CASE STUDY - I :

i) NAME OF THE VILLEGE :- ILLYAL
ii) RANGE :- GADDENKERI
iii) FOREST DEVISION :- BAGALKOT
iv) PLANTATION :-
AREA :- 35 hacter
SURVEY NO. :- 100, 102, 103, 104, 105,106.
MODEL :- 4
YEAR OF PLANTATION :- 1997.

V) BACKGROUND OF THE VILLAGE :-

The village ILLYAL is located in Bagalkot. The village is present in remote area. There were only 3 buses for that village in a day. The village ILLYAL was earliear located near the Almatti dam area. But now that village was shifted to other area which of about 15-20Km away from Almatti dam. The privious ILLYAL village was fully submerged by Krishna river water. The people of that village was also Rehabilitated to ILLYAL plot along with that village Shiraguppi mannal, village were also included in the Rehabilition camp of ILLYAL. The people of that village almost lossed their land by the submergence of Krishna water and they were provided compansation about 30,000 - 1 lakh Rupees/ hacter. Like that the people of that village got lot of money. But presently they were over expenceing that money for drinking purpose... and they were not purchased any land in that village. Most of people of that village has shifted their family to Bagalkot & Bijapur.

The present population of that village is about 2000 and number of families ranges from 500-600 amoung those families most of them are presently poor families. The land holding ratio was also very low; i.e 4-10 hacters and the economy of the people is fully dependent on coolie.

The village ILLYAL was included together with Shiraguppi and Talgihalli. All together constitute about 7000-8000 population and number of families ranges from 4,000-4,500. Those villagers were also shifted from Krishna River basin after Government Rehabilited them. Presently those ~~all~~ villager are commonly called ILLYAL Shiraguppi and Talgihalli plots.

The destribution of families were very sparse. We may find only 5-7 families withen a half Kelometer area and some of the people are still building their houses in the new area and still about 20% of people leaving in Govt. made ~~cottages~~ tents. The Karnataka Govt. had provided compensation for house building compensation money ranges from 20,000 - 50,000/family.

Presently the economy of the people is completely dependent on daily wages ~~Rs.200~~ coolie i.e not on farming and the main aim of establishing plantation was to provide employment for a local people. Due to this reason there were lot of plantations were established in all around the village. Under different project like U.K.P. (Upper Krishna Project), Social Forestry Project and under (OECF) Japan Aided Project, Under (OECF) Project two plantation were establisted under different models around the village ILLYAL.

Presently the people of that village is fully dependent on Government Compensation Money and on daily wages.

vi) TOPOGRAPHY :-

The topography of that plantation was some what undulating with 5-8% slope on the Western side of the village. The most common soil type found is Red soil (fully red) to smooth rocky soil and the common vagetation found in the plantation area are -:
Trees:- Eucalyptns, Acacia Sps Karikanti prosopis, Cassia Sps Karigrass, Neem.

Amoung these leaves of Acacia arebica used as feed for goats and sheeps. Fruits of prosopis jouliflora was also used as a feed for goats & Karigrass is most commenly used as fodder for the cattles, buffelos & Horses. Leaves of cassia was also using for ripening of Banana fruits. This was the traditional method of ripening Banana fruits in villages.
BUSHES :- Cassia Sps (tora) Karikanti, calotropis Spo. The people of ILLYAL ~~of~~ and other surrounding villages used to collect the Kavale fruits (kavalekayi) during December-January months which was considered as a nutritious fruit.

The rich people used to send their labourers to those plantations during August-November months for collection of Mashrooms (nayikode) which is being used as vagetables and the rate paid for each labourers/ day was 45-50 Rs./day.

How many days? what Rs ?. For about 10-15 days in the August Month. In the Talukas this activity is only restricted few talukas in Bagalkot. Like. Bagalkot, Badami etc

To the some exient Agave was planted in and around the plantation which is also used as a source of fiber for Agril purposes by the local farmers. Remaining other nonwood products are already mentioned above.

vii) JFPM :-

They dont know what is JFPM & VFC. But they have complete idea about the Forest Department because lot of plantations were established under different projects. And those plantation work provided lot of employment for local people; hence they were fully aware about Forest Department activities and no ~~one~~ officials tried to convience about JFPM and VFC.

viii) PLANTATION :-

Model :- 4

The total plantation area is 35 ha. The area is highly undularing of the common soil found is Red soil and most common natural vagetation found are :-

TREES :- Neem, Ecucalyptus (planted under social forestry), Acacia Sps, Karikanti, Cassia Spr.

BUSHES & SHRUBS :- Prosopis, Zoulitlers, Cassia tora, calotropis Sps.etc.

PLANTED VAGETATION :- Anjan(Hardwikia binnata), Neem, Pongemia pinnata, Acacia ~~awlicaliformis~~, Albezia cobbeck.

The plantation was actually established in 1998 (June). The labourers were brought from different near by villages like Talgihalli, Shiraguppi, Holdur, Illyal.

In a plantation the site prepration work was mainly done by the Mechanical Method. i.e. by using Doger. The site prepration work mainly includes dugging of trenches of size 4m X 0.45c.m X 0.65c.m

These all trenches were dugout by govt by using Doger and the remaining work like remixing of soil from the trenches were done by using labourers. That work alone took atleast 3 months for 100 male labourers and the rate paid for each labour was 50 Rs./day and the time taken for excavating trenches was about 1½ months. This work was done by using dogers and the Rate paid for a doger/day was about 4,000-4,500Rs. per day.

Along with male labourers female laboures were also employed in a plantation work i.e. for transferring the seedlings from the truck

and other activites like cleaning weeding purposes etc. and the Rate paid for each labourer(female) was Rs.35/day. They were done those work atleast for 2 months time.

Actually the plantation work was started in December 1997 and planting of the seedlings was done in June 1998. The seedlings were brought from Gaddenkeri cross which is about 40 K.m away from plantation area & some of seedlings like Hardwikia binnata were brought from Alamatti Nursery.

PLANTINGS :-

The total number of trenches dugout in the plantation area was 15,000. The size of the frenches fallowed is 4Mtr X 0.45c.m X 0.65c.m. The spacing between the trenches is 4mts. and two seedlings were planted in each trench. The total number of sampling brought from the nursery is 33,000. (Approximatly)

ENUMERATION :-

The total plantation area is 35 hacter and spacing between the seedlings in a trench was 2Mt. X 2Mt. The trencher were dugout by using doger. The trenches were in correct line. The distance between each line is 4Mts. apart. So in order to covere the entire represention of population is common Quadrate size adopted here was 20Mts X 20Mts.

For any type of innmeraion work it is better to do atleast 5-10% of innmeration. Because of this reason I had done 5% of Enumeration for that plantation.

For 5% Ennmeration = $\frac{35 \times 10,000 = 3,50,000}{100} \times 5$

$= 17,500$ Sq.Mts.

So we have to ennmerate 17,500 Sqc.mts. of area for 5% ennmeration.

Number of plots to ennmerate = $\frac{17,500 \text{Sq.mts}}{20\text{m} \times 20\text{m}}$

$= \frac{17,500}{400}$ = Aproximatly About 44 Plots

But I had done 20 plots. Because it will give almost all information regarding species destribation, and other aspects.

Here the entire enumetation was done randomly and plots were also

also chosen randomly.

MANAGEMENT PRACTICES :-

The plantation was maintened under under a good condition. The area is some what free from weeds and other farinted plants. One weeding is done during the August month. The entire weeding work was done by female workers for about 15 days at the Rate of Rs.35/day/labour. Total nomber of labourers employed in each day is 15 members and other managemental practices like, Fertilisation, Irrigation were also followed in that plantation. The amount of fertiliser added to the each seeding was 20gm. (GAP) one irrigation was also done during July month.

COMMENTS ON THE PLANTATION :-

The plantation was somewhat maintened under good condition. Some of the managemental practices are also carried out such as clearing before establishment of plantation was done properly and weeding was also done with great care and fertiliser application is also done but in the plantation area we find some of noxious weed species which are hampering the growth of the sapling.

Most of the site prapration work were done by mechanical means thats why we find lot of variation in spacing between the seedlings in a frecnges and between the line of trenches in entire plantation. Some of the seedlings may be planted with 4Mt distance & some may be 5Mts. We dont find proper spacing.

COMMENTS ON PLANTATION SPECIES DISTRIBUTION :-

The total plantation Area is 35 hacter & seedlings were planted at 2Mt X 2Mt distance. There were 5 different tree species were planted in entire plantation area at 2Mt X 2Mt distance apart in a 4Mts long continous treaches amoung those 5 Tree species planted Hardwikia binnata (Anjan) holds topmost position in density destribution i.e. 81.28% followed by this pongimia pinnata (Halgaln) holds second position with 13.62% then comes 3% by Albezia lebbeck and the destribation of oftenr tree species like Neem & Accacia auriculiformis is very sparse. i.e. 0.15 & 0.005% respectively.

Then coming to the distribution pattren of natural vegetasion. Is some what low mainly 6 different natural plants are indentified in entire platation amoung those prosppis jouliflors (Bellary jali) holds second position i.e. 22.82% and 1st postion is occupied by Acc-acia species i.e. 26.14% and 3rd position is dominated by Acacia arebica i.e. 19.80 remaining other species like cassia cyamia Azardichea indica & Eacalyptus were present in small numbers but the distribution of noxious weed like parthenium cassia tora & karigrass is very high it was not possible to count those all sps; becauseit is unnecessary work.

local people appraised the forest Dept mainly because they prefered a continuous employment for about 3-4 Months

These plantations provided lot of work to the local people hence local people are praising the Forest Department. Presently the economy of the local farmers/coolie labourers is fully dependent on the money came from this plantation work; because almost all family member did the labour work during that period & they earned lot of money from plantation work; but this plantation affected lot to the local grazers because earlieas those peoples like Govali,lamani used used to graze those plantation; but know it was complitely stoped. These people see the heavy grass grown in the plantation area; but the entire area or fully protec-ted. They were not allowed to entier in to the plantation area; but they were permitted to cut the grasses what quantity they required & some of the local people have the habit of grazing their animals during night hours/during watches is not present.

PROTECTION MEASURES :-

The plantation area is fully protected by escavating the big cattle proof trench around the plantation area. The size of the trench is 1Mts width and 2 Mts depth. The entire cattle proof trench is done by mechanical means which costed more campaire to mannual work and the Department is also maintaing two watcher for watching entire plantation. They were paying Rs.35/day/watcher.

ನೆಚ್ಚಿಕೊಂಡ, ಅವಲಂಬಿ?

Livestock ಎಷ್ಟಿವೆ?

In that village different caste people are living among those Gavali, lamani are dominant caste. But all of them doesn't have livestock poplation. only abou 15-20% of popklation holds livestocks. and each family holds atleast 4-5 livestocks.

CASE STUDY :-II

i) NAME OF VILLAGE: ILLYAL
ii) RANGE : GADDENKERI
iii) FOREST DEVESION : BAGALKOT
iv) PLANTATION :

Area;- 20 hacters
Survey Number :- 90, 91, 92, 94.
Model :- 3
Year :- 1998

V) BACKGROUND OF THE VILLAGE :-

This plantation area is located in ILLYAL village. Which is about ~~area is located~~ 35 Km away from Bagalkot. Remaining other information like population, families, landholding, how they live and their dependence on common poperty all these information were clearly furnished in case study-I. The plantation Area is just 1Km away from the model-4 plantation area; but there will be lot of difference between those two plantation. One of the plantation was established undre model-4 & another one was established under model-3 and the destribution of both natural and artificial vagetation was also had great diffrence and the topography and soil types also have some difference between those two plantation . I explained almost all information regarding background of village in the case study-I. Please refer that :

VI) TOPOGRAPHY :-

The plantation area is some what plain. Without any undulation. The common soil type found is Red soil with smooth rocks and most common vagetation found in the plantation area are as follows ;- NATURAL VAGETATION : Tarekanti, Neem,Hulikanti, Cassia Sps Chassnl Sps calotropis Sps Eacalyptus Sps. Prosopis Jouliflora, Kavale fruit Opensia Sps. Among all those natural vagetation Tarekanti was mainly used for fuelwood purpose and leaves of that shrub also used as fodder for goats and sheeps. ~~Neem, fully~~ Ripened Neem fruits were collected by the local people during March-April month. Which were ~~sales~~ sold to the local bussinessment at the rate of 15 Rs./box. Like that each women collect atleast 3-4 boxes in a day. This entire work will takes atleast 1-2 months. Leaves of the Neem tree were also used for medicinal purpose. In that area Neem ~~tree were also used for~~ wood was considered as a poor mens teak. Because it will give a excellent Quality of wood; which was extensively used for building construction work.

CASSIA Sps -

Leaves of cassia Sps were also used for ripening of Mango, Banana.

CALOTROPIS- It was considered as a one of the religious plant; because it helps in knowing the approximate yield of Agril crops people leaving around the plantation area used to collect the flower of this plant. Which gave the astronomy of their field outcome.

PROSOPIS JOULIFLORA :- This tree Sps was extensively used for fuelwood purpose, and which is considered as one of good Sps for erosion control in slopy area and it had also got good resistance against drought condition. It also has the quality of coppicing. It has also have good pollarding abilities, but not practiced.

The local people used to collect the Kavale fruits during October-November month and along with this fruit the local people also collect fruit of Opensia; which are red in colour with small spines on a fruit and those fruits were eaten by the their family members.

Rich people of that village used to send their labourers for the collection Mushrooms during August-Sept; which was used as vagetables. And stock holders collects the tall grasse to feed their cattles, entirely the plantations provided a better economic condition for the local people remaining other nonwood products that available in priviours plantation were also available in their plantation.

VII) JFPM :-

Here also the people do not have any knowledge regarding JFPM/VFC. The people of that village simply know the what activities presently forest Department is doing. The Department was also not fully intrested in implimenting the JFPM programmes.

VIII) PLANTATION :-

Model :- 3

The total plantation area is 20 hacters. The area is somewhat reactangular. The Topography of land is also fully plain. The plantation area is about 1Km away from the old plantation & it was about 8Km away from the village. The plantation was maintained under good condition. The common soil type found is Red soil/with smooth rocky upper position and most common vagetation found in a plantation area are :-

NATURAL VAGETATION :-

TREES :- Neem, Encalyptus sps cassia cyamia Acacia arebica prosopis jonliflora etc.

BUSHES :- Cassia, sps calotripis, sps Karikanti hylikanti massal Etc.

PLANTED VAGETATION ARE :- Ficus bengalencis Ficas religiosa, Neem, Hardwikia binnata Albezia libbeck, pongimia pinnata, Acacia, auriculiformis, Dalbergia Sisso.

The plantation was established in 1998 June. The entire plantation work was done by using the same labour; which were used in 35 ha plantation area. But work done in this plantation was somewhat different from that were the pits were dugout for planting the seedlings and the spacing followed between the pits was 10Mts X 20Mts along with pits. Trenches were also dugout by using Dogers. The digging of pits alone took atleast 1½ month for 20-25 labours (male) & the total number of pits dugout in a plantation area was 2,000 at the size of 1Mt X 1Mt X 1Mt and the rate paid for digging each pit was 10Rs./pit and each labour can dugout atleast 4-5 pits/day. The pits were also dugout by

(paying 50 Rs./day/labour) daily wages.

And the remaining trench digging work was done by using doger. The total number of trencher dugout in a plantation area was 8,000 at the size of 4Mt X 0.45 X 0.50cm. and the trenches are 5Mts X 5Mts dugout in a continous line and spacing between the line of trenches is 5Mts X 5Mts. The work alone took atleast 2 months time and the rate paid for the doger/day was 4,000-4,500Rs. and remaining work like removing the soil from the trenches were done by using male and female labourers. This work took atleast 2½ months for a 40-45 labours and the rate paid for each female labour is Rs.35/day. And for the male labours was 50Rs./day; and the labours were daily coming from near by villages like Shrraguppi, Talagihalli and Illyal. Most of the labours were lossed their land in Krishna river. They were got lot of compansation money from the Government of Karnataka but they have spent all money for bad habits of unnecessary purporses. This all created a poor living condition.

The plantation area was fully protected by digging a cattle proof trench of size 2Metere deep & 2.5Mts width. This work was done by using J.C.B machines. Which took atleast 1 month for entire work and the rate paid for J.C.B. machine was 2,200-2,500Rs./day and the removing of soil from the trench was took atleast 15 days for 20-25 labours. (female)

The entire plantation work took atleast 4-4½ months for 75-100 labours at the rate of 50Rs./day/male labour & 35Rs./day/female labours. Actually the plantation work was started during December 1997. But the planting of seedling was done during 1998 June.

The seedling for the plantation was mainly brought from Gaddenkeri cross; which was 40Km away from Illyal. And some seedlings were also brought from the Almatti Nursery; which was about 20Km away from plantation area.

IX) PLANTINGS :-

The total number of pits dugout in a plantation area was 2,000 at the spacing of 10Mts X 20Mts and the total number of trenches dugout in a plantation area was 8,000 at the spacing of 5Mts between the line of continous trenches & atleast two seedlings were planted in each trench at the spacing of 2Mts X 2Mts.

The seedlings were brought from Gaddenkeri cross. The total number of seedling brought from nursery was 20.000. The seedling were brought in truks each trip of Truck carries atleast 1,500-2,000 seedling &

the Rate paid for each trip was 2,000-2,500 Rs./trip. Some times the seedling were also borught from Dharwad, Bellary, Kudal sagam Nursery under shortage of stock in Gaddenkeri Nursery.

X) ENUMERATION :-

The total plantation area is 20 hacter and the spacing between the seedlings in a pits was 10Mts X 20Mts and the spacing between the seedlings in a trench was 2Mts X 2Mts. The spacing between the line of continous trenches was 5Mts apart. So in order to cover the maximum representation of the population the common quadrate size adapted was 20Mts X 20Mts.

And for almost all Enumeration work it is better to do atleast 5-10% of Enumeration. So I had done 5% Enumeration for ~~their~~ this plantation which will give maximum representation of population.

For 5% Enumeration = $\frac{20X10,000}{100} \times 5$ $\frac{2,00,000}{100} \times 5$

= 10,000 Sq.Mt

So we have to Enumerate atleast 1 hacter area for 5% inumeration.

Number of plots to Enumerate (20Mtsx20Mts) = $\frac{10,000}{20x20M}$

= $\frac{10,000}{400}$ = 23 plots (Approximatly)

So we have to Enumerate atleast 23 plots of size 20Mts X 20Mts for 5% of Enumeration. But I had done only 15 plots which will give maximum representation of population.

COMMENTS ON PLANTATION DISTRIBUTION OF SPECIES :-

The entire plantation works like digging of trenches, digging cattle proof trenches, were fully done by using mechines and remaining other work like pit digging removing soil from the trenches & weeding cleaning were done by using local labour here also. The spacing between the seedling was not properly given one of the seedling may be planted at 10Mt distance other may be 7Mts. They ~~were~~ have planted the seedling according to their requirement. The spacing withen the trenches was also not proper it was also highly varying.

The plantation area mainly constitues about 7 tree species which were planted amoung those. Hardwikia binnata holds topmost position in population distribution. i.e. of 71.6% fallowed by Acacia auriculitormis 9.65% next was Ficus bergalensis 7.67% and remaining other tree speacis were distributed very spartially.

On the other hand the distribution pattern of natural vagetation was some what medium there were about 6 different natural vagetation was identified amoung those Acacia species holds the topmost position i.e. 33.5% fallowed by that was Acacia arebica 32.8% and next was Eucalyptus

brid 11.45% remaing other vagetation was some what less and they dont play any major role growth of seedling. The plantation helped lot to the local people, farmers & and daily wage laboures which provided lot of employment.

COMMENTS ON PLANTATION :-

The total plantation Area is 20 hacter. This plantation was some what different from earliear plantation. This was established under model 3 & The soil condition. texture & structure and distribution of natural vagetation was some what change. Then that of 35 hacter plantation established under model 4 and the plantation was maintened under good condition some how little bit cleaning was done before establishing the plantation. But not upto the mark only the border of the plantation area was kept free from weed and other natural vagetation. And in the center of the plantation area we found lot of weeds large number of big trees & big shrubs. It was very difficult to enter into the plantation area except in one or two planes we may enter without any problem.

Those all above problems hampering the actual growth of the sapling leading to death of some of planted seedlings and the watches are intrested to keep the plantation clean; but the Departmental people donot give any money for them i.e. for employing local labourer for weeding cleaning purpose hence the watches also lost interest/faith on the maintainance of plantation area and on Forest Department and the local people were thinking that those plantation work was mainly sanctioned to provide employment to them not for Environmental balance purpose. Which helped in removing poverty starvation during summer season. Which other wise may affects lot of poor families & there wont be any effect on local environment by this plantation because the plantation was very young. We could not found any major effect on environment.

PROTECTION MEASURES :-

Almost same protection measures were fallowed for this plantation i.e. two watchers were kept for watvhing the plantation area. And they were paid 35Rs./day. To avoide the heavy damage from the cattles buffoloes. The entire plantation area was protected from those animals by digging cattle proof trench.

CASE STUDY III

i) NAME OF THE VILLAGE : HOLADUR
ii) RANG : GADDENKERI
iii) FOREST DEVISION : BAGALKOT
iv) PLANTATION : AREA - 65 hacter
SUREY NUMBER -
MODEL - 4
YEAR OF PLANTATION - 1998

V) BACKGROUND OF THE VILLAGE :-

The village Holadur is located in Bagalkot District (Taluk-Bagalkot).Which is about 45K.M away from Bagalkot. The village is ~~present highly~~ in remote area. There were only ~~only~~ two buses in a day for that village. Earliear this village was located near the Krishna River basin. Due to the increase in the water level of Krishna River after construction of Almatti Dam near Alamatti which lead to submergence of this village. Due to this reason the Karnataka government had shifted almost all villages which ~~were due for~~ submergence by the Krishna water.

Like ~~that~~ the village Holdur was shifted to new area which was about 20-25K.M. away from the Almatti Dam sight. The people who lossed their land in Krishna river they were provided by compansation money of about 30,000-1 lakh Rs./hacter area. They were also given money for building construction. But presently the most people of that village donot have land in the new area. And they were not purchased any new land. ~~Unless~~ they ~~over expenced~~ all money for bad habits like drinking, smoking & drug ~~addicts etc.~~

The present population of that village is about 2,000 and the number of families ranges from 500-550 and some of the people constructed a new houses and some of the people still leaving in temprory houses. But the ~~de~~stribution of the population was fully sparse and about 20-25% of people still residing under government made ~~cottages.~~ And they were trying to build up their own ~~house~~. But money provided by the Karnataka Government was not sufficient. The amount of money given to each ~~families~~ ranges from 25,000-75,000 for building construction and some of the people took the money & expensced for other requirements.

The ratio of the land holding ranges from 4-10 ~~hacter~~ & in most of the lands dryforming was commenly ~~fallowed~~. The common crops grown are Jawer, Sunflower, Wheat, ~~sattkiwer~~, Greengram. The Mean annual rainfall (MAR) ranges from 250-500mm. The people of that village mainly depend on daily ~~wages~~/coolie.

The landless labour do the coolie work and some of the people who had small landholding also complentely depend on the coolie work. Most of the people leaving in the village are belongs to schedule caste (s.c.) amoung those dominant caste was Lambani Naik, Rathods and chavanis.

PLANTATION:

Here also the main aim of establishing the large plantation was to provide a jobs for local people as much as possible and there were large number of plantations were established under a different projects like U.K.P. (Upper Krishna Projects), J.R.Y. (Jawahar Rojagar Yojana) and EAS projects Employment assurance Scheme. The people of the village is also fully dependent on the Government compansation money.

vi) TOPOGRAPHY :-

The topography of the land is somewhat undulation with 2-4% slope on the western side of the plantation area. The most common soil type found was fully red soil with rich natrients. The soil is fully drianed and there wont be any problem of water logging condition during the heavy rain. The remaining plantation area is some what plain and the most common existing vagetation found in a plantation area are as follows :-

Trees :- Neem, Eucalyptrus Sps, Cassia Sps., Acacia arebica, prosopis, juliflora.

Bushes :- Karikanti is very heavily destributed then massal, Kavale fruits tree. Donni spine plant, cassia tora & calotripis spr., Agave sps

Weeds :- Parthenium sps and lantana cemera cassia tora.

The uses of all above tree spcies is already mentioned in case study-I & II and the uses of remaining tree sps. like Acacia arebica. This tree is comenly called as babul and the gum of babul is extensively used as addessive material in sweet prepation and the young leaves were also used as feed for goats and sheeps and fruits of tree is also used for fodder purpose and the local people also used to collect the Agave sps for fiber purpose. This was also completely ~~discussed~~ discussed. in previous case studies.

vii) JFPM :-

The people of that village donot know any thing about JFPM/NFC. And some of people donot know hirechial system of Forest Department and the Departmental people the themself donot know what is JFPM&NFC.

viii) PLANTATION :-

Model :- 4

The plantation area is some what plain except on the western

side with slight undulation. The total plantation area is 65 hacters. For their convience the entire plantation area was divided in 2 parts. But not demarketed... one of plot is nearer to the village & another plot is about 1 K.M. away from village and entire plantation was established under model-4. The common soil type found was Red soil. With rich natrients; but the soil is very hard and it is very difficult to dugout by the labourers; hence the most of the plantation work was done by using Dogers and other mechanical Instruments. And the most common vagetation found in the plantation area are :-

Natural Vagetation : Neem, prosopis jorliflora Eacalyptus sps, cassia spa,. Karikanti Donnimalla, calotripis sps, Acacia nilotica prosopis cineraria, Massal, Kavale gida etc,.

Among these sps the uses of different plants were already discussed in case study - I & II. And the main uses of prosopis cineraria is:- This tree was considered as one of the holy tree of Hindu Religion. People used to worship this tree during Dasara or Vijay Dashami festival Because this tree helped in presering weapens of Pandava in the forest and the uses of different plants were already mentioned. And the most common planted vagetation are as follows :-

Planted tree species :- Anjan, Aalad mara , Karijali, Neem, Arale Mara Basari mara, Acacia auriculiformis ~~Alligats~~, Sirasala, Zyzyphus D. Sisso, etc,.

The plantation was established in 1998 June & actually the plantation work ~~was~~ started in 1997 December. The entire soil working was done within the 4-5 months period. The most of the plantation work was done by using doger. The planting of the tree sps. were mainly done in trenches made by using doger. The Rate paid for Doger was 4,000-4,500/ day. The amount of Rs. depend on number of hours work done by doger. Like this the entire trench digging work was done for atleast 4 months.

And removing of the soil from the trenches was done by using labourers. The labourers were mainly coming from Holadur. Tanda(Lamani) Illyal & Shiragappi both male & female labourers were employed for removing soil. This work alone took atleast 3 months for 80 male labourers and 40 ~~male~~ female labourers. And the Rate paid for each male labour was 50Rs./day and for female labour 35Rs./day. Remaining work like cleaning weeding and removing of soil from the cattle proof trenches were also done by male & female labour. This work took atleast 2 months for same number of labourers.

The Actual plantation work was started during December 1997. The seedling were mainly brought from Alamatti Nursery & Gaddenkeri cross and some of the tree species like Hardwikia binnaia Nelli & Nerale was brought from Dharwas, Bellary. The seedlings were brought in trucks & each trip of truck carries atleast 1,500-2,000 seedling of

bag size 8" x 4" and the Rate paid for each trip of truck was Rs.2,500-3,000.

IX) PLANTINGS :-

The total number of trenches dugout in plantation area was 27,000 The trenches were dugout in a continces lines and the spacing between the each line of trenches is 5Mt. apart and the size of trenches follwed within the line of trench is 4Mt. x 0.45 x 0.55c.m.

And atleast two seedling were planted in each trench at the spacing of 2Mt. x 2Mt. and the total number of saplings brought from the Nursery was 65,000 among those about 55,000 seedling were planted. During the main planting work and remaining seedling were used for gap filling purposes.

X) ENUMERATION :-

The total plantation area is 65 hacter and the spacing followed in between the seedlings in a trench is 2Mt. x 2Mts. and the spacing between the line of continous trench was 5Mts. apart. So in order to cover the maximum representation of the population. The common ~~quadonte~~ quadrate size adopted was 20Mts. x 20Mts.

And for most of forest enumeration work it is better to do atleast 5-10% of enumeration. So I had done 5% enumeration for this plantation which will give maximum represent of population.

For 5% of Enumeration = $\frac{65 \times 10,000}{100} \times 5 = \frac{650000}{100} \times 5 =$

$= 32,500$ sq.Mts.

So we have to ~~E~~nnmerate atleast 81 plots of size 20Mts x 20Mts. for 5% ennmeration. But I had done only 20plots which will give maximum representation of population.

So we have to ~~enumeration~~ enumerate atleast 32,500Sq. Mt. area randomly for 5% of enumeration.

Number of plots to = $\frac{32,500}{400}$

= 81 plots (Approximately).

COMMENTS ON PLANTATION :-

The total plantation area is 65 hacters. The plantation was maintained somewhat under a good condition but most of the plantation work were done by machines. Thats why the distance between the trenches and their derection was not correct and local people have developed jeolousy on Department; because most of the work was done by using Doger. They think that if Department did not use the Doger for plantation work. We may get employment for another two months; hence people are very angry on Department people.

The plantation area was somewhat clean i.e. proper cleaning was carried before establishing plantation and weeding & offen Managemental practices like irrigation; fertilizer application were also done properly even though doing all those management activites. The plantation have not upto the mark. The samplings were still very small in height. This may be due to the climatic factor soil factor (Edaphic factor) & soil is somewhat hard & poor in nutrient and protection to the plantation was not good. Still they have to ~~creat~~ direct fence or cattle proof trench; hence the activity of live stock population was more in damageing the seedling.

COMMENTS ON SPECIES DESTRIBUTION IN PLANTATION AREA :-

Here most of the plantation work was done by mechanial means; hence it was very difficult to maintain the proper spacing between the seedlings in a trenches and spacing between the line of trenches. The plantation area mainly constitute 11 different tree species which were planted in trenches at 2Mt x 2Mt destance amoung all those different tree species planted Hardwikia binnata (Anjan) holds topmost position in density (population) destribution I.e. 50.77% fallowed by that Azardichta ~~India~~ Indica holds the second number in population destribution i.e. 21.57% & next was Ficas bengalensis 9.02% and the destribution of remaining other Tree species were very sparse amoung those zizyphus species holds the very least population in entire plantation.

On the obher hand the destribution of natural vagetation was somewhat medium may not affecting heavily on growth of the tree species. We identified atleast 6 different natural vagetation in plantation area amoung those Acacia species holds topmost postion with 35.40% followed by that prosopis joaliflora holds second position with 29.66% and next was Acacia arebica with 19.61% and remaining other trees species were not heavly destributed and very least was calotropis sps with 4.30%. The plantation plays lot on economics of the local people. The economy of the local people was mainly busted by those plantation; because most of people almost lost/experienced spent their compansation amount given by government of Karnataka. And this plantation work provided lot of job to the local people and the plantation does not playing any impact on lacal environment.

PROTECTION MEASURES :-

As such there was not any protection measures were adopted for the plantation except keeping two watcher daily. The rate paid for each workers was 40Rs./day. The watchres were of local people only.

CASE STUDY :- V

i) NAME OF THE VILLAGE : NANDAKESHAWER

ii) FOREST RANGE : BADAMI

iii) FOREST DEVISION : BAGALKOT

iv) PLANTATION : AREA : 15 hacter
survey no : 195, 197
Model : 8
Year of plantation : 1998

v) BACKGROUND OF THE VILLAGE :-

The village Nandakeshwere is located in Badami Taluk of Bagalkot Districts; which is about 20K.m. away from Badami and 45K.m. away from Bagalkot. The village is situated on the main Road; which was reches the Guladgudda. The village is somewhat bigger. The population of the villages is about 5,000 and the number of familes ranges from 1,200-1,500 and amoung those families most of them have small-medium range of land holding & the maximum number of farmers still practising dryfarming The mean annual rainfall ranges from 400-480mm (MAR) and most of the lands were dominated by Redsoil and most common crops grown in that area are Maize, Jawar, Groundnut, Sugercane etc. The land holding ratio ranges from 5-55hacters. The economy of the people mainly depend on coolie about 35% of population of that village. They dont have any land & their economy is fully dependent on daily wages and on Government jobs.

And some of the people holds live stock population and those animals were usually grased on the banks of National Roads, State high-way's and on their ownlands. Never the less, the local people highly depend on government land for grazing purpose.

VI) TOPOGRAPHY :-

The topography of the land is highly undulating entire plantation was established under hilly slope condition. No planting was done at the top of hill presently due to heavy rain almost 25% of the plantation area was submerged under local Tank; because of this natural calamites. Some of the seedling were falldown and forest Department people are thinking to replant after slowdown of water level.

The common soil type found in the plantation was Redsoil often with lower depth. In some parts of the plantation we also found rock layer (smooth)(garasu)(smooth Rock layer) & most common existing vagetation are as fallows :-

Free Species :- Nilagiri, Neem, Cassia Cyacini, Prosopis jouliflora p. cineraria, Acacia arebica, Acacia concinna. The uses or advantages of the some of the tree Species is already mentioned in other case studies;

but other than those are like Acacia concinna We find one or two trees in that plantation. The people worked in plantation. They earlier do-not know about that tree. The R.F.O. of that area told them it is of shikakai Tree; which is used for (fruits) hair smoothing purpose. After words some of the people starts using the furits of that tree for their daily uses.

Prosopis jouliflora - is a good fuel woodsps which is most expensively used in that area. It is highly versatile sps. which grow very fastly.

Prosopis Cineraria - Banni or shammi - The leaves of this tree is used in Dasara festival; which is considered as gold. The people living in the community. They transfer their leaves each other and aprises we live like gold for large number of years.

BUSHES :-

Kavalekanti massual, Halgathi godachi spine, Honnambri, Calotropis Cassia sps Agave amoung these plants some of them are used for medicinal purpose. The milk coming from the calotropis is used for fracters. Lot of people used to collect the fruit of Kavale for consumption purpose. The use is already mentioned in ~~th~~ other case studies.

Agave sps. :- This bush is naturaly present in that plantation & some of the plantings also planted by the Department people. The main aim of the growing Agave inside plantation area is to provide proper protection to the land against sivere soil crosion and to some extent provide fiber to the local people on tree basis. The uses of Agave is already mentioned.

Other nonwood & wild fruits like fruits of prosopis jouliflora, Kavale fruits and mushrooms were collected by the local people in different season of the year.

VIII) JFPM :-

Here also people dont know the proper longform of JFPM/NFC. They says there was no activity held on related to JFPM/NFC.

IX) PLANTATION :-

Model :- 8

The plantation area is mainly located on the slope of the hill. Samplings were planted along the slope. The total plantation area is 15 hacter. The pits were dugout along the slope common soil type found is Redsoil. Often with medium depth may be about 1½-2Mts. depth and in some parts of the plantation area may also have latritic soil. And most common natural and planted vagetation found in plantation area are :-

Natural Vagetation :- Massual, Halgathi calotropis sps, Opentia sps, Cassia sps, Honnambari prosopis, Nilagiri sps Agave sps, Neem, Godachi

mulli etc.

Planted Vagetation includes - Anjan, Neem, Hanse (Tamarind), Albezia lebbeck, Pongemia pinnata Ficus bengalensis F. religiosa etc.
The uses of all above plant species is already discussed in other case studies.

The plantation was established in 1998 June month. Planting of the seedling was started on April 15th onwords. That work complited withen 15 days. The site prepration work was actually started in January month of 1998. It took atleast 3-3½ month for 50-60 male labours and 45 female labours. The amount of Rupees paid for each male labour is 50Rs./day and that of female labour is 40Rs./day. The female labourers were employed for the other works like cleaning of weeds cutting of grasses and remoxing the soil from the pits. All the labours were coming from Nandakeshwer, Adagal, Halkari villages which are about 18 & 20K.m. away from Nandakeshwer. Here in this plantation area was also protected from cattles, goats, buffelos by constructing stone wall around the plantation area. This work took atleast 15 days for about 20-25 male labour & so female labour. The rate paid for each male & female labour is quite same as above. The stone wall is constructed by using small rocks present in the plantation area.

The plantation is actually started in January 1998. The entire work was complited in June 1 week. The seedling were brought from Ananthpur Nursery near Badami which is about 30 K.m. away from plantation area. The seedlings were brought in Tractor each tracter Trips costs about 550Rs./Trip and each tracter carries about 1,500-2,000 seedlings of 5 x 8c.m. bag size.

X) PLANTINGS :-

The total plantation area is about 15 hacter and the total number of pits dugout in a entire plantation area was 15,000 at the spacing of 3Mt. x 3Mt. The size of pits fallowed was 50c.m. x 50c.m. and in one side of (North) plantation Trenches are dugout in those trenches some seedlings also planted at the spacing of 10Mt. x 10Mt. The total number of seedlings brought from the Anathpur; Nursery was about 17,000 among those 15,500 seedlings were planted during Ist planting and remaining seedling are planted during 2nd planting i.e. during gap filling.

XI) ENUMERATION :-

The total plantation area is 15 hacter and the spacing fallowed between the seedling is 3Mts. x 3Mts. So inorder to cover the maximum representation of the population in the plantation area we have to select a proper quadrate size. So it is better to fallow the 20Mts. x 20Mts. size plots; which will give maximum represention of population

and for any kind of enumeration work. Usually fallow or 5-10% of enumeration out of whole plantation area and for this plantation I had done 5% of enumeration which will gave reliable destribution of planted tree species.

For 5% Enumeration = $\frac{15 \times 10,000}{100} \times 5$

$= \frac{1,50,000}{100} \times 5 = 7,500$ Sq.Mts.

So we have to enumerate 7,500 Sq.Mts. of area; which will cover 5% of Enumeration.

Number of plots to Enumerate (20Mtx 20Mt.) = $\frac{7,500}{20 \times 20} = \frac{7,500}{100} = 19$ plots

So we have to enumerate atleast 19 plots which will cover 5% of enumeration all the plots are laid randomly and entire enumeration work was also done ramdomly.

MANAGEMENTAL PRACTICES :-

Some of the managemental practices were fallowed for encreasing the growth of seedlings amoung those are irrigation was given during August month and fertilized application was also fallowed during Septemb er month, Weeding & cleaning was also fallowed once in a year; but these two are not done still.

Comments on species destribution :-

The plantation area mainly constitutes about 9 planted tree species and about 7 type of natural vagetation and amoung the planted vagetation Hardwikia binnata hosds the topmost precentage of population with 29.80% fallowed by that pongemia pinnata holds the IInd position with 23.25% and next was Azardichta indica holds 3rd position and remaing other tree species destributed very sparsly amoung those very least was Dalbergia sisso i.e. 1.67%.

On the other hand the destribution of the natural vagetation is some what medium. The density of population was not that heavy amoung different type existing natural vagetation prosopis joaliflova holds the topmost position in population destribution i.e. with 43.35% fallowed by that massual holds IInd position with 16-40% and next was Eucalyptur hybrid with 14.06% and the remaing trees sps and natural vagetation was some what low amoung the natural vagetation very least population was calotropis with 0.15%.

PROTECTION MEASURES :-

The plantation was fully protected from the cattles, buffeloes

goats and sheeps by excreting. excavating cattle proof trench around the entire plantation.

COMMONTS ON PLANTATION :-

The total plantation area is 15 hactors. The plantation was some what good. But natural calamities ~~created planted under bad condition due to the heavy rain in last~~ lead to month about 25% of the plantation area is fully submerged under water due to this reason lot of planted seedling were have died. The Topography of the plantation area is very undulating the entire plantation was established in hilly slope. The depth of soil is also very low & soil contains very least amount of nutrients. Those all above condition hampering the proper growth of the seedlings.

The spacing between the seedlings was also not properly maintened. The spacing was highly variying. This was mainly due to hard surface coat; which was very difficult to dugout pits & the pits were dugout only where the digging is easily possible. The plantation plays very important role in busting the economy of local people like Lambani, Rathod, Naik & Gavali and Talwar; but the plantation does not playing any role on environment building maintaining environment stability. Because the plantation is still young. Stone wall is constructed all around the plantation area for protection against biotic agents that stone wall was newly established. And the Department was also paid maintaining two watchers for that plantation. They were at 40Rs./day.

effects on Gavali grazing? explain — There was no any major effect on the local people because the plantation area is somewhat highly undulating & is far from villages & no people used to graze that land... earlier that land was considered as a barren wasteland. (which is under the hands of revenue Dept) during 1995 that land was handed over to Forest Dept.

CASE STUDY :- IX

I) NAME OF THE VILLAGE : - ADGAL.
II) FOREST RANGE :- BADAMI
III) FOREST DEVISION :- BAGALOT
IV) PLANTATION :- Area : 220 hacters
Survey No.- 106(Adgal), 535 (Badami)
Year of plantation : 1998
Model : 2

V) BACKG OUND OF THE VILLAGE :-

The village Adgal is located in Badami Taluk of Bagalkot Districts. Which is about 8K.M. away from Badami and 27K.M. away from Bagalkot. The village ~~was present~~ on the way of Bagalkot Badami Road. The village is located near the Badami ~~Road.~~ Railway station.

The present population of that village is about 3,000 and the number of families ranges from 300-550 and most of the people of that village reside in Badami and they came to village once or two times in ~~week~~ and some of the people they daily do their job in Badami and return to their village at night. The land holding ranges from 7-25 hacter and most of the lands are dry lands & farmers practising dry farming. The most common crops grown in that villages are Jawar, Groundnut, Maize, Sugercane and Onions.

And half of the plantation area comes under Badami city. The surey number of Badami area is already mentioned above 535ha approximatly about 100-120 hacter of area comes under Badami & the present population of Badami is 40,000-45,000 and the number of families ranges from 10,000-12,000 and the landholding is quite similier of Adgal; But the ratio may be higher in Badami (7-50 hacter). The people of both Adgal and Badami mainly depend on Agriculture about 50-60% of the population mainly depend on farming and about 20-25% of people depend on the coolie. This catogory includes landless labour small land holder and Rehabilitated people and the economy of some of the people is also depend on livestock reaying about 5-10% of population holds the livestock population and those cattles & buffeloes were usually taken for grazing to the Govt, lands like roadside grazing in on hilly areas and the fuel wood for the local people is met through their own lands and also from Govt. lands. And the most common fuelwood species used was prosopis jouliflora.

VI) TOPOGRAPHY :-

The full plantation area is highly undulating with high hills

dominated by hard rocks some of the area inside the plantation area is fully covered by rocks upto 5-10Mts depth and most common soil type present in area is Red soil with friable rocks and most common natural vagetation found in a plantation area are :-

TREES:- Nilagiri (It was planted in 1977 but ~~not~~ it was considered as natural) Cassia cyamia, Massala, Acacia, arabica, Acacia catechu prosopis jouliflora prosopis cineraria, Neem.

BUSHES/SHRUBS :- calotropis sps, Halgathi sps, Goddhi spines plant, Honnambari cassia sps Acacia sps. Agave sps. grasses, Kavale fruit plant weeds- parthinium lantara camira cassia tora.

The uses of all above tree spscies already disussed in the other case studies i.e. in case study II & III. Here in this area also almost all tree species are used for same purpose.

The plantation area contains lot of Agava sps and Kavale plants. Yearly about 5-10 people above extract the Agave sps for fiber making for about 15 day. And some of the people also used to collect the Kavale fruits from the plantation and Mashrooms were also expensively collected from the plantation area.

VII) JFPM :-

Here the people of Adgal knows something about VFC; but not about JFPM. The people explained about VFC for me like. The local forest Department people arranged one programme on VFC on November 1997 (Ist week). The departmental people assured the local villagers about supplying of varis seedling for planting purpose; but afterwards they were not came to their village and the local people also lost interest on that programme. Now the local people didnot respecting the Forest department people because of false assurance by the Department.

VIII) PLANTATION :-

Model - 2

The total plantation area is 220 hacters. The area is very highly undertaking & we find large hills with small to medium sized rocks and in some of parts of plantation area contains fully rocks often about 5-10Mts depth in such case the pits were not done that area was simply kept unplanted. The pit digging work was done mainly where the land is easy & and smooth. The common soil found in a entire plantation area was Redsoil to latritic soil and the most common natural and planted vagetation found in a plantation area are as follows :-

NATURAL VAGETATION - Massual Halgathi, Godachi spines, Togali, cassia spa., Honnambari prosopis jouliflora, Nilagiri sps, calotropis sps, Neem cassia cyamia, Agave sps.

PLANTED VAGETATION :- Neem, Basari, Ficus bengalensis, F. religiosa, Hardwikia binnata, Hulgalu, Tamarindus, Indica, Agave sps.

The plantation was established in 1998 May-June months. The entire plantation work took atleast 5-6 months. And the labourers were employed for different activities like; pit digging, weeding, cleaning construction of stone wall around the plantation area & seedling destribution for planting and for fertilizer applition and the labours were were came from Adgal, Badami & from Nandekeshwer, Guladgudda. Both male and female labours were employed for all those work.

The total number of pits dugout in a plantation area were about 12,000 at a spacing of about 10Mts. x 10Mts. and common pit size followed was 60c.m. x 60c.m..For this work mainly male labours was emoloyed daily about 80-90 labourers were employed for atleast 3-3½ month for pit digging work. The rate paid for each malelabour was 40Rs./day and each male labouer had dug dugout atleast 6-7 pits/day. And other work like construction of stone wall was also done by male labour. That work alone took atleast 1½ month for 40-50 labour. The size of wall is 1Mts. height & 1ft. width. The stones were used from the plantation area itself. The stone were simply arranged in correct order. There was no any cement concreate.

And female labouss are mainly employed for weeding, fertilizer application & cleaning purposes, seedling destribution works. This all work took atleast for 4 months for 20-25 female labours. The rate paid for each female labour was 30Rs./day.

Actually the plantation work was started on November 15th (1997) onwords. The work was completely stoped for 15 days during December month due to bad climate condition. The seedlings were brought from the Anthapur Nursery; which was about 7k.m. away from Badami & about 15k.m. away from plantation area. The seedlings were also brought from the near by nursery like Guladgudda Nursery, etc,.

ix) PLANTINGS :-

The total number of pits dugout in a plantation area was 12,000 of size 60c.m. x 60c.m. at the spacing of 10Mts. x 10Mts. along with different seedling a large number of Agave sps (About approximate 1,20,000 seedling) were planted randomly in entire plantation. For those planting there was no any pit digging work was done. Those were planted in small trenches made by worker about 10 seedlings were planted within 5Mts. trench very close spacing was maintened; because here the main intention of Agave is to provide complete prevention of soil erosion and to supply the more quantity of raw material for fiber purpose to the local farmers. The Agave was mainly planted in gap area.

The total number of seedlings were brought from the nursery was about 13,500 amoung those about 12,500 were planted during Ist planting and remaining seedlings were planted or used for gap filling purpose.

And the Agave planting were brought from Bagalkot. The total number of Agave seedling brought was approximatly about 1,30,000. Those were brought in Trucks. It took atleast two trips at the rate of 1,500Rs./Trip.

x) ENUMERATION :-

The total plantation area is 220 hacter and the spacing fallowed in between the seedlings was 10Mts. x 10Mts. So in order to cover the maximum representation of the population. It is better to fallow the 50Mts. x 50Mts. plots (Quadrate size) and most commonly in almost all enumeration work usually do atleast 5-10% of enumeration for maximum representation of population and 5% of enumeration will give reliabl information regarding the population distribution. So I had done 5% enumeration.

For 5% enumeration :- $= \frac{220 \times 10,000}{100} \times 5\% = \frac{22,00,0\emptyset\emptyset}{1\emptyset\emptyset} \times 5$

$= 1,10,000$ Sq.Mts.

So we have to enumerate atleast 11 hacter of land for 5% of enumeration; but I had done less enumeration due to labour problem individualy it was not possible. This work require atleast 7-8 days for two members.

Number of plots to Enumerate $= \frac{1,10,0\emptyset\emptyset}{2,5\emptyset\emptyset} = 44\text{-}45$ plots (Aproximately)

So we have to enumerate atleast 45 plots of size 50Mts. x 50Mts. for 5% enumeration; but I had done only 10 plots for our study.

COMMENTS ON DESTRIBUTION OF TREE SPECIES :-

The plantation area is highly undulating and Topography is not fully plain and we found hard rocks inside the plantation. These all condition creating a move problem during pit digging work due to hard surface. The pit digging work took a lot of time and the pits were also not done properly. There won't be a proper spacing between the seedling one seedling may be planted at 7Mt apart another may be 5Mts distance; but the actual spacing was 10Mts. x 10Mts. and the part where pit digging was problematic under such situation. The pit was not done their instead that pit was dugout in smooth area.

The plantation area mainly constitute about 8 planted tree species and 6-7 type of natural vagetation and amoung the planted vagetation Azardichta indica (Neem) holds topmost percentage of population destribution i.e. 29.14% followed by this Ficus religiosa holds second position with 24.85% and next was pongemia pinnata with 14.00% and the destrubution of the remaining tree species were very sparse amoung those very least was Tamrindus indica with 3.10%.

On the other hand the destrubution of natural vagetation is some

what incresting.

COMMENTS ON PLANTATION :-

The total plantation area is 220 hacter. This was the one of the biggest plantation established under OECF Japan Aided Project in Bijaput District. (Bagalkot Devision/Dist). The plantation was superily maintained and most of pre-plantation works were done well ~~good~~. The work like cleaning, weeding and shrub cutting were also done; but not to the extent/mark; because the plantation area itself was large which requires lot of fund for cleaning weeding due to this reason Department people did cleaning only near the pit/plant and cleaning and weeding were not done where the weed growth & other unwanted species growth is very high and planting was also not done in those areas.

The area was highly undulating and soil depth was also less in some parts of plantation & soil is also very poor in nutrient content. These ~~all~~ natural conditions highly affecting the growth of seedlings in some parts of plantation and we found laxuriant growth of some seedlings in some parts of the plantation. ~~The~~ In the middle of the plantation there we find Agril fields which were also creating some impact on the plantation establishment because they were used to graze the tall grass grown in plantation

We found different vagetation in entire plantation amoung these Genus Acacia holds the topmost percentage of population I.e. of 28.74% and this population is some what restriated to the southern part of plantation to Northen part of plantation; but the distribution was some how sparse in the middle of plantation and massual plant holds second position with 25.14% (which has a spines on nodes) and next was prosopis joulitlora with 17.96% and remaing other tree sps were very sparse and amoung those very least was Nilagiri with 0.47%.

PROTECTION MEASURES :-

The plantation was fully protected by construting stone wall all around the plantation and 4 watchers (3 permanent and 1 temperovary) watchers ~~are~~ were employed for watching the entire plantation and most of watcher are of local people.

In the middle of the plantation area we find about 40-50 hecter of ~~plantation~~ Agricultural lands, which are obstracting in the management work, hence protection of the plantation is somewhat problematic and those farmers farmers used to graze the boundary of the plantation area. Officials say we are facing such problem. How can ~~we~~ we maintain that activities not so easy.

WESTERN GHAT FORESTRY AND ENVIRONMENT PROJECT

GAP - B

ANTRAVALLI

KATAGAL RANGE

HONNAVAR DIVISION

Antravalli/1993 Plantation:

The area is situated about 7 Kms. from Kumta towares Sirsi on S.H.69. The area was declared as Miner Forest and was subjected to Heavy grazing, Fire & Collection of Firewood under Kanara Forest Privellages act. The area receives rainfall on an average of 3800mm per year. Is mostly spread from June to September. There is no soil over to withhold the runoff. thus the area is mostly dry from November to May. The area is surrounded by villages namely Baragadda Antrolli and Nikod most of the village are Arecanut and Coconut gardeners. Soil is red lateritic.

Locality, F.Sy.No.256 of Antravalli.

Area: 30 Ha.

Year of Plantation: 1993.

The Plantation is raised under Gap 'B' model of Western Ghat Forestry and environmental project as the density of the canopy is about 0.2 to 0.4.

Espacement : Gap Planting. Soil: Lateritic Soil.

Size of pits : 0.45M3

Total No.of pits: 22,500.

The Prevent the cattle grazing as this area is prone for incidence of heavy grazing, barbed wire fence is provided all round the plantations.

Operations carried out: Pitting to Planting restricted as per the Project.

1. Clearance of under-growth and burning.
2. Aligning and staking.
3. Digging of pits.
4. Refilling of pits:
5. Providing barbed wire fencing.
6. Transportation of P.B.Seedlings including conveyance of P.Bs. on head load to the planting site.
7. Planting Species.

Acacia	5000
Mathi	1000
Kindal	1000
Cane	5000
Teak	3000
Nandi	1000
Halasu	1000
Honnai	1000
Saladhupa	1500
Mango	1000
Kiral bhogi	1000
Miscellaneous	1000

during July 1993.

Application of fertilizers is highly essential in this area for better growth of the plants as soil is highly degraded. Also saucer Bharav is very essential to with hold the moisture of the receding rains which is heigher to in practice. This also helps. in withholding run of water and increasing the water table.

This has been carried out in the month of September.

F O R M A T - I

Brief note on plantation/sites proposes for visit by O.D.A. team Honavar Division under Western Ghat Forestry Project from 3-11-93 to to 5-11-93.

1. Visit to 1993 Gap 'B' Plantation near Antravalli.
2. Range : Katgal.
3. Locality : Antravalli Fsy.No.256
4. Extent : 30 Ha.
5. Zone : II
6. Model : Gap 'B'
7. Year 1993 : 1993
8. Species Planted :

Accacia auriculiformis	(Accacia	5,000)
Vateria Indica	(Saldoop	1,500)
Hopea Parviflora	(Kiralbogi	1,000)
Mangifera Indica	(Mavu	1,000)
Artocarpus integrifolia	(Halasu	1,000)
Terminalia tomentosa	(Matti	1,000)
Pterocarpus marsupium	(Honne	1,000)
Lagerstromea lanculata	(Nandi	1,000)
Calamus Sps.	(Cane	5,000)
Tectona grandis	(Teak	3,000)
Miscellaneous	(	1,000)
Total		22,500)

9. Operation carried out:
   1. Clearance of Jungle growth.
   2. Preparations of Stakes.
   3. Aligning & stacking.
   4. Excavation of pits size 45cmx45cmx45cm 22,500 Nos
   5. Preparation of fence posts 1431 Nos.
   6. Transportation of fence posts 1431 Nos
   7. Fixing the fence posts 1396 Nos.
   8. Fixing the barbed wire 1396 Nos.
   9. Refilling of pits size 0.45M^3 22500 Nos.
   10. Transportation of Pb. Seedlings 22500 Nos.
   11. Conveyance of Pb. seedlings 22500 Nos.
   12. Planting of Pb. seedlings 22500 Nos.
   13. Planting of Glyricidia cuttings 8000 Nos.
   14. Casuality replacement 10% of original planting 2250 Nos.
   15. Application of Neem cake.
   16. Weeding - 30 Ha.
   17. Saucer Bharav to plant 22500 Nos.

Range Forest Officer,
Katgal.

NAME OF THE VILLAGE :- BALGANUR

II) RANG (FOREST) :- SINDAGI

III) FOREST DEVISION :- BAGALKOT (TEGULAR FOREST WING)

IV) PLANTATION :- AREA - 15 ha.

SURVEY NO. -

MODEL - 8

YEAR OF PLANTATION - 1997-98

V) BACKGROUND OF THE VILLAGE :-

The village Balganur is present in Bindagi Taluk of Bijur Districts. Which is about 25 k.m. and 70k.m. away from sindagi and Bijur respectivly. The village is present in remote area. No derect bus fecility was available to that village.

The population destribution is somewhat thick. The total population of village is about 11,00 and the total ~~population of village is~~ number of families are 1,700 amoung those fam lies most of the families were Agricultrist background and about 25-30% of population mainly depend on coolie/daily wage labourers and about 10% of population depend on govt. jobs.

The land holding ratio ranges from 4-75 acer amoung those lands most of lands are dry lands and people of that stll following dry farming. The (MAR) mean annual rainfall ranges from 200-250 mm eith 20-25 rainydays (Rainyday - A day which got atleast 2.5 mm of rainfall). The number of houses in a village was less and most of the people live in their field. Only hence plantation area dees not play major effect on local people.

More 50% of opulation of the village hold livestock population earliear those animals were grazed under this plantation Area but how the area was fully protected by live fence. This may be created great problem for the local grazers.

Earliear the local people used to collect the fuelwood from the plantation area itself. But now it was also fully prohibited. This may lead greater problem for lower class people. This was also created condisation like use it n w gas stoves/kerosene stoves, which may farther lead to envivornmental hazards, (lower class people like - daily wage labour small land holder Keri people and landless farmers.

The economy of the people mainly depend on Agril and on coolie. The people of village still maintaing tradiwoual Indian calture and most of families still fedlowing joint family system.

VI) TOPOGRAPHY :

The Topography of the plantation area is some what undulating with small to medium sized gullier withen plantation area. The common soil type found in the plantation is Allaxial soil to black cotton soil. With medium size rocks on one side of the plantation. In some parts of the plantation area we also found Ref to loamy soil. The soil is highly fertile one.

The common existing vagetation in and around the plantation area are : Acacia nil tica prosopis : The leaves are feed for goats and sheeps. Cineraria : It was considered as a religion tree. Cassia : It was Nitrogen fireing tree. Plantif Neem Bamboo Nelli Nerale /Tapasi Hunugala Which is worshiped by local people (Hindu) Sisso Atti A Nilotica.

Bushes : cassia articalatia, cassia tora . Cassa leaves are used for ripening of Banana, control of parthenium.

Natural weeds : parthenium Lantara cemera.

The plantation area does not contain any fruit trees but the fruits of prosopis jouliflora were collected by the local grazers and plantation area does not contain any fiber yielding sps. other non-wood products were also not present in plantation area.

VII) JFPM :-

The locals donot know what is JFPM/VFC. But some of foresters know ~~meaning of~~ only longform of JFPM but, they also donot know meaning of JFPM/VFC. But according to local people they donot know what the forest department does.

VIII) PLANTATION :-

Model :- 8

The plantation was established under model 8.(Tank forse area plantation) The plantation was not fully plain. The plantation contains lot of weeds, bushes, small trees; which were highly affecting the normal growth of the seedlings the common soil type found in plantation area is alluvial to black cotton soil which is rich in almost all nutrients but; maintanance of plantation was not good. Tall grasses bushes and weeds were still found in plantation Area.

The plantation area is present near the village which is under more influence from the local people. The people. The plantation was established in 1998 (June month).

Here also the entire plantation area was divided into two equal parts of 7½ ha mixed plantation and another 7½ hactor pure plantation. The total number of pits dugout in the mixed plantation was about 3,000 at distance of 5Mt x 5Mt apart between the seedling and the rate paid for digging each pit was Rs.6/pit and size of pit dugout atleast 15-17 pits/day only male labourers were employed for pit digging work.

On the other half of plantation area was plantedwith pure crop i.e. Acacia nilotica. The total number of pits dugout was about 12,000 at the spacing of 2.5 x 2.5Mts. and rate paid for digging each pit was Rs.3/pit and each labour can dugout atleast 30-35 pits in a day. The size of the pit fallowed was 0.45cm x 0.45cm have also only male labourers were employed and female labourers were also employed and for cleaning and weeding purposes but the number of female labourer used was very less.

Actually the plantation work was started in Jan. 1998 and site prepration work i.e. pit digging/cleaning work took atleast 3-4 months about 5-6 m le and 3-4 female labourers were got the employment for 5 and 1 months respectively.

The plantation work was actually started in 1998 Jan. month. The seedling for planing purpose was collected or brought from sindagi Nursery which was about 25km. away from Balganur.

IX) PLANTINGS :-

The total number of saplings brought for both mixed and pure plantation we e as fallows - Mixed plantation - 3,500 saplings amoung those 3,000 seedlings were planted & remainging seedlings were kept in the ~~planted-&-remaining-seedling-were~~ plantation area for gap filling. Pure plantation :- The total number of seedlings broughtf from nursery was 13,000 amoung those 12,000 seedlings were planted remaing were kept in plantation area.

The seedling were brought in tractor and each tractor trip costs about 400-450Rs. and each tractor trip carries approximatly about 500-600 seedlings.

X) ENUMERATION :-

The total plantation area was about 15ha. and it was seperated into two equal parts of 7½ ha and 7½ ha. One half was planted with mixed crops another half was by pure crop (i.e. Acacia nilotica) Enumerati n of mixed plantation :- Here total area is 7½ hacter spacing adopted between the seedling was 5mt x 5mts. inorder to cover representation of the population in the plantation area the common quadrate size adopted was 20mt x 20mts and for any type of enumeration it was better to do atleast 5-10% of enumeration hence; I had done 10% of enumeration for mixed plantation.

10% Enumeration = $\frac{75,000}{10}$ sq.mt.

So we have to enumerate atleast 7,500 sq.mts. area which will cover 10% enumeration.

Total number plots = $\frac{7,500}{20x20mt} = \frac{7,500}{400}$ = 19 plots (Approximatly)

We have to enumerate 19 (20Mt x 20Mt) plots in a mixed plantation.

ENUMERATION OF PURE PLANTATION :-

The area 7½ ha. and spacing adopted between the seedling is 2.5Mtx 2.5mts. Here also the quadrate size selected was 20Mt x 20Mt. But; the total enumeration done was only 5% because the plantation contain monocrop or pure crop. Which will give optimum representation of population for 5% of enumeration.

$$5\% \text{ Enumeration} = \frac{75,000}{100} \times 5\% = 3,700 \text{ sq. Mts.}$$

So we have to enumerate 3,700 sq.Mts. for 5% of enumeration.

$$\text{Total number of plots} = \frac{3,700}{400} = 9 \text{ plots}$$

We have to enumerate 9 plots of 20Mt. x 20Mt. quadrate size which will cover 5% of enumeration.

Here entire enumeration work was done randomly and quddrate. ware also selected ramdomly.

MANAGEMENT PRACTICES :-

No any major managemental practices were carried out except weeding and weeding was also not properly done and still lot of bushes grasses other natural vagetation is present which; are affecting the growth of seedling the plantation conditation was quite same as that of mamadapur area but the intensity of weed was some what less.

XI) COMMENTS ON PLANTATION AREA :-

The plantation area was located in remote area. No direct bus fecility is available from Bijapur. We have to get down atleast in 3 places for buses. The plantation area constitutes good fertile soil, but the conditation in which plantation was manageing is fully worest. No proper communication fecility is available. No one higher forest officials came o see plantation area except one forester. He is also coming once in 15 days. The entire plantation athority was with wat hes only.

The growth of the sapling was some what good. But increased compitation of weeds bushes grass s may had to stunted growth of seedling because those vagetation block the solar radiation there by redueses the photosynthetic actuvity of the plant because light is must for photosyntheric activity and those vagetation unnecessary absorb lot of wa er and nutrients from the soil leading to dificit conditation.

The plantation area was under high biotic influence the local people donot think on protection of area. Instead they use to graze area during early morning hours. This was created great problem for watcher; because he use to get up early in the morning at 4 o'clock. The distance between the seedling was correctly maintened and the size o pit dugout was also correct onl the cleaning of plantation area

before digging pits were not done properly. Remaining things like protection to the plantation area was good; but management o plantation was not good and the plantation does not play any major effect on local people and local environmen ; b t the plantation area was affected for local grazers; because they use to graze the animals in that area only in earliear fields.

Due to plantation establishment the availablity of the fuelwood fodder are completely reduced to local people.

PROTECTION MEASURES :-

The plantation area was fully protected by which was already existing live fence and no space was provided for entry of any animals and department was maintaing two watechers for watching amoung those onone was permanent wo ker another one was contract labour.

COMMENTS ON PLANTATION AREA :-

The plantation area mainly contains three main tree sps; such as azardichta indica pongeacia pinna a and Dalber ia sisso. Amoung those tree sps Azardichsa indica holds highest representation of population i.e. 32.30% fallowed by pongmia pinnate 25.44% next was Dalbergia sisso 17.25%. The sps destribution of remaining tree sps was somewhat sparse. Here Tapsi tree sps holds lowest population i.e. 3.98% fallowed by syzizium cumini 5.53% nest was plilanthus emblica 6.85%.

On the other half of the plantation area mainly represents Acacia nilotica only. N_o other tree sps were planted. Then coming to the destribution of natural vagetation in entire plantation area. The main natural vagetation found in a lantation ea are prosopis jouliflora cassia articulata and eucaly ptur amoung those prosopis joulsflora holds highest percentage of population in mixed plantationi.e. 48.48% fallowed by cassia articulata 43.43% but in case of pure plantation cassia articulata holds highest opulation i.e. 46.66% fallowed by prosopis jouliflora 39.25%.

PSK
F 9B

GERAL VILLAGE FOREST COMMITTEE

V.F.C No. : 8

V.F.C : Geral

Range : Yellapur

Division : Yellapur

Plantation area : 20 Ha.

Geographical Situation. : Geral village is situated on the right side of Yellapur Bisgod Road and 13 Km from Yellapur town via Bisgod.

Under what circumstances V.F.C is formed. : Geral V.F.C is consists 3 hamlets namely Geral, Baragadde and Savagadde. These hamlets people are more interested in J.F.P.M activities. There is good response and good leadership this made us among these people added to that, the people are s well organised doing some social works to form this V.F.C.

During course of time, we conducted number of meetings and discussed in detail about JF@M concept and V.F.C has been formed on 10.1.1994.

Brief History (Abstract form) :

Date of V.F.C formation	: 10.1.1994
Date of M.O.U signed.	: 29.12.1995
Total number of VFC members	: 21
Men	: 19
Women	: 02
Number of SC/ST members	: Nil
Landless	: 04
Artisan	: 01
Total number of number trained.	: 10
Men	: 06
Women	: 04
Total population	: 115
Total cattle	: 76

...2..

GERAL VILLAGE FOREST COMMITTEE

Beat	: Bisgod	Total members	21
Section	: Bisgod	Total pupulation	115
Range	: Yellapur	Cattle population	76
Plantation area	: 20 Ha.	Main occupation	:Agriculture & Coolie.
Year of planting	: 1994.		

Sl.No.	Date	Discussion.
1)		J.F.P.M: Govt Order JFPM process Plantation area slection Basic data collection.
2)	14.12.1993	Villagers (VFC Members) role in J.F.P.M Process. Selection of promoters by the villagers.
3)	10.1.1994	Formetion of villager Forest Committee Responsibilities of V.F.C.
4)	2.2.1994	Inauguration of V.F.C by Shri Umesh Bhat M.L.A.
5)	1.6.1994	Discussion - about - Members Attendence. Meeting date fixed on 1st of every month.
6)	1.8.1994	Grafting training programme,slection of members for Bamboo skilled training.
8)	1.10.1994	Discussion about self help group (SHG) concept.
9)	15.10.1994	Specieal meeting SHG discussion and By laws formation.
9)	29.10.1994	Exposure trip-To Hosalli Fodder plot. Dry Teak bed visit. Discussion with Hosalli V.F.C members. Visit to Tattihalla training centre by ACF(T) Tattihalla. Tattihalla dam vist.

...2..

21)	10.9.1995	Visit to Geral V.F.C by Shri Gulati IFS, Chief Conservator of Forests, Himachal Pradesh and expressed good openion about VFC
22)	14.9.1995	Discussed about microplan & M.O.U signing.
23)	1.11.1995	Discussed abount SHG activities- complited two years.
24)	29.12.95	M.O.U signed.
25)	Every month	Monthly meeting has been conducted regularly.
26)	1.5.95	Discussed about Raising Dry Teak beds.
		J.F.P.M Activities in VFC Problems and Environmental issues.

Changes in the VFC members :

1) Environmental awareness - More trees on eco-firendly development.

2) Organisation among hamlets.

3) Socio-cultural unity among people- viz organising cultural programmeness for childred & women folk.

4) Self help group formation- to help ready one.

NAME OF THE VILLAGE :- MAMADAPUR
RANG :- BIJAPUR
FOREST DIVISION :- BAGALKOT (Regular wing)
PLANTATION :- AREA : 15 ha.
:- SURVEY NO. : 345 A
:- MODEL :8
:- YEAR OF PLANTATION : 1998.

BACKGROUND OF THE VILLAGE :-

The village Mamadapur is located in Bijapur which Taluk; which is about 50K.M. away from Bijapur. The village is present highly in remote area. No communication fecility is available. The Number of buses were also less (i.e. only two). The Roads are also very wrost.

The present population of the village is about 13,000 and total families in the village is about 1,500. Most of the families still fallow the traditional Indian culture and still under joint family system.

The quantity of land holding ranges from 3-20 Acer amoung those bands most of the lands were tryland and more than 75% of the farmers were practising dry farming. The farmers were dont know what is scientific farming ? I had given slight hint and I asked them to go to your Gramshevak & tell him please arrange Extension Education teaching classes on scientific farming. The village was facing high water problem during summer and in winter. The local people used to bring water 5-10 K.M. away from village by bicycle or Tractor.

The most common crops grown in that village was Jawer, Sunflower, Groundnut, Bajra etc. The mean annual rainfall ranges from (MAR) 250-300 Almost 60% of population meanly epend coolie and about 25% of village population depend on Agriculture. And about 10-15% people depend on Govt. jobs. Mostly primary school teacher.

The economy of people is also depend livistock population to the some extent. Before plantation work the livistockholders used to graze that land. But how the area was completely probibited for grazing. Due to this reason some of livestock holders saled their animals and they were doing coolie for their livihood.

The fuel wood for domestic need was obtained from govt. lands & near by lands. The common fuel wood used was prosopis jouliflora. The fodder for cattles was obtained from their own fields and from govt. lands.

II) TOPOGRAPHY :-

The plantation area was fully plain without any undulation. The soil present present in that area is black cotton soil to alluvial soil. The plantation was established near the tank. The soil is higher fertile.

But the condition in in which plantation was maintaing is very bad.

According rules before establishing any plantation. The plantation area must be cleaned before pitting; but here pitting was done without any proper cleaning and pits were dugout where ever the slight gap is present in Area and none of the bushes were cut. Still today. So thetplantation area contains large number of bushes, shrubs, herbs, weeds and grasses amoung those most common are :-
Trees :- Eucalyptus, Neem prosopis jouliflora shrubs - Acacia sps wild castor cassia sps Rubber weeds - cassia tora, parthenium etc.

The plantation area is very nearer to the village carlies the area was used for grazing propose but now the area is completely prohibited by providing live fence local people still used to collect the wild castor fruits which were used for medicinal prupose; but this type activity was also stopped now. The village boys collect the fruits of prosopis jouliflora which were used as a nutritions feed for goats.
Live fence :- It was already existing fence sps - prosopis Jouliflora. Just Forest Department maintaing it.

III) :- JFPM :-

While alking about JFPM (VFC) no one person know about these two. They were asking me what is JFPM/VFC. At that time I had given slight information about JFPM/VFC. Still that some of the people not understood properly. They were Joking me even forest Department offical donot know what is JFPM/VFC.

IV) PLANTATION :-

MODEL NO. :- 8

The Topography of the plantation area is fully plain; but the management or maintanance of plantation area was fully wrost. No one official came to see the plantation area and it was very difficult to findout planted seedling in the area. This is because No cleaning was done before pitting and no weeding was done. Because of these two reasons. The bushes grasses weeds were fully over toped planted seedling The seedlings remained at the same height; there was no growth at all. This type of condition occured mainly due to the fall grass, bushes and weeds. Fully block the incoming solar radiation there by affect the growth of tree. Those unwanted plants also abso b lot of moisture and nutrieat from the soil created more problem on tree growth and watchers also donot took interest on protection of the plantation area. The were also wondering unnecessary in the village.

The plantation area was divided into two equal parts. (i.e. 7½ & 7½ hacter) Amoung these two parts one part (i.e. 7½ hacter) was planted with mixed crops another half was planted by monocrop (i.e. Acacia bilo-

tica). The plantation was established in June 1998.
The common trees planted in the mixed plantation was Dalbergia sisso, Neem, pongamia pinnata Bambasa arundinasea, philanthus emblica, syzizium cumini and tapsi.
Naturally occuring are :- prosopis jouliflora eucalyptus,cassia weeds like parthenium cassia tora.
Specier planted in monocrop - Acacia nilotica.
Plantation was :- Acacia arebica

PITDIGGING WORK :-

Actually the plantation work was started in Feb.1998 onwards up to May 1998. The site prepration work was started on 3rd Feb. 1998. In the site prepration work only pit digging work was done. The total number of pits dugout are -
1)In mixed plantation - 3,000 pits at a spacing of 5Mt x 5Mts. and cost paid for digging each pit was about 5Rs./pit. The size of the pit was 60cm. x 60cm. x 60cm.
2) In Monocrop plantation :- The total number of pits dugout were 12,000 pits. The spacing adopted was 2.5 Mt. x 2.5 Mt. The rate paid for digging each pit was about 2Rs. 43 paise(2.43) and the size of the pit fallowed here was 45cm. x 45cm. x 45cm.
The labourers for pit digging work was came from mamadapur and near by village and only male labourers were employed for pit digging work. And totally about 10612 labourers were got the employment for more than 3-4 months; that was from Feb. 1998-June 1998. Each labourer dugout atleast 15 pits/day of the size 60cm. x 60cm. x 60cm. (i.e. for mixed plantation) Similarly one labour dugout atleast 40 pits/day of the size 45cm. x 45cm. x 45cm. (i.e. for monocrop plantation)

The seedlings were brought from Badanager which was about 50K.M. away from Mamadapur. The seedling were brought in truck & tractor. Each trip of tractor costs about 250-300Rs. and for truck about 900-1,100Rs./trip. Each trip of truck carries 4,000-5,000 seedlings, Tractor 450-600 seedling.

V) PLANTATION :-

The total number of seedlings brought from Babanager Nursery was:-
1) For mixed plantation - 3,500 seedling number of pits dugout was 3,000
2) For Monocrop plantation 13,000 seedlings number of pits dugout was 12,000.

VI) ENUMERATION :-

The total plantation area is 15 ha and it was divided into two equal parts of 7½ ha each. One half was planted with mixed tree sps. and another half was planted by monocrop i.e. A nilotica. For enumeration

of these two plantation. We have to fallow different technique and different pereentage of enumeration.

I) Enumeration of mixed plantation :-

The total area of plantation - 7½ ha

Spacing adopted - 5Mt. x 5Mts.

For 10% of Enumeration - $\frac{7\frac{1}{2} \times 10,000}{10} = \frac{75,000}{10}$

$= 7,500$

So we have to do atleast 7,500 sq mts. So in order to cover represe-ntation of population. The quadrate size adopted was - 20Mt x 20Mts. Which gives good representation of the population.

Number of polts = $\frac{7,500}{400}$ = 19 plots (Aproximatly)

We have to enumerate 19 plots of size 20Mt x 20Mts.

2) Enumeration of monocrop plantation :-

sps- Acaicanilotica Area - 7½ ha.

Spacing - 2.5Mt x 2.5Mt.

Here the percentage of enumeration done was 5%; because the plantation was monocrops and each quadrate gives same result with slight change in mortality pereentage.

For 5% Enumeration = We have Enumerate at least 3,500 sq. Mts.

Total Number plots = $\frac{3,500}{20x20} = \frac{3,500}{400} = 9$

= 9 Plots (Approximatly)

We have to enumerated atleast 9 plots of size 20 x 20Mts.

Here in both plantation Enumeration was done randomly the plots are also selected randomly.

VII) COMMENTS ON PLANTATION :-

The plantation area is located in remote area. There were only two buses daily for that village. The plantation was under wrost condition. Nothing was seen in plantation except weeds grasses and large sized bushes. There was 0% growth of seedling. The seedling remain at the same size. If that condition was maintened in feature days definatly entire plantation vanisher withen short period.

It is better to take preventive measure for controlling the weed. Grasses and bushes which ~~often~~ otherwise kills entire seedlings.

One forester came to see the plantation area once in 15 days; but he is unable to do that work because he was incharge person. According to watchers and local people the management practicer were held up because of internal quries between forest officials often watcher are also not doing work properly; because they were all permanant workers and they were all localistes.

After complete enumeration it was confirmed that the distance

between the seedlings was correctly maintained the most common sps planted in mixed plantation are - Neem, Sisso, Hulgal (Honge), Bamboo, Tapsi Nelli Nerale etc.

In monocrop plantation - Acacia nilowca (Karijali). Many number of local people sold their cattles/sheeps/goats; because of nonavailablity of feed for their domestic animals earliear. Those people used to graze their animals in that plantation only; but now the plantation was fully prohibited from grazing.

The most locally adopted tree sps in plantation are pongamia pinnata, Neem Dalbergia remaining tree sps not properly adopted A nilotica is also not adopted due high weed the growth percentage was nil.

PROTECTION MEASURES :-

The plantation area was fully protected by providing live fence. This was the only work that department done properly.

MANAGEMENT ACTIVITIES :-

Nothing works was done under this i.e. no weeding no irrigation, no fertilization, no proper drainage fecility.

COMMENTS ON SPS DESTRIBUTION OF PLANTATION AREA :-

The plantation area mainly contains three main tree sps such as Dalbergia sisso, Azaralichsa indica and pongemia pinnak. Amoung those tree species Dalbergia Sisso holds highest representation of the population i.e. 24.77% fallowed by Azardichta indica 24.33% and next was pongemia - pinnata 21.65%. The spcies destribution of the remaining tree species was very sparse. Tapsi holds the lowest percentage of population i.e. 5.35% fallowed by Nerale 5.80%.

On other hand the main tree sps/bushes found naturally in a plantation area is wild castor, cassia sps and prosopis jouliflora. Amoung these wild castor holds highest pereentage of destribution i.e. 43.76% fallowed by cassia sps with 24-78% and next was Bellary Jali 22.39% on the other half of the plantation area was mainly planted by Acacia nilocica. No other tree species were planted in that area; but the destribution of natural vagetation in the plantation area was quite similer to that of mixed plantation here also wild castor holds Maximum representation of population i.e. 45-69% fallowed by cassia sps 24.9% next was Bellary jali - 22.04%.

BRIEF NOTE

TALAGADDE VILLAGE FOREST COMMITTEE

The Village Talagadde is situated 7.00 KM east of Goa-Mangalore NH-17 in Ankola Taluk of Karwar District. It falls within Ankola Forest Range of Karwar forest Division. It is a medium sized village with 131 Houses(133 Familes) surrended by degraded forest(of western Ghats Zone) The main community is "HALAKKI VOKKALS" a tribe eking a living by cutting and selling firewood from nearby forests. Mainly the women folk are involved in this profession who walk 8-10 Kms for this purpose. The population of the village is 720 Mbrs with Male 374 & Female 346 The cattle pppolation is 302 Heads of Cow & Oxen and 164 Buffaloe.

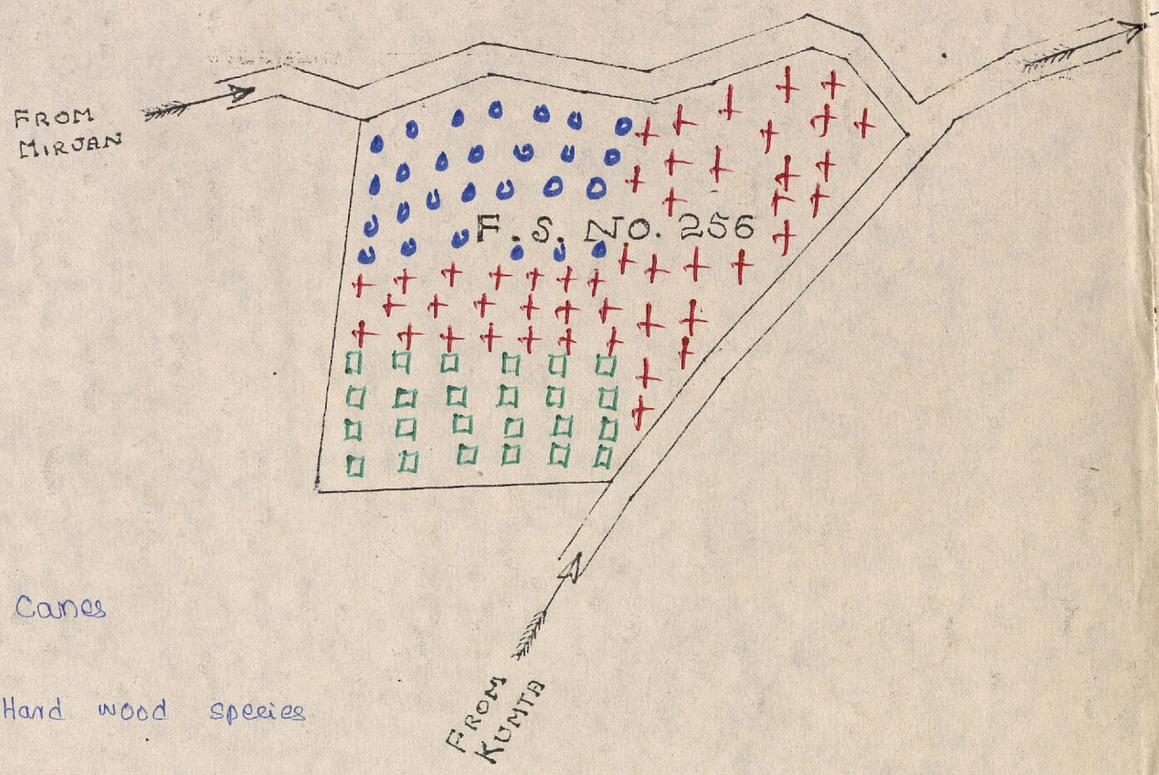
The total Geographical area of the village is 3095-32-8 out of which 2675-28-0 is forest land and 46-37-12 is Gomal and 360-38-10 is Cultivated land. Every Household owns land varying from 40 Guntas to 8-00 Acres. The main crops are paddy(Kharif) and in small area Ground nut is grown as second crop(Rabi) both are rainfed.

The Village receives Rain's mainly from SW monsoon from 1st June to end of Sept & Oct. The average rainfull is 2500MM-3000MM, with temperature ranging from 20^{0}C to 41^{0}C. It is a village in Coastal belt at sea level.

CRITERIA FOR THE SELECTION OF THIS VILLAGE FOR VFC.

It falls within Zone IV a tract stretching from Karwar to Honnavar all along the west coast with degraded Forest. The village consists of Mainly "HALAKKI VOKKALS". Out of 131 Houses Halakki Vokkals are 118 (with 9 families of Nadevas, 3 Namadharis, and 1 Harikanth Family), Who mainly live on cutting & selling of firewood. It was proposed to tackle this problem and bring a change in them to normal type of living. A special mention is also made in the 'PROJECT' about the "HALAKKI VOKKALS". Who are a tribe and a homogenius community, Whose custom(of Headloading) has immence, adverse, bearing on the well being of the forest.

SKETCH SHOWING THE PLANTATION RAISED DURING 1993 RAINS IN KATAGAL RANGE



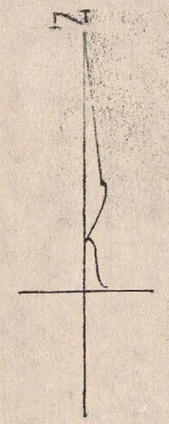
Index

1) o o o – Canes

2) + + + – Hard wood species

3) □ □ □ – Acacia species.

DIVISION	:-	HONAVAR
RANGE	:-	KATHGAL
TALUK	:-	KUMTA
VILLAGE	:-	ANTHARVALLI
F.S. NO.	:-	256
MODEL	:-	GAP 'B'
AREA	:-	30 ha.



SCALE → 4" = 1 MILE

EVENTS LEAD TO FURM THE VFC.

Rt.Honb'le Michael Howard,QC.MP., Secretary of State for Environment,United Kingdom with his team of Officers like

Mr. A.Riddell, Private Secretary.
Mr. G.Granelt, Director of Information.
Mr. J.Rogers, Head,Environment Protection.
Mr. J.Holmes,Head of Economic Dept.
Mr. E.Hanely Head,FFMO.

along with Shri S Parameswarappa, the PCCF of Karnataka State and his team of officers visited this village Community on 17.3.93 and interacted with these Groups of "HALAKKI VAKKAL" Women Folk who were engaged in carrying Head loads of fuel. The women expressed their Concern for forest and told they would give up this"Mienous Job" perpetuated by their forefathers once they are provided with alternative jobs this prompted the forest officers to have a VFC First here. This was followed up by Shri A.S.Sadasivaiah CCF(WG)with a visit to this village and intraction with the people on 9.6.93.

The Series of visits to this village & interacton with the people by different laval of officers & the willingness and the Co-operation of the people Culminated in the Formation of the "Village Forest Committee" on 12.10.93.

17.3.93 Visit of RT Hon'ble Michael Howard.

4.4.93 Reconnaisance Survey by THM,BGN & Staff.

9.6.93 Visit of ASS. Interaction with people. People expressed their willingness to give up Headloading if alternative Job is provided. The CCF asked them to form VFC through which it can be achieved.

11.6.93. Explain the concept & content of GO on JFPM by THM & R.R. in Grama Sabha who were about 50-60 memners & household survey was also commenced by both the DCF's themselves visiting the houses.

12.6.93 } Household survey completed by the staff.
13.6.93 }

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