CHAPTER II

THE FOREST

SECTION I, COMPOSITION AND CONDITION OF THE CROP:

GENERAL:-

22. The forests of Daltonganj North Division are mostly confined to hills and undulation land. This unproductive nature of the soil coupled with low rainfall and high drainage reflects itself in the poor condition of the growing stock, which has been accentuated by heavy felling, overgrazing and fire. Instances are common when a coupe that has been felled in the course of working has retrograded to scrub land. In some cases the whole felling series of 10 per 20 years rotation has been transformed into a scrub. The anthropogenic factors have let loose a sever erosion which has continued over the past several decades and brought down the productivity.

23. Thus a good quality forest is neither present not can be expected in this area. All the forests fall in subgroup 5B, i.e. Northern Tropical Dry Deciduous Forests as classified by Champion and Seth in their book, "A Revised survey of the Forest Types of India" (1968). Even in good forests the canopy is very irregular and mostly open. A few shrubs, most of which are thorny occur. The most common grass is Heteropogon contortus. There is only one species of bamboo and that is Denrocalamus Strictus.

24. At the onset of summer all the trees shed their leaves, some of them, e.g., Bosewellia serrata and Lannea Coromandelica leaves increase the fire hazard and instead of adding nutrients to the soil, are burnt every year. The ashes are washed out of the forest by next monsoon.

FOREST TYPES:-

25. The following forest types are discernible in this division.

(1)	5 B/C12	-	Dry Peninsular Sal.
(2)	5 B/ C2	-	Northern Dry mixed Deciduous Forest
(3)	5 /DS1	-	Dry Deciduous Scrub.
(4)	5 / E2	-	Bosewellia Forest.
(5)	5 / E4	-	Hardwickia Forest.
(6)	5 / E5	-	Burea Forest.
(7)	5/ F9	-	Dry Bamboo Brake.

26. Areas containing more than 25% of the crop as sal shorea Robusta have been classified as sal forest and are of this type. The total area under this type is 25 thousand ha. Out of which 13923.2 ha. have been classified as rooted waste as they vary a 1-2m high stagnation crop requiring special attention. An example of sal rooted waste forest may be seen in the north western portion of Jaspur. P.F. of Manatu Range. If allowed to grow unhindered

by anthropogenic factors, sal has the tendency to fr0m a pure crop as seen in chak P.F. of the same Range where it has a density of 0.5 and is up to 28.5 m high with a diameter of 56.4 cm. at breast height. This is rather an unusual patch for this division. Generally sal occurs mainly along the streams and in depressions where moisture in available in comparatively large degrees. Its main associates are Lagerstoremia Parviflora, Anogetssus-latifolia, Diospyros melaanoxylon. Adina cordifolia, Lannea-coromandelica, Buchanania lanzan, Terminalia tomentosa, Emblica officianalis etc.

The shrubby vegetation consists of Holorrhena antidysenterica, Zizypus mauritiana, Zizypus xylopyras, Carissa oaca, Woodfordia Fruticosa, Indigofeta, Pulchella etc.

The most common grass is Heteropogon contortus with a sprinkling of Bothriochloa pertusa. Eragrostis spp. and Artistida spp. apluda mutica can be seen in a few pockets.

Climbers are represented by Butea superba, Buteaparviflora and Hemidesmus indicus.

In this region sal is at the lower end of its distributional spectrum. Consequently it is always in a state of tension. The continued deterioration of the site conditions accompanied by occasional drought results in frequent drying of sal. In recent years, due to drought, sal is barely able to recover from one sal back before it is affected by another. The drought of 166-67 resulted in large scale drying of sal in Manatu Range where this tyoe of forest is chiefly found. Thousands of dead and dry sal poles were marked for felling in 1967-70 in Nagad and Sikda areas and a considerable number was removed by the villagers as dry firewood.

However, sal regeneration is not uncommon and is often occasional to frequent in moister and sheltered sites.

Sal forest is generally confined to Manatu and part of Kundri Ranges in this division.

5 B/ C2 - Northern Dry mixed Deciduous Forest

27. In general this type of forest forms the climax type and it is so in most of the localities here. But in some areas it has come as a result of maltreatment of sal forests. Preferential cutting of sal, overgrazing, fire , erosion and too much exposure of the soil have replaced sal with this type in certain areas. It is found in hilly and undulating areas where the soil is drier than in the sal areas. Malformed stems are not unusual and the height does not exceed 15m, generally it is much less. Bamboo and Khair Acacia catechu are also found in this type. On the moister side this forest yields to sal while on he drier side or where it has received further maltreatment it gives way to one of the type mentioned below. The crop in very open and the canopy is irregular.

The area under this type is 13923.2ha.

The over wood consists of Adina cordifolia (frequent in some areas), Anogeissus latifolia (f.) diospyton melanoxylon (f.) Miliusa tomentosa (o.) Mitragynapraviflora (o.) Bridelia retusa (o.) Salmalia malbarica (r.) Holoptelia

integrifolia (o.) Terminalia tomentosa (o.) Shorea robusta (rare to occasional, on the outskirts) Bah\uhinia racemosa (o.) Boswellia serrata (locally frequent), Lannea coromandelica (o.) Chloroxylon-sweitenia (locally frequent,) Madhuca indica (o.) Caseria-tementosa (o.) Buchanais lanzon(o.) Ougeinia oojeinensis (o.) Cochlospermum religiousum (r.) etc.

In the under story, where it exists, otherwise merging in the over wood (where the over wood is low) are found the following species:-

Acacia catechu (0 to 1.f.) Holarrhena-antidysenterica (f.) Nyctanthes arbortristis (o.) Ixora-arborea (r.) Balanites aeyptiace (r.) Flueggea obovata (9r) Emblica oficianalise (o.) Flacourtia indica (.) Randia dumetorum (o.) Gardenia turgide (o.) Zisyphus mauratiana (o.) Zizypus xyopyrus (o.) Dendrocalamus strictus (r.tol.f.) etc.

Shrub by vegetation consist of Carissa opaca (I .f.), woodfordia fruticosa (o.),

The grasses found under the sal forest mentioned above are found here also.

Climber are represented by Burea superba, Butea parviflora, Hemidesmus indicus, Acacia canescems (r.) celasturs paniculata (r.) etc.

Regeneration is occasionally found in remoter and sheltered localities.

This type of forest is spread all over the division.

5 /DS1 - Dry Deciduous Scrub.

28. As the symbol indicated this degradation stage of the Dry Mixed Deciduous Forest. The degradation is due to maltreatment mostly over felling, overgrazing are annual fires. The soil is thin and gravelly. Such forests are mostly near thick habitations and are very open. The tree species wherever present are stunted and malformed due to frequent cutting and lopping. The general height seldom exceeds 6m. Grasses are present but they are never allowed to rise above 5-10cm. Several patches exist without even a blade of grass.

The area under this type is 62459.18ha.

The species founds in these forests are Acacia catechu (f.), Casearіatomentosa (o.), Buchanania lanzan (f.), Melanozylon (f.) Lannea coromandelica (r.) Salmalia malabarica (r.) Flacourindica (o.) Terminalist-tomentosa (o.) Carissa opaca (f.) Sizypus mauratiana (f.) Zizypus xyopyrus (o.) Zizyphus numularia (o.) Gardenia turgida (o.) Balanites aegyptiaca (r.) Mimosa bimalayana (o.) etc.

Among grass the same as mentioned under the Dry peninsular sal are found though in a very depauperate condition.

Along nalas a few specimen of sal and a few poorly grown indigofera pulchlla may also be found. Sometimes one may also come across a few stuned clumps of Dendrocalamus strictus.

5 / E2 - Bosewellia Forest.

29. For management purpose, where the crop consists of 50% or more salai Bosewellia serrata, the forest has been put under this type. The preponderance of salai is mostly due to low moisture content in the soil. This species remains leafless for about 6 months in the year and hence it can do with far less moisture than most other species of the area.

The area under this type is 4699.6 ha.

As mentioned above Bosewellia serrata from 50% of the crop. Other species that are found in varying degrees are those of Dry Mixed Deciduous Forest type mentioned above.

Regeneration is not rare occasionally present.

This type of forest, although distributed all over the division, is mostly found in Mohammadganj Range and parts or Kundri, Chhatarpur East and Chhatarpur West Ranges.

5 / E4 - Hardwickia Forest.

30. There are three small patches of this type in Murma, Saranua and Arapur P.F's of Patan and Mohammadgnj rages. The area occupied by it is about 25,113.4 ha. In Murma these have been protected and are about a metre in girth at breast height. They occur with Acacial cateehu and Lagerstroemia parviflora. In the other two forests the trees are mutilated and occur in scrub forests.

5/E5 – Butea Forest

31. This type also occupies a small area of 168 ha. and is found in Kundri R.F./ and some other forest of Kundri Range, specially near Chianki and polpol. The soil usually of the heavier type with impeded drainage and bad aeration.

This crop has a very high frequency of Butea-monosperma with sprinklings of Acacia catechu, Zizyphus-mauratiana, Zizyp0hus cenoplea, etc. Due to over grazing the floor is usually clean although some grasses like Heteropogon contortus. Aristida spp. etc, do show up during the rains.

5/E9 Dry Bamboo Brake.

32. The area under bamboo forest in this Division is 12,408.5/ ha. The species of bamboo found here is Dendro-calamus strictus. It usually occurs with miscellaneous species and often overlaps with type 2, 3 and 4 described above. However there are small patches containing pure bamboo. This may have been due to the removal of the miscellaneous species.

Plantation: -

33. In addition to this above type there are plantations of Dalbergia sissoo, Eucalyptus Bybirn (Mysore gum,) and Tectona grandis which from small pure patches.

SECTION II, INJURIES TO WHICH THE CROP IS LIABLE

34. The principal factors causing damage to the crop can be divided into two classes:-

(a) anthropogenic and (b) natural, Many of the natural factors come forward as a side effect of the anthropogenic factors.

Anthropogenic factors: -

(a)Illicit fellings and loppints:-

35. These are very common, specially in areas close to habitations. The system of allowing free removal of dry fire-wood from any where by any body on headloads without any restriction has resulted in devastation of forest and loss of revenue. Large groups of people enter the forests every day in the morning and come out at mid-day, each carrying about 20 Kg. of firewood for sale. Axes are freely used and standing trees are pollarded and felled for manufacturing dry firewood. No attempt has been made to find out the exact number of persons thus visiting the forest daily. Even if a very modest estimate of 1000 persons is taken, the quantity removed daily is 20 tones. For the whole year this figure comes to 7,300 tones. From all the annual coppice coupes of this division the yield is about 20,000 tones which may be taken as the annual growth. If the addition to the annual growth, over one third of it is also removed annually, the result may well be visualized. No wonder these forests are fast deteriorating.

Trees are also lopped recklessly for feeding buffaloes. Saplings are also cut and removed for fencings over which vegetable yielding climbers of cucurbitaceae Dolichus lablab (seem) etc., are made to climb. Even after more than two decades of efforts the Forest Department has not been able to make the villagers shed this pernicious practice.

Encroachments also frequently take place.

Often the Turies do not go to the prescribed coupe but resort to \iollicit felling of bamboos. They prefer Karils i.e. culms not above one year in age, for making baskets etc. and there by they ruin the clump.

Grazing: -

This too is a big problem here, the following are the number of cattle in this area according to the census of 1972: -

TABLE - 11

Cows & Oxen	. .	3,04,718	3,65,890
Buffaloes	. .	61,172	1,44,307
Sheep	. .	29,041	
Goats	. .	1,15,266	
Others	. .	16,967	
	Total : -	5,27,164	5,10,197

Only a nominal percentage of this cattle is stall fed. A very large percentage is dependent upon the forests for their feed. The forests cannot

sustain this load and the result is that cattle and forests both have been deteriorating.

(c) Fire: -

Burning below mahua Madhuca indica trees for picking up madhu flowers easily from a clean floor is the main cause of forest fires. Sometimes fire is also spread carelessly by the collectors of honey who go with burning torches to the bee hive. Setting fire in the near one's fields to clear off the bushes in summer and allowing it to run to forests is still another major cause of forest fire.

The Fires burn the fallen leaves, grasses and seedlings. They cause considerable damage to the shrub by vegetation and the bamboos. They do not cause any immediate damage to the standing trees, because only firehardy trees have been allowed to grow here, but the scares create places for infection of diseases which make themselves visible later on. The process of erosion is also accelerated and the site quality is lowered. Thus the forest ultimately deteriorates.

(d) Erosion.

This has been classified here as and anthropogenic factors because it is mainly man made in this region. His actions of over felling and burning and overgrazing by his cattle are the main causes of erosion which is rampant in all from. Every year during the rains soil is washed away taking with it a good quantity of nutrients which should have been available to the forests. Instead of infiltrating deeper, most of the rain water is lost as surface fun-off and percolation is able to wet the top few centimeters only. The site is becoming drier and drier year after year. The robusta forests and expansion of salai Boswellia serrata forests pervade new areas resulting in the shrinkage of sal.

Natural Factors.

36. (a) Drought: -

Drought has been frequenting this area and causing great damage to Shorea robusta. As mentioned under type 5B/Clc above, thousands of poles dried due to the drought of 1966-67. Other species are also affected, though to a smaller degree. Plantations of Eucalyptus, Dalbergia, sissoo and Acacia auriculaeformis have also suffered.

(b) Fungii: -

Wounding the plants by axe and fire lets in fungi. Old sal, salai and Khair trees suffer from heart-rot and becomes hollow. Khair is valued only for its heartwood and if that is destroyed the value is lost. The heartwood of Khair

is rendered useless by the fungus Fumes badins. Sporophores of the fungus develop readily on the affected trees (B. K., Bakshi Indian Forester, Jan. 1957)

Other fungi that affect Khair are the root fungi Ganoderma lucidum and polyporus gilvus (ibid). These enter the plants through the roots, attack the sapwood and kill the plants.

CHAPTER III

UTILIZATION OF THE PRODUCE

SECTION I, AGRICULTURAL CUSTOMS AND WANTS OF THE POPULATION.

POPULATION, AGRICULTURAL AND INDUSTRIES

37. The density of population according to 1981 census is about 233 per Sq. K.M. which is fairly thick so far as forests are concerned. The people mostly depend upon agriculture which depends upon the vagaries of nature. Sources of irrigation are few. The main source of irrigation has been ahars (small earthen dams across depressions). These arhars do not store enough water and in years of scanty rainfall does not serve any purpose. Irrigation from wells is being introduced. Due to their dependence upon rains, the chief crop of the area is Kharif viz. paddy, Maize and marua.

38. Among the winter crops gram and arahar are grown in some localities. Of late some enterprising cultivators have started cultivating wheat also.

39. Due to faulty agricultural practices the people and the land have become poorer. Industries are few. Except the Rajhara Colliery and the japla cement Factory, practically there is no industry worth the name. To earn their livelihood the people have to depend on forests which have deteriorated over the years due to over exploitation. Utilization of the forest produce is no problem here in fact the problem is how to stop illicit felling and over grazing.

WANTS OF THE PEOPLE

40. Living near the forests and being uneducated and illiterate, the people have been lavish in their use of forest produce. They want plenty of firewood not only for cooking food but also for saplings and driving mosquitoes. They make a barrier of saplings and bamboos to fence their houses and compounds. They build machans, made wholly of wood, to guard their fields against birds and wild pigs. They fence their fields with thorns for protection against grazing by cattle which they keep in ever increasing number because they do not have to incur any expenditure for maintenance. They use latha and khambha, made of timber to draw water from their wells. They use timber for their agricultural implements, furniture and house construction. As untreated timber is used, renewals and replacements are frequent. A large majority of the population is either incapable of unwilling to pay for the forest produce but at the same time

they want to indulge in extravagance so far as forest produce is concerned. This leads to theft.

A rough estimate of public requirements of agricultural tools etc. as following for whole Division.

TABLE -12

	Particulars	No. of piece per year
1.	Latha	68,900.00
2.	Khambha	1,38,000.00
3.	Fire Wood	60,000.00 Tones
4.	Ploughs	1,40,000.00
5.	Harish.	96,000.00
6.	Patta (Henga)	50,000.00
7.	Dharan for roofing	70,000.00
8.	Kandi	3,00,000.00

SECTION – II, MARKETS AND MARKETABLE PRODUCTS.

MARKETS: -

41. Depots are located at Daltonganj. Rehla (Garhwa Road) and Chhatarpur. These depots are mostly for sale outside the area. The Forest Department has established depots at 20 places to meet the demands of the people at reasonable rates and to woo them way from illicit fellings in forest.

DEPOTS : -

42. Particulars of the depots are mentioned below: -

Sl. No.	Locations of depots	Type of depots	Remars.
1.	Padma	Central	No forest produce available closed
2.	Chhattarpur	—do—	"
3.	Kundri	—do—	"
4.	Bishrampur	—do—	"
5.	Parwamore	—do—	"
6.	Chainpur	—do—	Forest produce available closed
7.	Redma	Consumer	No forest produce available closed
8.	Bansdih	—do—	"
9.	Taleya	—do—	"

10.	Chainpur	—do—	"
11.	Chhattarpur	—do—	"
12.	Hariharganj	—do—	"
13.	Bishrampur	—do—	"
14.	Lahlahe	—do—	"
15.	Parwamore	—do—	"
16.	Kundri	—do—	"
17.	Panki	—do—	"
18.	Lesliganj		"
19.	Tarhasi		"
20.	Bus stand, D' ganj		"

Lines of export : -

The principal line of export is the Eastern Railway running from Gomoh to Dehrionsone via Daltonganj. Daltonganj, Harihargang, Aurangabad Road is also utilized. Other roads in the depots. No rivers are utilized. Other roads in the area are used for transporting forest produce from the forests to the depots. No rivers are utilized for floating.

Methods of exploitation and their cost.

All forest produce except lac is extracted and removed by purchasers. Felling is done by axe along. There is little scope of using saws, unless it is demonstrated that saws save labour in felling poles. Axes are brought by the labourers thereselves and the contractors do not have to apply and thing for them. Sharp axes are used for bamboo cutting. Bamboo are extracted in lengths of about 3-4 meters. Locally known as tonas. About 2 to 3 tonas are extracted from a bamboo. The bottom pieces are known as "teras" the middle as "barhi" and the top portion is known as "sarhi".

Cost of exploitation: -

The cost varies from locality to locality depending upon the terrain and the road conditions. Labour rates have been mentioned in chapter-IV

SECTION-V, PAST AND CURRENT PRICES.

Price of forest produce vary from season to season and from year to year. The general trend in upward.

Schedule – 'A'

DEPOT RATES FOR SAWN TIMBER IN RUPEES PER CUM.

(1) Name of species .SAL: shorea robusta 1s:1150-1976,

Abreviated Symbol : Sal

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	8743	12204
150	185	9108	12751
245	305	12869	16433
305	365	12960	18612
365	425	17801	22564
425	485	18424	23597
485	545	19457	24425
515	605	20285	25668
605	-	-	27737

(2) Name of species .TEAK: Tectona grandis- Sagwan IS:1150-1976,

Abreviated Symbol : TEAK

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	30270	28785
150	185	21384	29848
185	245	25616	31853
245	305	275616	35417
305	365	28075	40318
365	425	34303	44104
425	485	36308	46106
485	545	38090	49450
545	605	40096	50341
605	-	-	54526

(3) Name of species .BIJA: Pterocarpus marsupim- BIJA

GAMHAR (Gmelina arborea)... GAM

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	11456	13703
150	185	11681	18196

185	245	12355	18420
245	305	12804	18646
305	365	13254	19993
365	425	14826	25159
425	485	15725	26732
485	545	17072	27856
545	605	17297	28080
605	-	17747	29652

(4) Name of species .SISSOO: Dalbergia Sissoo- SISHAM

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	9129	10319
150	185	10319	11510
185	245	11510	12701
245	305	12701	13693
305	365	13693	14884
365	425	15281	16471
425	485	15479	16868
485	545	15876	17067
545	605	16273	17265
605	-	17662	18853

(5) Name of species . ASAN TERMINALIA TOMENTOSA: LAUREL TOONA CEDRELA TOONA ---- TOON

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	6929	10097
150	185	7325	10097
185	245	8513	10097
245	305	9761	11944

305	365	10296	11944
365	425	13679	14606
425	485	13679	15533
485	545	13679	16229
545	605	-	-

(6) Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	8862	11893
150	185	9329	12127
185	245	9796	12594
245	305	10261	13526
305	365	1154	15070
365	425	12318	17035
425	485	13104	17560
485	545	13628	18346
545	605	14153	18870
605	-	15725	19918

(7) Name of species . SISAR ALBIZIA LEBEK: KOK.

Aibizia Procera .....SS

ANJAN OUGENIA DALBRGEOIDESO...SAD

Toona Cedela Toona ---- TOON

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	6800	7225
150	185	7013	7864
185	245	7225	9138
245	305	7864	11051
305	365	8288	11689
365	425	10597	13775
425	485	11554	13997

485	545	12665	15553
545	605	13331	16219
605	---	13775	16885

(8) Name of species . KAL BRIDELIA RETUSA : KAS.

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	8453	9660
150	185	8694	10385
185	245	8935	11833
245	305	10350	14008
305	365	10867	14731
365	425	12067	16422
425	485	13283	16663
485	545	14490	18354
545	605	15456	19079
605	---	15940	19804

(9) Name of species. JAMUN SYZYGIUM spp : JAM.
DHAURA ANOGESSUS LATIFOLIA (LATIFOLIA) --- ARL
OTHER HEADWOODS

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	5951	7651
150	185	6163	7864
185	245	6800	8076
245	305	7013	8926
305	365	8501	9989
365	425	9343	10664
425	485	10442	11332
485	545	11110	11554
545	605	12220	12887

605	---	12442	1331

(10) Name of species. JHINGAN LANNEA GRANDIS ... JHI
SALAI BOSWELLIA SERRRATA--- SAA

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	3833	4499
150	-	4666	5333

(11) Name of species. KEKAR GARUGA PINNATA...GAU

Length Class in Cm.		Either width or thickness in mm.	
More than.	Upto	Upto 130	More than 130 and upto 350
—	150	4189	4888
150	-	4888	5935

Schedule – 'b'

DEPOT RATES FOR ROUND LOGS IN RUPEES PER CUM.

(1) Name of species .SAL: IS:1150-1976,
Abreviated Symbol : Sal

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	4372	5832	6842	9122
244	365	4968	8640	9359	10783
365	488	5369	9936	10783	11808
488	610	6209	12134	12960	14256
610	-	7865	13049	14256	14400

(2) Name of species .TEAK (SAGWAN).... TEAK

Length Class in Cm.		Mid Girth Class in Cm.				
More than.	Upto	More than 60 Upto 75	More than 75 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	100	7465	9360	12480	14470	15796
100	244	8736	10530	15796	18690	20533
244	365	10530	11846	18427	18924	25608

365	488	11506	13690	22176	25460	30664
488	610	14048	15605	25735	30116	34496
610	-	14352	18617	28740	33949	36688

(3) Name of species .BIJA PTEROCARPUS MARSUPIUM … BIJ

GAMHAR GMELINA ARBORIA … GAM

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	4942	7414	9884	11008
244	356	5392	10333	11681	12804
365	488	6964	11681	13030	14153
488	610	7956	13572	14976	16848
610	-	8657	16145	17549	18953

(4) Name of species .SISOO Dalbergia sissoo … SIS

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	3939	5358	7144	7938
244	356	4564	6152	7838	8732
365	488	4961	6946	8732	9526
488	610	3558	7541	9526	10319
610	-	5954	---	----	---

(5) Name of species. ASAN TERMINALIA TOMENTOSA: LAUREL TOONA CEDRELA TOONA ---- TOON

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	3168	4530	5100	5514
244	356	3960	5354	5988	6653
365	488	4356	5560	6653	7318
488	610	4968	6458	7651	8346
610	-	5588	7104	8346	8810

(6) Name of species. KARAM Adina cordifolia ---- HAL

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	4664	6028	6280	6781
244	356	5131	8288	9544	10549
365	488	6571	9959	11008	11532
488	610	7301	11532	12055	12842
610	-	8030	11794	12842	13890

(7) Name of species. KAL Bridelia retusa ---- KAS

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	3864	5796	6278	7246
244	356	4105	6278	7003	7587
365	488	4348	6762	7246	8212
488	610	4589	7728	8453	8453
610	-	5314	8694	8935	9660

(8) Name of species. SISAR ALBIZIA LEBEK: KOK.

ANJAN OUGENIA DALBRGEOIDESO…SAD

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	2975	4675	5100	7538
244	356	3188	5100	5526	6168
365	488	3643	5314	5738	6588
488	610	4000	6666	7110	7110
610	-	4444	7332	7554	7998

(9) Name of species. JAMUN …… JAM.

DHAURA ANOGESSUS LATIFOLIA (LATIFOLIA) --- AXL

OTHER HEADWOODS

Length Class in Cm.	Mid Girth Class in Cm.

More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	2550	3188	3826	4250
244	356	2975	3826	4250	4889
365	488	3778	4444	4888	5555
488	610	4000	4888	5333	5999
610	-	4222	5333	5777	6666

(10) Name of species. JHINGAN Lannea grandis ….JHI

SALAI.. SAA

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	1832	2165	2500	2666
244	-	1999	2333	2666	3165

(11) Name of species. KEKAR GRARUGA PINNATA ….GAU

Length Class in Cm.		Mid Girth Class in Cm.			
More than.	Upto	More than 60 Upto 90	More than 90 upto 120	More than 120 to 150	More than 150
--	244	2269	2794	2978	3143
244	-	2618	3143	3316	3840

Schedule- "C"

Depot Rates of Poles …. Rate per piece in rupee.

Length class more than	In cm upto	Diameter in Cms	Sal/Asan	Misc.	Tealk
1	2	3	4	5	6
244	366	10.0	29	22	64
366	426	10.0	36	25	78
426	486	10.0	44	36	98
Upto	244	12.5	38	26	84
		15.0	56	39	124
		17.5	68	47	150
		20.0	76	57	163
		22.5	97	68	209
244	304	12.5	53	36	105

		15.0	60	41	122
		17.5	92	65	195
		20.0	133	93	290
		22.5	169	121	376
304	424	12.5	60	41	122
		15.0	103	71	223
		17.5	120	84	262
		20.0	169	121	376
		22.5	208	194	452
364	424	12.5	79	44	170
		15.0	133	100	290
		17.5	155	113	333
		20.0	208	149	452
		22.5	262	181	572
424	484	12.5	83	55	186
		15.0	142	103	307
		17.5	103	116	358
		20.0	262	180	572
		22.5	313	223	683
484	544	12.5	100	68	216
		15.0	180	127	306
		17.5	242	170	530
		20.0	332	235	726
		22.5	377	262	820
544	604	12.5	187	131	409
		15.0	234	162	514
		17.5	265	187	573
		20.0	377	242	820
		22.5	397	277	866
604	664	12.5	228	158	499
		15.0	247	187	517
		17.5	288	208	628
		20.0	404	281	880
		22.5	424	298	924
664	724	12.5	266	190	573
		17.5	406	286	884
		20.0	436	307	950
		22.5	528	383	1152
724	784	12.5	355	248	775
		15.0	410	292	895
		17.5	496	348	1080

		20.0	545	383	1189
		22.5	601	413	1319
784	844	12.5	409	304	893
		15.0	514	344	1121
		20.0	572	526	1250
		17.5	628	433	1368
		22.0	718	515	1567
844	904	12.5	454	319	991
		15.0	515	352	1150
		17.5	599	413	1308
		20.0	720	515	1570
		22.5	834	588	1820
904	965	12.5	499	348	1088
		15.0	550	388	1198
		17.5	721	512	1572
		20.0	870	616	1898
		22.0	1064	748	2321

Schedule- "E"

Fuel wood Rs. 270/- stack cubic metre.

Schedule- "F"

1.	Sarhi	-	Rs. 5.00	Per lagga
2.	Barhi	-	Rs. 7.00	- do -
3.	Terra	-	Rs. 10.00	- do -
4.	Chhaubansa	-	Rs. 11.00	- do -
5.	Panchbansa	-	Rs. 12.00	- do -
6.	Charbansa	-	Rs. 14.00	- do -

Schedule- "G"

1.	Charcoal	-	Rs. 1012.00	Per stack cubic meter
2.	Fencing post	-	Rs. 19.00	Per post
3.	Treated Fencing post	-	Rs. 30.00	- do -

Schedule- "H"

Chalta (obtained from Rs. 180/m-3
(Conversion of Tl/Coggin)
Chalta (obtained from Rs. 300/m-3
(Conversion of Timber)
Saw Dust (for bag of 40 kg. Rs. 14/- per bag.

Past prices-

In 1904-05 the price of bamboo at Betla and Kechki , very near Daltonganj North Division, was at the rate of Rs. 6.00 per 1000 sal was being sold at rate of Rs. 0.50 per cft. Sal poles under 15 cm. diameters were being sold at the rate of Rs. 0.06. Gradually the rates have increased.

STAFF AND LABOUR SUPPLY.

Beside the Divisional Forest Officer the following field staff are being entertained in the division:-

Designation:-

Forest Ranger	-	5
Forester	-	28
Forest Guard	-	116
Mali	-	Nil

The office staff consists of the following.

Head Clerk	-	1
Accountant	-	Nil
Assistant Clerk	-	14
Amin Inspector	-	Nil
Amin	-	2
Court Forester	-	Nil

In addition, there are 18 class 4 staff including peon/dakwallas/ofive chowkidar/bungalow chowkidar and sweeper.

Labour supply

There is no dearth of labour in this area. For some time during the rains and there after in the early winter season the local people find employment in paddy cultivation and harvesting. Thus forest operations do not supper from paucity of labour. But the unemployment of a large number of men and women is harmful for the forest since theft of forest produce takes place increasingly. Some of the weaker unemployment person carry head loads of fire wood comes from the poles, saplings which are felled or pollarded by them. Thus the forests are deterioration day by day. Since the forests were taken over by Government a second generation of headloaders has come up, and probably in large number.

To check the menace of illicit felling and headloaders it is essential to give the persons concerned some sort of employment suited to their capabilities. The energy wasted in armful illicit fellings has to be harnessed and diverted to some beneficial channels.

The schedule of labour rates is given in the Appendix.