

HIMACHAL FORESTS

2006

FOREST DEPARTMENT, HIMACHAL PRADESH

HIMACHAL AT A GLANCE

1	Geographical Area (by professional survey)	55673km ²
2	Administrative Infrastructure	
	a) Districts	12
	b) Tehsil, Sub-Tehsil/Panchayats	75/34/3037
	c) Sub-Division/Development Block	51/75
	d) Towns	57
	e) In-habited village (2001 Census)	17495
	f) Un-inhabited villages (2001 Census)	2623
3	Population (2001 Census)	6077900
	a) Males	3087940
	b) Females	2989960
	c)Females per'000 males	968
4	Percentage of Rural Population to total Population	90.20
5	Percentage of Urban Population to total Population	9.80
6	Decadal Rate of growth of Population(1991-2001)	17.54
7	Density of Population per km ² (2001)	109
8	Literacy percentage (2001 Census)	76.50
	a) Males	85.30
	b) Females	67.40
9	Live Stock Population (2003)	50.51 Lac
10	% of Marginal Workers	16.92
11	% of Non workers	50.76
12	Percentage of main workers to total Population	32.31
13	Percentage break-up of workers (main)	
	a)Cultivators	65.33
	b)Agriculture Laborers	3.15
	c)Household Industries	1.75
	d) Other workers	29.77
14	Total Forest area (Legally classified)	37033 km ²
	a) Culturable Forest area	20657km ²
	b) Un -culturable barren lands (High Alpine , Snow bound area etc.)	16376 km ²
15	Per-capita recorded forest area	0.61 ha
16	Total Growing stock in Forest	10.01 Crore m ³
17	Annual yield of wood from forests (Standing Volume)	696800 m ³
18	Area under agricultural lands	6233 km ²
	a) Net area sown	5514 km ²
	b) Fallow lands	719 km ²
19	Percentage of area under agriculture lands	11.2
20	Number of total holdings in H.P. (1995-96)	8.63
21	Total area of holdings including grazing /pasture lands in possession of private individuals	999676
22	Average size of holding in H.P. based on total area	1.16
23	Per -capita Annual Income (at current prices2004-05) 2003-04)	Rs.27486

LAND UTILIZATION OF HIMACHAL PRADESH 2002-03

		(Area in km ²)
1	2	3
1	Geographical Area (by professional survey)	55673
2	Area by Village Paper (revenue record)	45431
3	Forest Area (as per forest records)	37033
4	Land put to non-agricultural uses	3192
5	Net Area Sown	5446
6	Fallow Lands(current & other fallows)	755
7	Culturable wastes	1222
8	Land under misc. tree crops not included in cultivation	579
9	Permanent pastures & other grazing lands including alpine pastures, barren & uncultivable wastes etc.	7446

Note : The data is based on figures collected from Director of Land Record H.P. Shimla except item No. 3 & 9. Item No. 3 as per Forest Department record and figure given in item No 9 are the balance areas i.e. the total geographical area (by professional survey) minus the sum of area given in serial No.3 to 8.

STATE REVENUE viz-à-viz FOREST REVENUE & EXPENDITURE(2004-05)

		(Rs. in lac)
1	2	3
1	State Revenue (Revised estimates)	220171
2	Forest Revenue	10217
3	Forestry expenditure	
i)	Non-plan expenditure	9500
ii)	Plan expenditure	5758
iii)	Capital outlay	325
	Total Forestry Expenditure	15583

FOREST REVENUE AND EXPENDITURE (1994-95 to 2004-05)

(Rs. in Lac)

Expenditure

Year	Revenue	Non -plan	Plan	Capital outlay	Total	Net surplus over non-plan exp.
1	2	3	4	5	6	7
1994-95	4711	2887	5379	258	8524	1824
1995-96	4494	3378	6003	226	9607	1116
1996-97	4119	4168	6463	297	10928	(-49)
1997-98	4115	4541	6646	401	11588	(-426)
1998-99	998	9161	8544	594	18299	(-8163)
1999-2k	66937	10584	9480	568	20632	56353
2000-01	1654	13296	8866	353	22515	(-11642)
2001-02	2898	12936	8687	329	21952	(-10038)
2002-03	3152	26001	8261	318	34580	(-22849)
2003-04	7693	9939	5037	342	15318	(-2246)
2004-05	10217	9500	5758	325	15583	717

FOREST CLASSIFICATION (2004-05)		
Category	Area	Percentage to Total
1	2	3
CLASSIFICATION BY		
A - LEGAL STATUS		
Reserved Forests	1896	5.1
Demarcated Protected Forests	11830	31.9
Un-demarcated Protected Forests	21213	57.3
Un-Classed Forests	977	2.7
Other managed by Forests Deptt.	369	1.0
Not managed by Forests Deptt.	748	2.0
Total	37033	100.0
B - OWNER SHIP		
State owned Forests	35916	97.0
Cantonment & Municipal Forests	42	0.1
Private Individual Forests	1075	2.9
Total	37033	100.0
C - CROP COMPOSITION		
Coniferous	9002	24.3
Broad leaved/Scrub	7368	19.9
Waste, Blank & Pasture	20663	55.8
Total	37033	100.0

D - MANAGEMENT STATUS

Area covered by working plans	24909	67.3
Area not covered by working plans including Alpine pastures & parts of UPFs	12124	32.7
Total	37033	100.0

E - DENSITY DISTRIBUTION OF FORESTS

- Forest area legally defined	37033	100.0
- Dense forests (crown density above 40%)	8976	24.2
- Open Forests(crown density 10% to less than 40%)	5377	14.6
- Forest blanks with crown density less then 10%	6304	17.0
- Unculturable barren land (Alpine pasture, snow area etc.)	16376	44.2

F- FOREST AS PER CROWN DENSITY (SFR-FSI)

<u>Area in km²</u>				
Year of Survey	Dense Forests (Crown Density Above 40%)	Open Forests (Crown density 10% to Less than 40%)	Total Forest Cover	Total Forest Area in km ²
1	2	3	4	5
1991	8911	2869	11780	37591
1993	9565	2937	12502	35407
1995	9565	2936	12501	35518
1997	9560	2961	12521	36986
1999	9120	3962	13082	37033
2001	10429	3931	14360	37033
2003	8976	5377	14353	37033

G- ACTUAL FOREST COVER 2003 ASSESMENT OF H.P.

1	Geographical Area (km ²)	55673
2	Actual Forest Cover (km ²)	14353
3	Percentage of Actual Forest Cover to Geographical Area	25.8

H- RECORDED FOREST AREA AND ACTUAL FOREST

**COVER (2003) ASSESMENT COMPARITIVE SITUATION
OF H.P.**

1	Recorded Forest area (km ²)	37033
2	Actual Forest Cover (km ²)	14353
3	Percentage of Actual Forest Cover	38.8

1- PER CAPITA ACTUAL FOREST COVER OF H.P.

1	Actual Forest Cover (km ²)	14353
2	Population	6077900
3	Per Capita Forest Cover(ha)	0.24

J - FOREST COVER COMPARATIVE SITUATION OF 2001 & 03.

1	2001 Assessment based on imagery 1999	14360	14360
2	2003 Assessment based on imagery 2001	14353	14353
3	Difference		(-7km ²)

FOREST RESOURCES IN HIMACHAL PRADESH**A- FOREST AREA AND POPULATION (2004-05)**

Name of District	Geographical area by professional survey (km ²)	Forest area (km ²)	% of Forest area to geographical area in the	% of Total Forest area in the District	Population as per 2001 census
1	2	3	4	5	6
Bilaspur	1167	428	36.7	1.1	340885
Chamba	6522	5030	77.5	13.6	460887
Hamirpur	1118	219	19.6	0.6	412700
Kangra	5739	2842	49.5	7.7	1339030
Kinnaur	6401	5093	79.6	13.7	78334
Kullu	5503	4952	90.0	13.4	381571
Lahaul & Spiti	13841	10133	73.2	27.4	33224
Mandi	3950	1860	47.1	5.0	901344
Shimla	5131	3418	66.6	9.2	722502
Sirmour	2825	1843	65.2	5.0	458593
Solan	1936	728	37.6	2.0	500557
Una	1540	487	31.6	1.3	448273
Total	55673	37033	66.5	100	6077900

**B- SPECIESWISE AREA, GROWING STOCK AND YIELD OF
IMPORTANT SPECIES 2004-05**

Name of Species 1	Forest area (km ²) 2	Growing Stock (000m3) 3	Annual Yield(00m3) prescribed by volume 4	
Deodar	890	16517		1736
Kail	698	13365		1320
Chil	1346	12481		981
Fir/Spruce	1029	39364		2430
Sal	190	4852		280
Ban Oak	596	5949		156
MohruOak	32	201		n.p
Kharsu	118	1717		21
Mapple	n.a	298		12
Horsechestnut	n.a	n.a.		n.p.
Walnut	n.a	126		2
Bird-Cherry	n.a	15		n.p
B.L. Species	533	5217		30
Total	5432	100102		6968

Note :- Figures in part B above relate to areas which have been in various working plans.

**OUTTURN OF FOREST PRODUCE AND THEIR
CONTRIBUTION TO FOREST REVENUE**

A- OUTTURN (2003-04 & 2004-2005)

Name of Produce	Quantity		Estimated Value (Rs. in lac)	
	2003-04	2004-05	2003-04	2004-05
1	2	3	4	5
Timber (m ³)	334085	433059	13967.5	16423.98
Firewood (Tones)	6631	18792	211.36	605.75
Charcoal (tones)	362	202	20.45	11.41
Resin (tones)	8254	8797	476.82	503.89
Bamboos (ha)	253	2114	11.29	15.92
Bhabbar grass (tones)	925	578	1.16	1.47
Grazing/Fodder (tones)	-	-	8.77	9.72
Medicinal -herbs (tones)	1366	937	448.62	400.54
Other Minor Produce(tones)	-	-	4.57	14.85
Khair (tones)	1421	2159	20.69	31.45
Total	-	-	15171.23	18018.98

B - SOURCES OF FOREST REVENUE

Name of Produce	Revenue collected ('000Rs.)	
	2003-04	2004-05
1	2	3
1 Timber and other Forest Produce removed from forest by Govt. Agency	4624	2009
2 Sale of timber and the forest produce removed from forest by consumer/purchaser	214596	265291
3 Drift and Waif wood	4	1602
4 Sale of timber and other forest produce removed from forest other than HPSFC	57859	126342
5 Minor Forest produce including medicinal plants	1513	2450
6 Grazing and grass cutting.	1282	1206
7 Miscellaneous Products	489331	622729
8 Revenue from forest not managed by Govt.	100	75
Total	769309	1021704

ACHIEVEMENT UNDER PLANTATION SCHEME DURING 2003-04 & 2004-05					
Name of Schemes	Achievements				
	2003-04		2004-05		
	Phy.(ha)	Fin (Rs. in lac)	Phy.(ha)	Fin (Rs. in lac)	
	1	2	3	4	5
Pasture and Grazing		737	48.23	400	39.59
Afforestation in Blank Areas		2376	184.73	1532	144.96
Enrichment Plantation		1601	160.12	1227	114.09
Re-afforestation in scrub area		665	98.10	367	50.60
Plantation under Sanjhi Van Yozna		1148	189.09	628	97.88
Backward area Sub Plan		676	96.88	722	91.23
FDA (Samridhi Yozna)		531	-	3477	-
Compensatory Plantation		771	-	1400	-
IWDP Plantation		74	-	44	-
Re-generation of Forests		178	-	115	-
Plantation by Kandi Project		2310	345.21	1888	345.21
Plantation by Changer Project		230	30.96	70	30.96
Other Plantation Scheme		125	-	548	-
Total		11422	1153.32	12418	914.52

**ACHIEVEMENTS UNDER MAIN PLANTATION SCHEMES UNDER
SOIL CONSERVATION SECTOR DURING (2003-04 & 2004-05)**

Name of Scheme	Achievements			
	2003-04		2004-05	
	Phy.(ha)	Fin.(Rs. In lac.)	Phy.(ha)	Fin. (Rs.in lac.)
1	2	3	4	5
A. STATE SECTOR				
Protective Afforestation Soil Conservation and Demonstration	563	96.99	428	56.65
B. CENTRAL SECTOR				
Micromanagement of Agriculture Supplementation/Complementation of State efforts through work plan	1429	339.89	1076	333.81
Total State & Central Sector	1992	436.88	1504	390.46

**AMOUNT INVESTED UNDER FORESTRY, WILDLIFE AND SOIL CONSERVATION
STATE SECTOR SINCE FIRST FIVE YEAR PLAN**

Sr. No.	Plan Period	Amount invested (Rs. in lac) State Sector	Area Afforested (ha)
1	2	3	4
1	First Five Year Plan (1950-56)	18.19	5294
2	Second Five Year Plan (1956-61)	78.26	17926
3	Third Five Year Plan (1961-66)	438.00	40187
4	Annual Plan (1966-69)	310.00	27321
5	Fourth Five Year Plan (1969-74)	929.48	73349
6	Fifth Five Year Plan (1974-78)	1308.00	73599
7	Annual Plan (1978-80)	1095.00	44897
8	Sixth Five Year Plan (1980-85)	4698.00	120399
9	Seventh Five Year Plan(1985-90)	10883.00	163826
10	Annual Plan (1990-92)	6475.00	58945
11	Eighth Five Year Plan (1992-97)	23420.00	142732
12	Ninth Five Year Plan (1997-2002)	39658.77	131850
13	Tenth Five Year Plan(2002-07)		
	Annual Plan (2002-2003)	1356.97	15117
	Annual Plan (2003-04)	1590.20	13414
	Annual Plan (2004-05)	1304.98	13922

FOREST PLANTATION RAISRD FROM 1950-51 ONWARDS BY SPECIES

(Area in ha)

Name of species	Area Planted from 1950-51	Plantation raised during		Total area of Plantation as on 31-03-2005
		2003-04	2004-05	
1	2	3	4	5
Deodar	114655	2614	1806	119075
Kail	11923	143	100	12166
Fir/Spruce	17177	228	149	17554
Chil	274128	1330	1260	276718
Other Conifer.	113	0	0	113
Walnut	3846	69	35	3950
Willow	9725	198	79	10002
Khair	160682	1734	2476	164892
Shisham	17441	513	807	18761
Bamboo	5477	464	355	6296
Mulbery	1378	0	0	1378
Poplar	14260	209	135	14604
Robinia	46001	631	744	47376
Lucenia	1188	420	457	2065
Other B.L.	237448	4861	5519	247828
Species				
Total	915442	13414	13922	942778

FORESTRY ADMINISTRATIVE UNITS AS ON 31.03.2005.

Offices	Division		Ranges		Blocks		Beats	
	(T)	(F)	(T)	(F)	(T)	(F)	(T)	(F)
1	2	3	4	5	6	7	8	9
Pr. CCF, H. P.	-	-	-	-	-	-	-	-
Addl.Pr.CCF H.P.								
CCF (P&D)	-	-	-	-	-	-	-	-
Dir. (Slub)	-	2	-	-	-	-	-	-
C.F. Mgt.	-	-	-	-	-	-	-	-
C.F. (Policy & Law)	-	1	-	-	3	-	-	-
Addl.Pr.CCF(PFM)	-	-	-	-	-	-	-	-
C.F. (PFM)	-	-	-	-	-	-	-	-
CCF (M & E)	-	-	-	-	-	-	-	-
C.F. Silva.	-	2	-	-	16	-	-	-
CCF(Projects)								
CF (Projects)	-	2	-	-	-	-	-	-
Project Director (HPSFR)	-	-	-	-	-	-	-	-
Chief Project Director (MHWDO)								
Regionla Proj.Dir. Bilaspur	-	5	-	-	-	-	-	-
Regional Proj. Dir. Dharmshala	-	6	-	-	-	-	-	-
CF(Finance)	-	-	-	-	-	-	-	-
CCF(Working Plan)								
CF(Working Plan)	-	3	-	-	-	-	-	-
CF Bilaspur	4	-	19	-	58	-	226	-
CF Chamba	5	-	18	-	57	-	201	-
CF Dharamshala	5	-	23	-	83	-	335	-
CF Mandi	5	-	24	-	77	-	294	-
CF Nahan	5	-	22	-	69	-	270	-
CF Rampur	5	1	18	-	52	-	172	-
CF Kullu	4	-	16	-	1	43	-	139
CF Shimla	4	-	22	-	1	63	2	230
Pr.CCF,WL H.P.								
CF WL, Dharamshala	3	-	10	-	1	23	-	68
CF WL Shimla	3	-	13	-	-	26	-	60
Dir. GHNP, Shamshi	-	-	3	-	-	9	-	21
Total	43	22	188	22	560	2	2016	

FORESTRY PERSONNEL IN POSITION AS ON 31-03-2005

1	Indian Forest Services Officers	104
2	State Forest Services Officers	124
	Other Tech/ Professional	
3	Officers	24
4	Forest Rangers	226
5	Deputy Rangers	797
6	Forest Guards	2087
7	Other Technical Staff	223
	Ministerial and other Non-Tech-	
8	Staff	3638
	Total	7223

**NUMBER OF OFFICE BUILDINGS, RESIDENTIAL
BUILDINGS IN THE FOREST DEPARTMENT AS
ON 31-3-2005**

Sr. No.	Name of Buildings	Number
1	Office Buildings	304
2	Forest Rest Houses	252
3	Inspection Huts	181
4	Check Posts	44
5	Residential Buildings i.e. Type-I to Type-V	2833
6	Other Buildings i.e. Seed Store, Garage and out houses etc.	778
	Total	4392

FOREST ROADS AND BRIDLE PATHS IN H.P. AS ON 31-03-2004

Name of Circle	Roads (in kms)	Bridle Path (in kms)
1	2	3
1 Bilaspur	153.60	232.10
2 Chamba	112.00	1665.40
3 Dharamshala	424.80	243.70
4 Kullu	111.20	368.10
5 Mandi	266.20	478.60
6 Nahan	177.10	32.80
7 Rampur	108.20	250.40
8 Shimla	294.10	1247.80
9. WL Dharamshala	62.00	224.50
10. WL Shimla	44.30	305.80
11. G.H.N.P.Kullu	16.20	182.80
12. Projects	1.80	0.70
Total	1771.50	5232.70

INFORMATION OF BOUNDARY AND CHAK PILLARS AS ON 31-12-2003

Sr. No.	Name of circle	No. of Boundary Pillars	No of Chak pillars	Total No of Boundary & Chak Pillars
1	2	3	4	5
1	Bilaspur	21115	2079	23194
2	Chamba	68463	14641	83104
3	Dharamshala	9901	7974	17875
4	Kullu	4522	8756	13278
5	Mandi	64604	8622	73226
6	Nahan	22341	3132	25473
7	Rampur	10453	1913	12366
8	Shimla	16013	8580	24593
9	WL Shimla	1561	592	2153
10	WL D/Shimla	7186	1864	9050
11	GHNP,Kullu	431	702	1133
	Grand Total	226590	58855	285445

WILDE LIFE

1

- i) Sanctuaries 32
- ii) National Parks 2

2 PROTECTED IMPORTANT WILD SPECIES

a) Birds

1. Shikra (Accipiter spp) 2. Black Necked Crane (Grusnigricollis) 3. Black Partridge (Francolinus) 4. Cheer Pheasants (Cartreus wollichii) 5. Spotted Owlet (Athene blewettii) 6 Hawks (Eagle Spizaetusnipalensis) 7. Grey Horn Bill (Tockus birostris) 8. Geese (Anser spp) 9. Kaleej Pheasants (Lophura leuaomelana) 10 Lammergeier (Gypaeatus barbatus) 11 whistling teal (Dendrocygna bicolor) 12 Monal Pheasants (Lophophorousimpejanus) 13 Mountain Quail (Ophrysia superciliosa) 14 Osprey(Pandion haliaetus) 15 Peacock Pheasants (Polyplectron bicalcaratum) 16 Pea Fowl (Pavocristatus) 17 Siberian white crane(Grus leucogeranus) 18. Tibetan Snowcock (Tetraogallus tibetanus) 19 Western Tragopan Pheasants (Tragopan melanocephalus) 20 Whi (Platalea leucorodia)

b) Animal

- 1 Bharal (Ovis nahura) 2 Caracal (Felis caracal) 3 Clawless otter (Aonyx cineria) 4. Fishing Cat(Felis viverriana) 5 Himalayan Brown Bear (Ursus arctos) 6Himalyan Thar (Hemitragus jemlahicus) Himalayan Ibex(Capra ibex) 8 Indian Wolf (Canislupus palliper) 9 Kashmiri stag (Cervus elaphus hanglu) 10 Leopard cat (Felis bengalensis) 11Leopard or Panther (Panther Pardus) 12 Lynx (Felis lynx isabellinus) 13 Marlkhor (Capra falconeri) 14 Musk Deer (Moschus moschiferus) 15 Nyan or Great Tibetan Seep (Ovis ammon hodgrosonii) 16Panogolin (anis crassicaudata) 17 Serow (Capricornis sumatraensis) 18 Snow Leopard (Panthero uncia) 19Tibetan Fox (Vulpes ferrilatus) 20 Tibetan Wild Ass (Equus hemionus) 21 Tiger (Panthera tigris) 22 Tibetan Wolf (Canis lupus chonco) 23 Wild Yak (Bos graniens)

c) Reptiles

- 1 Barred oval or Yellow Monitor lizard (Vardnus flavescens) 2 Crocodiles (Crocodilus porosus and crocodilus palustris) 3 Terrapin (Batgur baska)

3 LIST OF VERMINS

1. Common Crow 2. Fruit Bat 3. Mice 4. Rat

PHEASANTS OF HIMACHAL PRADESH

Worldwide, the pheasants as a group of birds are represented by 51 species all which save one, have originated and thieved in Asia. India accounts for 17 species one-third of the world total number of pheasants.

Himachal Pradesh has 7 pheasants out of the 17 found in India.

There are:-

Sr. No	Name	Distribution in H.P.
1	Himalayan Monal (<i>Lophophorus impeyanus</i>)	Shimla, Kullu, Kinnaur, Mandi Kangra, Chamba and Sirmour Distt.
2	Western Tragopan	Shimla & Kullu Distt.
3	Koklas Pheasants (<i>Pucrasia macrolophor</i>)	Shimla, Kullu, Kinnaur, Mandi, Kangra, Chamba, & Sirmur Distt.
4	Cheer Pheasants (<i>Catreus wallichii</i>)	Shimla, Chamba and kullu Distt.
5	KaleejPheasants (<i>Lophura leucomelana</i>)	Shimla, Kullu, Kinnaur, Mandi, Kangra, Chamba and Sirmur Distt.
6	Red Jungle Fowl (<i>Gallus gallus</i>)	Shimla, Solan, Bilaspur, Una, Kangra, Hamirpur, Chamba and Sirmur Distt.
7	Indian Peafowl (<i>Pavo crisrtatus</i>)	Shimla, Solan, Kullu, Bilaspur, Kangra and sirmour Distt.

BIO-GROGRAPHIC ZONES AND PROVINCES IN HIMACHAL PRADESH

Sr. No.	BIO-GEGRAPHIC ZONE	PROVINCES	PROTECTED AREA
1	1. Trans Himalayas	1 A Ladakh Mountains 1 B Tibetan Plateau	Pin Valley National Park, Kibber Wildlife Sanctuary
2	2 The Himalayas	2 A North West Himalayas 2 B West Himalayas	Bandli, Gamgul, Siyabehi, Kais Kalatop, Khajjiar, Kanawar, Khokhan, Kugti, Mandi, Sechu- Tuan Nala, Shikari Devi, Tirthan, Tundah, Sainj, Lipa- Asrang, Nargu, Rupi-Bhaba, Dhauladhar & Great Himalayan National Park. Churdahar, Chail, Daranghati, Majathal, Rakchham Chitkul, Shilli, Shimla water catchment, Talra
3	4 Semi-Arid	4 A Punjab Plains	Govindsagar, Pong Dam, Naina Devi Renuka, Simblbara.