

ENVIRONMENTAL IMPACTS

DUE TO THE PROPOSED HUBLI-ANKOLA RAILWAY LINE

The proposed Hubli-Ankola railway line project joins the town of Hubli in Dharwad district with the coastal town of Ankola in Uttara Kannada district. Hubli is about 637m above MSL and Ankola is about 18.7m above MSL. The proposed alignment has to traverse the Western Ghats, a continuous range of hills having peak of elevation ranging from 10m to 250m above GL, in order to negotiate this height. The proposed line partly is in the Ghat section and partly in plateau section. A rough estimate of breakup of length between ghat section and partly in plateau section is -

- Plateau region: - From 0 km to 76 km and 136 km to 168 km; length = 108 kms
- Ghat region:- From 76 km to 136 km; length = 60 kms.
- Forest region:- From 42.0 km to 16.4 km, excluding plateau and revenue lands; length = 112 km.

The proposed alignment passes through the Western Ghats forests and the region is part of **Bedthi conservation reserve** (at Yellapur), closer to **Dandeli Hornbill Conservation reserve** and located in the buffer region of **Anshi Dandeli Tiger Reserve** (is about 6.5 km from Anshi Dandeli Tiger reserve).The entire region of the section receives copious rainfall under the South West monsoon during the months of June and September. Rainfall under the North West monsoon also occurs between October and December in the eastern slope of the Western Ghats. The climate in the region is generally moderate with short spell of hot summer. The general type of soil met with in plateau region is of Red soil with laterite. Arecanut and Cashew nut are main crops in the section. Paddy is also grown in some areas of this plateau region. The higher range of Ghat section is full of dense mixed jungle and there is no planned cultivation in the forest area.

Bedthi Conservation Reserve (Government of Karnataka, 2011): As per Section 36A of The Wild Life (Protection) Amendment Act, 2002, the State Government may, after having consultations with the local communities, declare any area owned by the Government, particularly the areas adjacent to National Parks and sanctuaries and those areas which link one protected area with another, as a conservation reserve for protecting landscapes, seascapes, flora

and fauna and their habitat. In the Uttara Kannada district, three forest blocks which form critical links in the matrix of habitats linking protected areas in the north of the district to ones in the south, facilitating the movement of tiger and other threatened species, were **declared as Conservation Reserves by the Karnataka Forest Department**, Government of Karnataka in 2011. These sites are Aghanashini Conservation Reserve (15,000 hectares), Bedthi Conservation Reserve (6,500 hectares) and Dandeli Hornbill Conservation Reserve (6,200 hectares). The Bedthi River Conservation Reserve includes Tengina mudi and Bili halla Valley areas. Bili halla is a tributary of Bedthi river which is rich in biodiversity and is one of the less studied forests of Uttara Kannada. This region has rare and endemic palm species – Talipot Palm (*Corypha umbraculifera*). This forest connects to the forests of Magod and Bedthi valley.

Dandeli Hornbill Conservation reserve (Government of Karnataka, 2011): The forests of Dandeli serve as a very important habitat for four different types of hornbills – Common Grey Hornbill (*Tockus birostris*), Malabar Grey Hornbill (*Tockus griseus*), Malabar Pied Hornbill (*Anthracoceros coronatus*) and Great Pied Hornbill (*Buceros bicornis*). Of all the four Malabar Pied Hornbill is found in good number in the vicinity of Dandeli. Hence, it is very essential to protect these natural habitats for proper survival of these hornbills whose population might dwindle very fast if due care is not taken. Hence, the Dandeli Conservation Reserve will help in providing adequate protection to these species along with the involvement of local community and will also help in disseminating information regarding hornbills and their habitats.

Anshi Dandeli Tiger Reserve (ADTR): Dandeli Wildlife Sanctuary (DWS) and Anshi National Park (ANP), encompassing 475.02sq.km and 339.87sq.km respectively, were declared as Anshi Dandeli Tiger Reserve (ADTR) on 4th January 2007 (Vide GO No. FEE 254 FWL 2006) with total area of 814.89sq.km. This region falls in the Western Ghats Protected Area Network. DATR is located in Uttara Kannada district of Karnataka state between 14.9564°-15.33227°N latitude and 74.2521°-74.7196°E longitude. In 1956, DWS was declared as a game sanctuary covering an area of 127.71sq.km. In 1975, the area was declared as a wildlife sanctuary and it was expanded to 5,729.07sq.km. In 1987, the wildlife sanctuary was divided into two protected areas: ANP and DWS, reducing the area of DWS to 834.157sq.km. In 1994, DWS was reduced again to 475.02sq.km. The present DATR boundary is based on Govt. of Karnataka order in 1998 (Figure 1). For more detailed account please refer Tiger Conservation Plan (2008-2018). DATR forms major catchment area for River Kali with tributaries like Nagazhari and Kaneri.

Environmental Impacts of the proposed project

The proposed project is likely to induce changes both positive and negative, in the eco-system and life of the community. Though this rail link is likely to accelerate urbanization affecting both the physical and human environment in terms of productivity of land, settlements, and socio-economic and cultural characteristics, this will mostly be limited to the plateau section in Kalghatgi, Yellapur and Ankola regions.

In this report the direct, indirect and cumulative environmental and social impacts expected from the project were studied as under:

- Biotic components (flora and fauna)
- Animal movement paths
- Humans (rehabilitation, human-wildlife conflicts, etc.)
- Land use/ Land cover of the region
- drainage of streams
- Landslide susceptibility
- Impacts due to solid and liquid waste generated
- Impacts due to location of work force colonies in sensitive locations
- Impacts of tunneling on biotic and abiotic elements
- Economic feasibility of the project

The impact matrix pertaining to environmental Impact is given in Table 1 considering all phases of the project. Table 2 details the nature of positive and negative impacts of proposed Hubli-Ankola railway line project.

Table 1: Impact matrix for proposed Hubli-Ankola railway line project

Parameter	Negative Impact	No Impact	Positive Impact	Short Term	Long Term
A. Impacts due to Project Location.					
a) Changes in land use/land cover	●			●	●
b) Displacement of people				●	
c) Loss of trees/forests	●			●	●
d) Impact on wild fauna	●			●	●
e) Animal movement paths	●			●	●
f) Drainage problems	●			●	
g) Risks due to landslides, mudslides	●			●	●
h) Risk due to earthquakes		●			
i) Buffer region of Anshi-Dandeli tiger reserve	●			●	●
j) Bedthi Conservation reserve	●			●	●
k) Smuggling of timber and forest goods	●			●	●
l) Contamination of land and water	●			●	●
B. Impacts due to Project Construction					
a) Workforce colonies inside forests	●			●	●
b) Workforce colonies – without basic amenities (sanitation, fuel, education of children)	●			●	●
c) Human –animal conflicts, members of workforce trespassing into forests	●			●	●
d) Smuggling of forest goods, hunting of wild fauna	●			●	●
e) Pollution at construction sites	●			●	●
f) Soil removal (tunnels, etc.), erosion and sedimentation of streams and river, alterations in topography due to soil disposal	●			●	●
g) Soil disposal problem	●			●	
h) Problems due to geological faults		●			
i) Health risk and cultural hazards	●			●	
j) Loss of habitat of wild animals	●			●	
k) Blasting – impact on wild fauna	●			●	
l) Loss of carbon sequestration ability – removal of	●			●	●

tree vegetation					
C. Impacts due to Project Operation					
a) Impact of plastic waste on wild fauna	●			●	●
b) Solid wastes	●			●	●
c) Contamination of water due to liquid waste	●			●	●
d) Smuggling of forest goods	●			●	●
e) Animal movement and related accidents	●			●	●
f) Noise (impact on wild fauna)	●			●	●
g) Non-evacuation of workforce colonies	●			●	●
h) Cascaded developmental activities	●			●	●
i) Triggering landslides, mudslides	●			●	●
j) Oil pollution	●			●	●
k) Accident hazards	●			●	
l) Further fragmentation of forests - encroachments	●			●	●
m) Fog visibility	●			●	
n) Biodiversity loss	●			●	●
a) Economic viability in absence of large scale cargo movements	●			●	●
D. Positive Impacts					
b) Employment opportunities			●		●
c) Benefits to economy			●		●
d) Quick service and safety			●		●
e) Less fuel consumption- Reduction in Green House Gases emissions			●		●
f) Less air pollution compared to road transport			●		●
g) Avoiding widening of NH 63 to 4 lane			●		●
h) Mass transportation at Lower commuting expenses			●		●
i) Establishment of connectivity of West Coast with hinterland and consequent stoppage of other Railway projects in ecologically sensitive region (such as Sharavathi valley, habitat of Lion Tailed Mackaque in Talguppa-Honnava connectivity) and road widening projects			●		●

j) Port connectivity			●		●
k) Link to naval harbor and industrial areas			●		●
l) Easy movement of raw materials			●		●
m) Link to Vasco and Mangalore ports through Konkan railway			●		●
n) Movement of extra iron ore traffic from Bellekeri Hospet sector to either Mangalore or Goa port			●		●
o) Passenger connectivity to other parts of the country			●		●
p) Transport of coal/coke imported through Murmagoa or Mangalore port to steel industries, and coal based thermal power stations at Bellary and Hospet			●		●

Table 2: Positive and negative impacts of the proposed project

BIOTIC		IMPACTS
Mammals	Humans	300 families likely to be displaced due to this project
	Elephant	The Kalghatgi and Kirwatti forest ranges form a vital link for the Bhagwati – Kalghatgi – Kirwatti – Mundgod – Katur – Hanagal elephant movement path since time immemorial
	Tiger	A small family of Tiger is reported to be residing in the Yellapur forests.
Birds		Some impact expected on about 70 species of birds including IWPA scheduled birds like Hornbills, Barbets, Babblers etc.
Reptiles		8 different species of reptiles will be affected including Red listed and Scheduled species like King Cobra, Reticulated python, etc.
Amphibians		33 species of amphibians of which 55% are endemics to the Western Ghats will be affected.
Flora		43 families, 106 genera and 134 species of trees, 58 families, 128 genera and 146 species of shrubs and 10 species of pteridophytes will be affected. Total number of trees to be cut down for this project is approx. 1.94 lakhs . Note: It is difficult to state that all will be affected – many

	may increase on opening up of canopy
ABIOTIC	
Rehabilitation / resettlement of human settlements	Rehabilitation and resettlement is a major issue which will affect nearly 300 families who will be displaced from their original habitats.
Land use changes	The railway project would aid is catalyst in drastic land cover changes (to the order of 16% removal of forests). For example, near proposed railway stations, many service centres would crop up gradually impinging on the forests.
Encroachment	Likely encroachments due to connectivity to the forest area surrounding the railway land which will have negative impact on flora and fauna.
Landslide	The Vajralli and Yellapur villages in Yellapur taluk are landslide prone areas in the presence of triggering factor such as high intensity rainfall.
Drainage problem	Improper soil conservation and management will lead to excavated soil getting into the streams causing sedimentation
IMPACTS DURING PROJECT CONSTRUCTION	
Movement of Heavy Vehicles	Widening of existing roads (of current 6 m width) and consecutive removal of trees
Construction of new roads	Construction of new roads has also been proposed near places like Ramanguli which will affect the biodiversity
Workforce colonies in forest area	Labourers straying into forests and encounter with wildlife leading to human-animal conflicts
	Removal of trees for firewood
	Higher instance of smuggling of forest goods
	Lack of sanitation would contaminate the land and water (Bedthi river)
	Lack of education facility for the children of work force
Health risk and cultural hazards	Lack of proper sanitation and food facilities might lead to widespread disease problems. Migration of labourers from one place to another might lead to cultural conflicts.
Soil disposal	Large quantity of excavated rock and soil dumping would alter the drainage pattern, leading to silt

	transportation in the catchment and hence, sedimentation in Bedthi river. This would affect the benthic organisms.
Tunneling in undulating terrain	Blasting would affect the fauna
	Temporary storage of soil and rock of the tunnel excavations would lead to removal of ground flora and trees
	During monsoon, soil gets eroded to nearby streams
	Lack of appropriate arrangement with the contractors might lead to illegal transportation of natural resources including rock and soil to other localities
	Tunneling might induce landslides due to movement of heavy machinery and high intensity blasting
Removal of trees during construction	Loss of habitat for endemic species of fauna such as Malabar Pied Hornbill, etc.
	Removal of trees during the breeding time of endemic species might have adverse impacts on them
IMPACTS DURING OPERATION PHASE OF PROJECT	
Illegal forest activities	Smuggling of forest goods and violation of Biodiversity Act, 2002
Impacts due to movement of trains	Landslide and stoppage of movement of trains in undulating terrain due to triggering factors such as high intensity rainfall
Solid and liquid waste management	Maintenance of locomotives at workshops, cleaning of compartments, platforms, and yards will generate waste water and solid waste which require proper disposal.
Impacts due to train movement	Vibration due to train movements might induce mud slides during monsoon in locations like Vajralli and Yellapur
Blockage of animal movement path	The proposed alignment passes through age-old traditional elephant movement paths in Kalghatgi and Kirwatti ranges which will disrupt their movements. If the recommended measures are not employed, it may lead to animal deaths due to train hits as well as give rise to human-animal conflicts in surrounding areas.
Failure to evacuate work force colonies after completion of work	This would lead to the large scale land cover changes leading to deforestation in the region

Fog visibility	visibility problems dur to seasonal heavy fogs may lead to hits on wild animals and domestic cattle
Economic viability in post mining ban scenario	675 rakes are required to carry 27 MT (million tons) of freight per annum. Iron ore was the major commodity transported to the coast. In the scenario of mining ban, or slow down these rakes will be affected, causing heavy losses.
POSITIVE IMPACTS	
Reduction in Green House Gases emissions	Compared to truck movement, goods train save 65% of fuel annually and hence, reduce the GHG emissions.
Employment Opportunities	Various employment opportunities will be generated for a large mass of local people during the construction and operation phases of the project.
Economical Travel Opportunity	As compared to the road transport, train will provide a more economical means of transportation to local people.
Port connectivity	Connection to Karwar, Tadri Belekeri and Mangalore ports
Link to naval harbor and industrial areas	Vital link to connect east and west coast
Easy movement of raw materials	Movement of materials, equipments and work force of various projects like Project Seabird, Kaiga Nuclear Power plant, etc. and nearly 10,000 small and medium industrial units of Uttara Kannada with consumer markets in Hubli and other Deccan towns
Link to Vasco and Mangalore ports through Konkan railway	Transport of imported coal/coke from Murmagoa and Mangalore ports to steel industries, coal based thermal power plants (Bellary, Hospet, etc.). Transport of imported timber and oil and gas from Mangalore port and MRPL, Mangalore
Passenger connectivity to other parts of the country	Betterconnectivity for the people of densely populated west coast with, Deccan region, central, north and north-east India.

Impacts of the proposed project on Western Ghats Biodiversity

Biodiversity or Biological Diversity refers to the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of

ecosystems (Hamilton, 2005). Biodiversity through time and space has provided the panorama of the genesis and diversification of various life forms, their interdependence, and link between life and life support systems, triggering a holistic approach to knowledge-building focused on various aspects of human affairs (Ramachandra *et al*, 2010). However, extensive anthropogenic interventions in the natural ecosystems in recent times have been resulting in loss of biodiversity. The most important threat to the tropical forest biodiversity is habitat loss, particularly the loss of natural forest cover. Most of the developmental activities, when carried out in inappropriate and unsustainable fashion, lead to significant degradation in the original ecosystem of a particular region which affects the species composition and its ecology.

The proposed Hubli-Ankola railway line passes through different types of forests including evergreen, semi-evergreen, moist deciduous and dry deciduous . The total forest area to be utilized amounts to 727 ha with a total of approximately 1,94,828 trees would be removed from their natural habitat. The overall floristic diversity in Hubli-Ankola railway zone constitutes of 43 families, 106 genera and 134 species of trees and 58 families, 128 genera and 146 species of woody ground flora of shrubs and regenerating tree stocks. Besides this, 10 species of pteridophytes belonging to 9 families and 9 genera are also enumerated in the Ghat section.

The Western Ghats stretch from Yellapur to Sunksal is rich in floral diversity, endemism and evergreenness with a high tree density and basal area. The natural forests in this region are of evergreen to semi-evergreen types characterized by several endemic tree species such as *Myristica malabarica*, *Polyalthia fragrans*, *Cinnamomum macrocarpum*, *Holigarna grahami*, *H. arnottiana*, *Hopea ponga* etc. Many trees in this region also harbor a rich flora of epiphytes (orchids) including endemic species such as *Aerides crispa*, *Cleisostoma tenuifolium*, *Oberonia brunoniana*, *Porpax jerdoniana*, etc. The ecological condition of this region supports a rich ground flora which involves a good number of endemic and medicinal herbs.

Unplanned developmental activities in the region will diminish the biodiversity (most importantly the endemic and endangered species), hydrology and ecology of the region. The destruction of forests and cutting down of trees on large scale will alter the species composition of the region and alter the overall ecological and hydrological regimes of the existing biomes. The sector-wise details of trees (botanical name, local name, girth class distribution, enumerated by the Karnataka Forest Department), that gets affected due to the project in **Kalghatgi-Hulginkoppa** region are listed in Table 3, **Siddhanabhavi** region in Table 4 and **Karagooda region** in Table 5. Tree details chainage (kilometer-wise), girthclasswise are given in Tables 6 to 55. Sectorwise numbers of trees are listed Table 56.

Table 3: Details of trees in sector-3 (Kalghatgi-Hulginkoppa)

Sl. No.	Name of the species		Girth in centimeters										Total
	Botanical Name.	Local name	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Above 100	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Dalbergia latifolia</i>	Sissum	0	0	4	3	5	3	5	2	2	7	31
2	<i>Anogeissus latifolia</i>	Dindal	1	4	40	98	77	51	27	15	3	3	319
3	<i>Tectona grandis</i>	Teak	0	1	7	47	87	67	60	29	23	30	351
4	<i>Terminalia tomentosa</i>	Matti	0	1	2	2	9	23	21	23	19	29	129
5	<i>Lagerstroemia lanceolata</i>	Nandi	0	0	0	0	1	2	5	5	2	3	18
6	<i>Odina wodier</i>	Gojjal	0	0	1	3	3	0	3	2	1	5	18
7	<i>Adina cardifolia</i>	Heddi	0	0	2	3	3	2	0	6	8	13	37
8	<i>Terminalia paniculata</i>	Kindal	0	3	6	16	23	13	14	6	1	3	85
	TOTAL		1	9	62	172	208	161	135	88	59	93	988

Table 4: Details of trees in sector-4 (Siddhanabhavi region)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name	Local	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Above 100	Total
1	<i>Dalbergia Latifolia</i>	Sissum	0	7	9	18	18	15	13	20	26	47	173
2	<i>Anogeissus latifolia</i>	Dindal	2	68	91	93	69	24	10	4	4	6	371
3	<i>Tectona grandis</i>	Teak	6	171	167	121	98	52	49	28	39	79	810
4	<i>Terminalia tomentosa</i>	Matti	0	12	24	18	26	29	24	26	15	33	207
5	<i>Lagerstroemia lanceolata</i>	Nandi	0	1	3	5	9	10	10	5	6	15	64
6	<i>Lannea grandis</i>	Gojjal	0	3	17	24	28	24	21	11	5	12	145
7	<i>Adina cardifolia</i>	Heddi	0	5	1	6	4	2	2	3	5	13	41
8	<i>Terminalia paniculata</i>	Kindal	0	12	45	35	38	20	11	15	4	3	183
9	<i>Xylia xylocarpa</i>	Jamba		7	8	13	15	9	3	4	0	1	60
10	<i>Semecarpus anacardium</i>	Ker	0	1	7	6	3	8	1	3	1	3	33
11	<i>Saccopetalum tomentosa</i>	Oob	0	5	7	6	5	3	5	1	2	0	34
12	<i>Mallotus philippensis</i>	Kumkum	0	1	1	1	4	2	1	0	0	4	14
13	<i>Madhuca indica</i>	Haltumri	0	7	23	18	25	14	6	6	5	4	108
14	<i>Grewia tiliaefolia</i>	Dhaman	0	1	1	7	12	11	4	6	8	6	56
15	<i>Diospyros melanoxylon</i>	Tumri	0	5	5	5	4	8	5	3	3	2	40
16	<i>Dalbergia paniculata</i>	Padri	0	4	7	6	5	2	2	2	1	15	44
17	<i>Careya arborea</i>	Kawal	0	15	29	39	24	12	12	4	2	3	140
18	<i>Butea monosperma</i>	Muttal	0	1	12	7	12	7	11	9	9	17	85
19	<i>Alseodaphne semicarpifolia</i>	Massi	0	16	23	26	23	25	11	13	8	14	159

20	<i>Albizzia odoratissima</i>	Godde hunse	0	0	1	0	4	2	2	3	3	7	22
	TOTAL		8	342	481	454	426	279	203	166	146	284	2789

Table 5: Details of trees in sector-5 (Karagooda)

Sl. No.	Name of the species		Girth in centimeters										Total
	Botanical Name.	Local name of the species.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Above 100	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Dalbergia latifolia</i>	Sissum	0	1	7	2	9	2	1	0	1	1	24
2	<i>Anogeissus latifolia</i>	Dindal	3	74	328	323	269	152	86	47	28	32	1342
3	<i>Tectona grandis</i>	Teak	2	1553	909	683	398	228	172	114	73	122	4255
4	<i>Terminalia tomentosa</i>	Matti	0	1	9	46	74	62	62	62	57	94	467
5	<i>Lagerstroemia lanceolata</i>	Nandi	1	0	4	6	11	24	9	6	7	3	71
6	<i>Lannea grandis</i>	Gojjal	0	3	7	10	15	21	13	21	16	33	139
7	<i>Adina cardifolia</i>	Heddi	0	1	2	2	2	8	2	2	0	4	23
8	<i>Terminalia paniculata</i>	Kindal	0	5	16	24	27	15	4	3	4	7	105
9	<i>Semecarpus anacardium</i>	Ker	0	1	1	3	1	3	6	0	2	0	17
10	<i>Mitragyna parviflora</i>	Kalam	0	1	2	8	3	3	1	2	3	5	28
11	<i>Diospyros melanoxylon</i>	Tumri	0	4	3	14	6	2	1	1	1	4	36
12	<i>Careya arborea</i>	Kawal	1	18	28	23	11	6	5	6	6	10	114

13	<i>Alseodaphne semicarpifolia</i>	Massi	0	7	8	4	4	6	0	1	0	4	34
	TOTAL		7	1669	1324	1148	830	532	362	265	198	319	6655

Table 6: Details of trees in sector-4 (Km No: 50.400 to 53.000)

Sl.No.	Name of the species		Girth in centimeters								
	Botanical Name.	Local name of the species.	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi				1		14	3	4	22
2	<i>Anogeissus latifolia</i>	Dindal			2	1	4	23			30
3	<i>Dalbergia latifolia</i>	Sissum	1	1	14	3	1	35	3		58
4	<i>Grewia latifolia</i>	Dhamaan				1		1			2
5	<i>Lagerstroemia lanceolata</i>	Nandi			1	1		5			7
6	<i>Lannea grandis</i>	Gojjal			1		1	6	1		9
7	<i>Tectona grandis</i>	Teak	17	13	31	54	65	300	3		483
8	<i>Mitragyna parviflora</i>	Kalam									0
9	<i>Terminalia paniculata</i>	Kindal		2	1	6	2	27	2	1	41
10	<i>Terminalia tomentosa</i>	Matti		1	3	2	10	117	3		136
11	Others	Jungly			6	6	3	44	1	2	62
		Total	18	17	59	75	86	572	16	7	850

Table 7: Details of trees in sector-5 (Km No: 53.000 to 53.700)

Sl.No.	Name of the species		Girth in centimeters									
	Botanical Name.	Local name of the species.	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi			1			1	6	19	5	32
2	<i>Anogeissus latifolia</i>	Dindal		1	1	3		1	30			36
3	<i>Dalbergia latifolia</i>	Sissum				5	7	9	56	1		78
4	<i>Grewia latifolia</i>	Dhamaan							2			2
5	<i>Lagerstroemia lanceolata</i>	Nandi										0
6	<i>Lannea grandis</i>	Gojjal							11	2		13
7	<i>Tectona grandis</i>	Teak	4	2	10	15	12	36	360	25		464
8	<i>Mitragyna parviflora</i>	Kalam							7	6		13
9	<i>Terminalia paniculata</i>	Kindal				2	1	1	7	2		13
10	<i>Terminalia tomentosa</i>	Matti						4	78	12	4	98
11	Others	Jungly			2	2	1	2	12	1		20
		Total	4	3	14	27	21	54	569	68	9	769

Table 8: Details of trees in sector-5 (Km No: 53.700 to 55.200)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi											0
2	<i>Anogeissus latifolia</i>	Dindal											0
3	<i>Dalbergia latifolia</i>	Sissum		1									1
4	<i>Grewia latifolia</i>	Dhamaan				1	1						2
5	<i>Lagerstroemia lanceolata</i>	Nandi			2								2
6	<i>Lannea grandis</i>	Gojjal											0
7	<i>Tectona grandis</i>	Teak	2	12	131	215	167	139	36	31			733
8	<i>Mitragyna parviflora</i>	Kalam											0
9	<i>Terminalia paniculata</i>	Kindal		1	1	1	1	4	1	1			10
10	<i>Terminalia tomentosa</i>	Matti					2	2		2			6
11	Others	Jungly		4	1	3	7	7	2	7			31
		Total	2	18	135	220	178	152	39	41	0	0	785

Table 9: Details of trees in sector-5 (Km No: 55.200 to 57.000)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi								3	4	2	9
2	<i>Anogeissus latifolia</i>	Dindal								1			1
3	<i>Dalbergia latifolia</i>	Sissum		1	1	1	1	1	2	2			9
4	<i>Grewia latifolia</i>	Dhamaan											0
5	<i>Lagerstroemia lanceolata</i>	Nandi					5		2	9			16

6	<i>Lannea grandis</i>	Gojjal							1	5			6
7	<i>Tectona grandis</i>	Teak	9	84	381	416	200	141	62	81	2		1376
8	<i>Mitragyna parviflora</i>	Kalam								1			1
9	<i>Terminalia paniculata</i>	Kindal		1	1	3	1			5			11
10	<i>Terminalia tomentosa</i>	Matti							2	19	2		23
11	Others	Jungly			1	6	12	6	4	42	1		72
		Total	9	86	384	426	219	148	73	168	9	2	1524

Table 10: Details of trees in sector-5 (Km No: 57.000 to 58.000)

Sl.No.	Name of the species		Girth in centimeters										Total
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi		1						3	5	2	11
2	<i>Anogeissus latifolia</i>	Dindal	14	23	23	16	10	14	19	34	1		154
3	<i>Dalbergia latifolia</i>	Sissum		5	16	12	19	12	7	24	1		96
4	<i>Grewia latifolia</i>	Dhamaan						1					1
5	<i>Lagerstroemia lanceolata</i>	Nandi			2	4	1	1	1	10		1	19
6	<i>Lannea grandis</i>	Gojjal		4	4	1		4	2	5			20
7	<i>Tectona grandis</i>	Teak	17	17	11	23	25	24	20	73	6	1	217
8	<i>Mitragyna parviflora</i>	Kalam								2	1		3
9	<i>Terminalia paniculata</i>	Kindal	24	17	28	16	9	14	5	23			136
10	<i>Terminalia tomentosa</i>	Matti	19	10	13	25	35	30	40	115	2		289
11	Others	Jungly	18	25	26	33	20	19	16	90	5	1	253
		Total	92	102	123	130	119	119	110	379	21	5	1200

Table 11: Details of trees in sector-5 (Km No: 58.000 to 59.000)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi	2										2
2	<i>Anogeissus latifolia</i>	Dindal	13	21	27	25	2	1		8			97
3	<i>Dalbergia latifolia</i>	Sissum			1	1	1	1		2			6
4	<i>Grewia latifolia</i>	Dhamaan											0
5	<i>Lagerstroemia lanceolata</i>	Nandi	4	5	10	14	9	5	5	10			62
6	<i>Lannea grandis</i>	Gojjal		3	1	1		1		4			10
7	<i>Tectona grandis</i>	Teak	72	107	89	111	76	76	50	106	1		688
8	<i>Mitragyna parviflora</i>	Kalam											0
9	<i>Terminalia paniculata</i>	Kindal	32	68	78	59	45	25	9	29			345
10	<i>Terminalia tomentosa</i>	Matti		1	1	9	8	1	2	14	4		40
11	Others	Jungly	20	12	7	7	4	3	3	8			64
		Total	143	217	214	227	145	113	69	181	5	0	1314

Table 12: Details of trees in sector-5 (Km No: 59.000 to 60.000)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi			1				1	2	2	5	11
2	<i>Anogeissus latifolia</i>	Dindal	1		2		1	2		1			7
3	<i>Dalbergia latifolia</i>	Sissum	1	5	6	4	5	6	6	42	4		79
4	<i>Grewia latifolia</i>	Dhamaan							1				1
5	<i>Lagerstroemia lanceolata</i>	Nandi		1		2	1	6	12	26		515	48

6	<i>Lannea grandis</i>	Gojjal				1				3			4
7	<i>Tectona grandis</i>	Teak	14	13	53	72	72	64	41	246	9		584
8	<i>Mitragyna parviflora</i>	Kalam							1	3	1		5
9	<i>Terminalia paniculata</i>	Kindal	9	9	7	4	2	9	4	16	1		61
10	<i>Terminalia tomentosa</i>	Matti		1	2	2	4	2	2	45	9	2	69
11	Others	Jungly	3		1	2	1	6	2	39	10	2	66
		Total	28	29	72	87	86	95	70	423	36	9	935

Table 13: Details of trees in sector-5 (Km No: 60.000 to 61.000)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi	1	4	2	3	2	2			1		15
2	<i>Anogeissus latifolia</i>	Dindal	138	142	90	34				5			409
3	<i>Dalbergia latifolia</i>	Sissum	5	8	13	20	10	6	3	17			82
4	<i>Grewia latifolia</i>	Dhamaan		1	1	2		1	2	5			12
5	<i>Lagerstroemia lanciolata</i>	Nandi	5	6	6	3	3	5	1	1			30
6	<i>Lannea grandis</i>	Gojjal	1	5	2	3		1		3			15
7	<i>Tectona grandis</i>	Teak	180	200	180	170	130	51	27	55	7		1000
8	<i>Mitragyna parviflora</i>	Kalam	1	1									2
9	<i>Terminalia paniculata</i>	Kindal	155	199	142	79	31	8	3	6			623
10	<i>Terminalia tomentosa</i>	Matti	27	40	36	50	35	12	10	19	4		233

11	Others	Jungly	39	57	54	20	4	5	8	14	1		202
		Total	552	663	526	384	215	91	54	125	13	0	2623

Table 14: Details of trees in sector-5 (Km No: 61.000 to 62.000)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi					1	1	2	7	6		17
2	<i>Anogeissus latifolia</i>	Dindal	27	26	24	26	22	28	20	40			213
3	<i>Dalbergia latifolia</i>	Sissum	5	9	6	6	11	12	10	41			100
4	<i>Grewia latifolia</i>	Dhamaan				1	1			2			4
5	<i>Lagerstroemia lanciolata</i>	Nandi	6	5	4	9	6	1	3	3	1		38
6	<i>Lannea grandis</i>	Gojjal	1	3	1	2	5	1	1	12			26
7	<i>Tectona grandis</i>	Teak	40	21	9	12	5	15	17	116	14		249
8	<i>Mitragyna parviflora</i>	Kalam					2	3		2	1		8
9	<i>Terminalia paniculata</i>	Kindal	57	21	5	9	10	7	5	18	3		135
10	<i>Terminalia tomentosa</i>	Matti	9	5	8	21	21	26	28	158	7	1	284
11	Others	Jungly	38	41	44	35	22	30	18	99	9		336
		Total	183	131	101	121	106	124	104	498	41	1	1410

Table 15: Details of trees in sector-5 (Km No: 62.000 to 63.000)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi								4	5	4	13
2	<i>Anogeissus latifolia</i>	Dindal								1			1
3	<i>Dalbergia latifolia</i>	Sissum				1			1	4	24	1	30
4	<i>Grewia latifolia</i>	Dhamaan		1				1		3			5
5	<i>Lagerstroemia lanciolata</i>	Nandi	30	40	47	48	25	29	20	62	16	3	320
6	<i>Lannea grandis</i>	Gojjal			8	5	4	9	5	19	2		52
7	<i>Tectona grandis</i>	Teak	81	10			1			2	4		98
8	<i>Mitragyna parviflora</i>	Kalam								7	7		14
9	<i>Terminalia paniculata</i>	Kindal	22	38	27	19	15	6	6	49	26	4	212
10	<i>Terminalia tomentosa</i>	Matti	7	2		2	5		8	251	87	11	373
11	Others	Jungly	25	76	51	41	46	27	28	342	97	10	743
		Total	165	167	133	116	96	72	68	744	268	33	1862

Table 16: Details of trees in sector-5 (Km No: 63.000)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14

1	<i>Adina cardifolia</i>	Heddi									1		1
2	<i>Anogeissus latifolia</i>	Dindal		1									1
3	<i>Dalbergia latifolia</i>	Sissum		1		1	2	4	2	4			14
4	<i>Grewia latifolia</i>	Dhamaan											0
5	<i>Lagerstroemia lanceolata</i>	Nandi								5			5
6	<i>Lannea grandis</i>	Gojjal	1		1		1	2		3			8
7	<i>Tectona grandis</i>	Teak	192	49	23	11	2	1		4			282
8	<i>Mitragyna Parviflora</i>	Kalam								5	5		10
9	<i>Terminalia paniculata</i>	Kindal	3	3		1	2			12	1		22
10	<i>Terminalia tomentosa</i>	Matti	3		2	5	6	4	7	58	3		88
11	Others	Jungly	14	7	5	2	4	3	7	28	7	2	79
		Total	213	61	31	20	17	14	16	119	17	2	510

Table 17: Details of trees in sector-5 (Km No: 63.000 to 64.200)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-200	200-300	300-400	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Adina cardifolia</i>	Heddi								4	5	4	13
2	<i>Anogeissus latifolia</i>	Dindal								1			1
3	<i>Dalbergia Latifolia</i>	Sissum				1			1	4	24	1	30
4	<i>Grewia Latifolia</i>	Dhamaan		1				1		3			5
5	<i>Lagerstroemia lanciolata</i>	Nandi	30	40	47	48	25	29	20	62	16	3	320

6	<i>Lannea grandis</i>	Gojjal			8	5	4	9	5	19	2		52
7	<i>Tectona grandis</i>	Teak	81	10			1			2	4		98
8	<i>Mitragyna parviflora</i>	Kalam								7	7		14
9	<i>Terminalia paniculata</i>	Kindal	22	38	27	19	15	6	6	49	26	4	212
10	<i>Terminalia tomentosa</i>	Matti	7	2		2	5		8	251	87	11	373
11	Others	Jungly	25	76	51	41	46	27	28	342	97	10	743
		Total	165	167	133	116	96	72	68	744	268	33	1862

Table 18: Details of trees in sector-5 (Km No: 64.200 to 64.850)

Sl.No.	Name of the species		Girth in centimeters										
	Botanical Name.	Local name of the species.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Above 100	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<i>Buchanania latifolia</i>	Char	0	0	0	0	2	0	0	1	0	6	9
2	<i>Careya arborea</i>	Kaval	1	0	2	5	7	0	1	0	3	2	21
3	<i>Clerodendrum infortunatum</i>	Kare	0	0	0	0	1	1	3	3	3	4	15
4	<i>Dillenia pentagyna</i>	Karmal	0	0	0	0	0	0	0	0	2	34	36
5	<i>Lagerstroemia lanciolata</i>	Nandi	1	0	1	4	3	4	2	1	3	12	31
6	<i>Odina wodier</i>	Gojjal	0	0	2	0	2	6	3	1	3	7	24
7	Others	Jungli	0	1	2	8	4	7	4	3	5	47	81
8	<i>Terminalia paniculata</i>	Kindal	5	14	21	20	9	6	3	1	4	21	104
9	<i>Terminalia tomentosa</i>	Matti	0	5	15	17	16	15	13	7	5	18	111
		Total	7	20	43	54	44	39	29	17	28	151	432

Table 19: Details of trees in sector-6 (Km No: 64.850 to 69.500)

Sl.No.	Name of the species		Girth in centimeters								
	Local name of the species.	Botanical Name.	30	31-40	41-50	51-60	61-70	71-80	81-90	ABOVE 90	TOTAL
1	2	3	4	5	6	7	8	9	10	11	12
1	Teak	<i>Tectona grandis</i>	164	239	125	36	9	1	1		575
2	Sissum	<i>Dalbergia latifolia</i>					1	2	3	48	54
3	Matti	<i>Terminalia tomentosa</i>			3	7	10	7	6	201	234
4	Kindal	<i>Terminalia paniculata</i>		1	18	29	29	27	31	220	355
5	Jamba	<i>Xylia xylocarpa</i>								104	104
6	Karmal	<i>Dillenia pentagyna</i>						1	3	107	111
7	Gojjal	<i>Odina wodier</i>		1		4	3	7	5	40	60
8	Nandi	<i>Lagerstroemia lanciolata</i>			4	8	8	11	9	69	109
9	Kaval	<i>Careya arborea</i>			3	2	10	10	11	75	111
10	Mavu	<i>Mangifera indica</i>					1	4	2	11	18
11	Basari	<i>Ficus tsiela</i>								5	5
12	Gargatti	<i>Ficus asperrima</i>								1	1
13	Kalam	<i>Mitragyna parviflora</i>								8	8
14	Wate	<i>Artocarpus lakoocha</i>							1	1	2
15	Nerale	<i>Eugenia hemisphaerica</i>					2	2	1	22	27
16	Kasarka	<i>Strychnos nux vomica</i>								8	8
17	Hippe	<i>Madhuca indica</i>								4	4
18	Anttwal	<i>Sapindus emarginatus</i>								1	1
19	Nelli	<i>Phyllanthus emblica</i>									
20	Simetangadi	<i>Cassia siamea</i>		3	7	4	3	3	1		21
21	Satwan	<i>Alstonia scholaris</i>									
22	Kare	<i>Clerodendrum infortunatum</i>					1	2	6	15	24
23	Tari	<i>Terminalia bellerica</i>							2	21	23
24	Murgal	<i>Garcinia indica</i>						1		3	4
25	Amatte	<i>Spondias mangifera</i>					1			2	3
26	Heddi	<i>Adina cardifolia</i>				1	2	1	1	20	25

27	Dhaman	<i>Grewia tiliaefolia</i>					2	1	6	37	46
28	Halasu	<i>Atrocarpus integrifolia</i>				1		3			4
29	Basavanpad	<i>Bauhinia reticulata</i>		1					1	3	5
30	Gandgargi	<i>Cedrella toona</i>		1		1			1	3	6
31	Bural	<i>Bombax malabaricum</i>								6	6
32	Belkambe	<i>Albizia amara</i>				1				2	3
33	Kunneral	<i>Syzygium operculatum</i>								7	7
34	Atte	<i>Ficus glomerata</i>				1		1		3	5
35	Heffi	<i>Bassia latifolia</i>								8	8
36	Challe	<i>Cordia myxa</i>					1				1
37	Kakke	<i>Cassia fistula</i>		1				1		1	3
38	Harada	<i>Terminalia chebula</i>								2	2
39	Chari	<i>Buchanania latifolia</i>			1		4	3	6	4	18
40	Hadang	<i>Cordia macleodii</i>								1	1
41	Hunse	<i>Tamarindus indica</i>					1				1
42	Acacia	<i>Acacia auriculiformis</i>		1	1	1	1				4
43	Banni	<i>Bauhinia racemosa</i>								1	1
44	Shivani	<i>Gmelina arborea</i>				1					1
45	Mutttag	<i>Butea monosperma</i>								3	3
46	Honne	<i>Pterocarpus marsupium</i>								2	2
47	Honge	<i>Pongamia pinnata</i>								1	1
48	Nelgeri	<i>Eucalyptus citriodora</i>								1	1
49	jangli	Others			2	4	5	1	3	56	71
	Total		164	248	165	106	99	94	108	1144	2128

Table 20: Details of trees in sector-6 (Km No: 67.600 – 68.100)

Sl.No.	Name of the species		Girth in centimeters								
	Local name of the species.	Botanical Name.	30	31-40	41-50	51-60	61-70	71-80	81-90	ABOVE 90	TOTAL
1	2	3	4	5	6	7	8	9	10	11	12
1	Karmal	<i>Dillenia pentagyna</i>								20	20
2	Gojjal	<i>Odina wodier</i>		1	3	3	2	2	1	24	36
3	Matti	<i>Terminalia tomentosa</i>	1	2	2		1	1	1	8	16
4	Kare	<i>Clerodendron infortunatum</i>		10	2	4		2	1	3	22
5	Kindal	<i>Terminalia paniculata</i>	4	16	22	9	9	9	8	43	120
6	Sissum	<i>Dalbergia latifolia</i>								3	3
7	Kuda	<i>Others</i>		1	1		1				3
8	Jangli	<i>Others</i>	4	3	6	2	11		3	4	33
9	Kaval	<i>Careya arborea</i>	1	5	2	3		1		11	23
10	Dhaman	<i>Grewia tiliaefolia</i>			2					7	9
11	Nandi	<i>Lagerstroemia lanciolata</i>			2			1		9	12
12	Tari	<i>Terminalia bellerica</i>								6	6
13	Jamba	<i>Xylocarpa</i>									5
14	Neral	<i>Eugenia hemisphaerica</i>				1				1	2
15	Heddi	<i>Adina cardifolia</i>								1	1
16	Teak	<i>Tectona grandis</i>	223								223
		Total	233	38	42	23	25	16	14	143	534

Table 21: Details of trees in sector-6 (Km No: 69.500 – 73.100)

Sl.No.	Name of the species		Girth in centimeters								
	Local name of the species.	Botanical Name.	30	31-40	41-50	51-60	61-70	71-80	81-90	ABOVE 90	TOTAL
1	2	3	4	5	6	7	8	9	10	11	12
1	Teak	<i>Tectona grandis</i>	186	40	11	42	114	254	227	308	1182
2	Sissum	<i>Dalbergia latifolia</i>					1			10	11
3	Jangli	Others		5	89	172	135	122	123	1344	1990
		Total	186	45	100	214	250	376	350	1662	3183

Table 22: Details of trees in sector-6 (Km No: 73.100 – 75.900)

Sl. No.	Name of the species		Girth in centimeters								
	Local name of the species.	Botanical Name.	30	31-40	41-50	51-60	61-70	71-80	81-90	ABOVE 90	TOTAL
1	2	3	4	5	6	7	8	9	10	11	12
1	Teak	<i>Tectona grandis</i>				1					1
2	Sissum	<i>Dalbergia latifolia</i>								3	3
3	Jangli	Others		1	25	25	52	51	100	1248	1502
		Total		1	25	26	52	51	100	1251	1506

Table 23: Details of trees in sector-6 (Km No: 75.900 – 79.400)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Acacia	<i>Acacia auriculiformis</i>	376	332	119	25	3	4	2	4	7	872
2	Char	<i>Buchanania latifolia</i>	0	0	2	6	1	7	11	1	5	33
3	Kaval	<i>Careya arborea</i>	0	7	27	30	19	25	18	13	15	154
4	Gojjal	<i>Lannea coromandelica</i>	0	0	3	2	1	0	1	2	6	15
5	Mango	<i>Mangifera indica</i>	1	0	0	0	0	1	0	1	10	13
6	Jangli	<i>Others</i>	0	2	20	17	15	13	11	15	36	129
7	Kasaraka	<i>Strychnos nux-vomica</i>	0	0	3	2	2	5	4	2	9	27
8	Kunneral	<i>Syzygium operculata</i>	0	0	2	5	3	3	0	2	37	52
9	Neral	<i>Syzygium cumini</i>	0	0	5	5	3	10	9	5	28	65
10	Harada	<i>Terminalia chebula</i>	0	1	4	5	14	16	9	11	31	91
11	Kindal	<i>Terminalia paniculata</i>	2	5	37	28	20	16	21	15	72	216
12	Matti	<i>Terminalia tomentosa</i>	0	3	20	25	25	47	45	48	155	368
13	Teak	<i>Tectona grandis</i>	10	2								12
14	Jamba	<i>Xylia xylocorpa</i>	0	1	0	1	5	1	6	9	55	78
		TOTAL	389	353	242	158	111	148	137	128	429	2125

Table 24: Details of trees in sector-7 (Km No: 79.400 – 82.000)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Sampige	<i>Michelia champaca</i>	0	0	1	0	7	4	3	3	4	22
2	Char	<i>Buchanania latifolia</i>	1	9	6	16	11	3	3	4	11	64
3	Nandi	<i>Lagestromia lanceolata</i>	1	1	7	4	6	5	4	2	29	59
4	Kindal	<i>Terminalia paniculata</i>	1	40	24	34	38	31	31	23	78	300
5	Jamba	<i>Xylocarpus xylocarpa</i>	1	3	1	4	14	7	4	3	25	62
6	Holgeru	<i>Holigarna beddomei</i>	0	2	1	3	20	12	10	5	15	68
7	Sagade	<i>Schleichera oleosa</i>	0	0	0	4	5	13	3	5	17	47
8	Jungli	<i>Others</i>	45	508	305	273	137	85	74	44	92	1563
9	Muttal	<i>Butea monosperma</i>	0	2	3	10	18	24	13	7	21	98
10	Kunneral	<i>Syzygium operculata</i>	0	0	0	2	4	6	5	6	5	28
11	Harada	<i>Terminallia chebula</i>	0	2	6	9	9	6	12	9	19	72
12	Kawal.	<i>Careya arborea</i>	4	80	70	108	42	53	35	30	54	476
13	Bharangi	<i>Vitex altissima</i>	0	8	5	1	11	10	6	13	37	91
14	Salle	<i>Aporosa lindleyana</i>	0	0	0	12	51	33	34	23	40	193
15	Matti	<i>Terminalia tomentosa</i>	2	13	22	16	31	41	29	30	127	311
16	Nelli	<i>Emblica officinalis</i>	0	3	6	6	3	2	2	5	9	36
17	Mavu	<i>Mangifera indica</i>	0	7	6	5	8	4	3	0	12	45
18	Dalchini	<i>Cinnamomum zeylanicum</i>	2	6	0	4	7	17	15	12	15	78
19	Gojjal.	<i>Lannea coromandelica</i>	0	0	1	1	5	5	7	7	23	49
20	Salle	<i>Cordia myxa</i>	0	0	0	0	5	14	9	4	8	40
21	Atti	<i>Ficus glomerata</i>	1	13	9	6	8	10	10	9	25	91
22	Neral	<i>Syzygium cumini</i>	2	21	36	30	28	20	22	20	135	314
23	Heddi	<i>Adina cardifolia</i>	0	0	3	0	8	8	6	7	32	64
24	Taari	<i>Terminalia bellerica</i>	1	0	0	3	5	9	4	6	28	56
25	Acacia	<i>Acacia auriculiformis</i>	0	14	6	2	0	0	1	1	2	26
26	Naeltare	<i>Garcinia indica</i>	0	0	0	1	4	8	3	8	7	32
		Total										4287

Table 25: Details of trees in sector-7 (Km No: 82.000 – 84.000)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Murugal	<i>Garcinia indica</i>	0	0	0	3	8	9	2	4	9	35
2	Mango	<i>Mangifera indica</i>	2	10	6	7	8	7	2	2	25	69
3	Karmal	<i>Dillenia pentagyna</i>	0	0	0	1	8	6	6	5	21	47
4	Kindal	<i>Terminalia paniculita</i>	11	77	28	23	33	15	21	18	54	280
5	Jamba	<i>Xylia xylocarpa</i>	0	11	2	5	6	4	4	5	22	59
6	Kawal	<i>Careya arborea</i>	10	81	37	44	21	14	16	12	22	257
7	Holgeru	<i>Holigarna beddomei</i>	0	2	0	1	11	5	4	3	15	41
8	Jungli	<i>Others</i>	130	1122	488	305	141	93	61	30	134	2504
9	Char	<i>Buchanania latifolia</i>	0	0	0	9	38	17	23	8	6	101
10	Harada	<i>Terminalia chebula</i>	3	31	12	19	20	10	20	11	39	165
11	Neral	<i>Syzygium cumini</i>	6	53	27	17	25	17	19	9	85	258
12	Nelli	<i>Emblica officinalis</i>	2	19	10	6	1	1	0	0	0	39
13	Bharangi	<i>Vitex altissima</i>	2	22	7	5	5	10	6	5	26	88
14	Salle	<i>Aporusa lindleyana</i>	0	1	2	21	64	44	27	14	33	206
15	Matti	<i>Terminalia tomentosa</i>	9	143	93	81	87	80	82	81	331	987
	Total											5136

Table 26: Details of trees in sector-7 (Km No: 84.000 – 86.100)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Jamba	<i>Xylia xylocarpa</i>	7	15	8	8	16	18	17	14	84	187
2	Bharanagi	<i>Vitex altissima</i>	3	5	5	1	1	5	4	4	30	58
3	Matti	<i>Terminalia tomentosa</i>	169	438	170	145	127	81	69	57	305	1561
4	Kindal	<i>Terminalia paniculata</i>	32	120	51	21	39	21	20	21	185	510
5	Harada	<i>Terminalia chebula</i>	2	13	3	14	31	22	26	15	51	177
6	Tare	<i>Terminalia bellerica</i>	1	10	3	6	3	4	2	5	30	64
7	Kunneral	<i>Syzygium operculata</i>	1	0	0	0	1	0	1	1	21	25
8	Neral	<i>Syzygium cumini</i>	18	28	23	10	17	12	13	14	52	187
9	Kasarka	<i>Strychnos nuxvomica</i>	0	0	1	0	5	6	3	8	29	52
10	Jungli	Others	240	805	395	271	293	145	104	97	293	2643
11	Gojjal	<i>Lannea coromandelica</i>	1	0	3	0	6	5	1	2	7	25
12	Sampige	<i>Michelia champaca</i>	1	14	7	4	7	6	2	3	12	56
13	Mango	<i>Mangifera indica</i>	2	3	2	2	5	1	1	0	16	32
14	Akkarkal	<i>Linociera malabarica</i>	21	55	42	24	15	16	15	13	43	244
15	Nandi	<i>Lagerstroemia lanceolata</i>	0	1	1	0	1	1	2	3	6	15
16	Holgeru	<i>Holigarna arnottiana</i>	3	10	6	3	14	13	10	4	26	89
17	Murugal	<i>Garcinia indica</i>	10	24	4	5	12	6	5	5	28	99
18	Nelli	<i>Emblica officinalis</i>	4	11	13	6	11	6	6	3	20	80
19	challe	<i>Cordia myxa</i>	0	0	0	5	5	8	9	3	22	52
20	Dalchini	<i>Cinnamomum zeylanicum</i>	6	15	8	4	10	6	6	6	12	73
21	Kawal	<i>Careya arborea</i>	32	135	58	63	105	40	25	31	58	547
22	Char	<i>Buchanania latifolia</i>	25	79	31	20	28	21	5	3	4	216
23	Hebbalasu	<i>Artocarpus hirsutus</i>	3	8	9	4	3	3	3	3	8	44
	Total											7036

Table 27: Details of trees in sector-7 (Km No: 86.100 – 87.200)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Nandi	<i>Lagerstroemia lanceolata</i>	1						1	1	17	20
2	Sampige	<i>Michelia champaca</i>	0	0	0	0	4	8	1	2	10	25
3	Gulmavu	<i>Machilus macrantha</i>						5	1	1	28	35
4	Kindal	<i>Terminilia paniculata</i>	0	0	0	0	1	0	0	0	27	28
5	Jamba	<i>Xylia xylocarpa</i>	0	0	0	1	1	0	2	0	5	9
6	Rampatri	<i>Myristica malabarica</i>	0	0	0	1	6	9	6	8	17	47
7	Holgeru	<i>Holigarna beddomei</i>					22	14	16	8	39	99
8	Jungli	Others	57	573	239	266	200	140	99	69	291	1934
9	Dalchini	<i>Cinnamomum zeylanicum</i>					6	6	8	10	23	53
10	Kasarka	<i>Strychnos nuxvomica</i>								11	10	21
11	Neral	<i>Syzygium cumini</i>					1				15	16
12	Kanjamba	<i>Eugenia lacta</i>		6	2	4	11	15	14	10	44	106
13	Bharangi	<i>Vitex altissima</i>	0	3	0	0	2	0	3	1	8	17
14	Salle	<i>Aporosa lindleyana</i>				1	7	5	4	4	12	33
15	Matti	<i>Terminalia tomentosa</i>	0	0	0	0	1	0	0	2	11	14
		TOTAL										2457

Table 28: Details of trees in sector-7 (Km No: 87.200 – 89.100)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Jamba	<i>Xylia xylocarpa</i>	0	27	9	15	10	8	13	9	111	202
2	Bharanagi	<i>Vitex altissima</i>	1	15	10	14	1	12	16	11	141	221
3	Matti	<i>Terminalia tomentosa</i>	1	54	23	32	19	34	29	34	133	359
4	Kindal	<i>Terminalia paniculata</i>	1	51	13	30	9	9	19	23	181	336
5	Raampathre	<i>Myristica fatua</i>	0	6	8	8	4	11	6	5	4	52
6	Bakula	<i>Mimusops elengi</i>	0	4	4	2	0	0	0	1	0	11
7	Kanjamba	<i>Eugenia lacta</i>	1	24	33	57	10	26	18	25	49	243
8	Neral	<i>Syzygium cumini</i>	0	7	5	8	3	5	4	3	74	109
9	Kasarka	<i>Strychnos nuxvomica</i>	0	1	0	2	0	1	1	3	2	10
10	Jungli	Others	179	2314	1091	1299	271	303	248	181	647	6533
11	Gojjal	<i>Lannea coromandelica</i>	0	0	0	0	2	5	2	3	22	34
12	Sampige	<i>Michelia champaca</i>	0	7	6	6	4	1	4	2	6	36
13	Mango	<i>Mangifera indica</i>	1	12	7	4	0	1	0	0	5	30
14	Wate	<i>Artocarpus lakoocha</i>	0	0	0	0	1	3	2	4	11	21
15	Nandi	<i>Lagerstroemia lanceolata</i>	0	0	1	1	0	2	1	6	39	50
16	Holgeru	<i>Holigarna arnottiana</i>	1	0	0	5	17	18	15	10	37	103
17	Murugal	<i>Garcinia indica</i>	0	27	18	20	6	15	12	12	33	143
18	Nelli	<i>Emblica officinalis</i>	0	1	4	6	1	2	1	0	0	15
19	Karmal	<i>Dillenia pentagyna</i>	0	0	1	4	2	4	9	5	19	44
20	Dalchini	<i>Cinnamomum zeylanicum</i>	0	13	7	16	8	10	12	14	41	121
21	Kawal	<i>Careya arborea</i>	0	4	2	16	11	15	11	4	15	78
22	Salle	<i>Aporosa lindleyana</i>	0	10	5	10	12	16	18	13	19	103
23	Hebbalasu	<i>Artocarpus hirsutus</i>	0	11	1	7	1	3	3	4	11	41
		TOTAL										8895

Table 29: Details of trees in sector-7 (Km No: 89.100 – 91.000)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Sissum	<i>Dalbergia latifolia</i>	0	0	0	0	0	0	2	1	4	7
2	Matti	<i>Terminalia tomentosa</i>	14	29	44	22	46	73	82	75	432	817
3	Kindal	<i>Terminalia paniculata</i>	22	76	75	37	28	55	43	41	281	658
4	Nandi	<i>Lagerstroemia lanceolata</i>	12	15	12	5	2	1	5	6	36	94
5	Jamba	<i>Xylocarpus xylocarpa</i>	29	63	54	47	13	28	23	26	162	445
6	Bharanagi	<i>Vitex altissima</i>	12	53	55	22	14	23	30	29	333	571
7	Gojjal	<i>Lannea coromandelica</i>	0	0	0	0	6	13	4	3	41	67
8	Kawal	<i>Careya arborea</i>	8	23	29	30	30	59	42	23	44	288
9	Neral	<i>Syzygium cumini</i>	3	17	12	4	12	25	12	20	112	217
10	Karmal	<i>Dillenia pentagyna</i>	2	9	15	3	3	9	9	7	40	97
11	Dhaman	<i>Grevia telifolia</i>	0	0	0	1	0	0	2	1	0	4
12	Heddi	<i>Adina cardifolia</i>	1	8	1	1	0	1	1	3	11	27
13	Wate	<i>Artocarpus lakoocha</i>	0	0	0	0	0	2	5	1	25	33
14	Hebbahalasu	<i>Artocarpus hirsuta</i>	3	16	8	1	1	10	7	7	43	96
15	Neltare	<i>Alseodaphne semecarpifolia</i>	0	0	0	0	0	1	1	0	0	2
16	Kalam	<i>Mitragyna parviflora</i>	0	0	0	0	0	0	1	1	2	4
17	Om	Others	0	0	0	0	1	2	1	3	0	7
18	Masse	<i>Litsea zeylanica</i>	0	0	0	0	0	1	0	0	2	3
19	Sagadi	<i>Schleichera tritjuga</i>	0	0	0	1	5	2	1	1	9	19
20	Henneral	<i>Eugenia utilis</i>	0	0	0	0	0	1	0	0	6	7
21	Halasu	<i>Artocarpus integrifolia</i>	0	0	0	0	0	0	1	0	1	2
22	Mango	<i>Mangifera indica</i>	0	1	3	2	0	2	0	1	9	18
23	Gandhagarige	<i>Toona ciliata</i>	0	0	0	0	0	0	0	0	0	0
24	Kakkaijamba	<i>Cassia fistula</i>	0	0	0	0	5	5	8	5	19	42
25	Andmurgal	<i>Carallia integerrima</i>	0	0	0	0	1	1	0	1	5	8
26	Kanjamba	<i>Eugenia lacta</i>	7	44	46	13	48	26	16	24	55	279
27	Dhoop	<i>Ailanthus excelsa</i>	0	0	0	0	0	0	0	0	1	1
28	Char	<i>Buchanania lanzan</i>	1	9	17	9	20	23	19	15	32	145

29	Bakkula	<i>Mimusops hexandra</i>	9	47	47	19	14	32	17	15	61	261
30	Salle	<i>Aporosa lindleyana</i>	17	47	38	16	37	102	64	29	47	397
31	Bobbi	<i>Calophyllum tomentosum</i>	0	1	4	1	1	5	2	4	8	26
32	Basari	<i>Ficus infectoria</i>	0	0	0	0	1	0	0	3	5	9
33	Akkarkal	<i>Linociera inalambrica</i>	14	42	57	15	14	19	24	15	21	221
34	Satwan	<i>Alstonia scholaris</i>	0	0	0	0	0	0	0	0	2	2
35	Sampige	<i>Michelia champaca</i>	2	10	7	2	3	5	2	2	6	39
36	Haale	<i>Wrightia tinctoria</i>	0	0	0	0	0	0	1	0	1	2
37	Chandkal	<i>Macaranga roxburghii</i>	0	0	0	0	0	1	1	2	3	7
38	Tumbri	<i>Trewia nudiflora</i>	0	0	0	0	0	0	0	0	1	1
39	Gomble	<i>Acacia nilotica</i>	0	0	0	0	0	1	0	0	1	2
40	Maragouri	<i>Polyalthia offeoides</i>	0	0	0	0	0	0	0	0	1	1
41	Padli	<i>Nerium oleander</i>	1	3	1	0	0	0	0	0	6	11
42	Gulmavu	<i>Machilus macrantha</i>	0	0	0	0	0	0	0	0	5	5
43	Chennangi	<i>Lagestroemia prviriflora</i>	0	0	0	0	0	0	0	0	1	1
44	Basavanapad	<i>Bauhinia malabarica</i>	0	0	1	0	1	0	0	1	0	3
45	Jermal	<i>Tetrameles nudiflora</i>	0	0	0	0	0	0	0	0	2	2
46	Holgeru	<i>Holigarna beddomei</i>	10	43	42	10	14	44	49	28	97	337
47	Dalchini	<i>Cinnamomum zeylanicum</i>	4	8	10	9	11	41	37	34	83	237
48	Rampatri	<i>Myristica malabarica</i>	1	6	7	2	2	7	6	7	6	44
49	Gorba	<i>Ixora parviflora</i>	0	0	0	0	2	2	1	0	4	9
50	Banata	<i>Lophopetalum wightianum</i>	0	0	2	0	0	0	0	0	14	16
51	Kare	<i>Canthium parviflorum</i>	0	0	0	0	0	0	1	0	0	1
52	Dhula	<i>Ailanthus excelsa</i>	10	52	59	35	24	34	32	23	193	462
53	Uppage	<i>Garcinia cambogia</i>	0	2	2	1	5	7	2	4	4	27
54	Haiga	<i>Hopea wightiana</i>	0	1	0	1	0	6	3	3	1	15
55	Harada	<i>Terminalia chebula</i>	0	1	2	0	0	0	0	1	0	4
56	Chella.	<i>Cordia myxa</i>	0	7	25	11	0	0	0	0	0	43
57	Nelli	<i>Emblica officinalis</i>	1	7	8	4	0	2	1	1	1	25
58	Murgal	<i>Garcinia indica</i>	0	4	2	1	7	16	7	9	67	113
59	Kasarka	<i>Strychnos nuxvomica</i>	0	0	0	0	1	0	1	0	3	5

60	Tare	<i>Terminalia bellerica</i>	0	2	0	0	0	2	3	0	10	17
61	Jungli	Others	428	1679	1445	658	322	398	267	155	488	5840
		TOTAL	611	2325	2130	983	694	1087	836	630	2847	12143

Table 30: Details of trees in sector-8 (Km No: 91.000 – 93.000)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Matti	<i>Terminalia tomentosa</i>	5	27	19	11	15	34	39	54	327	531
2	Kindal	<i>Terminalia paniculata</i>	12	49	32	28	5	10	21	12	161	330
3	Nandi	<i>Lagerstroemia lanceolata</i>	0	0	1	1	1	1	0	3	17	24
4	Jamba	<i>Xylocarpus xylocarpa</i>	0	0	0	0	1	2	6	2	91	102
5	Bharanagi	<i>Vitex altissima</i>	0	3	5	2	1	5	12	9	75	112
6	Neral	<i>Syzygium cumini</i>	0	1	3	2	1	6	2	1	55	71
7	Kawal	<i>Careya arborea</i>	5	9	9	3	4	4	1	4	32	71
8	Karmal	<i>Dillenia pentagyna</i>	0	0	0	2	1	3	2	2	31	41
9	Tare	<i>Terminalia bellerica</i>	0	0	0	0	0	0	0	1	17	18
10	Gojjal	<i>Lannea coromandelica</i>	0	1	1	0	1	1	2	2	9	17
11	Hebbahalasu	<i>Artocarpus hirsuta</i>	0	0	0	0	1	3	0	2	6	12
12	Kasarka	<i>Strychnos nuxvomica</i>	1	1	1	0	1	1	1	1	15	22
13	Bobbi	<i>Calophyllum wightianum</i>	0	0	0	0	0	0	1	1	3	5
14	Kanjamba	<i>Eugenia laeta</i>	3	12	8	5	6	6	7	8	27	82
15	Mango	<i>Mangifera indica</i>	0	1	0	1	1	1	1	3	6	14

16	Halasu	<i>Artocarpus integrifolia</i>	0	0	1	0	0	0	1	0	1	3
17	Wate	<i>Artocarpus lakoocha</i>	0	0	1	0	0	1	1	1	6	10
18	Hunase	<i>Tamarindus indica</i>	0	0	0	0	0	0	0	1	0	1
19	Hippe	<i>Madhuca indica</i>	0	0	0	0	0	0	0	0	1	1
20	Dalchini	<i>Cinnamomum zeylanicum.</i>	0	7	3	2	1	6	6	12	41	78
21	Holgeru	<i>Holigarna beddomei</i>	13	15	15	6	19	21	20	29	73	211
22	Nelli	<i>Embllica officinalis</i>	0	0	0	1	0	2	1	0	0	4
23	Murugal	<i>Garcinia indica</i>	3	10	5	2	3	6	4	3	17	53
24	Rampatri	<i>Myristica malabarica</i>	0	0	3	1	1	2	2	1	3	13
25	Uppage	<i>Garcinia cambogia</i>	0	0	0	0	1	0	0	1	0	2
26	Bakkula	<i>Mimusops hexandra</i>	0	2	3	3	7	8	13	8	38	82
27	Salle	<i>Aporosa lindleyana.</i>	11	50	54	29	48	50	48	39	78	407
28	Dhula	<i>Ailanthus excelsa</i>	1	5	5	2	3	8	7	6	45	82
29	Sampige	<i>Michelia champaca</i>	2	1	4	1	6	7	9	3	8	41
30	Andmurgal	<i>Carallia integerrima</i>	0	0	0	0	0	1	0	2	3	6
31	Hedmangal	<i>Knema attenuata</i>	2	1	3	2	5	4	3	2	5	27
32	Akkarkal	<i>Linociera malabarica</i>	19	103	78	50	9	8	4	8	9	288
33	Basari	<i>Ficus infectoria</i>	0	0	0	0	0	0	0	0	12	12
34	Char	<i>Buchanania lanzan</i>	1	10	5	2	2	1	3	4	6	34
35	Gorba	<i>Ixora parviflora</i>	0	0	0	0	1	5	1	3	2	12
36	Gomble	<i>Tetrameles nudiflora</i>	0	0	0	0	0	1	1	1	9	12
37	Bural	<i>Bombax malabaricum</i>	0	0	0	0	0	1	0	0	0	1
38	Arli		0	0	0	0	0	0	0	0	1	1
39	Neyineral		0	0	0	0	0	0	0	1	2	3
40	Banata	<i>Lophopetalum wightianum</i>	0	0	0	0	0	1	0	1	0	2
41	Antwal	<i>Sapindus trifoliatus</i>	0	0	0	0	0	0	0	0	1	1
42	Tumbri	<i>Trewia nudiflora</i>	0	0	0	0	0	0	1	0	0	1
43	Jumma	<i>Zanthoxylum rhetsa</i>	0	0	0	0	0	0	0	1	0	1
44	Karibasari.		0	0	0	0	0	0	0	0	1	1
45	Chandkal.	<i>Macaranga roxburghii</i>	1	0	0	0	0	1	0	0	1	3
46	Kare	<i>Canthium parviflorum</i>	0	0	0	1	0	0	0	0	1	2

47	Hebbevu		0	0	0	0	0	0	0	0	1	1
48	Dhoop	<i>Ailanthus excelsa</i>	0	0	0	0	0	0	1	0	0	1
49	Harada	<i>Terminalia chebula</i>	1	0	0	0	0	0	0	0	1	2
50	Haiga	<i>Hopea wightiana</i>	0	0	0	0	0	0	0	1	1	2
51	Kakkaijamba	<i>Cassia fistula</i>	0	0	0	0	1	2	1	4	6	14
52	Jungli	Others	85	433	330	154	101	143	109	66	234	1655
		TOTAL	165	741	589	311	247	356	331	303	1479	4522

Table 31: Details of trees in sector-8 (Km No: 93.000 – 95.000)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Teak	<i>Tectona grandis</i>	0	0	0	0	0	0	0	0	1	1
2	Sissum	<i>Dalbergia latifolia</i>	0	0	0	0	0	0	0	1	2	3
3	Nandi	<i>Lagerstroemia lanceolata</i>	2	2	0	0	0	0	0	2	8	14
4	Kindal	<i>Terminalia paniculata</i>	6	7	5	10	5	13	11	14	96	167
5	Matti	<i>Terminalia tomentosa</i>	18	24	15	6	8	10	9	17	140	247
6	Jamba	<i>Xylia xylocarpus</i>	1	0	1	0	0	1	3	5	54	65
7	Bharanagi	<i>Vitex altissima</i>	6	15	4	5	3	5	8	5	31	82
8	Neral	<i>Syzygium cumini</i>	1	1	5	1	0	1	0	1	18	28
9	Kalam	<i>Mitragyna parvifolia</i>	0	0	0	0	0	0	0	0	1	1
10	Gojjal	<i>Lannea coromandelica</i>	0	0	0	0	1	1	1	2	10	15
11	Tare	<i>Terminalia bellerica</i>	0	0	0	0	0	0	0	1	12	13
12	Kawal	<i>Careya arborea</i>	6	9	8	3	11	15	9	8	29	98
13	Kanjamba	<i>Eugenia lacta</i>	1	1	4	4	5	12	3	5	10	45
14	Dhaman	<i>Grewia tiliaefolia</i>	0	0	0	0	0	0	1	0	1	2
15	Hebbahalasu	<i>Artocarpus hirsute</i>	2	0	0	0	1	0	2	0	0	5
16	Bakkula	<i>Mimusops hexandra</i>	0	0	3	1	0	2	0	0	7	13

17	Karmal	<i>Dillenia pentagyna</i>	0	0	1	0	2	2	2	3	30	40
18	Basavanapad	<i>Bauhinia malabarica</i>	0	0	0	0	0	0	0	0	1	1
19	Sampige	<i>Michelia champaca</i>	4	22	10	4	0	1	0	0	1	42
20	Akkarkal	<i>Linociera inalabarica</i>	31	76	62	33	1	0	0	0	0	203
21	Bilkambi	<i>Albiggia amara</i>	0	0	0	0	0	0	0	0	1	1
22	Basari	<i>Ficus infectoria</i>	0	0	0	0	0	0	0	0	4	4
23	Murugal	<i>Garcinia indica</i>	10	3	7	0	0	0	1	1	7	29
24	Maragouri	<i>Polyalthia offeoides</i>	0	0	0	0	0	0	0	1	1	2
25	Char	<i>Buchanania lanzan</i>	12	11	17	2	1	1	1	0	2	47
26	Haiga	<i>Hopea wightiana</i>	0	0	0	0	0	0	0	0	1	1
27	Salle	<i>Aporosa lindleyana</i>	27	89	58	10	0	1	0	1	0	186
28	Dhula	<i>Ailanthus excelsa</i>	0	1	4	1	1	4	2	0	35	48
29	Holgeru	<i>Holigarna beddomei</i>	9	12	11	2	0	0	0	1	1	36
30	Honge	<i>Pongamia pinnata</i>	0	0	0	0	0	0	0	2	1	3
31	Dalchini	<i>Cinnamomum zeylanicum</i>	0	5	8	1	3	2	6	1	25	51
32	Mango	<i>Mangifera indica</i>	5	5	3	1	0	2	1	1	9	27
33	Sagadi	<i>Schleichera trijuga</i>	0	0	0	0	1	2	3	1	9	16
34	Wate	<i>Artocarpus lakoocha</i>	0	0	0	0	0	0	0	0	1	1
35	Andmurgal	<i>Carallia integerrima</i>	0	1	0	0	1	0	0	0	4	6
36	Kasarka	<i>Strychnos nuxvomica</i>	1	1	0	0	0	0	0	0	3	5
37	Massi	<i>Litsea zeylanica</i>	0	0	0	0	0	0	0	0	1	1
38	Muttal	<i>Butea monosperma</i>	0	0	0	0	0	0	0	0	1	1
39	Satwan	<i>Alstonia scholaris</i>	0	0	0	0	0	0	0	0	1	1
40	Kare	<i>Canthium parvifloram</i>	3	5	0	0	0	0	0	0	0	8
41	Hedmangal	<i>Knema attenuate</i>	5	0	1	0	0	0	0	0	0	6
42	Nelli	<i>Embllica officianalis</i>	1	4	1	0	0	0	0	0	0	6
43	Bobbi	<i>Calophyllum tomentosum</i>	1	1	0	0	0	0	0	0	0	2
44	Jungli	Others	124	261	106	62	157	179	103	100	183	1275
		TOTAL	276	556	334	146	201	254	166	173	742	2848

Table 32: Details of trees in sector-8 (Km No: 95.000 – 96.500)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species	Botanical Name	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Teak	<i>Tectona grandis</i>	0	0	0	0	0	1	0	1	4	6
2	Matti	<i>Terminalia tomentosa</i>	0	0	0	0	0	0	0	0	4	4
3	Kindal	<i>Terminalia paniculata</i>	0	0	0	4	8	4	6	16	94	132
4	Nandi	<i>Lagerstroemia lanceolata</i>	0	0	0	0	3	1	0	2	33	39
5	Jamba	<i>Xylia xylocarpa</i>	0	0	0	1	3	8	6	12	60	90
6	Bharanagi	<i>Vitex altissima</i>	0	2	6	5	6	13	1	6	64	103
7	Kawal	<i>Careya arborea</i>	0	1	2	1	0	2	1	4	10	21
8	Neral	<i>Syzygium cumini</i>	0	0	0	2	0	4	1	2	39	48
9	Gojjal	<i>Lannea coromandelica</i>	0	0	0	0	1	0	0	0	9	10
10	Sagadi	<i>Schleichera trijuga</i>	0	0	0	0	0	0	0	1	1	2
11	Kasarka	<i>Strychnos nuxvomica</i>	0	0	0	0	0	0	0	0	4	4
12	Dhaman	<i>Grewia tiliaefolia</i>	0	0	0	0	1	1	0	0	2	4
13	Karmal	<i>Dillenia pentagyna</i>	0	0	0	0	0	2	0	1	7	10
14	Hebbahalasu	<i>Artocarpus hirsuta</i>	0	0	0	0	0	1	3	0	10	14
15	Halasu	<i>Artocarpus integrifolia</i>	0	0	0	0	0	0	0	0	1	1
16	Mango	<i>Mangifera indica</i>	0	0	0	0	0	0	0	1	9	10
17	Wate	<i>Artocarpus lakoocha</i>	0	0	0	0	2	1	1	0	9	13
18	Neltari	<i>Alseodaphne semecarpifolia</i>	0	0	0	0	0	1	0	0	0	1
19	Akkarkal	<i>Linociera malabarica</i>	0	0	0	0	1	0	0	0	2	3
20	Basavanapad	<i>Bauhinia malabarica.</i>	0	0	0	0	0	0	0	0	2	2
21	Banata	<i>Lophopetalum wightianum</i>	0	0	0	0	0	0	0	0	4	4
22	Bobbi	<i>Calophyllum wightianum</i>	0	0	0	0	0	0	0	0	3	3
23	Char	<i>Buchanania lanzan</i>	0	0	0	0	1	0	0	0	1	2
24	Uppage	<i>Garcinia cambogia</i>	0	0	0	0	0	0	0	0	1	1
25	Rampatri	<i>Myristica malabarica</i>	0	0	0	0	0	0	0	0	1	1
26	Satwan	<i>Alstonia scholaris</i>	0	0	0	0	0	0	0	0	1	1

27	Holgeru	<i>Holigarna beddomei</i>	0	0	0	0	2	1	0	3	15	21
28	Booral	<i>Bombax malabaricum</i>	0	0	0	0	0	0	1	0	0	1
29	Dhula	<i>Ailanthus excelsa</i>	0	0	0	0	10	4	9	11	90	124
30	Dalchini	<i>Cinnamomum zeylanicum</i>	0	0	0	0	1	0	1	4	10	16
31	Basari	<i>Ficus infectoria</i>	0	0	0	0	0	0	0	0	3	3
32	Gulmavu	<i>Machilus macrantha</i>	0	0	0	0	1	0	0	1	17	19
33	Salle	<i>Aporusa lindleyana</i>	0	0	0	0	2	6	1	3	3	15
34	Gomble	<i>Tetrameles nudiflora</i>	0	0	0	0	1	1	1	2	0	5
35	Bakkula	<i>Mimusops elengi</i>	0	0	0	0	5	3	2	3	14	27
36	Padli	<i>Stereospermum personatum</i>	0	0	0	0	0	0	0	0	2	2
37	Sampige	<i>Michelia champaca</i>	0	0	0	0	1	2	1	0	4	8
38	Kanjamba	<i>Eugenia laeta</i>	2	20	12	8	2	2	5	6	6	63
39	Nelli	<i>Embllica officinalis</i>	0	0	0	0	0	0	0	0	1	1
40	Murugal	<i>Garcinia indica</i>	0	0	0	0	0	0	0	2	5	7
41	Haiga	<i>Hopea wightiana</i>	0	0	0	1	2	1	9	8	13	34
42	Tare	<i>Terminalia bellerica</i>	0	0	0	0	0	0	0	0	5	5
43	Maragouri	<i>Polyalthia fragrans</i>	0	0	0	0	0	0	0	1	1	2
44	Jarmal	<i>Tetrameles nudiflora</i>	0	0	0	0	0	0	0	0	1	1
45	Jungli	Other	40	299	311	322	397	328	174	148	567	2586
		TOTAL	42	322	331	344	450	387	223	238	1132	3469

Table 33: Details of trees in sector-8 (Km No: 96.500 – 98.500)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species	Botanical Name	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13

1	Sissum	<i>Dalbergia latifolia</i>		0	0	0	0	1	1	2	7	11
2	Matti	<i>Terminalia tomentosa</i>		11	9	2	8	14	11	23	112	190
3	Kindal	<i>Terminalia paniculata</i>		24	6	2	9	11	14	19	81	166
4	Jamba	<i>Xylia xylocarpa</i>		4	3	2	3	15	11	11	65	114
5	Nandi	<i>Lagerstroemia lanceolata</i>		5	3	0	2	3	2	1	23	39
6	Bharanagi	<i>Vitex altissima</i>		3	1	4	3	2	2	1	28	44
7	Neral	<i>Syzygium cumini</i>		1	0	0	2	1	4	3	16	27
8	Tare	<i>Terminalia belerica</i>		0	0	0	0	0	0	0	8	8
9	Kasarka	<i>Strychnos nuxvomica</i>		1	0	0	0	1	2	1	15	20
10	Wate	<i>Artocarpus lakoocha</i>		2	2	0	0	0	1	0	2	7
11	Halasu	<i>Artocarpus integrifolia</i>		1	3	0	0	0	0	0	6	10
12	Gojjal	<i>Lannea coromandelica</i>		0	1	0	0	0	1	0	9	11
13	Hebbahalasu	<i>Artocarpus hirsuta</i>		0	0	1	1	0	1	0	1	4
14	Bakkul	<i>Mimusops elengi</i>		0	0	4	7	4	0	0	5	20
15	Dhula	<i>Ailanthus excelsa</i>		1	0	0	0	1	0	1	11	14
16	Akkarkal	<i>Linociera malabarica</i>		0	0	2	9	3	2	0	0	16
17	Salle	<i>Aporosa lindleyana</i>		0	0	1	7	3	1	0	0	12
18	Dalchini	<i>Cinnamomum zeylanicum</i>		2	2	3	5	3	0	0	0	15
19	Basari	<i>Ficus infectoria</i>		0	0	0	0	0	0	0	5	5
20	Chandkal	<i>Macaranga roxburghii</i>		0	0	0	3	2	1	1	1	8
21	Kanjamba	<i>Eugeni lacta</i>		1	1	0	0	0	0	0	1	3
22	Satwan	<i>Alstonia scholaris</i>		0	0	0	0	0	0	0	1	1
23	Mavu	<i>Mangifera indica</i>		11	12	0	0	0	0	1	1	25
24	Heddi	<i>Adina cordifolia</i>		0	0	0	0	0	0	0	1	1
25	Padli	<i>Nerium oleander</i>		0	0	0	0	0	1	0	0	1
26	Andmurgal	<i>Carallia integerrima</i>		0	0	0	0	0	0	0	1	1
27	Murugal	<i>Garcinia indica</i>		13	6	1	1	0	1	0	0	22
28	Holgeri	<i>Holigarna beddomei</i>		8	6	1	3	9	3	3	14	47
29	Kawal	<i>Careya arborea</i>		17	15	0	0	0	0	0	0	32

30	Nelli	<i>Embllica officinalis</i>		4	0	0	0	0	0	0	0	4
31	Antwal	<i>Sapindus trifoliatus</i>		1	0	0	0	0	0	0	0	1
32	Maragauri	<i>Polyalthia coffeoides</i>		4	1	0	0	0	0	0	0	5
33	Jungli	Other		142	91	20	68	92	84	80	210	787
		TOTAL	0	256	162	43	131	165	143	147	624	1671

Table 34: Details of trees in sector-8 (Km No: 98.500 – 102.000)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	2	5	3	0	0	0	0	0	7	17
2	Dalchini	<i>Cinnamomum zeylanicum</i>	1	3	5	0	0	0	2	3	21	35
3	Nandi	<i>Lagestromia lanceolata</i>	2	5	4	1	1	1	0	1	17	32
4	Kindal	<i>Terminalia paniculata</i>	0	9	12	2	2	6	5	6	35	77
5	Jamba	<i>Xylia xylocarpa</i>	1	3	3	3	2	5	12	5	66	100
6	Kaasaraka	<i>Strychnos nuxvomica</i>	0	3	3	0	0	1	0	3	11	21
7	Sagade	<i>Schleichera oleosa</i>	0	0	0	0	3	2	0	0	15	20
8	Jungli	<i>Others</i>	23	130	101	28	88	82	84	73	233	842
9	Hebbahalasu	<i>Artocarpus hirsutus</i>	0	1	2	0	0	1	2	0	8	14
10	Hulagari	<i>Pterocarpus marsupium</i>	1	3	3	1	1	3	1	2	10	25
11	Neral	<i>Syzygium cumini</i>	0	2	0	0	1	1	1	1	10	16
12	Kawal	<i>Careya arborea</i>	0	7	5	1	1	0	1	0	4	19
13	Bharangi	<i>Vitex altissima</i>	1	5	2	0	3	2	0	4	31	48
14	Kanjamba	<i>Eugenia lacta</i>	0	2	5	1	6	5	4	6	23	52
		TOTAL										1318

Table 35: Details of trees in sector-8 (Km No: 102.000 – 104.000)

Sl.No.	Name of the species		Girth in centimeters								TOTAL
	Local name of the species.	Botanical Name.	30-40	41-50	51-60	61-70	71-80	81-90	91-100	Above 100	
1	2	3	4	5	6	7	8	9	10	11	12
1	Sissum	<i>Dalbergia latifolia</i>				4	5	1	1	14	25
2	Saguvani	<i>Tectona grandis</i>		1	3	5	11	11	11	59	101
3	Kindal	<i>Terminalia paniculata</i>	286	120	110	51	57	33	34	192	883
4	Nandi	<i>Lagerstroemia lanceolata.</i>	242	140	175	116	105	104	68	129	1079
5	Jamba	<i>Xylia xylocarpa</i>	116	71	76	34	59	62	46	265	729
6	Haiga	<i>Hopea wightiana</i>	103	37	27	11	7	1	5	8	199
7	Gojjal	<i>Lannea coromandelica</i>								4	4
8	Kawal	<i>Careya arborea</i>	24	6	9	5	3	2	3	11	63
9	Neral	<i>Syzygium cumini</i>									
10	Karmal	<i>Dillenia pentagyna</i>	4	7	2	3			1	15	32
11	Dhaman	<i>Grewia tilifolia</i>	13	8	13	6	12	11	8	33	104
12	Heddi	<i>Adina cardifolia</i>		1		1					2
13	Wate	<i>Artocarpus lakoocha</i>	1						1	3	5
14	Hebbahalasu	<i>Artocarpus hirsuta</i>			4	3	1	2		4	14
15	Neltare	<i>Alseodaphne semecarpifolia</i>								2	2
16	Sagade	<i>Schleichera trijuga</i>	2	1	1	2	3	3	1	41	54
17	Om	<i>Syzygium cumini</i>								5	5
18	Kaanajamba	<i>Eugenia lacta</i>	4	2	9	5	2	2	3	22	49
19	Dalehini	<i>Cinnamomum zeylanicum</i>		1	5	6		1	2	8	23
20	Taari	<i>Terminalia belerica</i>			1	1	1			8	11
21	Dhula	<i>Ailanthus excelsa</i>	2	2	2	1				12	19
22	Mavu	<i>Mangifera indica</i>	1		1	1	1	1			5
23	Jungli	Others	561	367	534	407	299	191	179	484	3022
24	Jarmal	<i>Tetameles nudiflora</i>								3	3
25	Magi	<i>Litsea zeplanica</i>							2		2
26	Aala	<i>Ficus bengalensis</i>								5	5
27	Karning	<i>Dillenia pentagyna</i>		1					1	2	4

28	Hulagari	<i>Holigarna arnottiana</i>		1	1					3	5
29	Murugal	<i>Garcinia indica</i>		1				1	1	1	4
30	Banata	<i>Lophopetalum wightianum</i>								14	14
31	Neltare	Other								2	2
32	Basari	<i>Ficus infectoria</i>					1			16	17
33	Dhula	<i>Ailanthus excelse</i>								1	1
34	Bakul	<i>Mimusops elengi</i>				1	1	3			5
35	Sampige	<i>Michelia champaca</i>			1				1		2
36	Rampatre	<i>Myristica malabarica</i>	1							1	2
37	Tapari	<i>Holoptelia integrifolia</i>								1	1
38	Kadeambada	<i>Spondias acuminata</i>							2	2	4
39	Booral	<i>Bombax malabaricum</i>				2			1	6	9
40	Maragouri	<i>Polyalthia fragrans</i>	2	1	2		1			13	19
41	Padli	<i>Stereospermum personatum</i>								2	2
42	Nerale	<i>Syzygium cumini</i>						1	1	9	11
43	Kaararaka	<i>Strychnos nuxvomica</i>		2	3		3			6	14
44	Basavanapad.	<i>Bauchinia malabarica</i>	1			1		1	2	2	7
	TOTAL		1364	771	980	666	574	432	375	1444	6606

Table 36: Details of trees in sector-8 (Km No: 104.000 – 106.000)

Sl.No.	Name of the species		Girth in centimeters								TOTAL
	Local name of the species.	Botanical Name.	30-40	41-50	51-60	61-70	71-80	81-90	91-100	Above 100	
1	2	3	4	5	6	7	8	9	10	11	12
1	Sissum	<i>Dalbergia latifolia</i>	6	10	13	12	14	10	8	72	145
2	Saguvani	<i>Tectona grandis</i>	9	9	9	9	9	9	15	141	267
3	Kindal.	<i>Terminalia paniculata</i>	50	38	25	39	33	35	23	208	451
4	Nandi.	<i>Lagestromia lanceolata</i>	39	74	67	55	51	29	32	132	479
5	Jamba.	<i>Xylia xylocarpa</i>	125	175	151	105	103	100	95	389	1243
6	Jungli	<i>Others</i>	65	64	52	43	44	33	23	157	481
7	Gojjal.	<i>Lannea coromandelica</i>				1	1		1	4	7
8	Kawal.	<i>Careya arborea</i>	1								1
9	Bendi	<i>Thespesia populnea</i>		5	10	15	13	15	19	28	105
10	Karmal.	<i>Dillenia pentagyna</i>		1				1		2	4
11	Dhaman.	<i>Grevia tiliaefolia</i>	5	30	37	55	57	51	57	130	422
12	Jarmal	<i>Tetameles nudiflora</i>		1	2	3				2	8
13	Mavu	<i>Mangifera indica</i>								1	1
14	Watte	<i>Trewia nudiflora</i>					1				1
15	Bagari	<i>Ficus infectoria</i>								5	5
16	Sagade	<i>Schleichera trijuga</i>								1	1
17	Satavan	<i>Alstonia scholaris</i>								3	3
18	Padli	Other								1	1
19	Nelli	<i>Emblica officinalis</i>								1	1
20	Taari	<i>Terminalia belerica</i>							1	3	4
		TOTAL	300	412	385	349	337	293	275	1279	3630

Table 37: Details of trees in sector-8 (Km No: 106.000 – 108.500)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	9	28	35	27	21	19	15	15	174	343
2	Sissum	<i>Delbergia latifolia</i>	13	27	30	30	26	20	29	35	148	358
3	Nandi	<i>Lagestromia lanceolata</i>	21	80	65	79	65	58	75	71	238	752
4	Kindal.	<i>Terminilia paniculata</i>		183	113	112	80	101	95	92	412	1188
5	Jamba	<i>Xylia xylocarpa</i>	5	363	208	253	182	188	130	146	424	1899
6	Dhaman	<i>Grewia tilifolia.</i>	7	24	30	49	41	55	36	51	115	408
7	Sagade	<i>Schleichera trijuga</i>	9	9	16	9	13	17	15	12	100	200
8	Jungli	<i>Others</i>	52	185	114	105	100	92	86	77	255	1006
9	Karmal	<i>Dillenia pentagyna</i>	3	30	26	32	11	24	19	21	139	305
10	Padli	<i>Other</i>	4	2	3		1	2	3	3	14	32
11	Bandi	<i>Lophopetalum wightianum</i>	2	2	4	6	8	6	5	5	10	48
12	Kawal	<i>Careya arboria</i>		7	5		1		2	4	5	24
13	Bharangi	<i>Vitex altissima</i>								1	2	3
14	Wate	<i>Artocarpus lakoocha</i>							2			2
15	Matti	<i>Terminalia tomentosa</i>									5	5
16	Nelli	<i>Emblica officinalis</i>		1	1							2
17	Bilambi	<i>Albizia amara</i>									1	1
18	Goddahunse	<i>Albizia odoratissima</i>						1			1	2
19	Gojjal.	<i>Lannea coromandelica</i>				1			2	1	7	11
20	Chaar	<i>Buchanania lanzan</i>						1			1	2
21	Bagari	<i>Ficus infectoria</i>									5	5
22	Booral	<i>Bombax malabaricum</i>									5	5
23	Basavanapad	<i>Bauhinia malabarica.</i>								1	3	4
24	Taari	<i>Terminalia belerica</i>						1		3	5	9

25	Kalam	<i>Mitrigyna parvifolia</i>									1	1
26	Naeltare	<i>Garcinia indica</i>						1				1
27	Kaanajambada	<i>Eugenia laeta</i>									1	1
28	Kaanajambada	<i>Eugenia laeta</i>						1	2		5	8
29	Kadeambada	<i>Spondias acuminata</i>									4	4
30	Honne	<i>Plerocarpus marsupium</i>									4	4
31	Jummemara	<i>Zanthoxylum rhetsa</i>								1		1
32	Mavu	<i>Mangifera indica</i>									1	1
33	Maragouri	<i>Polyalthia coffeoides</i>			1	1		1	1		5	9
34	Gulamavu	<i>Machilus macrantha</i>								1	1	2
35	Haiga	<i>Hoppa wightiana</i>			1						1	2
36	Murugal	<i>Garcinia indica</i>					1				1	2
37	Davadari	<i>Grewia tiliaefolia</i>									1	1
38	Kaasaraka	<i>Strychnos nuxvomica</i>									1	1
		Total	125	941	651	704	551	587	517	541	2092	6709

Table 38: Details of trees in sector-8 (Km No: 108.500 – 113.100)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	1	2	3						12	18
2	Sissum	<i>Delbergia latifolia</i>	2	4	0	0	5	8	5	2	16	42
3	Nandi.	<i>Lagerstromia lanceolata</i>	5	13	7	4	7	9	4	3	42	94
4	Kindal	<i>Terminilia paniculata</i>	8	30	24	12	34	44	49	32	222	455
5	Jamba.	<i>Xylia xylocarpa</i>	7	24	29	24	43	78	67	57	174	503
6	Kaasaraka	<i>Strychnos nuxvomica</i>	0	0	1	0	1	1	1	2	12	18
7	Sagade	<i>Schleichera oleosa</i>	0	3	5	1	9	4	5	4	45	76

8	Jungli	Others	15	85	49	14	41	51	35	26	153	469
9	Karmal	<i>Dillenia pentagyna</i>	0	2	5	2	0	1	2	0	23	35
10	Hunse	<i>Tamirundus indica</i>	0	3	2	1	1	1	0	0	12	20
11	Nelli	<i>Emblica officinalis</i>	0	1	0	3	3	2	3	1	2	15
12	Kawal	<i>Careya arboria</i>	1	11	19	1	3	6	9	7	30	87
13	gojjal	<i>Lannea coromandelica</i>	0	0	1	0	0	2	2	2	27	34
14	Dhaman	<i>Grevia telfolia</i>	0	4	2	1	10	7	10	6	12	52
15	Matti	<i>Terminalia tomentosa</i>	0	2	2	2	1	7	3	2	30	49
		TOTAL										1967

Table 39: Details of trees in sector-8 (Km No: 113.000 – 119.000)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	46	105	71	73	49	43	27	16	66	496
2	Sissum	<i>Dalbergia latifolia</i>	7	42	50	49	35	36	26	25	69	339
3	Nandi.	<i>Lagestromia lanceolata</i>	43	117	131	144	113	90	63	52	158	911
4	Kindal	<i>Terminilia paniculata</i>	60	193	160	180	189	183	124	111	619	1819
5	Jamba	<i>Xylia xylocarpa</i>	103	326	350	329	307	264	230	154	339	2402
6	Kaasaraka	<i>Strychnos nuxvomica</i>	0	2	0	1	0	0	0	0	11	14
7	Sagade	<i>Schleichera oleosa</i>	4	16	20	29	14	13	20	6	85	207
8	Jungli	Others	38	219	274	242	208	212	153	98	289	1733
9	Karmal	<i>Dillenia pentagyna</i>	13	45	66	43	48	29	16	20	180	460
10	Honne	<i>Plerocarpus marsupium</i>	0	1	3	3	2	7	1	1	24	42
11	Taari	<i>Terminalia belerica</i>	1	1	4	2	3	0	1	2	21	35
12	Kawal	<i>Careya arborea</i>	5	24	34	29	30	18	15	8	54	217
13	Bharangi	<i>Vitex altissima</i>	0	0	3	2	5	5	4	1	31	51
14	Maragouri	<i>Polyalthia coffeoides</i>	2	6	10	5	4	7	2	2	23	61
15	Matti	<i>Terminalia tomentosa</i>	1	12	13	9	7	6	4	1	51	104
16	Nelli	<i>Emblica officinalis</i>	1	3	1	2	1	0	0	0	0	8

17	Masi	<i>Alseodaphne semicarpifolia</i>	0	0	0	0	2	3	5	2	6	18
18	Chandrakal	<i>Macaranga ruxbarghii</i>	0	1	2	15	6	5	3	1	5	38
19	Gojjal	<i>Lannea coromandelica</i>	1	8	8	11	10	13	16	8	48	123
20	Haiga	<i>Hopea wightiana</i>	1	5	3	3	5	8	6	3	8	42
21	Murugal	<i>Garcinia indica</i>	1	1	6	2	6	0	0	1	4	21
22	Bilambi	<i>Albizzia amara</i>	0	3	6	2	5	4	5	7	21	53
23	Basavanapad.	<i>Bauhinia malabarica</i>	0	2	2	3	4	2	6	4	10	33
		Total										9227

Table 40: Details of trees in sector-9 (Km No: 119.000 – 124.000)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	12	70	89	88	80	67	50	31	141	628
2	Sissum	<i>Delbergia latifolia</i>	6	35	37	40	28	25	19	20	66	276
3	Nandi	<i>Lagestromia lanceolata</i>	30	142	260	224	226	163	100	80	162	1387
4	Kindal	<i>Terminalia paniculata</i>	93	270	314	202	198	98	75	55	198	1503
5	Jamba	<i>Xylia xylocarpa</i>	96	399	568	503	541	399	291	218	536	3551
6	Nelgiri	<i>Eucalyptus citriodora</i>	0	3	7	1	5	5	6	4	4	35
7	Sagade	<i>Schleichera oleosa</i>	3	7	12	9	14	5	7	5	30	92
8	Jungli	<i>Others</i>	54	161	229	169	224	193	136	130	407	1703
9	Maragouri	<i>Polyalthia coffeoides</i>	6	50	34	36	28	14	8	8	26	210
10	Kaasaraka	<i>Strychnos nuxvomica</i>	0	2	1	2	0	3	1	0	0	9
11	Tare	<i>Terminalia bellerica</i>	0	2	2	5	0	4	1	2	56	72
12	Kawal	<i>Careya arboria.</i>	9	23	36	23	20	13	17	5	37	183
13	Hulagari	<i>Pterocarpus marsupium</i>	0	4	3	14	8	9	3	7	39	87
14	Karmal	<i>Dillenia pentagyna</i>	3	22	47	24	41	26	20	26	138	347

15	Matti	<i>Terminalia tomentosa.</i>	0	6	6	10	8	5	4	5	20	64
16	Nelli	<i>Emblica officinalis</i>	3	8	16	11	9	6	2	2	3	60
17	Bilambi	<i>Albizia amara</i>	1	0	2	2	2	2	5	5	8	27
18	Booral	<i>Bauhinia malabaricum</i>	2	3	4	5	9	6	4	1	16	50
19	Gojjal	<i>Lannea coromandelica</i>	0	2	1	3	10	6	8	13	35	78
20		<i>Bombax ceiba</i>	0	0	2	4	8	1	5	6	18	44
21	Chandrakal	<i>Macaranga peltata</i>	2	7	7	13	14	8	16	12	15	94
	TOTAL											10500

Table 41: Details of trees in sector-9 (Km No: 124.000 – 129.000)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>		5	11	16	16	19	22	8	9	106
2	Sissum	<i>Delbergia latifolia.</i>		1	4	6	7	11	9	5	26	69
3	Nandi.	<i>Lagestromia lanceolata.</i>		14	41	89	90	109	81	45	146	615
4	Kindal.	<i>Terminilia paniculata.</i>	36	82	50	58	72	81	70	26	251	726
5	Jamba	<i>Xylia xylocarpa.</i>	17	52	85	94	119	90	78	42	90	667
6	Hale	<i>Wrightia tinctoria</i>		1	4	2	2	2	0	2	10	23
7	Tare	<i>Terminalia bellerica</i>	0	0	1	2	1	4	4	6	22	40
8	Jungli	Others		276	666	514	420	437	315	186	572	3386
9	Neral	<i>Syzygium cumini</i>				4	2	0	3	0	23	32
10	Sagadi	<i>Schleichera trijuga</i>		3	15	23	34	29	26	20	90	240
11	Maragouri	<i>Polyalthia coffeoides</i>			5	3	6	4	4	1	10	33
12	Kawal.	<i>Careya arborea</i>		5	23	23	19	30	22	15	65	202
13	Bharangi	<i>Vitex altissima</i>	2	3	7	0	8	5	5	4	45	79
14	Haiga	<i>Hoppa wightiana</i>			1	6	9	6	6	2	3	33

15	Matti	<i>Terminalia tomentosa</i>	1	0	0	1	0	0	1	2	5	10
16	Chandrakal	<i>Macaranga ruxbarghii</i>			4	8	8	5	6	4	8	43
17	Hulagari	<i>Pterocarpus marsupium</i>				2	3	4	4		12	25
18	Murugal	<i>Garcinia indica</i>			2	9	5	5	6	1	15	43
19	Nelli	<i>Emblica officinalis</i>		7	1	10	5	3	1	3	5	35
20	Karmal.	<i>Dillenia pentagyna</i>	1	10	55	75	77	59	41	26	94	438
21	Basavanapad	<i>Bauhinia malabarica</i>		2	1	10	6	7	7	7	15	55
	TOTAL		57	461	976	955	909	910	711	405	1516	7000

Table 42: Details of trees in sector-10 (Km No: 129.000 – 134.000)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	70	155	238	225	200	116	50	25	35	114
2	Sissum	<i>Delbergia latifolia</i>	8	40	44	43	28	26	20	22	57	288
3	Nandi.	<i>Lagestromia lanceolata</i>	36	108	156	167	201	160	122	112	203	1265
4	Kindal	<i>Terminilia paniculata</i>	195	408	360	208	235	122	84	77	283	1972
5	Jamba	<i>Xylia xylocarpa</i>	121	373	494	419	451	364	254	228	447	3151
6	Kaasaraka	<i>Strychnos nuxvomica</i>	1	3	5	2	0	3	2	3	12	31
7	Sagade	<i>Schleichera oleosa</i>	3	15	33	26	26	7	16	6	50	182
8	Jungli	<i>Others</i>	54	211	237	188	216	168	103	95	243	1515
9	Karmal	<i>Dillenia pentagyna</i>	22	64	77	55	69	43	30	24	125	509
10	Hale	<i>Wrightia tinctoria</i>	0	1	2	1	1	0	0	0	7	12
11	Madarasa	<i>Tabernaemontana heyneana</i>	0	3	4	2	3	0	2	0	0	14
12	Kawal	<i>Careya arborea</i>	12	47	71	53	44	29	19	20	29	324
13	Bharangi	<i>Vitex altissima</i>	1	2	5	1	0	1	1	1	2	14
14	Maragouri	<i>Polyalthia coffeoides</i>	20	47	37	33	24	14	14	8	43	240
15	Matti	<i>Terminalia tomentosa</i>	3	8	10	9	7	2	2	2	10	53
16	Nelli	<i>Emblica officinalis</i>	5	19	29	26	23	7	7	3	4	123

17	Mavu	<i>Mangifera indica</i>	1	1	1	0	1	3	0	0	13	20
18	Chandrakal	<i>Macaranga peltata</i>	2	3	12	7	13	11	10	12	6	76
19	Gojjal	<i>Lannea coromandelica</i>	0	3	6	9	7	9	4	9	29	76
20	Haiga	<i>Hoepa wightiana</i>	2	8	4	2	6	4	2	6	9	43
21	Atti	<i>Ficus glomerata</i>	2	3	0	5	5	7	2	3	8	35
22	Booral	<i>Bombax malabaricum</i>	1	3	6	4	2	5	5	3	16	45
23	Basavanapad	<i>Bauhinia malabarica.</i>	2	7	8	12	7	8	7	10	21	82
24	Taari	<i>Terminalia bellerica</i>	1	7	5	2	4	5	3	2	35	64
25	Bilambi	<i>Albizia amara</i>	2	0	1	2	0	2	2	4	10	23
26	Naeltare	<i>Garcinia indica</i>	1	7	6	1	2	2	1	0	5	25
		Total										11300

Table 43: Details of trees in sector-10 (Km No: 134.000 – 135.100)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	18	57	64	83	72	60	43	13	15	425
2	Sissum	<i>Dalbergia latifolia</i>	1	2	1	6	3	0	2	0	4	19
3	Nandi.	<i>Lagestromia lanceolata</i>	5	9	7	6	10	3	2	5	16	63
4	Kindal.	<i>Terminalia paniculita</i>	72	68	68	52	53	49	27	30	165	584
5	Jamba.	<i>Xylia xylocarpa</i>	56	87	102	108	125	118	69	48	84	797
6	Kasaraka	<i>Strychnos nux-vomica</i>	3	2	5	5	2	1	3	0	5	26
7	Sagade	<i>Schleichera trijuga</i>	14	33	22	22	24	14	15	7	30	181
8	Jungli	<i>Others</i>	212	261	241	152	138	68	46	44	103	1265
9	Karmal.	<i>Dillenia pentagyna</i>	13	17	16	18	20	21	12	12	31	160
10	Chandrakal.	<i>Macaranga roxburghii</i>	5	2	2	4	3	2	0	4	6	28
11	Madarasa	<i>Tabernaemontana heyneana</i>	12	34	19	13	3	0	0	1	1	83
12	Kawal.	<i>Careya arboria</i>	24	26	22	26	18	12	6	9	8	151
13	Neral	<i>Syzygium cumini</i>	10	5	5	7	6	6	1	4	17	61
14	Wate.	<i>Artocarpus lakoocha</i>										

15	Matti.	<i>Terminalia tomentosa</i>	2	0	4	7	9	4	4	8	80	118
16	Sampige	<i>Michelia champaca</i>	1	4	1	6	5		1	1		19
17	Haiga	<i>Hopea wightiana</i>	11	11	11	12	7	5	5	0	5	67
18	Hulagari	<i>Pterocarpus marsupium</i>	0	2	1	3	2	1	0	2	11	22
19	Gojjal.	<i>Lannea coromandelica</i>										
20	Murugal	<i>Garcinia indica</i>	7	10	8	10	14	7	3	1	1	61
21	Atti	<i>Ficus glomerata</i>	5	13	15	15	9	2	1	1	5	66
22	Challe	<i>Cordia myxa</i>	15	7	2	5	2	1	0	0	0	32
23	Basavanapad.	<i>Bauhinia malabarica.</i>	6	5	7	7	4	4	3	1	6	43
24	Bilambi	<i>Albizzia amara</i>	3	6	8	8	7	9	6	1	21	69
25	Taari	<i>Terminalia belerica</i>	1	1	0	1	1	2	1	1	19	27
	TOTAL		496	662	631	576	537	389	250	193	633	4367

Table 44: Details of trees in sector-10 (Km No: 135.100 – 137.000)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	413	325	184	125	75	45	24	9	11	1211
2	Sissum	<i>Delbergia latifolia.</i>	1	9	9	4	9	9	4	5	10	60
3	Nandi	<i>Lagestromia lanceolata.</i>	22	40	54	56	51	43	38	12	72	388
4	Kindal	<i>Terminilia paniculata</i>	251	273	215	157	134	87	55	50	203	1425
5	Jamba	<i>Xylia xylocarpa</i>	126	154	185	185	200	152	124	85	218	1429
6	Sagade	<i>Schleichera trijuga</i>	84	54	46	36	31	20	29	19	85	404
7	Jungli	<i>Others</i>	138	42	108	101	80	78	64	29	106	846

8	Karmal	<i>Dillenia pentagyna</i>	24	18	20	11	26	10	03	14	69	195
9	Chandrakal	<i>Macaranga peltata</i>	1	0	5	2	1	1	0	0	1	11
10	Madarasa	<i>Tabernaemontana heyneana</i>	14	18	9	2		1				44
11	Kawal	<i>Careya arborea.</i>	48	53	50	31	33	12	13	12	26	278
12	Neral	<i>Syzygium cumini</i>	3	6	5	2	2	3	0	3	14	38
13	Matti	<i>Terminalia tomentosa</i>	36	41	25	16	11	10	7	10	65	221
14	Nelli	<i>Emblica officinalis</i>	14	10	6	5	2	2	0	2	1	42
15	Geru	<i>Anacardium occidentale</i>	6	18	17	10	4	3	2	2	7	69
16	Gojjal	<i>Lannea coromandelica</i>	4	2	4	9	3	4	2	1	31	60
17	Murugal	<i>Garcinia indica</i>	11	7	4	6		2	3	2	5	40
18	Atti	<i>Ficus glomerata</i>	3	1	4	3	4	3	4	0	3	25
19	Challe	<i>Cordia myxa</i>										
20	Basavanapad.	<i>Bauhinia malabarica.</i>	6	6	6	6	11	12	11	6	9	73
	TOTAL											6882

Table 45: Details of trees in sector-10 (Km No: 137.300 – 140.600)

Sl. No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	16	2	3	4	9	17	25	18	30	124
2	Sissum	<i>Delbergia latifolia.</i>	0	1	0	4	3	0	1	1	0	10
3	Nandi	<i>Lagestromia lanceolata</i>	1	5	4	6	8	10	9	4	27	74
4	Kindal	<i>Terminalia paniculata</i>	86	134	142	136	102	167	40	41	216	964
5	Jamba	<i>Xylia xylocarpa</i>	10	13	22	21	32	41	52	43	158	392

6	Jumma	<i>Zanthoxylum rhesta</i>	1	3	6	2	2	2	0	1	4	21
7	Sagade	<i>Schleichera oleosa</i>	8	30	34	31	27	28	34	33	125	350
8	Jungli	<i>Others</i>	85	174	151	144	131	72	51	41	155	1004
9	Karmal	<i>Dillenia pentagyna</i>	1	5	6	3	2	2	6	4	62	91
10	Hale	<i>Wrightia tinctoria</i>	1	0	1	1	1				6	10
11	Holematti	<i>Terminalia arjuna</i>	1	4	3	3	3	3	1	0	24	42
12	Kawal	<i>Careya arborea.</i>	10	11	19	21	14	19	13	14	48	169
13	Bharangi	<i>Vitex altissima</i>		3		1	1	1	2	5	13	26
14	Challe	<i>Cordia myxa</i>	2	1	0	6	6	8	5	3	6	37
15	Matti	<i>Terminalia tomentosa.</i>	18	20	17	8	13	10	10	8	137	241
16	Nelli	<i>Emblca officinalis</i>		6	3	6	2	2	3	0	2	24
17	Neral	<i>Syzygium cumini</i>	2	5	6	8	7	5	2	52	27	67
18	Madarasa	<i>Tabernaemontana heyneana</i>	7	12	6	6	2	2	1			36
19	Gojjal.	<i>Lannea coromandelica</i>	1	2	3	0	2	2	1	2	31	44
20	Kuntanerl	<i>Syzygium corymbosa</i>		2	1	2		4	1	0	9	19
21	Wate.	<i>Artocarpus lakoocha</i>		1		2		2	1		11	17
22	Bilambi	<i>Albizzia amara</i>	1						2		12	15
23	Basavanapad.	<i>Bauhinia malabarica.</i>	1	0	0	3	1	2	1	0	4	12
24	Taari	<i>Terminalia belerica</i>	0	1	0	1	1	1	2	2	31	39
25	Mase	<i>Alseodaphne semicarpifolia</i>	5	7	11	15	14	7	10	11	20	100
26	Naeltare	<i>Garcinia indica</i>	13	17	21	14	8	8	11	10	14	116
27	Kaasaraka	<i>Strychnos nuxvomica</i>	2	5	7	5	7	1	1	1	10	39
28	Sampige	<i>Michelia champaka</i>	4	2	9	16	10	16	2	2	9	70
29	Chandrakal	<i>Macaranga peltata</i>				1	2		2		3	8
30	Holgeri	<i>Holigarna arnottiana</i>	29	40	37	30	13	23	17	19	69	277
31	Dhoop	<i>Ailanthus excelsa.</i>	33	45	31	14	8	4	2	2	0	139
32	Mavu	<i>Mangifera indica</i>		4	1	2	6	1	2	5	43	64

33	Atti	<i>Ficus glomerata</i>				4	1	3	1	0	6	15
34	Garagasa	<i>Ficus asperrima</i>	5	8	5	8	4	3	7	5	7	52
35	Dadasal	<i>Arenga wightii</i>	0	1	3	2	2	1	2	0	0	11
36	Acacia	<i>Acacia auriculiformis</i>		2	3	4	8	4	4	0	4	29
	Total											4748

Table 46: Details of trees in sector-10 (Km No: 140.600 – 144.500)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	262	544	515	478	367	209	118	41	77	2611
2	Sissum	<i>Delbergia latifolia</i>	4	3	9	9	4	13	5	8	20	75
3	Nandi	<i>Lagestromia lanceolata</i>	7	21	26	34	30	36	32	35	66	287
4	Kindal	<i>Terminalia paniculata</i>	125	125	125	107	97	82	62	43	159	925
5	Jamba	<i>Xylia xylocarpa</i>	89	119	114	95	107	120	123	100	212	1079
6	Matti	<i>Terminalia tomentosa</i>	17	15	11	6	6	6	5	4	29	99
7	Sagade	<i>Schleichera oleosa</i>	73	111	105	72	56	31	27	12	74	561
8	Jungli	<i>Others</i>	142	190	164	116	77	71	55	47	127	989
9	Karmal.	<i>Dillenia pentagyna</i>	59	109	91	79	43	44	25	19	84	553
10	Hale	<i>Wrightia tinctoria</i>			1	0	0		2	0	8	11
11	Haiga	<i>Hopea wightiana</i>	6	9	8	11	12	1	4	2	9	62
12	Kawal	<i>Careya arborea</i>	19	35	23	37	22	17	11	12	30	206
13	Bharangi	<i>Vitex altissima</i>	11	8						1		20
14	Mavu	<i>Mangifera indica</i>	0	2	0	1	1	1	0	1	7	13

15	Holgeri	<i>Holigarna arnottiana</i>	4	3	3	0	1	0	0	3	11	25
16	Nelli	<i>Emblica officinalis</i>	12	10	7	4	3	1	0	0	0	37
17	Neral	<i>Syzygium cumini</i>	8	8	6	4	2	2	2	1	9	42
18	Madarasa	<i>Tabernaemontana heyneana</i>	44	75	27	8	2	0	0	1	0	157
19	Gojjal.	<i>Lannea coromandelica</i>	2	4	3	3	5	2	8	4	24	55
20	Kuntanerl	<i>Syzygium corymbosa</i>	1	2	0	2	1	1	0	0	4	11
21	Dadasal	<i>Arenga wightii</i>	0	3	5	17	22	23	16	24	32	142
22	Mase	<i>Alseodaphne semicarpifolia</i>	3	10	6	4	6	1	2	3	9	44
23	Heddi	<i>Adina cardifolia</i>	3	8	7	7	1	3	2	0	5	36
24	Taari	<i>Terminalia belerica</i>	0	1	2	1	2	0	0	3	7	16
25	Atti	<i>Ficus glomerata</i>	11	21	14	11	13	4	4	4	14	96
26	Naeltare	<i>Garcinia indica</i>	3	6	3	4	0	2	2	1	0	21
27	Kaasaraka	<i>Strychnos nuxvomica</i>	3	4	3	0	0	2	0	1	8	21
28	Acacia	<i>Acacia auriculiformis</i>	1	11	8	18	5	3	1	0	1	48
29	Chandrakal	<i>Macaranga peltata</i>	5	8	6	8	6	5	4	2	4	48
30	Bamboo											118
	Total											8408

Table 47: Details of trees in sector-11 (Km No: 144.500 – 147.500)

Sl.No.	Name of the species		Girth in centimeters									Total
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	
1	2	3	4	5	6	7	8	9	10	11	12	13

1	Saguvani	<i>Tectona grandis</i>	22	88	273	405	344	256	137	75	50	1650
2	Sissum	<i>Dalbergia latifolia</i>	7	12	6	17	14	14	13	11	22	116
3	Nandi	<i>Lagerstroemia lanceolata</i>	8	13	21	33	32	38	34	56	166	401
4	Kindal	<i>Terminilia paniculata</i>	96	80	75	80	100	87	83	62	140	803
5	Jamba	<i>Xylia xylocarpa</i>	96	139	184	184	204	219	183	180	356	1745
6	Sagade	<i>Schleichera oleosa</i>	142	159	137	128	133	101	96	61	114	1071
7	Jungli	<i>Others</i>	329	270	217	141	90	58	38	30	53	1226
8	Karmal	<i>Dillenia pentagyna</i>	61	70	48	41	43	29	28	12	68	400
9	Chandrakal	<i>Macaranga roxburghii</i>	11	7	3	2	1	3	3	4	5	39
10	Maragouri	<i>Polyalthia coffeoides</i>	19	15	5	10	9	10	4	5	18	95
11	Kawal	<i>Careya arborea</i>	22	45	45	54	40	37	28	19	34	324
12	Neral	<i>Syzygium cumini</i>	3	3	1	6	6	4	5	3	3	34
13	Matti	<i>Terminalia tomentosa.</i>	19	30	16	18	13	9	8	5	50	168
14	Dadasal	<i>Arenga wightii</i>	16	15	16	20	27	37	37	29	50	247
15	Kaasaraka	<i>Strychnos nuxvomica</i>	5	4	2	1	1	2	1	1	5	22
16	Gojjal	<i>Lannea coromandelica</i>	5	9	12	8	25	20	26	23	146	274
17	Murugal	<i>Garcinia indica</i>	4	7	6	3	2	5	2	2	13	44
18	Nelli	<i>Embllica officinalis</i>	16	13	2	2	10	4	3	1	3	54
19	Durkal	<i>Buchanania lanzan</i>	16	8	7	9	8	7	3	2	3	63
20	Bilkambi	<i>Albizzia amara</i>	3	0	1	2	3	3	5	2	19	38
	TOTAL		900	987	1077	1164	1105	943	737	583	1318	8909

Table 48: Details of trees in sector-11 (Km No: 147.500 – 150.700)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>	382	499	526	499	362	201	88	19	48	2624
2	Acacia	<i>Acacia auriculiformis</i>	1321	311	36	6	4	2	4	3	11	1698
3	Nandi.	<i>Lagerstroemia lanceolata.</i>	15	14	39	38	39	23	10	9	36	223
4	Kindal.	<i>Terminalia paniculata.</i>	277	216	173	133	96	55	41	20	103	1114
5	Jamba.	<i>Xylia xylocarpa.</i>	27	35	40	26	19	20	9	1	10	187
6	Hale	<i>Wrightia tinctoria</i>	3	5	1	6	1	1	0	0	4	21
7	Bharanagi	<i>Vitex altissima</i>	1	2	1						5	9
8	Jungli	Others	427	240	142	131	103	101	52	40	77	1313
9	Karmal	<i>Dillenia pentagyna</i>	5	4	3	3	2		1		11	29
10	Holematti	<i>Terminalia arjuna</i>	1	1	1	2	1	1	1	17		25
11	Sagade	<i>Schleichera oleosa</i>	22	22	14	10	8	4	4	2	29	115
12	Neral	<i>Syzygium cumini</i>	24	22	12	12	7	2	5	9	28	121
13	Kuntanerl	<i>Syzygium corymbosa</i>	4	5	4	3						16
14	Honge	<i>Pongamia pinnata</i>		2	3	2	1	2	1	1	4	16
15	Matti	<i>Terminalia tomentosa.</i>	35	43	45	35	22	17	20	8	84	309
16	Nelli	<i>Embllica officinalis</i>	21	10	9	12	5	2	5	1	2	67
17	Holgeri	<i>Holigarna arnottiana</i>	59	29	16	12	13	5	4	7	37	182
18	Kajara	<i>Strychnos nuxvomica</i>	17	12	6	6	2	2	1	1	10	57
19	Gojjal	<i>Lanea coromandelica</i>	2	3	5	5	7	10	4	6	21	63
20	Mavu	<i>Mangifera indica</i>	5	5	4	3	3	2	6	2	24	54
21	Ippe	<i>Madhuca longifolia</i>	4	3	3	1				2	8	21
22	Haiga	<i>Hopea wightiana</i>	57	17	6	7	2	4	2	3	11	109
23	Challe	<i>Cordia myxa</i>	7	12	2	2	3	1	2	0	6	35
24	Taari	<i>Terminalia belerica</i>	1	0	1	1	1	0	1	1	8	14
25	Kawal	<i>Careya arborea.</i>	45	50	35	25	11	2	8	1	13	190
26	Murugal	<i>Garcinia indica</i>	10	8	15	6	3	2	0	5	4	53

27	Atti	<i>Ficus glomerata</i>		3			1	1		2	2	9
28	Bobbi	<i>Calophyllum apetalum</i>	2	0	3	2	3	1	0	0	6	17
29	Bural	<i>Bombax cieba</i>	4	5	6	6	4	4	2	1	3	35
30	Dadsal	<i>Arenga wightii</i>	1	2	2	1	3	1	2	0	4	16
31	Geru	<i>Anacardium occidentale</i>	44	24	8	6	4	4	1	2	3	96
32	Heddi	<i>Adina cordifolia</i>	133	132	101	68	41	27	28	17	21	568
33	Maragouri	<i>Polyalthia coffeoides</i>	8	9	12	12	6	1	0	1	1	50
	TOTAL		2964	1745	1274	1081	777	498	302	181	634	9456

Table 49: Details of trees in sector-11 (Km No: 151.200 – 155.200)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Geru	<i>Anacardium occidentale</i>	28	52	61	41	18	22	3	6	4	235
2	Acacia	<i>Acacia auriculiformis</i>		1	6	11	8	6	7	6	6	51
3	Nandi	<i>Lagerstroemia lanceolata.</i>					2	2		1	19	24
4	Kindal.	<i>Terminalia paniculata.</i>	3	9	4	2	5	5	6	9	81	124
5	Jamba.	<i>Xylia xylocarpa.</i>	1	2	4	3	3	4	13	4	32	66
6	Hale	<i>Wrightia tinctoria</i>		2	1	3	1	2	1	0	7	17
7	Taari	<i>Terminalia bellerica</i>	2	2	4	0	1	0	1	1	7	18
8	Jungli	<i>Others</i>	1	22	35	54	34	38	20	25	74	303
9	Halasu	<i>Artocarpus integrifolia</i>		2	5	3	1	4			2	17
10	Murugal	<i>Garcinia indica</i>	1	7	14	9	4	3	4	11	15	68
11	Sagade	<i>Schleichera oleosa</i>	2	1	1	2	3	5	3	3	48	68

12	Neral	<i>Syzygium cumini</i>			3		2	2	3	4	8	22
13	Sissum	<i>Delbergia latifolia.</i>				1		1			16	18
14	Honne	<i>Pterocarpus marsupium</i>		3	5	2	2	1	1	1	5	20
15	Matti	<i>Terminalia tomentosa.</i>	1	4	14	9	9	7	8	8	107	167
16	Nelli	<i>Emblica officinalis</i>		2	1	2			2	1	7	15
17	Holgeri	<i>Holigarna arnottiana</i>	3	23	24	13	17	6	4	3	6	99
18	Kajara	<i>Strychnos nuxvomica</i>	2	3	4	2	8	9	5	9	44	86
19	Gojjal	<i>Lannea coromandelica</i>	1	1	1	1	1	1	2	2	12	22
20	Mavu	<i>Mangifera indica</i>	2	2	1	1	0	2	1	0	7	16
21	Kawal.	<i>Careya arborea.</i>		9	4	2	1			1	20	37
22	Gali	<i>Casuarina equisetifolia</i>	2	2	1	3	8	5	5	2	1	29
	TOTAL		49	149	193	164	128	125	89	97	528	1520

Table 50: Details of trees in sector-12 (Km No: 156.300 – 159.100)

Sl.No.	Name of the species		Girth in centimeters									Total
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Geru	<i>Anacardium occidentale</i>	16	29	20	12	12	5			5	99
2	Acacia	<i>Acacia auriculiformis</i>	23	41	29	14	6	11	5	1	2	132
3	Jumma	<i>Zanthoxylum rhesta</i>	2	3	1	1	1		2		4	14
4	Saguvani	<i>Tectona grandis.</i>	11	4	0	2	0	0	1	0	1	19
5	Sagade	<i>Schleichera oleosa</i>			1	2	4	2	0	1	10	20
6	Kajara	<i>Strychnos nuxvomica</i>		6	1	4	6	1	2	3	15	38
7	Jungli	<i>Others</i>	10	32	45	24	18	20	10	12	39	210
8	Mavu	<i>Mangifera indica</i>	2	2	1	3	2	2	1	1	5	19
9	Haiga	<i>Hopea wightiana</i>	1	1	1	1	4	0	0	3	1	12
10	Kuntanerl	<i>Syzygium corymbosa</i>	1	2	0	3	2	2	1	2	4	17
11	Neral	<i>Syzygium cumini</i>	1	1	5	2	1	0	2	1	9	22

12	Murugal	<i>Garcinia indica</i>	7	14	17	11	6	7	6	5	1	74
13	Holgeri	<i>Holigarna arnottiana</i>	30	15	8	10	9	1	2	8	8	91
14	Kawal.	<i>Careya arborea.</i>	1	2	3	3	3	3	1	2	6	24
15	Nelli	<i>Embllica officinalis</i>	1	0	0	2	2	0	1	2	6	14
		TOTAL	106	152	132	94	76	54	34	41	116	805

Table 51 a & b: Details of trees in sector-12 (Km No: 155.000 – 161.000)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Kindal.	<i>Terminalia paniculata</i>	0	1	0	1	1	3	1	0	3	10
2	Saguvani	<i>Tectona grandis</i>	0	1	1	4	3	5	4	0	1	19
3	Sagade	<i>Schleichera oleosa</i>	0	1	0	0	1	0	2	0	0	4
4	Gojjal	<i>Lannea grandis</i>							2		5	7
5	Nandi	<i>Lagerstroemia lanceolata</i>		1	1		2				3	7
6	Jungli	<i>Others</i>	0	2	1	1	1	0	1	1	3	10
7	Karmal	<i>Dillenia pentagyna</i>	0	0	1	1	1	2	1	0	1	7
8	Kawal.	<i>Careya arboria</i>	0	1	1	0	1	0	0	1	0	4
9	Jamba	<i>Xylia xylocarpa</i>		1	3	2	5	2	4	3	4	24
10	Sissum	<i>Dalbergia latifolia</i>						1	1	1		3
	TOTAL		0	8	8	9	15	13	16	6	20	95

Sl.No.	Name of the species		Girth in centimeters									
	Local name	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 &	Total

	of the species.										above	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Kindal.	<i>Terminalia paniculata.</i>				2	1	4	4		27	38
2	Barangi	<i>Vitex altissima</i>									3	3
3	Sagade	<i>Schleichera oleosa</i>	1				1	3	3	2	9	19
4	Neral	<i>Syzygium cumini</i>			1	1	2	1		1	5	11
5	Murugal	<i>Garcinia indica</i>					3	2	2		1	8
6	Jungli	<i>Others</i>	4	1	8	20	15	18	11	13	22	112
7	Matti	<i>Terminalia tomentosa</i>			1			1			3	5
8	Kawal.	<i>Careya arboria</i>				4	4	2	4		3	17
9	Karmal	<i>Dillenia pentagyna</i>				1	6	4	4	11	23	49
10	Dadsal	<i>Arenga wightii</i>				3	3	5	2	2	3	18
	TOTAL		5	1	10	31	35	40	30	29	99	280

Table 52: Details of trees in sector-12 (Km No: 161.000 – 161.500)

I.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Kindal.	<i>Terminalia paniculata</i>				1	2		2		7	12
2	Karmal	<i>Dillenia pentagyna</i>					1	3			1	5
3	Sagade	<i>Schleichera oleosa</i>					2				6	8
4	Kawal	<i>Careya arborea.</i>				1	3					4
5	Bural	<i>Bombax ceiba</i>									2	2
6	Jungli	<i>Others</i>	1		1	2	10	7	4	5	25	55
	Total		1	0	1	4	18	10	6	5	41	86

Table 53: Details of trees in sector-12 (Km No: 161.500 – 163.750)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100 & above	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Saguvani	<i>Tectona grandis</i>		4	8	6	1	1	3	0	1	24
2	Honne	<i>Pterocarpus marsupium</i>			1	1		2	1	1	3	9
3	Sagade	<i>Schleichera oleosa</i>		1	1		1			2	6	11
4	Neral	<i>Syzygium cumini</i>		1					1		1	3
5	Nelli	<i>Embllica officinalis</i>				1		1	1		1	4
6	Jungli	<i>Others</i>		1	3	1	1	5	4	4	24	43
7	Geru	<i>Anacardium occidentale</i>	7	31	77	74	31	13	6	5	1	245
8	Heddi	<i>Adina cardifolia</i>			1	1			2	6	17	27
9	Karmal	<i>Dillenia pentagyna</i>				1			1	1	9	12
10	Halasu	<i>Artocarpus integrifolia</i>			1	3			1	1	1	7
	TOTAL		7	38	84	88	34	22	20	20	64	385

Table 54: Details of trees in sector-12 (Km No: 163.750 – 165.250)

Sl.No.	Name of the species		Girth in centimeters									
	Local name of the species.	Botanical Name.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Geru	<i>Anacardium occidentale</i>		1	1	6	1	3	4	1	1	18
2	Acacia	<i>Acacia auriculiformis</i>	776	123	3	1	4	13	13	7	2	942
	Total		776	124	4	7	5	16	17	8	3	960

Table 55: Details of trees in sector-12 (Km No: 165.250 – 167.000)

Sl.No.	Name of the species		Girth in centimeters									Total
	Local name of the species.	Botanical Name.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Neelgiri	<i>Eucalyptus citriodora</i>	3	2					1			6
2	Geru	<i>Anacardium occidentale</i>	11	5		2	1	2	1	2		24
3	Acacia	<i>Acacia auriculiformis</i>	2306	642	2	1	1	1				2953
	Total		2320	649	2	3	2	3	2	2	0	2983

TABLE 56: Sectorwise total number of trees

Sl.No.	Sector	KM From & To	Name of the Range	Total no of trees
	3	HULGINKOPPA	Kalghatgi(DD)	988
	4	KARAGOODA	Kalghatgi	6655
	4	SIDDHANABHAVI	Kalghatgi	2789
1	4	50.400 to 53.000	Kirwatti	850
2	5	53.000 to 53.700	Kirwatti(MD)	769
3	5	53.700 to 55.200	Kirwatti	785
4	5	55.200 to 57.000	Kirwatti	1524
5	5	57.000 to 58.000	Kirwatti	1199
6	5	58.000 to 59.000	Kirwatti	1314
7	5	59.000 to 60.000	Kirwatti	935
8	5	60.000 to 61.000	Kirwatti	2623
9	5	61.000 to 62.000	Kirwatti	1410
10	5	62.000 to 63.000	Kirwatti	510
11	5	63.000 to 64.200	Kirwatti(MDe)	1862
12	5	64.200 to 64.850	Yellapur(Eve)	432
13	6	64.850 to 69.500	Yellapur	2128
14	6	67.600 to 68.100(width)	Yellapur	534
15	6	69.500 to 73.100	Yellapur	3182
16	6	73.100 to 75.900	Yellapur	1506
17	6	75.900 to 79.400	Yellapur	2126
18	7	79.400 to 82.000	Idagundi	4287
19	7	82.000 to 84.000	Idagundi(eve)	5136
20	7	84.000 to 86.100	Idagundi	7036
21	7	86.100 to 87.200	Idagundi	2457
22	7	87.200 to 89.100	Idagundi	8895
23	7	89.100 to 91.000	Idagundi	12143
24	8	91.000 to 93.000	Idagundi(eve)	4522
25	8	93.000 to 95.000	Idagundi	2848
26	8	95.000 to 96.500	Idagundi	3469
27	8	96.500 to 98.500	Idagundi	1671
28	8	98.500 to 102.000	Idagundi	1318
29	8	102.000 to 104.000	Idagundi	6606
30	8	104.000 to 106.000	Idagundi(eve)	3630
31	8	106.000 to 108.500	Idagundi	6709
32	8	108.500 to 113.101	Idagundi	1967
33	8	113.100 to 119.000	Ramanguli(Md)	9227
34	9	119.000 to 124.000	Ramanguli	10500
35	9	124.000 to 129.000	Ramanguli	7000

36	10	129.000 to 134.000	Ramanguli(MDD)	11300
37	10	134.00 to 135.100	Mastikatta	4367
38	10	135.100 to 137.300	Mastikatta	6995
39	10	137.300 to 140.600	Mastikatta(DD)	4748
40	10	140.600 to 144.550	Mastikatta	8408
41	11	144.500 to 147.500	Mastikatta	8896
42	11	147.500 to 150.700	Mastikatta	9456
43	11	151.900 to 155.200	Mastikatta(DD)	1522
44	12	156.300 to 159.100	Mastikatta	805
45	12	155.000 to 161.000	Mastikatta	95
46	12	155.000 to 161.000	Ankola (DD)	280
47	12	161.000 to 161.500	Ankola	86
48	12	161.500 to 163.750	Ankola	385
49	12	163.750 to 165.250	Ankola	960
50	12	165.250 to 167.000	Ankola	2983
		TOTAL		1,94,828

Impacts on Fauna – The forests occurring in the Hubli-Ankola railway zone harbor a wide array of wildlife ranging from small insects to big mammals like elephants (details of which have been provided in the earlier chapter on Faunal Diversity). Many wildlife elements found in this region figure in IUCN Red List and Schedules of Indian Wildlife Protection Act, 1972 implicating the high conservation status assigned to this region. In India, it has been largely observed that the railway tracks passing through the forest areas, due to lack of appropriate mitigation and management measures, cause tremendous disturbances to the native wildlife and in many cases, it leads to mortality. Almost all the wildlife species are susceptible to deaths on the railway tracks because of collision with trains. Several studies have shown that during the recent past, railroad network which passes through the forested habitat in few parts of the country has caused the deaths of several threatened wild animals. However, most of these deaths (especially in case of small wildlife) go unnoticed, because of the difficulties in spotting small carcasses and activity of carnivores; and hence, no specific records are available to account for the loss of important fauna in the region. The bigger mammals like elephants, tigers, leopards, gaur, etc. come into the notice majority of time due to such accidental deaths.

Animals move in search of food and water during summer season from one part of the forest to the other. In such cases, they tend to cross the railway tracks and become vulnerable to accidents with the trains, most of which prove to be fatal. One important example facing similar problem is the Haridwar – Dehradun broad gauge railway line which passes through an important forest area

of Rajaji National Park in Uttaranchal state. The records of mortality of wild animals in this national park because of accidents with trains include 18 elephants (*Elephas maximus*), 26 sambar, 19 chital, 3 wild boar, 2 leopard, 1 goral and 1 python. The area consists of many siphons over to which railway track passes and small animals generally use these siphons for crossing the track, but sometimes the animals cross the track from ant point while moving along the track (Joshi, 2010). Some of the records of wild animal deaths due to collision with trains are given in Table 57.

Table 57: Animal death records due to collision with trains

Period	Location	Details of Animals Killed	Reference
Since 1997	Rajaji National Park, Uttarakhand	4 leopards in Haridwar-Dehradun track	Joshi, 2010
Since 1987	-do-	20 elephants, 26 sambar, 19 chital, 2 leopards, 3 wild boar, 1 goral, 1 python	Joshi,2010
1997-2008	Katarniaghat Wildlife Sanctuary, U.P	37 animals killed	lite.epaper.time sofindia.com
2008		1 adult tiger	Times of India, October 31, 2010
2009		1 stag	Times of India, August 20, 2009
2010	-do-	5 chital in Mailani-Gonda track	Times of India, October 31, 2010
1997-2008	Dudhwa Tiger Reserve	28 animals killed (includes 3 elephants in 2006, 1 tigress in 2006, 1 tigress in 2007, 1 tiger in March 2008)	lite.epaper.time sofindia.com
2005-10	Coimbatore - Walayar	27 elephants (20 elephants in	The Hindu, Aug 17, 2010;

	sector	Walayar alone)	The Hindu, Nov 17, 2010
2004-10	New Jalpaiguri - Alipurduar (West Bengal)	21 elephants	Times of India October 3, 2010
23 Sept. 2010	Jalpaiguri dist., West Bengal	7 elephants including 3 calves	Times of India, Sept.23, 2010
March, 2011	Canacona, Goa	A leopard found dead near track, close to Cotigao Wildlife Sanctuary suspected to be train-hit	<i>Digital Goa</i> June 12, 2011

Some of the important recommendations (Joshi, 2010) to prevent animal killings are:

- Clearances for better visibility
- Seasonal movements of animals in the region to be studied
- Artificial water bodies to be created at short intervals
- Creation of under track corridors (subways)
- Passengers to be educated about not throwing food items alongside track.
- Put flickering lights along the track
- Flattening out steep embankments that prevent elephants from avoiding oncoming trains.

Impacts of the proposed railway line on Elephant movement

The elephant is the largest animal on land and the Asian elephant has been an integral part of the culture and traditions of Indian people. Recent estimates of elephant populations indicate the presence of over 26,000 elephants in India. The elephants occupy very large areas and are regarded as 'Umbrella species' because if they are conserved, a lot of other species occupying that same area will also be conserved. They are also regarded as premier 'Flagship species' and sometimes also called 'Keystone species' because of their important role in ecology and environment. The Asian elephants have been described as endangered by the Wildlife Protection Act, 1972 (Appendix-1) and by Appendix 1 of the Convention of International Trade of Endangered Species of Flora and Fauna (CITES) in 1975.

The movement of elephants from one forest area to another allows the exchange of genetic materials between populations and thereby, prevents inbreeding depression. The Kalghatgi forest range in Dharwad Forest Division has witnessed the movement of elephants in the region since last many years. This forest range borders the Kirwatti range in Yellapur Division, Bhagwati, Sambrani and Haliyal ranges of Haliyal Division. The belt of Kalghatgi range, coming under Devikoppa, Tambur and Sangtikoppa sections, adjoining Kirwatti and Bhagwati is the traditional elephant corridor. Geographically, this belt is located on the banks of Tattihalla River. The forest comprises of moist deciduous and dry deciduous vegetation while the surroundings of forest have a good stock of Dowga Bamboo. Private lands adjoining these forests are fertile land and the area has a good rainfall of about 1200 mm. the farmers of these areas are growing paddy and sugarcane as their main crops.

Non availability of fodder in teak plantations and availability of fodder and food in the command area of Tattihalla dam (dense forest with good stock of bamboo, paddy, sugarcane in the farmers land), force elephants to move from one region to another. The herd of elephants moves from Dandeli Wildlife Sanctuary and passes through Bhagwati, Kalghatgi, Kirwatti, Mundgod, Katur before reaching Hanagal. The elephants usually move in Kalghatgi range during the months of September to December. They usually stray into the paddy and sugarcane fields for eating the standing crops, but have not caused any damage to the human beings or their properties so far. In Kirwatti range, the elephant movement is noticed in the months of August to April which migrate from Dandeli WLS. The herd of elephants observed in this range constitutes about 20-25 number of elephants.

Figure 1: Elephant movement area in Kalghatgi range



Figure 2: Elephant movement area in Kirwatti range

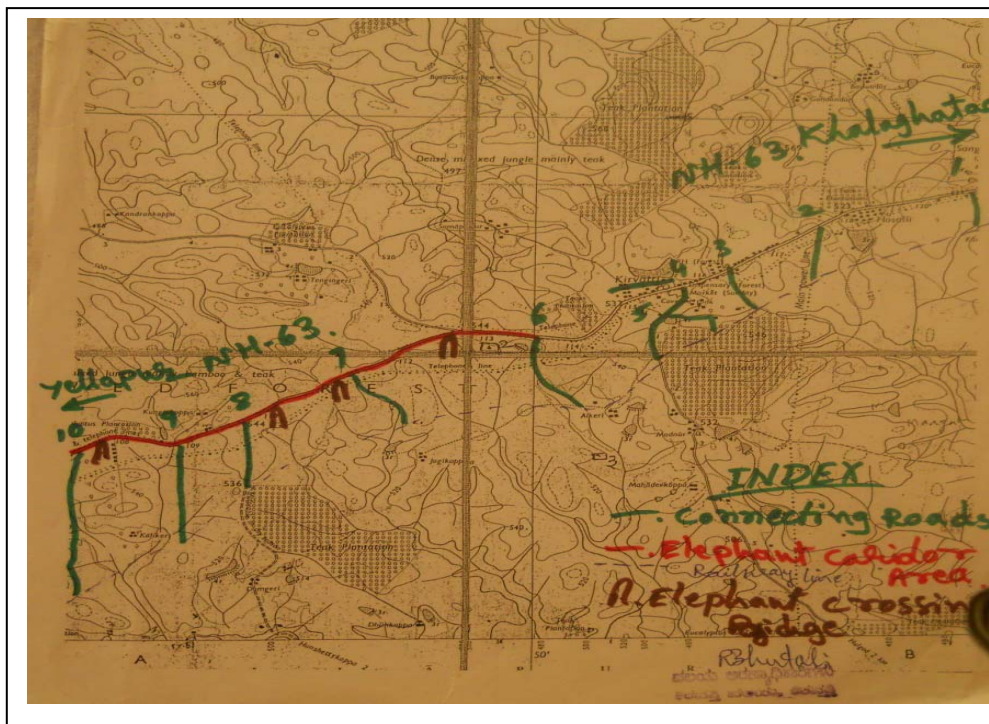
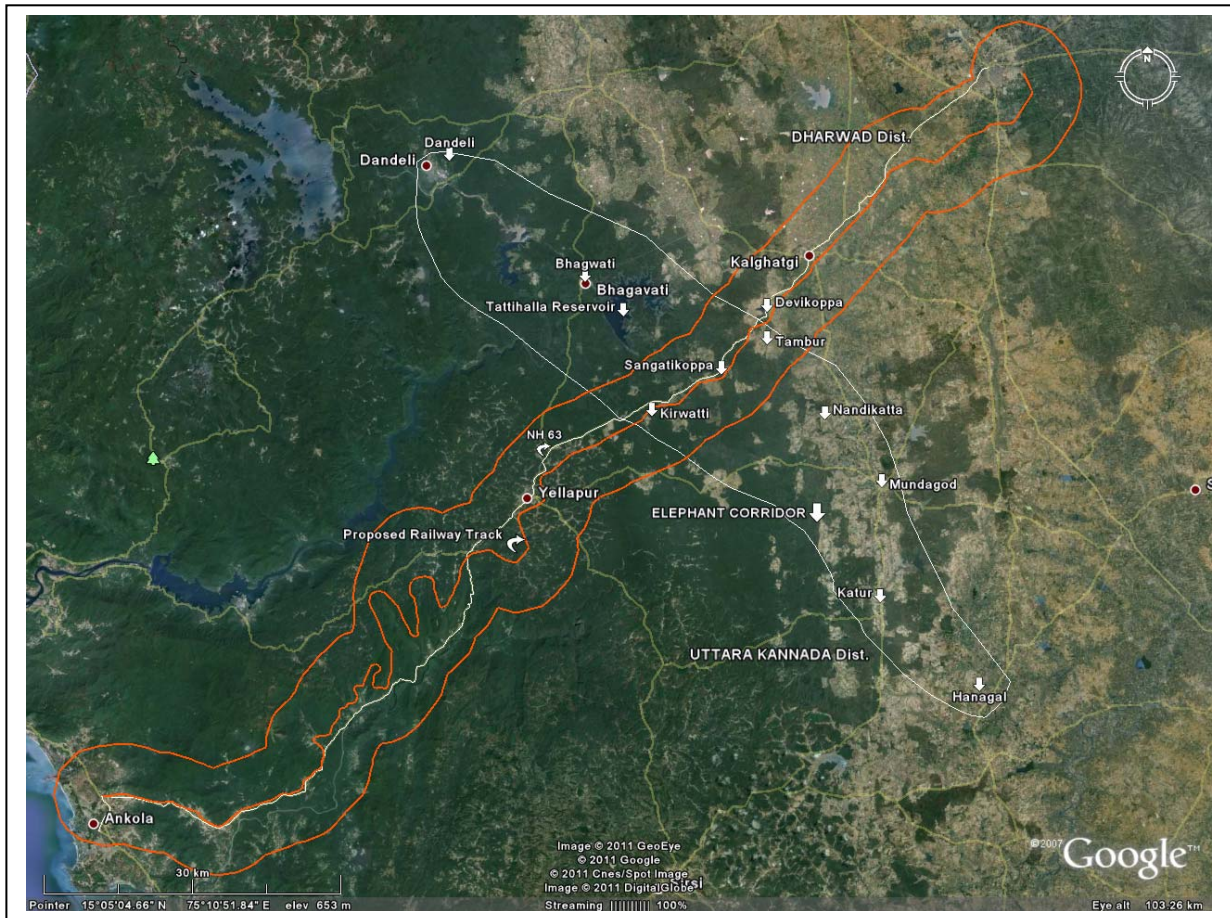
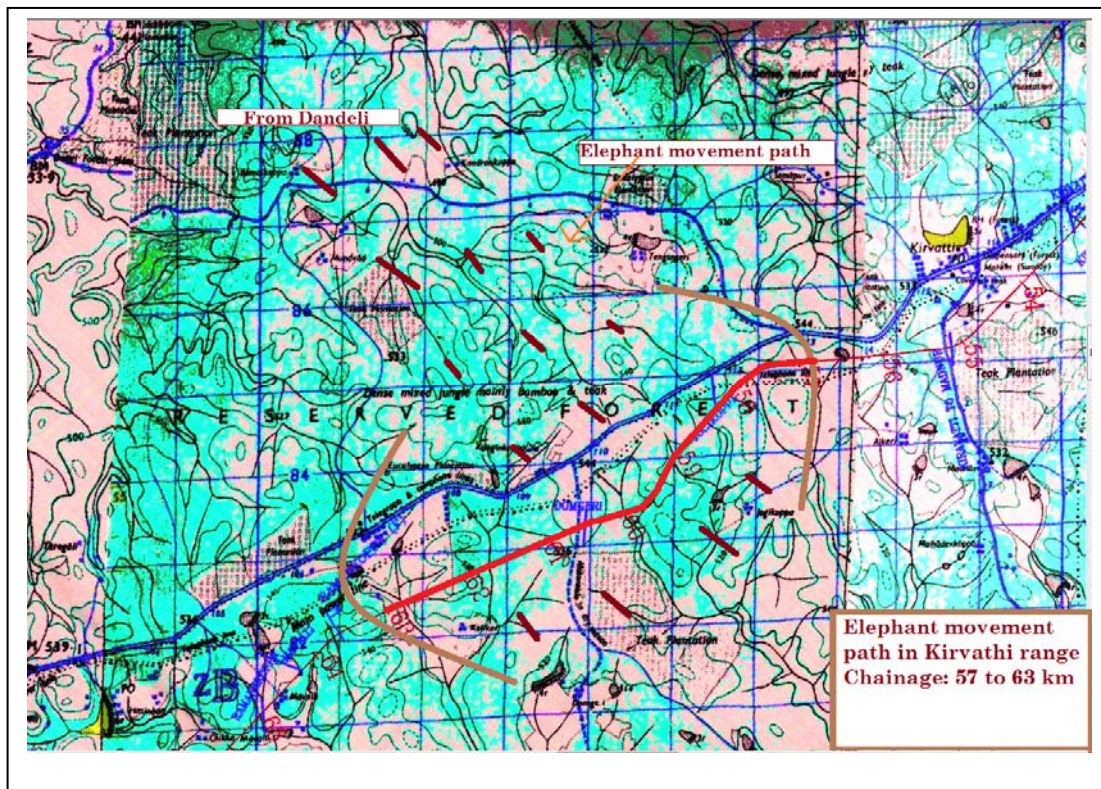
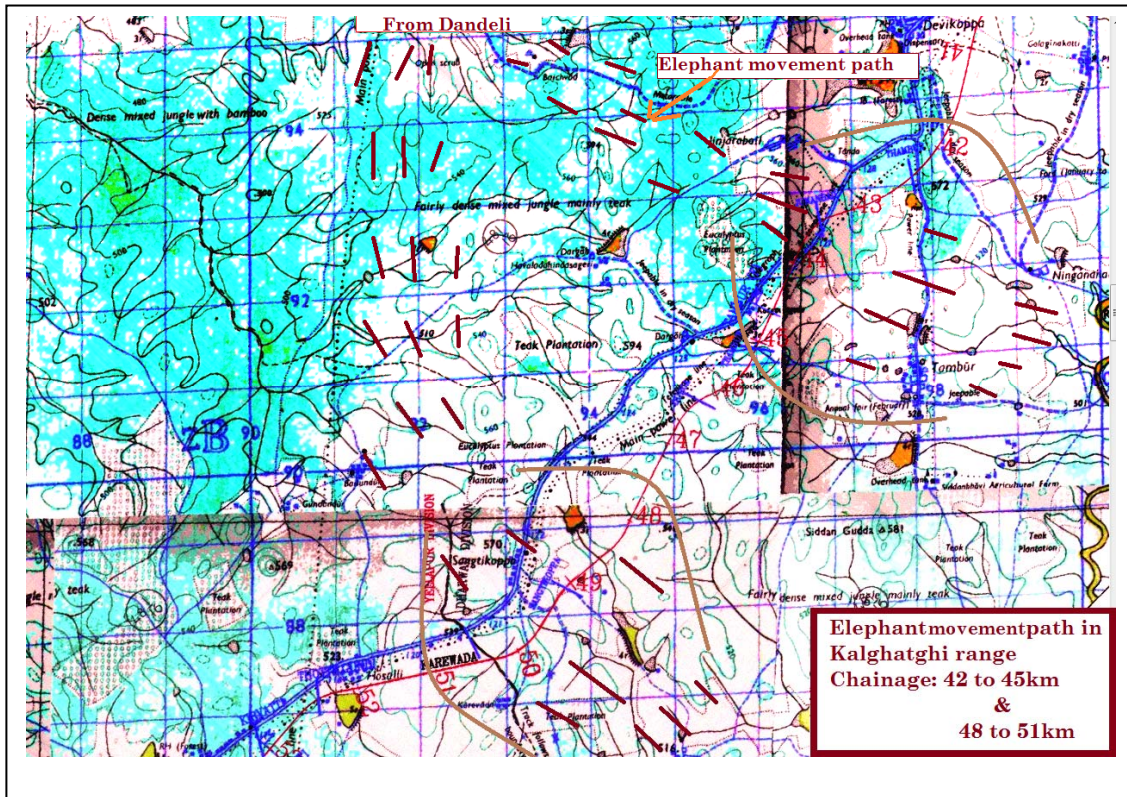


Figure 3.1: The proposed railway line passing through the traditional elephant movement path



Every animal species has a specific habitat consisting of one type or mixed vegetation that provides all necessary resources for survival of that species. Animals like Tiger and Elephants need large habitats for fulfilling their requirements and proper dwelling. However, unplanned developmental activities like construction of roads, railways, hydroelectric projects, without appropriate mitigation measures in recent years have caused disturbance in the natural ecosystem leading to the breaking of large forest areas into small fragments (habitat fragmentation). Other activities like developing human settlements, clearing of forest land for agriculture and monoculture plantations also fragment forest areas into smaller sized patches. As a result of this, the wild animals do not find enough resources in the fragmented habitats and often come in contact with human settlements leading to conflicts between humans and animals.

Figure 3.2: Locations of elephant movement



As it can be seen in Figure 3.1 and 3.2, the proposed line passes through the region which is an important movement path for the elephants especially during September to February months. The construction of railway track will fragment the existing movement path of the elephants and will also pose a threat of train-elephant collisions. The disruption of the movement path will result into the elephants straying into the nearby areas (mostly agricultural and horticultural lands) leading to problems like crop destruction, damage to houses and property, even attack on people, etc. Thus, the incidences of human-animal conflict will increase because of the fragmentation of natural habitats and movement paths.

Overlapping with the buffer zone of Anshi-Dandeli Tiger Reserve

The Dandeli WLS is an important protected area located in Uttara Kannada district. It is administratively part of Dandeli Wildlife District (DWD) jointly with Anshi National Park (ANP) and also part of Kanara Forest Circle. DWD is linked to six other protected areas in the neighboring states of Goa and Maharashtra. All these protected areas together form a contiguous forest of about 5000 km² with pockets of intact prime habitat for tigers and other keystone species. This area is also part of the high priority tiger conservation unit and is in the northern part of the Tiger Conservation Unit Level 55 and also supports a small isolated population of elephants. The DWS forest type is described as *Lagerstroemia microcarpa-Tectona grandis-Dillenia pentagyna* (Pascal, 1984) with a very abundant population of bamboo (Bamboo sp). Important mammals like the tiger (*Panthera tigris*), wild dog (*Cuon alpinus*), elephant (*Elephas maximus*), sloth bear (*Melursus ursinus*), gaur (*Bos gaurus*) and panthers, including the rare Black Panther (*Panthera pardus*) are found in the area. More than 272 bird species belonging to 45 families are found in the area of study. Of these, 155 species belonging to 38 families are found in DWS, including the Great Pied Hornbill (*Buceros bicornis*) (Karthikeyan et al, 1995). According to Daniels et al. (1998) 26 reptile species are found in DWS, including the Marsh Crocodile (*Crocodylus palustris*), King Cobra (*Ophiophagus hanna*), and Indian Rock Python (*Python molurus*).

The protected areas in the form of National Parks, Wildlife Sanctuaries, Conservation Reserves, etc. serve as an important repository of rich biodiversity and are assigned highest conservation values so that they are not harmed. The proposed railway line project falls partially in the buffer zone of the ADTR protected area, in the Sectors 5 to 9 [sector 5 (Kandhanhalli), sector 6 (Kannadagal, Kannigeri), sector 7 (Hiriyal and Lingadabailu), sector 8 (Kalache, Begar, Barballi, Baginkatla, Targar) and sector 9 (Mavinmane)]. The proposed alignment of the railway track is located just 6.24 kms from the boundary of the Tiger Reserve passes through villages – Honagadde and Kalache in Sector 8 (Figure 5).

Impacts of the proposed railway line on Land use / Land cover of the region

Geospatial models essentially aid in planning through understanding, evaluation and visualization of the process considering various interventions, and hence have become an inseparable aspect of a planning system. The forecasting of changes has been done using NetLogo (Wilensky, 1999), an agent-based modelling environment developed by the Centre for Connected Learning and Computer Based Modeling, Northwestern University, USA. The model facilitates encapsulation of processes through rule-based procedures and offers adequate monitors and plots to visualise pattern, model the causes and evaluate the consequences through simulation. The base layers considered here are the land use change classified data for the years 2001 and 2010, the rate of change of vegetation cover (during the last ten years) and the change periphery width of urban area was also considered. These data were used to forecast the growth process for the year 2020 with and without the Railways.

The output of the forecasting model is presented in figure 7, which indicates removal of forest cover to the extent of 11.8 percent by 2020 (without railway, business-as-usual scenario) and 16.23 percent (an additional 4.43%) in the region consequent to the likely land use changes with implementation of the Railway (Figure 8). The forecasting model shows the scenario of intensified land cover changes in Kalghatgi, Yellapur, Ramanguli and Sunksal regions with new agglomerations and also peripheral growth of regions in and around the region ear-marked for stations.

Figure 4: Proposed alignment along with Dandeli Hornbill Conservation Reserve and Bedthi Conservation reserve

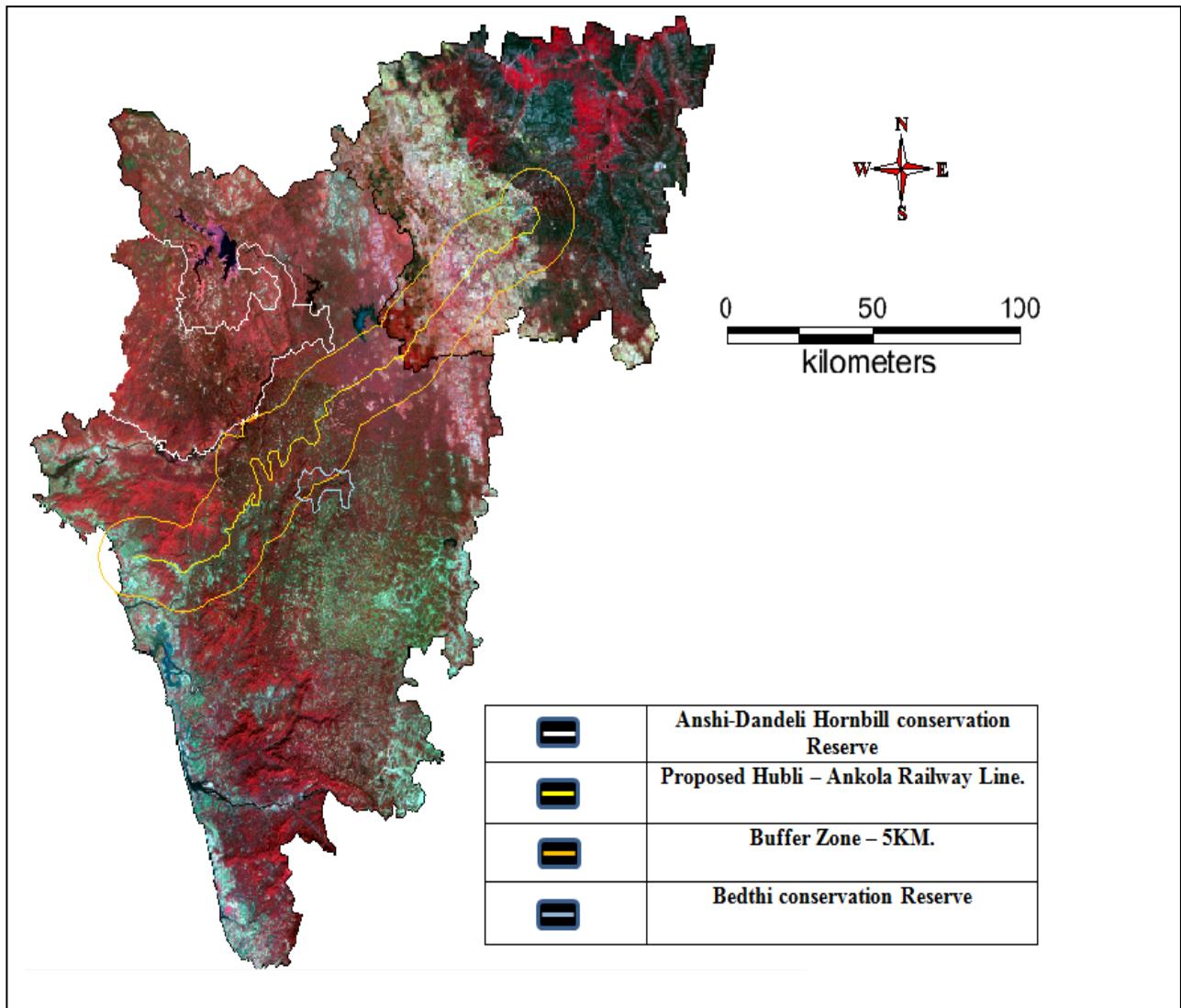


Figure 5: Distance of the proposed railway line from ADTR

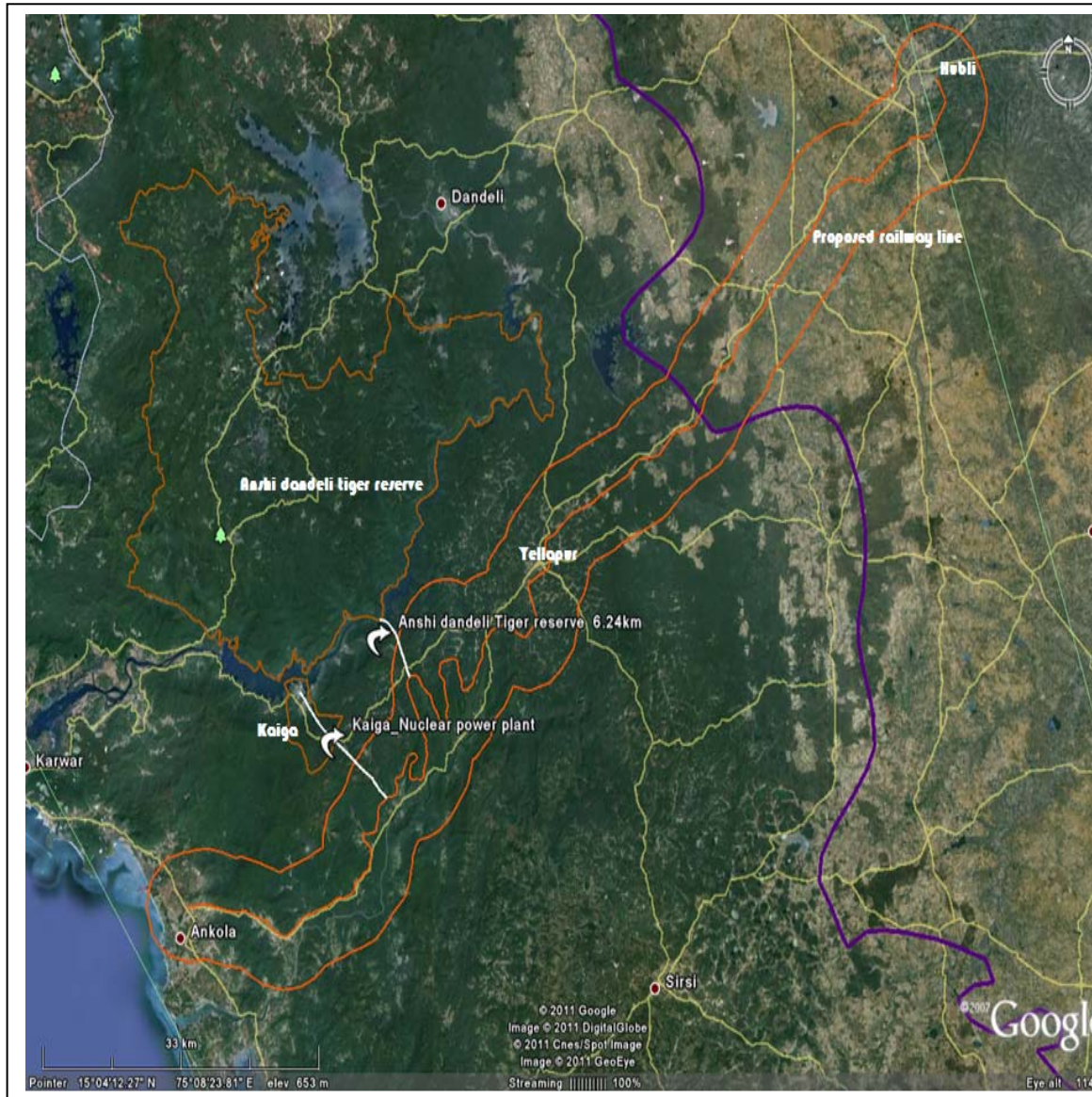


Figure 7: Land use changes Scenario (without railway line) for year 2020

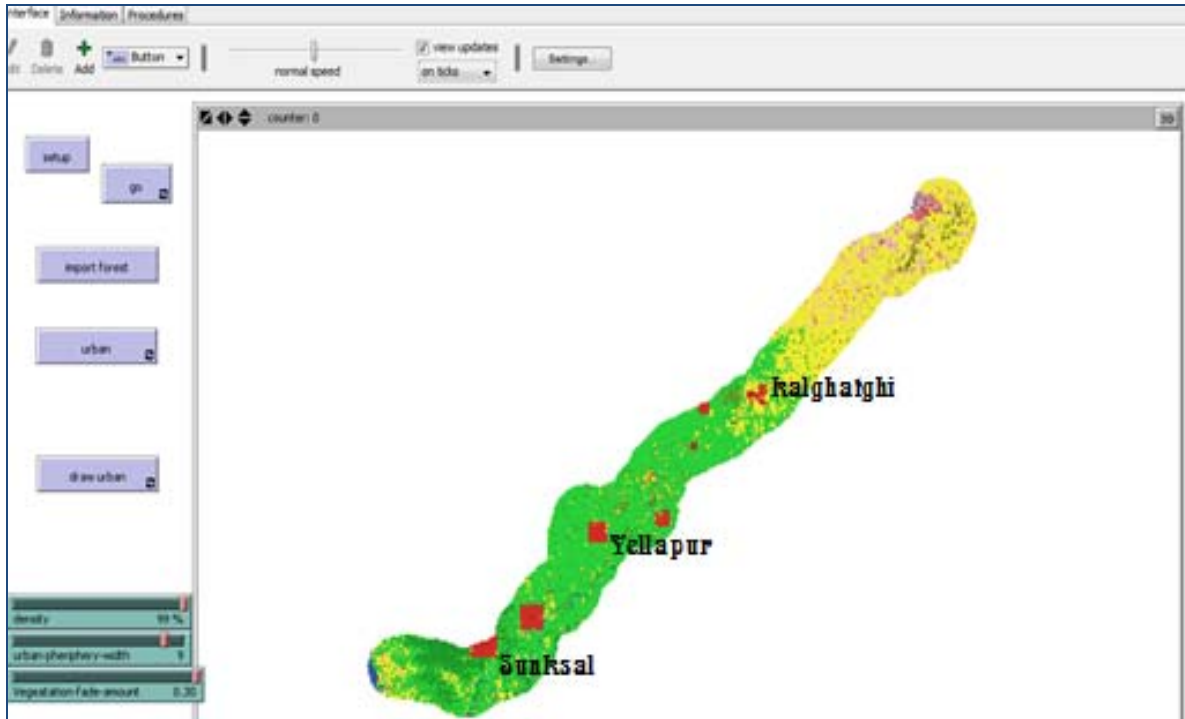
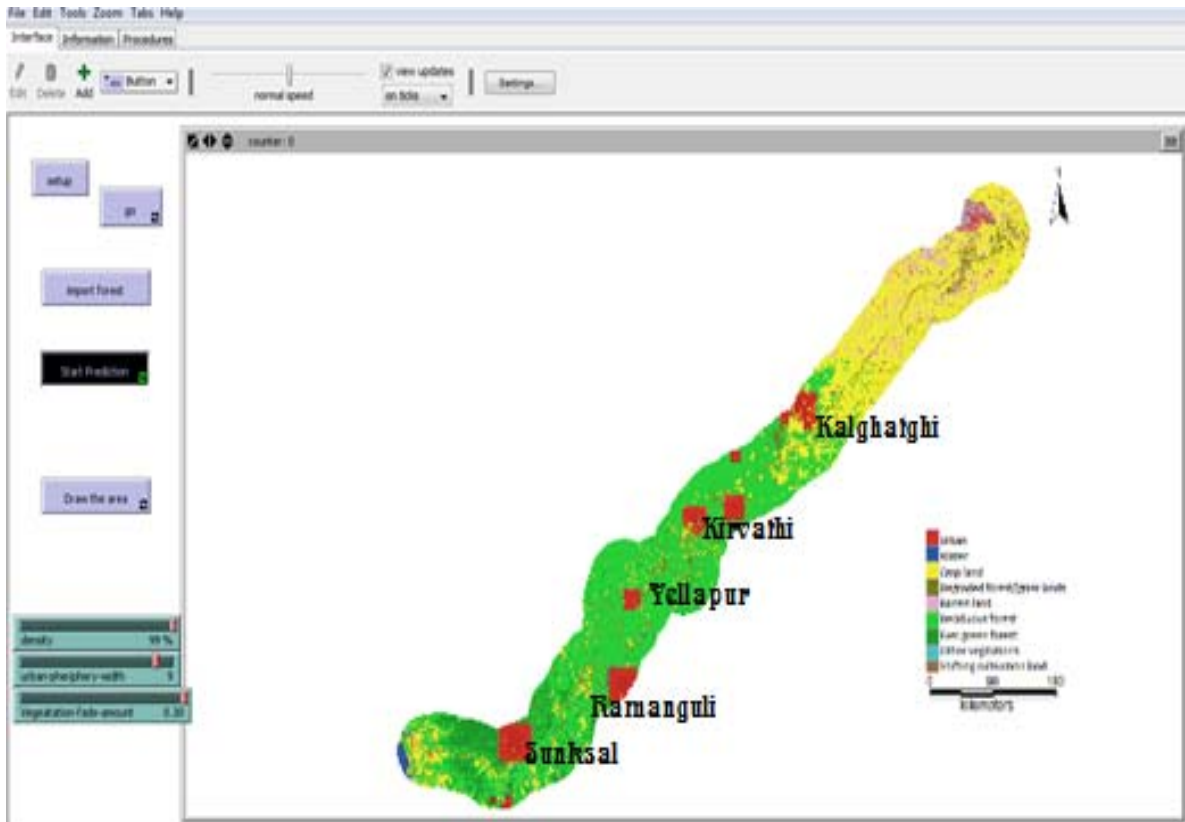


Figure 8: Land use changes with railway line for the year 2020



Impact of the project on hydrology

The proposed railway line lies in the Bedthi river catchment area. There are a total of 102 first order streams, 128 second order streams, 50 third order and 7 fourth order streams in the proposed alignment for the railway track. The details of the streams on the proposed line are given in Table 58. Improper management of solid and liquid waste would contaminate the water and land affecting the biotic ecosystem apart from the alignment blocking these drains. However, not much impact in this regard as the railways have proposed the construction of bridges over these streams.

Table 58: Drainage network of Bedthi river on the proposed alignment

SECTORS	ORDER OF THE STREAMS			
	I	II	III	IV
1	6	6	2	1
2	5	4	2	0
3	4	6	3	1
4	4	9	3	1
5	6	10	4	1
6	7	4	2	0
7	9	12	3	0
8	14	22	4	0
9	20	17	4	1
10	15	20	11	1
11	8	12	10	2
12	4	6	2	0
TOTAL	102	128	50	7

Social Impacts

The implementation of this project will result in rehabilitation of around 300 families from their current residential places. However, there are a number of positive impacts if this project is implemented on the population of the region. This railway line will serve as a vital link between the east and west coast. It will also ease the movement of materials, equipments and work force

of various projects like Project Seabird, Kaiga Nuclear Power plant, etc. Compared to the movement of trucks, the movement of goods train will help in saving 65% of the fuel annually, thereby reducing the emissions of Green House Gases. This line will also serve as a better alternative for mail/express trains from north, east and southern states and also provide an economic means of transport for local people. This will help in overall development of backward regions of North Karnataka.

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