i>Erythrina species</i>	342	23898	95592	0	0	0	0	0	0	0	0	119490

CONT.OF TABLE NO 5.2.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-	TOTAL
<i>Fagara buderungia</i>	372	23898	0	0	0	0	0	0	0	0	0	22398
<i>Ficus bengalensis</i>	375	47796	0	0	23898	0	0	0	0	0	0	7434
<i>Ficus religiosa</i>	381	23898	0	0	0	0	0	0	0	0	0	25398
<i>Ficus species</i>	385	0	23898	0	0	0	0	0	0	0	0	25398
<i>Gamelina arborea</i>	420	47796	23898	0	0	0	0	0	0	0	0	7434
<i>Hollarrhena antidysenterica</i>	452	501859	23898	0	0	0	0	0	0	0	0	52157
<i>Kydia Galycina</i>	501	95592	0	0	0	0	0	0	0	0	0	92832
<i>Lagerstroemia lanceolata</i>	504	0	23898	0	0	0	0	0	0	0	0	21938
<i>Lagerstroemia parviflora</i>	505	764738	71694	0	0	0	0	0	0	0	0	837433
<i>Lannea coromandelica</i>	509	979821	286777	23898	0	0	0	0	0	0	0	131634
<i>Madhuca latifolia</i>	561	119490	143388	47796	0	0	0	0	0	0	0	31175
<i>Premna bengalensis</i>	705	23898	23898	0	0	0	0	0	0	0	0	4-35
<i>Pterocarpus marsupium</i>	722	334573	71694	0	0	0	0	0	0	0	0	4CE257
<i>Schleichera trijuga</i>	795	238980	23898	23898	0	0	0	0	0	0	0	26777
<i>Semecarpus anacardium</i>	798	215082	71694	47796	0	0	0	0	0	0	0	32173
<i>Shorea robusta</i>	802	501859	215082	0	0	0	0	0	0	0	0	71242
<i>Spondias pinnata</i>	812	286777	119490	47796	0	0	0	0	0	0	0	464453
<i>Sterculia villosa</i>	821	95592	47796	0	0	23898	0	0	0	0	0	16236
<i>Syzygium species</i>	850	47796	0	23898	0	0	0	0	0	0	0	7434
<i>Terminalia belerica</i>	861	71694	95592	23898	0	0	0	0	0	0	0	16134
<i>Terminalia chebula</i>	864	47796	23898	0	0	0	0	0	0	0	0	7434
<i>Terminalia crenulata</i>	866	406267	47796	0	0	0	0	0	0	0	0	434453
<i>Trewia nudiflora</i>	880	0	23898	0	0	0	0	0	0	0	0	23133
<i>Zizyphus mauritiana</i>	927	119490	0	23898	0	0	0	0	0	0	0	112450
Unidentified trees	944	2533197	358471	23898	0	0	0	0	0	0	0	294557
TOTAL		13621910	3919286	860331	286777	23898	47796	0	0	0	0	13876120

TABLE NO. 6.1.2

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

DISTRICT: NAKADA

SPECIES NAME	CODE	TOTAL									
		10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+
Acacia catechu	6	32691	0	0	0	0	0	0	0	0	0
Adina cordifolia	28	21794	10897	0	0	0	0	0	0	0	0
Anogeissus latifolia	72	87177	10897	0	0	0	0	0	0	0	0
Bauhinia purpurea	114	10897	0	0	0	0	0	0	0	0	0
Bauhinia retusa	116	10897	0	0	0	0	0	0	0	0	0
Bombax ceiba	131	21794	0	0	0	0	0	0	0	0	0
Boswellia serrata	133	10897	10897	0	0	0	0	0	0	0	0
Bridelia retusa	138	21794	0	0	0	0	0	0	0	0	0
Euchanaria lanzan	143	185252	10897	0	0	0	0	0	0	0	0
Cassia siamea	188	10897	0	0	0	0	0	0	0	0	0
Dillenia pentagyna	278	0	10897	0	0	0	0	0	0	0	0
Diospyros melanoxylon	285	119869	21794	0	0	0	0	0	0	0	0
Diospyros species	292	54486	0	0	0	0	0	0	0	0	0
Embelia officinalis	325	54486	0	0	0	0	0	0	0	0	0
Eugenia species	358	10897	0	0	0	0	0	0	0	0	0
Gmelina arborea	420	10897	0	0	0	0	0	0	0	0	0
Hollarhena antidysenterica	452	32691	0	0	0	0	0	0	0	0	0
Lagerstroemia parviflora	505	10897	0	0	0	0	0	0	0	0	0
Lannea coromandelica	509	174355	0	0	0	0	0	0	0	0	0
Madhuca latifolia	561	185252	43588	10897	0	0	0	10897	0	0	0
Pterocarpus marsupium	722	0	10897	0	0	0	0	0	0	0	0
Schleichera trijuga	795	0	21794	0	0	0	0	0	0	0	0
Semecarpus anacardium	798	54486	0	0	0	0	0	0	0	0	0
Shorea robusta	802	161278	21794	10897	10897	0	0	0	0	0	0
Terminalia belerica	861	65383	21794	0	0	0	0	0	0	0	0
Terminalia crenulata	866	130766	10897	10897	0	10897	0	0	0	0	0
Ulmus lancifolia	886	10897	0	0	0	0	0	0	0	0	0
Ziziphus species	930	21794	0	0	0	0	0	0	0	0	0
Unidentified trees	944	119869	0	0	0	0	0	0	0	0	0
TOTAL	3083910	207047	32691	10637	10897	0	10897	0	0	0	0
TOTAL	3083910	207047	32691	10637	10897	0	10897	0	0	0	0

TABLE NO. 6.2.2
TOTAL STEMS (IN NO.) BY SPECIES AND DIAMETER CLASSES (IN CM.)
STRATA: MISCELLANEOUS
DISTRICT: NAWADA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	228844	0	0	0	0	0	0	0	0	0	228844
<i>Adina cordifolia</i>	28	65384	10897	0	0	0	0	0	0	0	0	76281
<i>Aegle marmelos</i>	32	403202	10897	0	0	0	0	0	0	0	0	414100
<i>Albizia procera</i>	50	43589	21794	0	0	0	0	0	0	0	0	65384
<i>Albizia species</i>	51	21794	0	0	0	0	0	0	0	0	0	21794
<i>Anogeissus latifolia</i>	72	359613	54486	0	10897	10897	0	0	0	0	0	435894
<i>Bauhinia retusa</i>	116	76281	10897	0	0	0	0	0	0	0	0	87178
<i>Bauhinia species</i>	118	43589	10897	0	0	0	0	0	0	0	0	54486
<i>Bombax ceiba</i>	131	21794	0	0	0	0	0	0	0	0	0	32692
<i>Boswellia serrata</i>	133	326921	228844	98076	98076	10897	32692	0	0	0	0	795507
<i>Bridelia retusa</i>	136	10897	0	0	0	0	0	0	0	0	0	10897
<i>Buchanania lanza</i>	143	348715	0	0	0	0	0	0	0	0	0	348715
<i>Butea monosperma</i>	146	0	0	0	10897	0	0	0	0	0	0	10897
<i>Cassia fistula</i>	186	76281	0	0	0	0	0	0	0	0	0	76291
<i>Cochlospermum religiosum</i>	223	43589	32692	10897	10897	0	0	0	0	0	0	98076
<i>Diospyros melanoxylon</i>	285	119671	32692	0	0	0	0	0	0	0	0	152563
<i>Diospyros species</i>	292	10897	0	0	0	0	0	0	0	0	0	10897
<i>Emblica officinalis</i>	325	119871	21794	0	0	0	0	0	0	0	0	141665
<i>Erythrina variegata</i>	341	32692	21794	10897	0	0	0	0	0	0	0	65384
<i>Erythrina species</i>	342	21794	0	21794	0	0	0	0	0	0	0	43589
<i>Eugenia species</i>	358	21794	0	0	0	0	0	0	0	0	0	21794
<i>Ficus bengalensis</i>	375	0	10897	0	0	0	0	0	0	0	0	10897
<i>Ficus religiosa</i>	381	10897	0	0	0	0	0	0	0	0	0	10897

CONT. OF TABLE NO 6.2.2

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Ficus</i> species	385	21794	0	10897	0	0	0	0	0	0	0	32692
<i>Gaultheria fragrantissima</i>	398	21794	10897	0	0	0	0	0	0	0	0	32692
<i>Gmelina arborea</i>	420	10897	0	0	0	0	0	0	0	0	0	10897
<i>Hollarrhena antidysenterica</i>	452	119871	10897	0	0	0	0	0	0	0	0	130768
<i>Holoptelea integrifolia</i>	456	0	10897	0	0	0	0	0	0	0	0	10897
<i>Lagerstroemia parviflora</i>	505	119871	0	0	0	0	0	0	0	0	0	119871
<i>Lannea coromandelica</i>	509	490381	163460	32692	0	0	0	0	0	0	0	686534
<i>Madhuca latifolia</i>	561	65384	43589	21794	0	0	21794	0	0	0	0	174357
<i>Pterocarpus marsupium</i>	722	10897	0	10897	0	0	0	0	0	0	0	21794
<i>Schleichera trijuga</i>	795	54486	0	0	0	0	0	0	0	0	0	54486
<i>Semecarpus anacardium</i>	798	130768	10897	0	0	0	0	0	0	0	0	141665
<i>Shorea robusta</i>	802	713713	98076	32692	0	0	0	0	0	0	0	904481
<i>Stereospermum suaveolens</i>	821	43589	0	0	0	0	0	0	0	0	0	43589
<i>Tamarindus indica</i>	825	32692	0	0	0	0	0	0	0	0	0	32692
<i>Terminalia belerica</i>	856	10897	0	0	0	0	0	0	0	0	0	10897
<i>Terminalia chebula</i>	864	21794	0	0	0	0	0	0	0	0	0	21794
<i>Terminalia crenulata</i>	866	228844	10897	0	0	0	0	0	0	0	0	239742
<i>Ziziphus mauritiana</i>	927	32692	0	0	0	0	0	0	0	0	0	32692
<i>Ziziphus</i> species	930	76281	0	0	0	0	0	0	0	0	0	76281
Unidentified trees	944	544868	87176	10897	0	0	0	0	0	0	0	642944
TOT.		5230737	915379	261536	152563	21794	32692	21794	0	10897	0	6647396

TABLE NO. 7.1.2
 TOTAL STEMS (IN NO) BY SPECIES AND DIAMETER CLASSES (IN CM.)
 STRATA: SAL
 DISTRICT: NALANDA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Anogeissus latifolia	72	9280	0	0	0	0	0	0	0	0	0	9280
Bridelia retusa	138	19560	0	0	0	0	0	0	0	0	0	18560
Buchanania lanzae	143	9280	0	0	0	0	0	0	0	0	0	9280
Cochlospermum religiosum	223	0	9280	0	0	0	0	0	0	0	0	9280
Lannea coromandelica	509	19560	0	0	0	0	0	0	0	0	0	18560
Machhuca latifolia	561	19560	0	0	0	0	0	0	0	0	0	18560
Shorea robusta	802	129920	0	0	0	0	0	0	0	0	0	129920
Unidentified trees	944	9280	0	0	0	0	0	0	0	0	0	9280
TOTAL		213440	9280	0	222720							

TABLE NO. 1.1.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT-
GIDH
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
Acacia catechu	6	.048	.015	.000	.000	.000	.000	.000	.000	.000	.000	.063
Adina cordifolia	28	.013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
Adina oligocephala	30	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
Albizia procera	50	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.018
Anogeissus latifolia	72	.057	.034	.000	.096	.000	.000	.000	.000	.000	.000	.167
Bauhinia purpurea	114	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Bauhinia retusa	116	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
Bombax ceiba	131	.009	.000	.000	.000	.000	.000	.000	.000	.000	.000	.009
Boswellia serrata	133	.050	.052	.064	.034	.000	.000	.000	.000	.000	.000	.250
Bridelia retusa	138	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.005
Buchanania lanzae	143	.148	.048	.000	.000	.000	.000	.000	.000	.000	.000	.355
Butea monosperma	146	.097	.040	.000	.000	.000	.000	.000	.000	.000	.000	.196
Careya arborea	177	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.021
Cassia fistula	186	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.016
Cochlospermum religiosum	223	.058	.038	.064	.000	.000	.000	.000	.000	.000	.000	.172
Cordia tomentosa	238	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.020
Dalbergia paniculata	267	.019	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
Diospyros melanoxylon	285	.144	.081	.000	.000	.000	.000	.000	.000	.000	.000	.223
Diospyros species	292	.012	.000	.000	.000	.000	.000	.000	.000	.000	.000	.012
Eublilia officinalis	325	.052	.025	.000	.000	.000	.000	.000	.000	.000	.000	.071
Erythrina suberosa	340	.007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.007
Ficus bengalensis	375	.000	.000	.000	.092	.000	.000	.000	.000	.000	.000	.013
Ficus species	385	.039	.017	.000	.000	.000	.000	.000	.000	.000	.000	.056
Gardenia resinifera	405	.007	.000	.000	.000	.000	.000	.000	.000	.000	.000	.007
Gardenia species	406	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Garuga pinnata	407	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Gmelina arborea	420	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Hollarrhena antidysenterica	452	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013

CONT. OF TABLE NO 1.1.3

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Lagerstroemia parviflora	505	.054	.025	.000	.000	.000	.000	.000	.000	.000	.000	.050
Lannea coromandelica	509	.110	.019	.000	.000	.000	.000	.000	.000	.000	.000	.129
Madhuca latifolia	561	.196	.329	.170	.597	.000	.000	.285	.000	.000	.000	1.570
Mangifera indica	569	.000	.000	.000	.000	.255	.000	.000	.000	.000	.000	.255
Mitragyna parviflora	611	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Pterocarpus marsupium	722	.032	.000	.000	.000	.000	.000	.000	.000	.000	.000	.032
Schleichera trijuga	795	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Semecarpus anacardium	798	.197	.058	.000	.000	.000	.000	.000	.000	.000	.000	.255
Shorea robusta	802	1.864	.282	.152	.058	.000	.000	.000	.000	.000	.000	2.356
Shorea talura	803	.016	.000	.000	.000	.000	.000	.000	.000	.000	.000	.016
Syzygium cumini	843	.077	.071	.108	.282	.000	.213	.000	.000	.000	.000	.751
Terminalia belerica	861	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.015
Terminalia chebula	864	.014	.000	.000	.000	.000	.000	.000	.000	.000	.000	.014
Terminalia citrina	865	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
Terminalia crenulata	866	.143	.033	.000	.000	.000	.000	.000	.000	.000	.000	.145
Acacia Auriculiformis (AO6)	943	.024	.000	.000	.000	.000	.000	.000	.000	.000	.000	.024
Unidentified trees	944	.150	.160	.000	.000	.000	.000	.000	.000	.000	.000	.370
TOTAL		3.719	1.327	.557	1.160	.255	.213	.285	.000	.000	.491	8.077

TABLE NO. 1.2.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- GRIDIH
STRATA-MISCELLANEOUS

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	.041	.000	.000	.000	.000	.000	.000	.000	.000	.000	.041
<i>Acer laevigatum</i>	17	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
<i>Adina cordifolia</i>	28	.033	.021	.000	.000	.000	.000	.000	.000	.000	.000	.054
<i>Aegle marmelos</i>	32	.027	.000	.064	.000	.000	.000	.000	.000	.000	.000	.091
<i>Albizia lebbek</i>	46	.013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
<i>Albizia species</i>	51	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
<i>Amoora canarana</i>	61	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
<i>Anogeissus latifolia</i>	72	.178	.055	.000	.000	.000	.000	.000	.000	.000	.000	.233
<i>Bauhinia malabarica</i>	113	.019	.019	.000	.000	.000	.000	.000	.000	.000	.000	.038
<i>Bauhinia purpurea</i>	114	.015	.000	.000	.000	.000	.000	.000	.000	.000	.000	.015
<i>Bauhinia species</i>	119	.049	.000	.000	.000	.000	.000	.000	.000	.000	.000	.049
<i>Bombax ceiba</i>	131	.115	.034	.046	.000	.000	.000	.000	.000	.000	.000	.195
<i>Boswellia serrata</i>	133	.204	.134	.187	.054	.066	.000	.000	.000	.000	.000	.645
<i>Bridelia retusa</i>	138	.080	.000	.000	.084	.000	.000	.000	.000	.000	.000	.164
<i>Buchanania lanzenii</i>	143	.164	.000	.000	.000	.000	.000	.000	.000	.000	.000	.164
<i>Butea monosperma</i>	146	.117	.263	.060	.000	.000	.000	.000	.000	.000	.000	.440
<i>Careya arborea</i>	177	.025	.000	.000	.108	.000	.000	.000	.000	.000	.000	.133
<i>Cassia fistula</i>	186	.006	.019	.000	.000	.000	.000	.000	.000	.000	.000	.025
<i>Toona ciliata</i>	198	.000	.028	.000	.000	.000	.000	.000	.000	.000	.000	.026
<i>Cocculus laurifolius</i>	222	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
<i>Cochlospermum religiosum</i>	223	.013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
<i>Diospyros melanoxylon</i>	285	.121	.053	.072	.204	.000	.000	.000	.000	.000	.000	.450
<i>Diospyros species</i>	292	.023	.000	.000	.000	.000	.000	.000	.000	.000	.000	.023
<i>Emilia officinalis</i>	325	.018	.000	.000	.000	.000	.000	.000	.000	.000	.000	.018
<i>Erythrina suberosa</i>	340	.054	.100	.076	.000	.000	.000	.000	.000	.000	.000	.230
<i>Erythrina variegata</i>	341	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004
<i>Erythrina species</i>	342	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.005
<i>Eucalyptus hybrid</i>	346	.041	.000	.000	.000	.000	.000	.000	.000	.000	.000	.041

CONT. OF TABLE NO 1.2.3

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Eucalyptus species	348	.072	.110	.000	.000	.000	.000	.000	.000	.000	.000	.182
Ficus bengalensis	375	.000	.031	.000	.000	.000	.000	.393	.000	.000	.000	.424
Ficus religiosa	301	.005	.023	.000	.000	.000	.000	.000	.000	.000	.000	.029
Ficus species	385	.017	.000	.000	.000	.000	.000	.000	.000	.000	.000	.017
Gardenia resinifera	405	.033	.000	.000	.000	.000	.000	.000	.000	.000	.000	.033
Gardenia species	406	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Garuga pinnata	407	.047	.000	.053	.000	.000	.000	.000	.000	.000	.000	.100
Gamelina arborea	420	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006
Grewia tiliacefolia	431	.152	.000	.000	.000	.000	.000	.000	.000	.000	.000	.152
Hollarrhena antidysenterica	452	.023	.000	.000	.000	.000	.000	.000	.000	.000	.000	.023
Hymenodictyon excelsum	470	.019	.000	.000	.000	.000	.000	.000	.000	.000	.000	.019
Lagerstroemia parviflora	505	.120	.000	.000	.000	.000	.000	.000	.000	.000	.000	.120
Lannea coromandelica	509	.246	.256	.060	.000	.000	.000	.000	.000	.000	.000	.562
Madhuca latifolia	561	.137	.138	.523	.394	.287	.000	.338	.740	.000	.551	3.105
Mallotus philippinensis	565	.116	.000	.000	.000	.000	.000	.000	.000	.000	.000	.116
Ougeinia dalbergioides	653	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.005
Pterocarpus marsupium	722	.038	.000	.000	.000	.000	.000	.000	.000	.000	.000	.038
Schleichera tripluga	795	.078	.077	.046	.000	.000	.000	.000	.000	.000	.000	.201
Schleichera swinhonis	796	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.053
Semecarpus anacardium	798	.122	.000	.000	.000	.000	.000	.000	.000	.000	.000	.122
Shorea robusta	802	.363	.079	.066	.000	.130	.000	.000	.000	.000	.000	.623
Sterculia urens	820	.025	.000	.000	.000	.000	.000	.000	.000	.000	.000	.025
Strychnos potatorum	832	.022	.000	.000	.000	.000	.000	.000	.000	.000	.000	.022
Syzygium cumini	843	.055	.080	.043	.000	.000	.000	.000	.000	.000	.000	.173
Terminalia belerica	861	.034	.000	.000	.000	.000	.000	.000	.000	.000	.000	.034
Terminalia chebula	864	.022	.034	.000	.000	.000	.000	.000	.000	.000	.000	.058
Terminalia crenulata	866	.157	.097	.000	.000	.000	.000	.000	.000	.000	.000	.251
Webera corymbosa	905	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
Wrightia gigantea	911	.018	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013
Zizyphus species	930	.013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.03
Acacia Auriculiformis (R06)	943	.105	.000	.000	.000	.000	.000	.000	.000	.000	.000	.105
Unidentified trees	944	.691	.097	.000	.103	.000	.000	.000	.000	.000	.000	.291
TOTAL		4.175	1.750	1.314	.948	.482	.000	.338	1.133	.000	.551	10.639

TABLE NO. 2.2.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES IN CM.
DISTRICT- GAYA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	.308	.000	.000	.000	.000	.000	.000	.000	.000	.000	.308
Adina cordifolia	28	.013	.066	.000	.249	.000	.000	.000	.000	.000	.000	.328
Aegle marmelos	32	.171	.059	.000	.000	.000	.000	.000	.000	.000	.000	.230
Albizia procera	50	.024	.000	.000	.000	.000	.000	.000	.000	.000	.000	.024
Anogeissus latifolia	72	.125	.079	.000	.000	.000	.000	.000	.000	.000	.000	.204
Azadirachta indica	103	.024	.000	.213	.000	.000	.000	.000	.000	.000	.000	.236
Bauhinia purpurea	114	.000	.047	.000	.000	.000	.000	.000	.000	.000	.000	.047
Bauhinia species	118	.139	.000	.000	.000	.000	.000	.000	.000	.000	.000	.139
Boswellia serrata	133	.378	.593	.071	.265	.165	.000	.000	.000	.000	.000	1.711
Buchanania lanzaan	143	.081	.000	.000	.000	.000	.000	.000	.000	.000	.000	.081
Butea monosperma	146	.333	.059	.000	.000	.000	.000	.000	.000	.000	.000	.392
Cassia siamea	188	.040	.000	.000	.000	.000	.000	.000	.000	.000	.000	.040
Diospyros melanoxylon	285	.036	.000	.000	.000	.000	.000	.000	.000	.000	.000	.036
Emblica officinalis	325	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
Ficus religiosa	389	.032	.000	.000	.000	.000	.000	.000	.000	.000	.000	.032
Gardenia resinifera	405	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
Gmelina arborea	420	.034	.000	.000	.000	.000	.000	.000	.000	.000	.000	.034
Grindelia species	432	.000	.095	.000	.000	.000	.000	.000	.000	.000	.000	.095
Hollarrhena antidyserterica	452	.016	.000	.000	.000	.000	.000	.000	.000	.000	.000	.016
Hymenodictyon excelsum	470	.030	.000	.000	.000	.362	.000	.000	.000	.000	.000	.393
Lagerstroemia parviflora	505	.052	.000	.000	.000	.000	.000	.000	.000	.000	.000	.052
Lannea coromandelica	509	.170	.101	.456	.000	.000	.000	.000	.000	.000	.000	.727
Machluca latifolia	561	.079	.087	.120	.552	.362	.000	.000	.372	.2.687	.000	4.859
Nyctanthus arbortristis	637	.029	.000	.000	.000	.000	.000	.000	.000	.000	.000	.029
Semecarpus anacardium	798	.064	.047	.000	.000	.000	.000	.000	.000	.000	.000	.112
Shorea robusta	802	.061	.155	.131	.000	.378	.000	.000	.200	.000	.000	.725
Terminalia arjuna	860	.000	.066	.120	.000	.000	.000	.000	.200	.000	.000	.185
Weightia tomentosa	912	.092	.000	.000	.000	.000	.000	.000	.000	.000	.000	.092
Ziziphus species	930	.040	.000	.000	.000	.000	.000	.000	.000	.000	.000	.040
Unidentified trees	944	.144	.059	.179	.000	.000	.000	.000	.000	.000	.000	.382
TOTAL		2.532	1.513	1.289	1.066	1.267	.000	.000	.372	2.687	.000	11.327

TABLE NO. 2.3.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)

DISTRICT- GAYA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	2.360	1.293	.463	.000	.000	.000	.000	.000	.000	.000	4.116
Aegle marmelos	32	.281	.000	.000	.000	.000	.000	.000	.000	.000	.000	.281
Anogeissus latifolia	72	.320	.000	.000	.000	.000	.000	.000	.000	.000	.000	.320
Boswellia serrata	133	.085	.104	.243	.000	.000	.000	.000	.000	.000	.000	.433
Buchanania lanzen	143	.000	.176	.000	.000	.000	.000	.000	.000	.000	.000	.176
Butes monosperma	146	.862	.431	.000	1.084	.000	.000	.000	.000	.000	.000	2.376
Cassia siamea	188	.514	.000	.000	.000	.000	.000	.000	.000	.000	.000	.514
Clascourtia indica	389	.025	.000	.000	.000	.000	.000	.000	.000	.000	.000	.025
Hollarrhena antiqventerica	452	.045	.000	.000	.000	.000	.000	.000	.000	.000	.000	.045
Lagerstroemia parviflora	505	.067	.000	.000	.000	.000	.000	.000	.000	.000	.000	.067
Lannea coromandelica	509	.128	.207	.000	.000	.000	.000	.000	.000	.000	.000	.335
Madhuca latifolia	561	.189	.000	.000	1.158	.000	.000	1.719	.000	.000	.000	3.065
Nyctanthus arboreiflora	637	.109	.000	.000	.000	.000	.000	.000	.000	.000	.000	.109
Semicarpus anacardium	798	.059	.000	.000	.000	.000	.000	.000	.000	.000	.000	.059
Shorea robusta	802	.123	.000	.000	.000	.000	.000	.000	.000	.000	.000	.123
Tectona grandis	856	.015	.000	.000	.000	.000	.000	.000	.000	.000	.000	.015
Terminalia crenulata	866	.054	.000	.000	.000	.000	.000	.000	.000	.000	.000	.054
Zizyphus species	930	.186	.000	.000	.000	.000	.000	.000	.000	.000	.000	.186
Unidentified trees	944	.216	.000	.000	.000	.000	.000	.000	.000	.000	.000	.216
TOTAL		5.638	2.211	.706	2.242	.000	.000	1.719	.000	.000	.000	12.515

TABLE NO. 3.1.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT- DHANBAD

SPECIES	NAME	CODE	STRATA-SAL									TOTAL
			10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	
Aegle marmelos		32	.000	.000	.504	.000	.000	.000	.000	.000	.000	.504
Bombax ceiba		131	.144	.000	.000	.000	.000	.000	.000	.000	.000	.144
Cochlospermum religiosum		223	.046	.000	.000	.000	.000	.000	.000	.000	.000	.046
Erythrina variegata		341	.126	.000	.000	.009	.000	.000	.000	.000	.000	.126
Lagerstroemia hypoleuca		502	.028	.000	.000	.000	.000	.000	.000	.000	.000	.028
Lagerstroemia parviflora		505	.128	.000	.000	.000	.000	.000	.000	.000	.000	.128
Pterocarpus marsupium		722	.000	.000	.648	.000	.000	.000	.000	.000	.000	.648
Semecarpus anacardium		798	.081	.350	.000	.000	.000	.000	.000	.000	.000	.648
Shorea robusta		802	.910	.000	.448	.000	.000	.000	.000	.000	.000	.432
Sterculia urens		820	.064	.000	.000	.000	.000	.000	.000	.000	.000	1.357
Terminalia belerica		861	.068	.000	.000	.000	.000	.000	.000	.000	.000	.064
Terminalia crenulata		866	.036	.000	.000	.000	.000	.000	.000	.000	.000	.068
Acacia Auriculiformis(A06)		943	.028	.000	.000	.000	.000	.000	.000	.000	.000	.036
Unidentified trees		944	.068	.271	.000	.000	.000	.000	.000	.000	.000	.028
	TOTAL		1,725	.622	1.600	.000	.000	.000	.000	.000	.000	3.947

TABLE NO. 3.2.3
VOLUME (IN M³) PER NECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT- DILAMPUNG
STRATA-MISCELLANEOUS

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Adina cordifolia</i>	28	.108	.445	.000	.000	.000	.000	.000	.000	.000	.000	.553
<i>Anogeissus latifolia</i>	72	.294	.192	.000	.000	.000	.000	.000	.000	.000	.000	.487
<i>Bombax ceiba</i>	131	.070	.000	.000	.000	.000	.000	.000	.000	.000	.000	.070
<i>Boswellia serrata</i>	133	.055	.000	.000	.000	.000	.000	.000	.000	.000	.000	.055
<i>Buchanania lanzen</i>	143	.031	.000	.000	.000	.000	.000	.000	.000	.000	.000	.031
<i>Butea monosperma</i>	146	.000	.000	.523	.000	.000	.000	.000	.000	.000	.000	.523
<i>Dalbergia latifolia</i>	266	.039	.000	.000	.000	.000	.000	.000	.000	.000	.000	.039
<i>Dalbergia sissoo</i>	268	.000	.533	.000	.000	.000	.000	.000	.000	.000	.000	.533
<i>Diospyros melanoxylon</i>	285	.089	.000	.000	.000	.000	.000	.000	.000	.000	.000	.089
<i>Erythrina variegata</i>	341	.562	.000	.000	.000	.000	.000	.000	.000	.000	.000	.562
<i>Ficocurtia indica</i>	389	.103	.000	.000	.000	.000	.000	.000	.000	.000	.000	.103
<i>Gardenia species</i>	406	.039	.000	.000	.000	.000	.000	.000	.000	.000	.000	.039
<i>Garcia pinata</i>	407	.039	.000	.000	.000	.000	.000	.000	.000	.000	.000	.039
<i>Gmelina arborea</i>	420	.000	1.168	.763	.000	.000	.000	.000	.000	.000	.000	1.951
<i>Grewia tiliaceifolia</i>	431	.039	.000	.000	.000	.000	.000	.000	.000	.000	.000	.039
<i>Lagerstroemia parviflora</i>	505	.496	.000	.000	.000	.000	.000	.000	.000	.000	.000	.496
<i>Lannea coromandelica</i>	509	.403	.139	.000	.000	.000	.000	.000	.000	.000	.000	.542
<i>Madrhuca latifolia</i>	561	.000	.000	.523	.000	.000	.000	.000	.000	.000	.000	.523
<i>Mallotus philippinensis</i>	565	.048	.000	.000	.000	.000	.000	.000	.000	.000	.000	.048
<i>Semecarpus anacardium</i>	798	.334	.000	.000	.000	.000	.000	.000	.000	.000	.000	.334
<i>Shorea robusta</i>	802	.165	.155	.660	.000	.000	.000	.000	.000	.000	.000	.980
<i>Terminalia chebula</i>	864	.108	.000	.000	.000	.000	.000	.000	.000	.000	.000	.108
<i>Terminalia crenulata</i>	866	.111	.000	.000	.000	.000	.000	.000	.000	.000	.000	.111
<i>Xylois xylocarpa</i>	919	.054	.000	.000	.000	.000	.000	.000	.000	.000	.000	.054
<i>Zanthoxylum budrunge/rhetsa</i>	924	.000	.156	.000	.000	.000	.000	.000	.000	.000	.000	.156
<i>Ziziphus tiolypta</i>	929	.079	.000	.000	.000	.000	.000	.000	.000	.000	.000	.079
<i>Acacia auriculiformis (A06)</i>	943	.768	.000	.000	.000	.000	.000	.000	.000	.000	.000	.758
Unidentified trees	944	.110	.000	.000	.000	.000	.000	.000	.000	.000	.000	.110
TOTAL		4.164	2.787	2.489	.000	.000	.000	.000	.000	.000	.000	9.440

TABLE NO. 4.2.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)

DISTRICT- AURANGABAD

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	.178	.000	.000	.000	.000	.000	.000	.000	.000	.000	.178
Boswellia serrata	133	.499	.308	.000	.630	.000	.000	.000	.000	.000	.000	1.437
Bridelia retusa	138	.096	.000	.000	.000	.000	.000	.000	.000	.000	.010	.096
Grewia species	432	.062	.000	.000	.000	.000	.000	.000	.000	.000	.000	.062
Rhynchosciara excelsum	470	.139	.000	.000	.000	.000	.000	.000	.000	.000	.000	.139
Lannea coromandelica	509	.724	.000	.000	.000	.000	.000	.000	.000	.000	.000	.724
Pterocarpus marsupium	722	.216	.000	.000	.000	.000	.000	.000	.000	.000	.000	.216
Schleichera trijuga	795	.213	.000	.000	.000	.000	.000	.000	.000	.000	.000	.213
Terminalia crenulata	866	.047	.347	.000	.000	.000	.000	.000	.000	.000	.000	.394
Unidentified trees	944	.602	.000	.000	.000	.000	.000	.000	.000	.000	.000	.602
TOTAL	2,776	.655	.000	.630	.000	.000	.000	.000	.000	.000	.000	4.061

TABLE NO. 4.4.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT- AURANGABAD
STRATA-SALAI

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	.156	.000	.000	.000	.000	.000	.000	.000	.000	.000	.156
Anogeissus latifolia	72	.281	.000	.000	.000	.000	.000	.000	.000	.000	.000	.281
Boswellia serrata	133	3.850	5.409	.417	.755	.000	.000	.000	.000	.000	.000	10.431
Bridelia retusa	138	.164	.347	.000	.000	.000	.000	.000	.000	.000	.000	.511
Buchanania lanzani	143	.427	.000	.000	.000	.000	.000	.000	.000	.000	.000	.427
Cassia fistula	186	.047	.000	.000	.000	.000	.000	.000	.000	.000	.000	.047
Diospyros melanoxylon	285	.156	.000	.000	.000	.000	.000	.000	.000	.000	.000	.156
Lagerstroemia parviflora	505	.047	.000	.000	.000	.000	.000	.000	.000	.000	.000	.047
Lannea coromandelica	509	.342	.601	.000	.000	.000	.000	.000	.000	.000	.000	.943
Machhuca latifolia	561	.234	.508	.000	.000	.000	.000	.000	.000	.000	.000	.742
Schleichera trijuga	795	.139	.000	.000	.000	.000	.000	.000	.000	.000	.000	.139
Shorea robusta	802	.044	.000	.000	.000	.000	.000	.000	.000	.000	.000	.044
Zizyphus species	930	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
Unidentified trees	944	.296	.000	.000	.000	.000	.000	.000	.000	.000	.000	.296
TOTAL		6.261	6.865	.417	.755	.000	.000	.000	.000	.000	.000	14.298

TABLE NO.5.1.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT- MUNGER
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
Aegle marmelos	32	.245	.000	.000	.000	.000	.000	.000	.000	.000	.000	.245
Albizia lebbek	46	.130	.000	.000	.000	.000	.000	.000	.000	.000	.000	.130
Albizia species	51	.053	.000	.000	.000	.000	.000	.000	.000	.000	.000	.053
Anogeissus latifolia	72	.890	.313	.000	.000	.000	.000	.000	.000	.000	.000	1.203
Azadirachta indica	103	.032	.000	.000	.000	.000	.000	.000	.000	.000	.000	.032
Bombax ceiba	131	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
Boswellia serrata	133	.234	.448	.615	.230	.000	.000	.000	.000	.000	.000	1.527
Bridelia retusa	138	.864	.376	.000	.000	.000	.000	.000	.000	.000	.000	1.240
Buchanania lanza	143	1.402	.000	.349	.000	.000	.000	.000	.000	.000	.000	1.751
Buxus sempervirens	148	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
Careya arborea	177	.233	.141	.000	.000	.000	.000	.000	.000	.000	.000	.374
Diospyros melanoxylon	285	.524	.278	.234	.000	.000	.000	.000	.000	.000	.000	1.036
Diospyros species	292	.133	.326	.000	.462	.000	.000	.000	.000	.000	.000	.922
Emblica officinalis	325	.021	.000	.000	.000	.000	.000	.000	.000	.000	.000	.021
Erythrina species	342	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
Eugenia cymosa	350	.054	.116	.370	.000	.000	.000	.000	.000	.000	.000	.540
Hollarrhena antidysenterica	452	.161	.000	.000	.000	.000	.000	.000	.000	.000	.000	.161
Holoptelea integrifolia	456	.082	.128	.000	.000	.000	.000	.000	.000	.000	.000	.210

CONT.OF TABLE NO 5.1.3

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Kydia calycina</i>	501	.032	.000	.000	.000	.000	.000	.000	.000	.000	.000	.032
<i>Lagerstroemia parviflora</i>	505	.377	.440	.000	.000	.000	.000	.000	.000	.000	.000	.818
<i>Lannea coromandelica</i>	509	.553	.609	.000	.000	.000	.000	.000	.000	.000	.000	1.162
<i>Madhuca latitolia</i>	561	.944	1.096	.251	.000	.000	.000	.000	.000	.000	.000	2.889
<i>Pterocarpus marsupium</i>	722	.572	.336	.000	.000	.000	.000	.000	.000	.000	.000	.907
<i>Schleichera trijuga</i>	795	.016	.000	.251	.000	.000	.000	.000	.000	.000	.000	.267
<i>Semecarpus anacardium</i>	798	.710	.000	.308	.000	.000	.000	.000	.000	.000	.000	1.018
<i>Shorea robusta</i>	802	5.664	4.517	1.484	.000	.000	.000	.000	.000	.000	.000	11.664
<i>Sloanea assamica</i>	805	.039	.000	.000	.000	.000	.000	.000	.000	.000	.000	.039
<i>Sterculia urens</i>	820	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
<i>Syzygium cumini</i>	843	.125	.000	.000	.000	.000	.000	.000	.000	.000	.000	.125
<i>Syzygium ornottianum</i>	846	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
<i>Syzygium species</i>	850	.111	.093	.000	.000	.000	.000	.000	.000	.000	.000	.204
<i>Terminalia belerica</i>	861	.000	.000	.328	.000	.000	.000	.000	.000	.000	.000	.328
<i>Terminalia chebula</i>	864	.078	.000	.000	.000	.000	.000	.000	.000	.000	.000	.078
<i>Terminalia crenulata</i>	866	1.654	.482	.234	.000	.000	.000	.000	.000	.000	.000	2.369
<i>Ziziphus mauritiana</i>	927	.036	.000	.000	.000	.000	.000	.000	.000	.000	.000	.036
Unidentified trees	944	1.127	.425	.000	.000	.000	.000	.000	.000	.000	.000	1.552
TOTAL		17.228	10.123	4.423	.691	.000	.000	.000	.000	.000	.000	35.355

TABLE NO. 5.2.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT- NONGPAP
STRATA-MISCELLANEOUS

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	.053	.133	.000	.000	.000	.000	.000	.000	.000	.000	.186
<i>Acer nivaleum</i>	18	.018	.000	.000	.000	.000	.000	.000	.000	.000	.000	.018
<i>Adina cordifolia</i>	28	.120	.185	.000	.000	.586	.000	.000	.000	.000	.000	.892
<i>Aglaia marmelos</i>	32	.579	.621	.000	.000	.000	.000	.000	.000	.000	.000	1.200
<i>Albizia species</i>	51	.103	.078	.000	.000	.000	.000	.000	.000	.000	.000	.191
<i>Anogeissus latifolius</i>	72	.921	.907	.379	.000	.000	.000	.000	.000	.000	.000	2.206
<i>Bauhinia purpurea</i>	114	.014	.000	.000	.000	.000	.000	.000	.000	.000	.000	.014
<i>Bauhinia species</i>	118	.032	.000	.000	.000	.000	.000	.000	.000	.000	.000	.032
<i>Bombax ceiba</i>	131	.037	.000	.000	.000	.000	.000	.000	.000	.000	.000	.037
<i>Boswellia serrata</i>	133	.849	2.061	.848	1.471	.000	.310	.000	.000	.000	.000	5.539
<i>Bridelia retusa</i>	139	.699	.573	.694	.313	.000	.000	.000	.000	.000	.000	2.278
<i>Buchanania lanzaan</i>	143	1.696	.635	.208	.000	.000	.000	.000	.000	.000	.000	2.539
<i>Butea species</i>	147	.022	.000	.000	.000	.000	.000	.000	.000	.000	.000	.022
<i>Careya arborea</i>	177	.039	.087	.000	.000	.000	.000	.000	.000	.000	.000	.126
<i>Cassia fistula</i>	186	.025	.000	.000	.000	.000	.000	.000	.000	.000	.000	.025
<i>Cochlioppermum religiosum</i>	223	.194	.000	.000	.000	.000	.000	.000	.000	.000	.000	.194
<i>Dillenia indica</i>	277	.000	.281	.000	.000	.000	.000	.000	.000	.000	.000	.281
<i>Dillenia pentagyna</i>	278	.049	.300	.476	.000	.000	.000	.000	.000	.000	.000	.826
<i>Diospyros melanoxylon</i>	285	.607	.463	.622	.000	.000	.000	.000	.000	.000	.000	1.692
<i>Diospyros species</i>	292	.354	.724	.706	.000	.000	.000	.000	.000	.000	.000	1.784
<i>Erythrina species</i>	342	.037	.406	.000	.000	.000	.000	.000	.000	.000	.000	.443
<i>Fagara budrunga</i>	372	.031	.000	.000	.000	.000	.000	.000	.000	.000	.000	.031
<i>Ficus bengalensis</i>	375	.053	.000	.000	.330	.000	.000	.000	.000	.000	.000	.383
<i>Ficus religiosa</i>	381	.031	.000	.000	.000	.000	.000	.000	.000	.000	.000	.031
<i>Ficus species</i>	385	.000	.115	.000	.000	.000	.000	.000	.000	.000	.000	.115
<i>Gamelina arborea</i>	420	.066	.105	.000	.000	.000	.000	.000	.000	.000	.000	.172

CONT. OF TABLE NO. 5.2.3

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Hollarrhena antidysenterica</i>	452	.392	.096	.000	.000	.000	.000	.000	.000	.000	.000	.488
<i>Kydia calycina</i>	501	.143	.000	.000	.000	.000	.000	.000	.000	.000	.000	.143
<i>Lagerstroemia lanceolata</i>	504	.000	.063	.000	.000	.000	.000	.000	.000	.000	.000	.063
<i>Lagerstroemia parviflora</i>	505	.818	.203	.000	.000	.000	.000	.000	.000	.000	.000	1.022
<i>Lannea coromandelica</i>	509	1.247	1.153	.158	.347	.000	.000	.000	.000	.000	.000	2.906
<i>Machhuca latifolia</i>	561	.109	.562	.378	.000	.000	.000	.000	.000	.000	.000	1.049
<i>Premna bengalensis</i>	705	.022	.105	.000	.000	.000	.000	.000	.000	.000	.000	.127
<i>Pterocarpus marsupium</i>	722	.494	.203	.000	.000	.000	.000	.000	.000	.000	.000	.698
<i>Schleichera trijuga</i>	795	.264	.125	.170	.000	.000	.000	.000	.000	.000	.000	.559
<i>Semecarpus anacardium</i>	798	.268	.261	.417	.000	.000	.000	.000	.000	.000	.000	.946
<i>Shorea robusta</i>	802	.372	.606	.000	.000	.000	.000	.000	.000	.000	.000	.978
<i>Spondias pinnata</i>	812	.384	.474	.503	.000	.000	.000	.000	.000	.000	.000	1.361
<i>Sterculia villosa</i>	821	.077	.133	.000	.000	.000	.705	.000	.000	.000	.000	.915
<i>Syzygium species</i>	850	.032	.000	.170	.000	.000	.000	.000	.000	.000	.000	.202
<i>Terminalia belerica</i>	861	.100	.366	.266	.000	.000	.000	.000	.000	.000	.000	.731
<i>Terminalia chebula</i>	864	.043	.136	.000	.000	.000	.000	.000	.000	.000	.000	.179
<i>Terminalia crenulata</i>	866	.477	.210	.000	.000	.000	.000	.000	.000	.000	.000	.698
<i>Trewia nudiflora</i>	890	.000	.087	.000	.000	.000	.000	.000	.000	.000	.000	.087
<i>Zizyphus mauritiana</i>	927	.070	.000	.000	.000	.000	.000	.000	.000	.000	.000	.070
Unidentified trees	944	2.254	1.548	.182	.000	.000	.000	.000	.000	.000	.000	3.984
TOTAL		14.197	13.724	6.459	2.461	.586	1.014	.000	.000	.000	.000	38.442

TABLE NO. 6.J.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT - NAWADA

SPECIES NAME	CODE	STRATA-SAL										TOTAL
		10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	
<i>Acacia catechu</i>	6	.157	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.57
<i>Acina cordifolia</i>	28	.101	.121	.000	.000	.000	.000	.000	.000	.000	.000	.222
<i>Anogeissus latifolia</i>	72	.271	.234	.000	.000	.000	.000	.000	.000	.000	.000	.505
<i>Bauhinia purpurea</i>	114	.037	.000	.000	.000	.000	.000	.000	.000	.000	.000	.037
<i>Bauhinia retusa</i>	116	.084	.000	.000	.000	.000	.000	.000	.000	.000	.000	.084
<i>Bombax ceiba</i>	131	.054	.000	.000	.000	.000	.000	.000	.000	.000	.000	.054
<i>Boswellia serrata</i>	133	.035	.078	.000	.000	.000	.000	.000	.000	.000	.000	.114
<i>Bridelia retusa</i>	138	.092	.000	.000	.000	.000	.000	.000	.000	.000	.000	.092
<i>Buchanania lanza</i>	143	.581	.108	.000	.000	.000	.000	.000	.000	.000	.000	.689
<i>Cassia siamea</i>	188	.018	.000	.000	.000	.000	.000	.000	.000	.000	.000	.018
<i>Dillenia pentagyna</i>	278	.000	.253	.000	.000	.000	.000	.000	.000	.000	.000	.253
<i>Diopyros melanoxylon</i>	285	.389	.243	.000	.000	.000	.000	.000	.000	.000	.000	.632
<i>Diopyros species</i>	292	.260	.000	.000	.000	.000	.000	.000	.000	.000	.000	.260
<i>Emblema officinale</i>	325	.161	.000	.000	.000	.000	.000	.000	.000	.000	.000	.161
<i>Eugenia species</i>	358	.018	.000	.000	.000	.000	.000	.000	.000	.000	.000	.018
<i>Ghelinia arborea</i>	420	.030	.000	.000	.000	.000	.000	.000	.000	.000	.000	.030
<i>Hollarzhanha antidyserterica</i>	452	.093	.000	.000	.000	.000	.000	.000	.000	.000	.000	.093
<i>Lagerstroemia parviflora</i>	505	.018	.000	.000	.000	.000	.000	.000	.000	.000	.000	.018
<i>Lannea coromandelica</i>	509	.482	.000	.000	.000	.000	.000	.000	.000	.000	.000	.482
<i>Madhua latifolia</i>	561	.611	.724	.458	.000	.000	.000	1.778	.000	.000	.000	.570
<i>Pterocarpus marsupium</i>	722	.000	.108	.000	.000	.000	.000	.000	.000	.000	.000	.108
<i>Schleichera trijuga</i>	795	.000	.300	.000	.000	.000	.000	.000	.000	.000	.000	.300
<i>Semecarpus anacardium</i>	798	.192	.000	.000	.000	.000	.000	.000	.000	.000	.000	.192
<i>Shorea robusta</i>	802	4.495	.243	.336	.484	.000	.000	.000	.000	.000	.000	5.558
<i>Terminalia belerica</i>	861	.265	.273	.000	.000	.000	.000	.000	.000	.000	.000	.538
<i>Terminalia crenulata</i>	866	.444	.121	.458	.000	1.010	.000	.000	.000	.000	.000	2.032
<i>Ulmus lancifolia</i>	886	.037	.000	.000	.000	.000	.000	.000	.000	.000	.000	.037
<i>Zizyphus species</i>	930	.049	.000	.000	.000	.000	.000	.000	.000	.000	.000	.049
Unidentified trees	944	.540	.000	.000	.000	.000	.000	.000	.000	.000	.000	.540
TOTAL		9.516	2.806	1.251	4.84	1.010	.000	1.778	.000	.000	.000	16.845

TABLE NO. 6.2.3

 VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
 DISTRICT- NAMADA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	.325	.000	.000	.000	.000	.000	.000	.000	.000	.000	.325
Adina cordifolia	28	.127	.108	.000	.000	.000	.000	.000	.000	.000	.000	.235
Aegle marmelos	32	.544	.052	.000	.000	.000	.000	.000	.000	.000	.000	.596
Albizia procera	50	.108	.129	.000	.000	.000	.000	.000	.000	.000	.000	.237
Albizia species	51	.043	.000	.000	.000	.000	.000	.000	.000	.000	.000	.043
Anogeissus latifolia	72	.480	.291	.000	.269	.467	.000	.000	.000	.000	.000	1.507
Bauhinia retusa	116	.145	.052	.000	.000	.000	.000	.000	.000	.000	.000	.163
Bauhinia species	118	.099	.064	.000	.000	.000	.000	.000	.000	.000	.000	1.379
Bombax ceiba	131	.054	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Boswellia serrata	133	.570	.894	.676	1	.100	.186	.724	.000	.000	.000	4.151
Bridelia retusa	138	.019	.000	.000	.000	.000	.000	.000	.000	.000	.000	.019
Buchanania lanza	143	.463	.000	.000	.000	.000	.000	.000	.000	.000	.000	.463
Butea monosperma	146	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Cassia fistula	186	.091	.000	.000	.000	.000	.000	.000	.000	.000	.000	.091
Cochlospermum religiosum	223	.100	.213	.208	.339	.000	.000	.000	.000	.000	.000	.659
Diospyros melanoxylon	265	.174	.247	.000	.000	.000	.000	.000	.000	.000	.000	.421
Diospyros species	292	.027	.000	.000	.000	.000	.000	.000	.000	.000	.000	.027
Emblica officinalis	325	.139	.093	.000	.000	.000	.000	.000	.000	.000	.000	.232
Erythrina variegata	341	.051	.193	.165	.000	.000	.000	.000	.000	.000	.000	.429
Erythrina species	342	.036	.000	.404	.000	.000	.000	.000	.000	.000	.000	.440
Eugenia species	358	.026	.000	.000	.000	.000	.000	.000	.000	.000	.000	.026
Ficus bengalensis	375	.000	.078	.000	.000	.000	.000	.000	.000	.000	.000	.078

CONT. OF TABLE NO 6.2.3

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Ficus religiosa</i>	381	.027	.000	.000	.000	.000	.000	.000	.000	.000	.000	.027
<i>Ficus species</i>	385	.044	.000	.144	.000	.000	.000	.000	.000	.000	.000	.189
<i>Gaultheria fragrantissima</i>	398	.037	.046	.000	.000	.000	.000	.000	.000	.000	.000	.084
<i>Gmelina arborea</i>	420	.031	.000	.000	.000	.000	.000	.000	.000	.000	.000	.031
<i>Hollardia antidyserterica</i>	452	.131	.046	.000	.000	.000	.000	.000	.000	.000	.000	.177
<i>Holoptelea integrifolia</i>	456	.000	.052	.000	.000	.000	.000	.000	.000	.000	.000	.052
<i>Lagerstroemia parviflora</i>	505	.157	.000	.000	.000	.000	.000	.000	.000	.000	.000	.157
<i>Lannea coromandelica</i>	509	.855	.957	.504	.000	.000	.000	.000	.000	.000	.000	2.317
<i>Madhuca latifolia</i>	561	.134	.255	.333	.463	.000	.000	1.548	.000	.000	.000	.2.733
<i>Pterocarpus marsupium</i>	722	.008	.000	.117	.000	.000	.000	.000	.000	.000	.000	.125
<i>Schleichera trijuga</i>	795	.094	.000	.000	.000	.000	.000	.000	.000	.000	.000	.094
<i>Semecarpus anacardium</i>	798	.210	.064	.000	.000	.000	.000	.000	.000	.000	.000	.2.74
<i>Shorea robusta</i>	802	1.065	.539	.336	.000	.000	.000	.000	.000	.000	.000	1.940
<i>Sterculia villosa</i>	821	.050	.000	.000	.000	.000	.000	.000	.000	.000	.000	.050
<i>Stereospermum suaveolens</i>	825	.034	.000	.000	.000	.000	.000	.000	.000	.000	.000	.034
<i>Tamarindus indica</i>	856	.008	.000	.000	.000	.000	.000	.000	.000	.000	.000	.008
<i>Terminalia bellirica</i>	861	.036	.000	.000	.000	.000	.000	.000	.000	.000	.000	.036
<i>Terminalia chebula</i>	864	.027	.000	.000	.000	.000	.000	.000	.000	.000	.000	.027
<i>Terminalia crenulata</i>	866	.367	.071	.000	.000	.000	.000	.000	.000	.000	.000	.438
<i>Ziziphus mauritiana</i>	927	.031	.000	.000	.000	.000	.000	.000	.000	.000	.000	.031
<i>Ziziphus species</i>	930	.103	.000	.000	.000	.000	.000	.000	.000	.000	.000	.103
Unidentified trees	944	.700	.554	.126	.000	.000	.000	.000	.000	.000	.000	1.280
TOTAL		7.771	4.999	3.032	2.402	.653	.724	1.548	.000	1.325	.000	22.455

TABLE NO. 7.1.3
VOLUME (IN M³) PER HECTARE BY SPECIES AND DIAMETERCLASSES (IN CM.)
DISTRICT- MALANDA
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
Anogeissus latifolia	72	.194	.000	.000	.000	.000	.000	.000	.000	.000	.000	.194
Bridelia retusa	138	.329	.000	.000	.000	.000	.000	.000	.000	.000	.000	.329
Buchanania lanzae	143	.086	.000	.000	.000	.000	.000	.000	.000	.000	.000	.086
Cochlospermum religiosum	223	.000	.389	.000	.000	.000	.000	.000	.000	.000	.000	.389
Lannea coromandelica	509	.412	.000	.000	.000	.000	.000	.000	.000	.000	.000	.412
Madhuca latifolia	561	.196	.000	.000	.000	.000	.000	.000	.000	.000	.000	.196
Shorea robusta	802	1.485	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.485
Unidentified trees	944	.194	.000	.000	.000	.000	.000	.000	.000	.000	.000	.194
TOTAL		2.896	.389	.000	3.285							

TABLE NO.1.1.⁴
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- GIRIDIH
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
<i>Acacia catechu</i>	6	5155	1607	0	0	0	0	0	0	0	6762
<i>Adina cordifolia</i>	28	1424	0	0	0	0	0	0	0	0	1424
<i>Adina oligocephala</i>	30	356	0	0	0	0	0	0	0	0	356
<i>Albizia procera</i>	50	830	0	0	0	0	0	0	0	0	830
<i>Anogeissus latifolia</i>	72	6069	3604	0	10275	0	0	0	0	0	19948
<i>Bauhinia purpurea</i>	114	356	0	0	0	0	0	0	0	0	356
<i>Bauhinia retusa</i>	116	451	0	0	0	0	0	0	0	0	451
<i>Bombax ceiba</i>	131	1008	0	0	0	0	0	0	0	0	1008
<i>Boswellia serrata</i>	133	5352	5556	6790	3646	0	0	0	0	0	21344
<i>Bridelia retusa</i>	138	556	0	0	0	0	0	0	0	0	556
<i>Buchanania lanzen</i>	143	15768	5166	0	0	0	0	0	0	0	20934
<i>Butea monosperma</i>	146	10386	4254	0	0	0	0	0	0	0	14640
<i>Careya arborea</i>	177	673	0	0	0	0	0	0	0	0	673
<i>Cassia fistula</i>	186	830	0	0	0	0	0	0	0	0	830
<i>Cochlospermum religiosum</i>	223	6169	4026	5808	0	0	0	0	0	0	17003
<i>Cordia tomentosa</i>	238	1113	0	0	0	0	0	0	0	0	1113
<i>Dalbergia paniculata</i>	267	2065	0	0	0	0	0	0	0	0	2065
<i>Diospyros melanoxylon</i>	285	15351	8609	0	0	0	0	0	0	0	23960
<i>Diospyros species</i>	292	1251	0	0	0	0	0	0	0	0	1251
<i>Emlica officinalis</i>	325	5496	2691	0	0	0	0	0	0	0	8187
<i>Erythrina suberosa</i>	340	713	0	0	0	0	0	0	0	0	713
<i>Ficus bengalensis</i>	375	0	0	0	9402	0	0	0	0	0	62068
<i>Ficus species</i>	385	4171	1802	0	0	0	0	0	0	0	5973

CONT.OF TABLE NO 1.1.4

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+ TOTAL
<i>Gardenia resinifera</i>	405	713	0	0	0	0	0	0	0	0	0
<i>Gardenia species</i>	406	273	0	0	0	0	0	0	0	0	273
<i>Garuga pinnata</i>	407	273	0	0	0	0	0	0	0	0	273
<i>Gmelina arborea</i>	420	273	0	0	0	0	0	0	0	0	1103
<i>Hollarrhena antidysenterica</i> (A52)	505	1103	0	0	0	0	0	0	0	0	8480
<i>Lagerstroemia parviflora</i>	509	5789	2691	0	0	0	0	0	0	0	13787
<i>Lannea coromandelica</i>	561	11780	2007	0	0	0	0	0	0	0	168195
<i>Madhuca latifolia</i>	20943	35022	18111	63698	0	0	30421	0	0	0	0
<i>Mangifera indica</i>	569	0	0	0	0	0	27232	0	0	0	27232
<i>Mitragyna parviflora</i>	611	356	0	0	0	0	0	0	0	0	356
<i>Pterocarpus marsupium</i>	722	3409	0	0	0	0	0	0	0	0	3409
<i>Schleichera trijuga</i>	795	356	0	0	0	0	0	0	0	0	356
<i>Semecarpus anacardium</i>	798	20987	6166	0	0	0	0	0	0	0	27153
<i>Shorea robusta</i>	802	198704	30061	16212	6205	0	0	0	0	0	25182
<i>Shorea talura</i>	803	1670	0	0	0	0	0	0	0	0	1670
<i>Syzygium cumini</i>	843	8220	7607	11483	30014	0	22756	0	0	0	80080
<i>Terminalia belerica</i>	861	546	0	0	0	0	0	0	0	0	546
<i>Terminalia chebula</i>	864	1504	0	0	0	0	0	0	0	0	1504
<i>Terminalia citrina</i>	865	356	0	0	0	0	0	0	0	0	356
<i>Terminalia crenulata</i>	866	15226	3474	0	0	0	0	0	0	0	18700
<i>Acacia Auriculiformis(A06)</i>	943	2531	0	0	0	0	0	0	0	0	2531
Unidentified trees	944	15941	17101	0	0	0	0	0	0	0	33042
TOTAL		396496	141444	59404	123640	27232	22756	30421	0	0	52266
											853659

TABLE NO.1.2.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- GIRIDIH
STRATA-MISCELLANEOUS

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+ TOTAL
<i>Acacia catechu</i>	6	3943	0	0	0	0	0	0	0	0	3943
<i>Acer leavigatum</i>	17	356	0	0	0	0	0	0	0	0	356
<i>Adina cordifolia</i>	28	3119	2007	0	0	0	0	0	0	0	5126
<i>Aegle marmelos</i>	32	2599	0	6052	0	0	0	0	0	0	8651
<i>Albizia lebbek</i>	46	1251	0	0	0	0	0	0	0	0	1251
<i>Albizia species</i>	51	2499	0	0	0	0	0	0	0	0	2499
<i>Anogeissus canariensis</i>	61	273	0	0	0	0	0	0	0	0	273
<i>Anogeissus latifolia</i>	72	16939	5210	0	0	0	0	0	0	0	22149
<i>Bauhinia malabarica</i>	113	1838	1802	0	0	0	0	0	0	0	3640
<i>Bauhinia purpurea</i>	114	1449	0	0	0	0	0	0	0	0	1449
<i>Bauhinia species</i>	118	4690	0	0	0	0	0	0	0	0	4690
<i>Bombax ceiba</i>	131	10944	3202	4358	0	0	0	0	0	0	18504
<i>Boswellia serrata</i>	133	19362	12757	17818	5154	6236	0	0	0	0	61327
<i>Bridelia retusa</i>	138	7594	0	0	6025	0	0	0	0	0	15619
<i>Buchanania lanざan</i>	143	15559	0	0	0	0	0	0	0	0	15559
<i>Butes monosperme</i>	146	11124	25003	5691	0	0	0	0	0	0	41818
<i>Careya arborea</i>	177	2162	0	0	10275	0	0	0	0	0	12637
<i>Cassia fistula</i>	196	556	1802	0	0	0	0	0	0	0	2358
<i>Toona ciliata</i>	198	0	2691	0	0	0	0	0	0	0	2691
<i>Coccolius laurifolius</i>	222	2458	0	0	0	0	0	0	0	0	2458
<i>Cochlearia religiosum</i>	223	1281	0	0	0	0	0	0	0	0	1281
<i>Diospyros melanoxylon</i>	235	11547	5082	6808	19366	0	0	0	0	0	42803
<i>Diospyros species</i>	292	2204	0	0	0	0	0	0	0	0	2204
<i>Emilia officinalis</i>	325	1721	0	0	0	0	0	0	0	0	1721
<i>Erythrina suberosa</i>	340	5110	9542	7202	0	0	0	0	0	0	21854
<i>Erythrina variegata</i>	341	356	0	0	0	0	0	0	0	0	356
<i>Erythrina species</i>	342	451	0	0	0	0	0	0	0	0	451
<i>Eucalyptus hybrid</i>	346	3879	0	0	0	0	0	0	0	0	3879

CONT. OF TABLE NO. 1.2.4

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Ficus bengalensis</i>	375	0	2941	0	0	0	0	0	0	0	0	40254
<i>Eucalyptus</i> species	348	6860	10443	0	0	0	0	0	0	0	0	17323
<i>Ficus religiosa</i>	381	451	2224	0	0	0	0	0	0	0	0	2675
<i>Ficus</i> species	385	1577	0	0	0	0	0	0	0	0	0	1577
<i>Gardenia resinifera</i>	405	3157	0	0	0	0	0	0	0	0	0	3157
<i>Gardenia</i> species	406	273	0	0	0	0	0	0	0	0	0	273
<i>Garuga pinnata</i>	407	4496	0	5002	0	0	0	0	0	0	0	9498
<i>Camelia arborea</i>	420	556	0	0	0	0	0	0	0	0	0	556
<i>Grewia tiliacea</i>	431	14473	0	0	0	0	0	0	0	0	0	14473
<i>Hollarrhena antidysenterica</i>	452	2148	0	0	0	0	0	0	0	0	0	2148
<i>Hymenodictyon excelsum</i>	470	1816	0	0	0	0	0	0	0	0	0	1816
<i>Lagerstroemia parviflora</i>	505	11380	0	0	0	0	0	0	0	0	0	11380
<i>Leuenia cosmodendron</i>	509	23364	24357	5691	0	0	0	0	0	0	0	5342
<i>Madrhuza latifolia</i>	561	12974	13080	49723	37466	27232	0	32087	70291	0	0	22265
<i>Mallotus philippensis</i>	565	11066	0	0	0	0	0	0	0	0	0	11066
<i>Ougeinia dalbergioides</i>	653	451	0	0	0	0	0	0	0	0	0	451
<i>Pterocarpus marsupium</i>	722	3580	0	0	0	0	0	0	0	0	0	3580
<i>Psychotria trijuga</i>	795	7416	7307	4358	0	0	0	0	0	0	0	19031
<i>Schrebera swinhonis</i>	796	451	0	0	0	0	0	0	0	0	0	451
<i>Sesecarpus anacardium</i>	798	11568	0	0	0	0	0	0	0	0	0	11568
<i>Shorea robusta</i>	802	34506	7495	8139	0	12359	0	0	0	0	0	62439
<i>Sterculia urens</i>	822	2372	0	0	0	0	0	0	0	0	0	2372
<i>Strychnos potatorum</i>	832	2053	0	0	0	0	0	0	0	0	0	2053
<i>Szygium cumini</i>	843	5192	7640	4052	0	0	0	0	0	0	0	16834
<i>Terminalia belerica</i>	861	3218	0	0	0	0	0	0	0	0	0	3218
<i>Terminalia chebula</i>	864	2121	3215	0	0	0	0	0	0	0	0	5536
<i>Terminalia crenulata</i>	866	14886	9250	0	0	0	0	0	0	0	0	24436
<i>Webera corimbosa</i>	905	273	0	0	0	0	0	0	0	0	0	273
<i>Wrightia gigantea</i>	911	1742	0	0	0	0	0	0	0	0	0	1742
<i>Zizyphus</i> species	920	1252	0	0	0	0	0	0	0	0	0	1252
<i>Acacia</i> <i>Auriculiformis</i> (A06)	943	9979	0	0	0	0	0	0	0	0	0	9979
Unidentified trees	944	65632	9226	0	9802	0	0	0	0	0	0	84750
TOTAL		396747	166276	124894	90088	45827	0	12087107644	0	32266	1015119	

TABLE NO. 2.2.4

TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- GAYA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	6257	0	0	0	0	0	0	0	0	0	6257
<i>Adina cordifolia</i>	28	270	1135	0	5073	0	0	0	0	0	0	6673
<i>Aegle marmelos</i>	32	3477	1205	0	0	0	0	0	0	0	0	4652
<i>Albizia procera</i>	50	481	0	0	0	0	0	0	0	0	0	481
<i>Anogeissus latifolia</i>	72	2543	1615	0	0	0	0	0	0	0	0	4153
<i>Acadirachta indica</i>	103	484	0	4323	0	0	0	0	0	0	0	4807
<i>Bauhinia purpurea</i>	114	0	964	0	0	0	0	0	0	0	0	964
<i>Bauhinia species</i>	118	2819	0	0	0	0	0	0	0	0	0	2819
<i>Boswellia serrata</i>	123	7692	12050	1448	5386	3345	0	0	0	0	0	29921
<i>Buchanania lanzae</i>	143	1637	0	0	0	0	0	0	0	0	0	1637
<i>Butea monosperma</i>	146	6764	1205	0	0	0	0	0	0	0	0	7943
<i>Cassia siamea</i>	188	812	0	0	0	0	0	0	0	0	0	812
<i>Diospyros melanoxylon</i>	285	732	0	0	0	0	0	0	0	0	0	732
<i>Emblica officinalis</i>	325	164	0	0	0	0	0	0	0	0	0	164
<i>Ficourtia indica</i>	389	646	0	0	0	0	0	0	0	0	0	646
<i>Gardenia resinifera</i>	405	164	0	0	0	0	0	0	0	0	0	164
<i>Grewia arborea</i>	420	695	0	0	0	0	0	0	0	0	0	695
<i>Grewia species</i>	422	0	1922	0	0	0	0	0	0	0	0	1922
<i>Hollarrhena antidysenterica</i>	452	334	0	0	0	0	0	0	0	0	0	334
<i>Hymenodictyon excelsum</i>	470	618	0	0	7367	0	0	0	0	0	0	7367
<i>Lagerstroemia parviflora</i>	505	1053	0	0	0	0	0	0	0	0	0	1053
<i>Lannea coromandelica</i>	509	3464	2046	9277	0	0	0	0	0	0	0	1447
<i>Machhuca latifolia</i>	561	1610	1765	2432	11220	7367	0	0	19768	54654	0	96216
<i>Nyctanthus arbortristis</i>	637	598	0	0	0	0	0	0	0	0	0	598
<i>Seesecarpus anacardium</i>	798	1209	964	0	0	0	0	0	0	0	0	223
<i>Shorea robusta</i>	802	1234	3155	2664	7690	0	0	0	0	0	0	16743
<i>Terminalia arjuna</i>	860	0	1335	2432	0	0	0	0	0	0	0	357
<i>Wrightia tomentosa</i>	912	1880	0	0	0	0	0	0	0	0	0	1670
<i>Zizyphus species</i>	930	819	0	0	0	0	0	0	0	0	0	619
Unidentified trees	944	2929	1205	3632	0	0	0	0	0	0	0	7765
TOTAL	51487	30766	26208	21679	25769	0	0	19768	54654	7	233321	

TABLE NO.2.3.4
TOTAL VOLUME (IN MJ) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- GAYA
STRATA-KHAIR

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	25759	14105	5048	0	0	0	0	0	0	0	44912
<i>Aegle marmelos</i>	32	3068	0	0	0	0	0	0	0	0	0	3068
<i>Anogeissus latifolia</i>	72	3495	0	0	0	0	0	0	0	0	0	3495
<i>Boswellia serrata</i>	133	931	1139	2655	0	0	0	0	0	0	0	4725
<i>Buchanania lancea</i>	143	0	1922	0	0	0	0	0	0	0	0	1922
<i>Butea monosperma</i>	146	9401	4703	0	11827	0	0	0	0	0	0	25931
<i>Cassia siamea</i>	188	5604	0	0	0	0	0	0	0	0	0	5604
<i>Flacourtie indica</i>	389	270	0	0	0	0	0	0	0	0	0	270
<i>Hollarrhena antidysenterica</i>	552	492	0	0	0	0	0	0	0	0	0	492
<i>Lagerstroemia parviflora</i>	505	732	0	0	0	0	0	0	0	0	0	732
<i>Lannea coromandelica</i>	509	1396	2255	0	0	0	0	0	0	0	0	3651
<i>Machilus latifolia</i>	561	2059	0	1263	0	0	0	0	0	0	0	31452
<i>Nyctanthes arbortristis</i>	637	1184	0	0	0	0	0	0	0	0	0	1184
<i>Samecarpus anacardium</i>	798	645	0	0	0	0	0	0	0	0	0	645
<i>Shorea robusta</i>	902	1339	0	0	0	0	0	0	0	0	0	1339
<i>Tectona grandis</i>	958	164	0	0	0	0	0	0	0	0	0	164
<i>Terminalia crenulata</i>	966	592	0	0	0	0	0	0	0	0	0	592
<i>Ziziphus species</i>	930	2032	0	0	0	0	0	0	0	0	0	2032
Unidentified trees	944	2353	0	0	0	0	0	0	0	0	0	2353
TOtal		61516	24124	7703	24464	0	0	18756	0	0	0	136563

TABLE NO.3.1.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- DHANBAD
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
Aegle marmelos	32	0	0	5336	0	0	0	0	0	0	5336
Bonbam Ceiba	131	1519	0	0	0	0	0	0	0	0	1519
Cochlospernum religiosum	223	461	0	0	0	0	0	0	0	0	461
Strychnia variegata	341	1335	0	0	0	0	0	0	0	0	1335
Lagerstroemia hypoleuca	502	291	0	0	0	0	0	0	0	0	291
Lagerstroemia parviflora	505	1355	0	0	0	0	0	0	0	0	1355
Pterocarpus marsupium	722	0	6853	0	0	0	0	0	0	0	6853
Sesemicarpus anacardium	798	861	3706	0	0	0	0	0	0	0	4567
Shorea robusta	802	9620	0	4735	0	0	0	0	0	0	14385
Starckia urens	820	671	0	0	0	0	0	0	0	0	671
Terminalia bellierica	861	718	0	0	0	0	0	0	0	0	718
Terminalia crenulata	866	380	0	0	0	0	0	0	0	0	360
Acacia Kuriculiformis(A06)	943	291	0	0	0	0	0	0	0	0	291
Unidentified trees	944	718	2870	0	0	0	0	0	0	0	3558
TOTAL		18240	6576	16924	0	0	0	0	0	0	41740

TABLE NO.3.2.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- DRABNAD
STRATA-MISCELLANEOUS

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Adina cordifolia</i>	28	1335	5486	0	0	0	0	0	0	0	0	6821
<i>Anogeissus latifolia</i>	72	3633	2372	0	0	0	0	0	0	0	0	6005
<i>Bombax ceiba</i>	31	861	0	0	0	0	0	0	0	0	0	861
<i>Boswellia serrata</i>	33	681	0	0	0	0	0	0	0	0	0	681
<i>Buchanania lanzenii</i>	43	380	0	0	0	0	0	0	0	0	0	380
<i>Butea monosperma</i>	46	0	6456	0	0	0	0	0	0	0	0	6456
<i>Dalbergia latifolia</i>	266	481	0	0	0	0	0	0	0	0	0	481
<i>Dalbergia sissoo</i>	268	0	6577	0	0	0	0	0	0	0	0	6577
<i>Diospyros melanoxylon</i>	295	1099	0	0	0	0	0	0	0	0	0	1099
<i>Erythrina variegata</i>	341	6930	0	0	0	0	0	0	0	0	0	6930
<i>Flacourtie indica</i>	389	1266	0	0	0	0	0	0	0	0	0	1266
<i>Gardneria species</i>	406	481	0	0	0	0	0	0	0	0	0	481
<i>Garuga pinnata</i>	407	481	0	0	0	0	0	0	0	0	0	481
<i>Gmelina arborea</i>	120	0	14417	9659	0	0	0	0	0	0	0	24076
<i>Grewia tiliaceifolia</i>	131	481	0	0	0	0	0	0	0	0	0	481
<i>Lagerstroemia parviflora</i>	105	6122	0	0	0	0	0	0	0	0	0	6122
<i>Lannea coromandelica</i>	109	4972	1714	0	0	0	0	0	0	0	0	6686
<i>Madrhuca latifolia</i>	161	0	6456	0	0	0	0	0	0	0	0	6456
<i>Mallotus philippinensis</i>	165	594	0	0	0	0	0	0	0	0	0	594
<i>Semecarpus anacardium</i>	98	4123	0	0	0	0	0	0	0	0	0	4123
<i>Shorea robusta</i>	102	2038	1911	8141	0	0	0	0	0	0	0	12090
<i>Terminalia chebula</i>	64	1335	0	0	0	0	0	0	0	0	0	1335
<i>Terminalia crenulata</i>	66	1366	0	0	0	0	0	0	0	0	0	1366
<i>Xylosteum xylocarpa</i>	319	672	0	0	0	0	0	0	0	0	0	672
<i>Zanthoxylum budrunga/rhetsa</i>	24	0	1922	0	0	0	0	0	0	0	0	1922
<i>Ziziphus zygophyla</i>	729	974	0	0	0	0	0	0	0	0	0	974
<i>Acacia Auriculiformis (A06)</i>	243	9719	0	0	0	0	0	0	0	0	0	9719
Unidentified trees	344	1355	0	0	0	0	0	0	0	0	0	1355
TOTAL		51379	34399	30712	0	0	0	0	0	0	0	116490

TABLE NO.4.2.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- RAURANGABAD
STRATA-MISCELLANEOUS

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Acacia catechu	6	4797	0	0	0	0	0	0	0	0	0	4797
Boswellia serrata	133	13432	8289	0	16976	0	0	0	0	0	0	38697
Bridelia retusa	138	2592	0	0	0	0	0	0	0	0	0	2592
Grewia species	432	1660	0	0	0	0	0	0	0	0	0	1660
Hymenodictyon excelsum	470	3731	0	0	0	0	0	0	0	0	0	3731
Lannea coromandelica	509	19496	0	0	0	0	0	0	0	0	0	19496
Pterocarpus marsupium	722	5828	0	0	0	0	0	0	0	0	0	5828
Schleichera trijuga	795	5729	0	0	0	0	0	0	0	0	0	5729
Terminalia crenulata	866	1272	9347	0	0	0	0	0	0	0	0	10619
Unidentified trees	944	16224	0	0	0	0	0	0	0	0	0	16224
TOTAL		74761	17636	0	16976	0	0	0	0	0	0	109373

TABLE NO. 4.4.4
TOTAL VOLUME (IN M³) BY SPECIES AND PLANETES CLASSES (IN CM.)
DISTRICT- AURANGABAD
STRATA-SALAI

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	4204	0	0	0	0	0	0	0	0	0	4204
<i>Anogeissus latifolia</i>	72	7574	0	0	0	0	0	0	0	0	0	7574
<i>Boswellia serrata</i>	133	103678	145678	11232	20327	0	0	0	0	0	0	280913
<i>Bridelia retusa</i>	138	4408	9347	0	0	0	0	0	0	0	0	13755
<i>Buchanania lanzae</i>	143	11491	0	0	0	0	0	0	0	0	0	11491
<i>Cassia fistula</i>	186	1272	0	0	0	0	0	0	0	0	0	1272
<i>Diospyros melanoxylon</i>	285	4204	0	0	0	0	0	0	0	0	0	4204
<i>Lagerstroemia parviflora</i>	505	1272	0	0	0	0	0	0	0	0	0	1272
<i>Lannea coromandelica</i>	509	9223	16176	0	0	0	0	0	0	0	0	25392
<i>Madhuca latifolia</i>	561	6302	13693	0	0	0	0	0	0	0	0	19955
<i>Schleichera trijuga</i>	795	3731	0	0	0	0	0	0	0	0	0	3731
<i>Shorea robusta</i>	802	1193	0	0	0	0	0	0	0	0	0	1193
Zizyphus species	930	2100	0	0	0	0	0	0	0	0	0	2100
Unidentified trees	944	7963	0	0	0	0	0	0	0	0	0	7962
TOTAL		168615	184694	11232	20327	0	0	0	0	0	0	385065

TABLE NO. 5.1.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- MUNGER

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia marmelos</i>	32	12296	0	0	0	0	0	0	0	0	0	12296
<i>Albizia lebbek</i>	46	6522	0	0	0	0	0	0	0	0	0	6522
<i>Albizia species</i>	51	2642	0	0	0	0	0	0	0	0	0	2642
<i>Anogeissus latifolia</i>	72	44682	15693	0	0	0	0	0	0	0	0	60375
<i>Azadirachta indica</i>	103	1610	0	0	0	0	0	0	0	0	0	1610
<i>Bombax ceiba</i>	131	1304	0	0	0	0	0	0	0	0	0	1304
<i>Boswellia serrata</i>	133	11736	22481	30849	11560	0	0	0	0	0	0	75847
<i>Bridelia retusa</i>	138	43381	18864	0	0	0	0	0	0	0	0	62245
<i>Buchanania lanzaan</i>	143	70348	0	17502	0	0	0	0	0	0	0	87850
<i>Buxus sempervirens</i>	148	1304	0	0	0	0	0	0	0	0	0	1304
<i>Careya arborea</i>	177	11686	7091	0	0	0	0	0	0	0	0	19867
<i>Diospyros melanoxylon</i>	285	26309	13946	11719	0	0	0	0	0	0	0	51044
<i>Diospyros species</i>	292	6699	16352	0	23205	0	0	0	0	0	0	46256
<i>Emblica officinalis</i>	325	1031	0	0	0	0	0	0	0	0	0	1031
<i>Erythrina species</i>	342	1304	0	0	0	0	0	0	0	0	0	1304
<i>Eugenia cymosa</i>	350	2719	5805	18579	0	0	0	0	0	0	0	37202
<i>Holarrhena antidysenterica</i>	452	8073	0	0	0	0	0	0	0	0	0	8073
<i>Holoptelea integrifolia</i>	456	4118	6432	0	0	0	0	0	0	0	0	10550

COUNT OF TABLE NO. 5.1.4

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Kydia calycina</i>	501	1610	0	0	0	0	0	0	0	0	0	1610
<i>Lagerstroemia parviflora</i>	505	18941	22098	0	0	0	0	0	0	0	0	41039
<i>Lannea coromandelica</i>	509	27762	30572	0	0	0	0	0	0	0	0	58334
<i>Madhuca latifolia</i>	561	47391	55011	12602	0	0	0	0	0	0	0	25971
<i>Pterocarpus macrolobium</i>	722	28711	16687	0	0	0	0	0	0	0	0	45598
<i>Schleichera trijuga</i>	795	790	0	12602	0	0	0	0	0	0	0	13392
<i>Sebacarpus anacardium</i>	798	35640	0	15446	0	0	0	0	0	0	0	51086
<i>Shorea robusta</i>	802	289235	225671	74483	0	0	0	0	0	0	0	585389
<i>Sloanea assamica</i>	805	1948	0	0	0	0	0	0	0	0	0	1948
<i>Sterculia urens</i>	820	1304	0	0	0	0	0	0	0	0	0	1304
<i>Syzygium cumini</i>	843	6285	0	0	0	0	0	0	0	0	0	6285
<i>Syzygium ornatissimum</i>	846	1304	0	0	0	0	0	0	0	0	0	1304
Syzygium species	850	5571	4648	0	0	0	0	0	0	0	0	10219
<i>Terminalia bellierica</i>	861	0	0	16458	0	0	0	0	0	0	0	16458
<i>Terminalia chebula</i>	864	3916	0	0	0	0	0	0	0	0	0	3916
<i>Terminalia crenulata</i>	866	83011	24171	11719	0	0	0	0	0	0	0	118901
<i>Ziziphus mauritiana</i>	927	1821	0	0	0	0	0	0	0	0	0	1821
Unidentified trees	944	56574	21306	0	0	0	0	0	0	0	0	77880
TOTAL		864478	508028	221959	34765	0	0	0	0	0144967	0	1774297

TABLE NO. 5.2.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- MUNGER
STRATA-MISCELLANEOUS

SPECIES NAME	CODE	TOTAL									
		10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+
Acacia catechu	6	3928	9860	0	0	0	0	0	0	0	0
Acer nivale	18	1304	0	0	0	0	0	0	0	0	0
Adina cordifolia	26	8904	13716	0	0	43445	0	0	0	0	0
Aegle marmelos	32	42906	46019	0	0	0	0	0	0	0	66065
Albizia species	51	7628	5805	0	0	0	0	0	0	0	89925
Anogeissus latifolia	72	68216	67192	28049	0	0	0	0	0	0	13433
Bauhinia purpurea	114	1031	0	0	0	0	0	0	0	0	163457
Bauhinia species	116	2336	0	0	0	0	0	0	0	0	1031
Bombax ceiba	131	2719	0	0	0	0	0	0	0	0	2336
Boswellia serrata	133	62894	152694	62851	108997	0	22934	0	0	0	2719
Bridelia retusa	138	51756	42436	51391	23205	0	0	0	0	0	410370
Buchanania lanzaan	143	125659	47025	15446	0	0	0	0	0	0	168788
Butea species	147	1610	0	0	0	0	0	0	0	0	108130
Careya arborea	177	2915	6432	0	0	0	0	0	0	0	0
Cassia fistula	186	1821	0	0	0	0	0	0	0	0	9347
Cochlospermum religiosum	223	14372	0	0	0	0	0	0	0	0	1821
Dillenia indica	277	0	0	20828	0	0	0	0	0	0	14372
Dillenia pentagyna	278	3620	22254	35294	0	0	0	0	0	0	20828
Diospyros melanoxylon	285	45004	34284	46065	0	0	0	0	0	0	61168
Diospyros species	292	26257	53614	52306	0	0	0	0	0	0	125353
Erythrina species	342	2719	30069	0	0	0	0	0	0	0	132177
Fagara buderunga	372	2318	0	0	0	0	0	0	0	0	32766
Ficus bengalensis	375	3928	0	0	24442	0	0	0	0	0	2318
Ficus religiosa	381	2318	0	0	0	0	0	0	0	0	28370
Ficus species	385	0	8505	0	0	0	0	0	0	0	2318
Gmelina arborea	420	4925	7782	0	0	0	0	0	0	0	8505
											12707

CONT. OF TABLE NO. 5.2.4.

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	IC+ TOTAL
<i>Hollarhena antidysenterica</i> 452	29059	7091	0	0	0	0	0	0	0	0	36152
<i>Kydia calycina</i> 501	10606	0	0	0	0	0	0	0	0	0	10605
<i>Lagerstroemia lanceolata</i> 504	60634	46468	0	0	0	0	0	0	0	0	46469
<i>Lagerstroemia parviflora</i> 505	60634	15071	0	0	0	0	0	0	0	0	75755
<i>Lannea coromandelica</i> 509	92396	85451	11719	25711	0	0	0	0	0	0	21527
<i>Machhuca latifolia</i> 561	8084	41649	27984	0	0	0	0	0	0	0	77717
<i>Premna bengalensis</i> 705	1610	7782	0	0	0	0	0	0	0	0	9392
<i>Pterocarpus marsupium</i> 722	36615	15071	0	0	0	0	0	0	0	0	51655
<i>Schleichera trijuga</i> 795	19529	9260	12602	0	0	0	0	0	0	0	41394
<i>Sesuvium anacardium</i> 798	19865	19345	30892	0	0	0	0	0	0	0	70102
<i>Shorea robusta</i> 802	27596	44881	0	0	0	0	0	0	0	0	7247
<i>Spondias pinnata</i> 812	28458	35087	37286	0	0	0	0	0	0	0	100021
<i>Sterculia villosa</i> 821	5718	98860	0	0	0	52199	0	0	0	0	67777
Syzygium species 850	2336	0	12602	0	0	0	0	0	0	0	14933
<i>Terminalia belerica</i> 861	7371	27096	19687	0	0	0	0	0	0	0	54124
<i>Terminalia chebula</i> 864	3221	10048	0	0	0	0	0	0	0	0	13263
<i>Terminalia crenulata</i> 866	35368	15565	0	0	0	0	0	0	0	0	50913
<i>Trema nudiflora</i> 880	0	6432	0	0	0	0	0	0	0	0	6432
<i>Zizyphus mauritiana</i> 927	5221	0	0	0	0	0	0	0	0	0	5221
Unidentified trees 944	166958	114679	13518	0	0	0	0	0	0	0	295185
TOTAL	10517331016703	478520	182355	43445	75133	0	0	0	0	0	287873

TABLE NO. 6.1.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT - NAMADA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	3082	0	0	0	0	0	0	0	0	0	3082
<i>Adina cordifolia</i>	28	1974	2376	0	0	0	0	0	0	0	0	4350
<i>Anogeissus latifolia</i>	72	5324	4581	0	0	0	0	0	0	0	0	9905
<i>Bauhinia purpurea</i>	114	734	0	0	0	0	0	0	0	0	0	734
<i>Bauhinia retusa</i>	116	1650	0	0	0	0	0	0	0	0	0	1650
<i>Bombax ceiba</i>	131	1065	0	0	0	0	0	0	0	0	0	1065
<i>Boswellia serrata</i>	133	695	1534	0	0	0	0	0	0	0	0	2229
<i>Bridelia retusa</i>	138	1798	0	0	0	0	0	0	0	0	0	1798
<i>Buchanania lanza</i>	143	11390	2119	0	0	0	0	0	0	0	0	13509
<i>Cassia siamea</i>	188	360	0	0	0	0	0	0	0	0	0	360
<i>Dillenia pentagyna</i>	278	0	4955	0	0	0	0	0	0	0	0	4955
<i>Diospyros melanoxylon</i>	285	7623	4767	0	0	0	0	0	0	0	0	12390
<i>Diospyros species</i>	292	5093	0	0	0	0	0	0	0	0	0	5093
<i>Emblica officinalis</i>	325	3151	0	0	0	0	0	0	0	0	0	3151
<i>Yugenia species</i>	358	360	0	0	0	0	0	0	0	0	0	360
<i>Chamelia arborea</i>	420	595	0	0	0	0	0	0	0	0	0	595
<i>Wollastonia antidysenterica</i>	452	1829	0	0	0	0	0	0	0	0	0	1829
<i>Lagerstroemia parviflora</i>	505	360	0	0	0	0	0	0	0	0	0	360
<i>Iannea coromandelica</i>	509	9461	0	0	0	0	0	0	0	0	0	9461
<i>Hodhuca latifolia</i>	561	11977	14202	8977	0	0	0	34875	0	0	0	70031
<i>Pterocarpus marsupium</i>	722	0	2119	0	0	0	0	0	0	0	0	2119
<i>Schleichera trijuga</i>	795	0	5881	0	0	0	0	0	0	0	0	5881
<i>Seescarpus anacardium</i>	798	3774	0	0	0	0	0	0	0	0	0	3774
<i>Shorea robusta</i>	802	68178	4768	6586	9493	0	0	0	0	0	0	109025
<i>Terminalia bellirica</i>	861	5190	5353	0	0	0	0	0	0	0	0	10543
<i>Terminalia crenulata</i>	866	8701	2376	8977	0	19810	0	0	0	0	0	39864
<i>Ulmus lancifolia</i>	886	734	0	0	0	0	0	0	0	0	0	734
<i>Zizyphus species</i>	930	955	0	0	0	0	0	0	0	0	0	955
Unidentified trees	944	10592	0	0	0	0	0	0	0	0	0	10592
TOTAL		186645	55031	24540	9493	19810	0	34875	0	0	0	330394

TABLE NO. 6.2.4

TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT - NIMADA

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Acacia catechu</i>	6	14864	0	0	0	0	0	0	0	0	0	14864
<i>Adina cordifolia</i>	28	5821	4955	0	0	0	0	0	0	0	0	10776
<i>Aegle marmelos</i>	32	24890	2376	0	0	0	0	0	0	0	0	27266
<i>Aibizia procera</i>	50	4924	5925	0	0	0	0	0	0	0	0	10849
<i>Albizia species</i>	51	1974	0	0	0	0	0	0	0	0	0	1974
<i>Anogeissus latifolia</i>	72	21974	13339	0	12317	21363	0	0	0	0	0	68993
<i>Bauhinia retusa</i>	116	6636	2376	0	0	0	0	0	0	0	0	9012
<i>Bauhinia species</i>	118	4513	2933	0	0	0	0	0	0	0	0	7446
<i>Bombax Ceiba</i>	131	2480	0	0	0	0	0	0	0	0	0	63135
<i>Boswellia serrata</i>	133	26072	40933	30959	50334	8525	33139	0	0	0	0	199962
<i>Briddlea retusa</i>	138	888	0	0	0	0	0	0	0	0	0	888
<i>Euchanania lanzzan</i>	143	21188	0	0	0	0	0	0	0	0	0	21188
<i>Rutea monosperma</i>	146	0	0	0	10581	0	0	0	0	0	0	10581
<i>Cassia fistula</i>	186	4150	0	0	0	0	0	0	0	0	0	4150
<i>Cochlospermum religiosum</i>	223	4572	9745	9497	15503	0	0	0	0	0	0	39317
<i>Diospyros melanoxylon</i>	285	7967	11305	0	0	0	0	0	0	0	0	19272
<i>Diospyros species</i>	292	1240	0	0	0	0	0	0	0	0	0	1240
<i>Emilia officinalis</i>	325	6369	4239	0	0	0	0	0	0	0	0	10608
<i>Erythrina variegata</i>	341	2335	8834	8471	0	0	0	0	0	0	0	19640
<i>Erythrina species</i>	342	1652	0	16474	0	0	0	0	0	0	0	20126
<i>Eugenia species</i>	358	1204	0	0	0	0	0	0	0	0	0	1204
<i>Ficus bengalensis</i>	375	0	3548	0	0	0	0	0	0	0	0	3548

CONT. OF TABLE NO. 6.2.4

SPECIES NAME	CODE	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
<i>Ficus religiosa</i>	381	1240	0	0	0	0	0	0	0	0	0	1240
<i>Ficus</i> species	385	2033	0	6596	0	0	0	0	0	0	0	8626
<i>Gaultheria fragrantissima</i>	398	1710	2119	0	0	0	0	0	0	0	0	3829
<i>Gmelina arborea</i>	420	1438	0	0	0	0	0	0	0	0	0	1438
<i>Hollarrhena antidysenterica</i>	452	5987	2119	0	0	0	0	0	0	0	0	8106
<i>Holoptelea integrifolia</i>	456	0	2376	0	0	0	0	0	0	0	0	2375
<i>Lagerstroemia parviflora</i>	505	7205	0	0	0	0	0	0	0	0	0	7205
<i>Lannea coromandelica</i>	509	39152	43815	23064	0	0	0	0	0	0	0	10603
<i>Madhuca latifolia</i>	561	6129	11666	15244	21177	0	0	70858	0	0	0	12507
<i>Pterocarpus marsupium</i>	722	360	0	5343	0	0	0	0	0	0	0	5703
<i>Schleichera trijuga</i>	795	4280	0	0	0	0	0	0	0	0	0	4282
<i>Samanea saman</i>	798	9611	2933	0	0	0	0	0	0	0	0	12544
<i>Shorea robusta</i>	802	48722	24664	15369	0	0	0	0	0	0	0	88775
<i>Sterculia villosa</i>	821	2284	0	0	0	0	0	0	0	0	0	2284
<i>Stereospermum suaveolens</i>	825	1550	0	0	0	0	0	0	0	0	0	1550
<i>Tamarindus indica</i>	856	360	0	0	0	0	0	0	0	0	0	360
<i>Terminalia belerica</i>	861	1652	0	0	0	0	0	0	0	0	0	1652
<i>Terminalia chebula</i>	864	1240	0	0	0	0	0	0	0	0	0	1240
<i>Terminalia crenulata</i>	866	16799	3233	0	0	0	0	0	0	0	0	20034
<i>Ziziphus mauritiana</i>	927	1425	0	0	0	0	0	0	0	0	0	1425
<i>Ziziphus</i> species	930	4715	0	0	0	0	0	0	0	0	0	4715
Unidentified trees	944	32031	25376	5746	0	0	0	0	0	0	0	63155
TOTAL		355636	228611	138783	109912	29988	33139	70858	0	60633	0	2027662

TABLE NO. 7.1.4
TOTAL VOLUME (IN M³) BY SPECIES AND DIAMETER CLASSES (IN CM.)
DISTRICT- NALANDA
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
<i>Anogeissus latifolia</i>	72	900	0	0	0	0	0	0	0	0	0	900
<i>Bridelia retusa</i>	138	1525	0	0	0	0	0	0	0	0	0	1525
<i>Buchanania lanzen</i>	143	400	0	0	0	0	0	0	0	0	0	400
<i>Cochlospermum religiosum</i>	223	0	1805	0	0	0	0	0	0	0	0	1805
<i>Lannea coromandelica</i>	509	1912	0	0	0	0	0	0	0	0	0	1912
<i>Machhuca latifolia</i>	561	907	0	0	0	0	0	0	0	0	0	907
<i>Shorea robusta</i>	802	6889	0	0	0	0	0	0	0	0	0	6889
Unidentified trees	944	900	0	0	0	0	0	0	0	0	0	900
TOTAL		13433	1805	0	0	0	0	0	0	0	0	15238

Table No. 8.1

Diameter class distribution of total stems(in No.) and No. of stems/ha. in Sal Stratum for the Project area.		DIAMETER CLASS (in cm)							TOTAL				
Stratum	Forest Area (In ha.)	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+		
Sal	191633	Total Stems 23643680	2850287	620637	174397	27426	6264	19161	-	23898	8264	27376014	
Sal	191633	Stems/Ha	123380	14874	3238	0.910	0.143	0.043	0.00	-	0.125	0.043	142856

Table No. 8.2

Diameter class distribution of total stems(in No.) and No. of stems/ha. in Miscellaneous Stratum for the Project area.		DIAMETER CLASS (in cm)							TOTAL				
Stratum	Forest Area (In ha.)	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+		
Misc.	274507	Total Stems 27075772	5824065	1434281	535260	98590	80488	30058	29753	20317	8264	35187548	
Misc.	274507	Stems/Ha	98635	21216	5225	2132	0359	0293	0109	0106	0076	0030	128183

Table No. 8.3
 Diameter class distribution of total stems (in No.) and No. of stems/ha. In Khair Stratum for the Project area.

Stratum Forest Area [in ha.]	Total Stems	DIA- ^{STER} CLASS (in cm)	TOTAL
Khair	10913	10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-89 90-99 100+ Stems/ha. 917.683 843.27 195.41 198.4 - - 496.0 - - -	10466.52
Solidi	26932	10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-89 90-99 100+ Stems/ha. 94.286 35.714 1.429 1.429 - - - - - -	95.907

Table No. 8.4

Stratum Forest Area [in ha.]	Total Stems	DIA- ^{STER} CLASS (in cm)	TOTAL
Solidi	26932	10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-89 90-99 100+ Stems/ha. 94.286 35.714 1.429 1.429 - - - - - -	25781.03
Khair	10913	10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-89 90-99 100+ Stems/ha. 917.683 843.27 195.41 198.4 - - 496.0 - - -	132.857

Table No. 9.1
Diameter class distribution of total volume(m^3) and volume(m^3)/ha for soil stratum in the project area.

Stratum Forest Area (in ha.)	Total Volume (m^3)/ha.	Vol(m^3)/ha.	DIA 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Soil	191433		1479352	712884	322827	167898	47042	22756	65276	-	144967	52266	535328

Table No. 9.2
Diameter class distribution of total volume(m^3) and volume(m^3)/ha for Miscellaneous stratum in the project area

Stratum Forest Area (in ha.)	Total Volume (m^3)/ha.	Vol(m^3)/ha.	DIA 10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	TOTAL
Misc	274507		1981743	147591	799117	421010	1449279	106272	102945	127412	115329	52266	1547594

Table No. 9.3
Diameter class distribution of total volume(m^3) and volume(m^3)/ha for khair stratum in the project area.

Stratum Forest Area (in ha.)	Total Volume Vol. (m^3)/ha.	Diameter Class (in cm)						TOTAL
		10-19	20-29	30-39	40-49	50-59	60-69	
Khair	10813	61516	24124	7703	22464	-	-	136563

Table No. 9.4

Stratum Forest Area (in ha.)	Total Volume Vol. (m^3)/ha.	Diameter Class (in cm)						TOTAL
		10-19	20-29	30-39	40-49	50-59	60-69	
Sabai	26932	186615	184694	11232	20327	-	-	365028