## ANNUAL ADMINISTRATIVE REPORT 2015-2016

**Department of Forests, West Bengal** 





# Message of Hon'ble MIC Forest W.B.





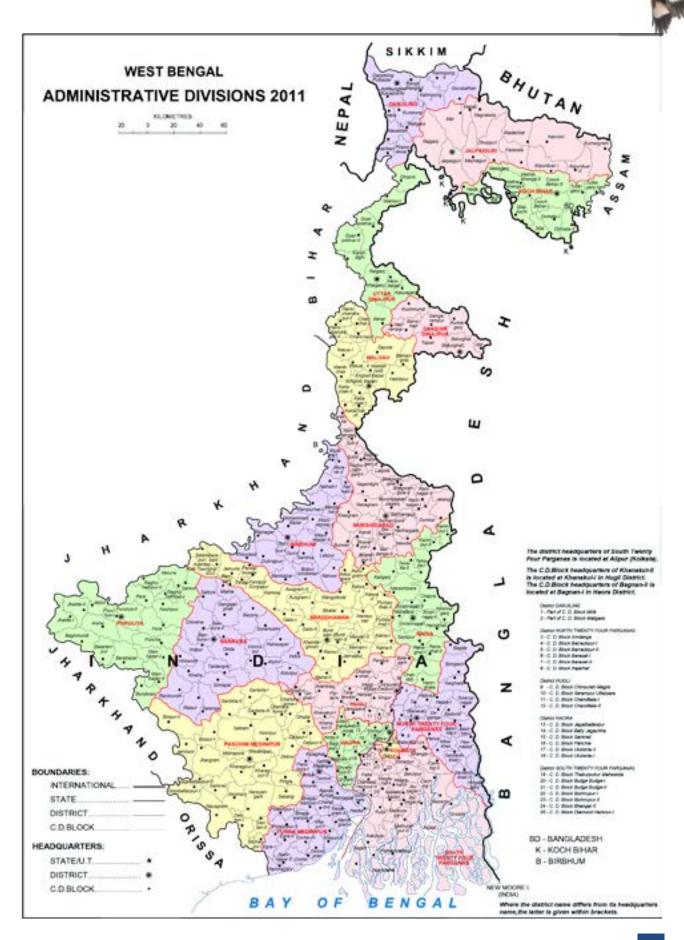
## Message of Principal Secretary Department of Forests, W.B.





# Foreword of PCCF & HoFF. W.B.









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#### INTRODUCTION

#### **Summary of The Annual Report**

West Bengal (Area 88,752 Sq K.M. Comprising of 20 Districts ) is the only Indian State to have a coastline as well as the Himalayas and is situated between 21°20' and 27°32' N latitude and 85°50' and 89°52' E longitude, bordering Bangladesh, Nepal and Bhutan. The State supports approximately 7.54% of the population of India on only 2.69% of the country's geographical area. The State has the highest population density of 1029 persons per sq. km. 72% of the population resides in rural areas whereas 28% resides in urban areas of the State.

The demand of forest produce for this huge population on the limited natural resources e.g the land and forests, makes it almost impossible to be met from the notified forest area, which is only 13.32%. To cope up with the situation, efforts have been taken by the Forest Department to increase the forest and tree cover through promotion of Social Forestry, Farm Forestry, Agro Forestry, Community Forestry& afforestation on wasteland, panchayet land, Private land, tea gardens etc. outside the notified Forest area. There has also been a conscious effort to enhance the forest productivity by improving of planting stock through Modern Nursery hycopot seedlings and by the use of clonal technology etc.

The state has two distinct natural divisions; the North Himalayas and the South Alluvial Gangetic plains.

A large number of Rivers cut through the state of West Bengal. On their way they gift some of the most fertile and rich land areas to the state. River Ganga is the most important among the Rivers that flows through the state of West Bengal. In the northern part the hills of Darjeeling and its surrounding regions are cut by deep gorges of the gushing Teesta river.

Apart from Teesta the other important Himalayan Rivers that flow through the northern part of the state are the Torsha, the Jaldhaka, the Raidakh and the Sankosh. Among them the Torsha is the most riotous one. Another important river of the northern part of the state is the Mahananda. It rises from the springs near the Darjeeling town. It flows downward to water the central part of the state as well.

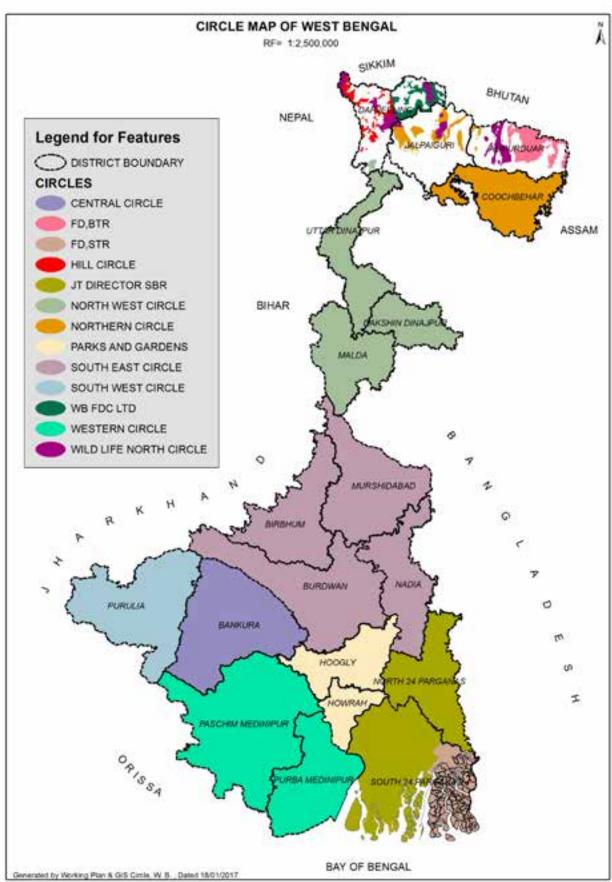
Apart from the Mahananda the other Rivers in the central region of the state are Atrai, Punarbhava and the Tangan. While Atrai flows to join the Padma River of Bangladesh the other two flow into the Mahananda river. Another important river that flows in this part of the state is Mayurakshi. It is fed by the tributaries such as Bakreswar, Kopai, Dwarka and Brahmani. Damodar is also a major river here. Originating from the hills of Bihar, it flows towards the east to join the River Hoogly, which is one of the most important Rivers of West Bengal.

The main channel of River Ganga in this part of the country is the Bhagirathi. It joins the Padma in Bangladesh. The Ganga drains into the Bay of Bengal forming the famous delta of Indian Sundarbans. Two other very important Rivers in West Bengal are Subarnarekha and Rupnarayan.

The State has a diverse climate, varying from moist-tropical in south-east to dry-tropical in the south-west and from sub-tropical to temperate in the mountains in north. Annual rainfall varies from 900mm in southwest to about 5000mm in northern parts of the State. The temperature also ranges between below zero degree centrigrade in the Darjeeling hills during the winters to about 46°C in Purulia during summer.







#### ORGANIZATION OF FOREST DIRECTORATE AS ON 31 March 2016

		APCCF	WING	CIRCLE	DIVISION
		APCCF, HRD		Dey ]	DCF, Personnel [ P. Dutta ]
		[ NV Rajashekar]		r Kana Talukder ] D. Biswas]	DCF, Legal [ Niranjita Mitra ]
		APCCF, Finance		[ A.V. Mishra ]	DCF, Finance [ Lipika Ray ]
		[ TVN Rao]	CCF, Spl. Devt. Proj		-do-
		APCCF, CAMPA &	CCF, MIS & eGov. [I	C.F., Land	DCF, MIS [Minakshi Prasad]
		[ R.R.P Singh]	Nodai Officei, FCA	Affairs & FCA [ BR Shewa]	
				C.F, Admn.,	DCF, Admin. [Bidyut Haldar]
			CCF, Hgrs.	Pub. & Mktg. [M.C. Biswas]	DCF, Publicity [M.L. Sarkar] DFO, Utilization [S Bandyopadhyay]
			[ Vinod Yadav]	C.F, W.P & GIS	DFO, Working Plan (North) [ Om Prakash ]
				[ Dr Anupama ]	DFO, Working Plan(South-I) [ Bikash R. Chakraborty]
				CF, South	DFO, Working Plan(South-II) [P.K. Roy Sr ]
				(Y.T. Aden)	
			CCF Control Circle I	CD V - 1 1	DFO, Bankura (North) [ Pinaki Mitra ]
			CCF, Central Circle [	SP Yadav J	DFO, Bankura (South) [ D.M. Pradhan] DFO, Panchet [ Ayan Ghosh ]
					DFO, Medinipur [ V.K. Salimath ]
	_	_	COE W 4 C: 1	D.F G I 13	DFO, Purba Medinipur [ S Chakrabarty ]
			CCF, Western Circle	[Niraj Singnai]	DFO, Kharagpur [ Anjan Guha ] DFO, Jhargram [ Dr BR Holeyachi]
k	-	-			DFO, Rupnarayan [ Arnab Sengupta ]
l E			CCE South Foot IVe	luan Dagi	DFO, Birbhum [ Kalyan Rai]
3 S			CCF, South-East [Ka	nyan Dasj	DFO, Burdwan [ A.K. Das ] DFO, Durgapur [ M.K. Mondal ]
eel					DFO, Nadia-Murshidabad [ Rana Dutta]
ad			CCF, South-West [ D	abal Pay 1	DFO, Purulia [ Kumar Vimal ] DFO, Kangsabati(North) [ Soma Das ]
<u> </u>			CCF, South-West [ D	eoai Kay j	DFO, Kangsabati(North) [ Solid Das ]
~				_	DFO, Extension Forestry [ Pulak Dutta ]
\ .				CF, Parks & Gardens	DFO, URF [Dr Kulandaivel] DFO, P &G (N) [ Kaushik Chowdhury]
			CCF, Cons. & Extn.	[Dr Sudhir Das]	DFO, Howrah [ B.K. Biswas ]
냰			[ Raju Das ]	an	DFO, Siliguri S.F. [ D.S Sherpa ]
<b>유</b>				CF, North-West [D Mallick]	DFO, Jalpaiguri S.F. [ Kunal Banerjee] DFO, Malda [Kaushik Sarkar]
				[ D Wantek]	DFO, Raigunj [ Diparna K Dutta ]
P.C.C.F. ( HoFF ) W. B. (Pradeep Shukla)			COL HILLO, 1 LVA	N D 1 11	DFO, Darjeeling [ RP Badana]
3		APCCF, North	CCF, Hill Circle [ MI	R Balocn]	DFO, Kurseong [ S.S.S.S. Sherpa ] DFO, NTFP [ N. R. Panda ]
9.	$\bigvee$	Bengal [Dr P.T Bhutia]			DFO, Jalpaiguri [ Bidyut Sarkar ]
			CCF, Northern Cir. [	S. Sundriyal ]	DFO, Baikunthapur [PR Pradhan]
			CCF, Wildlife	CF, Wildlife(North)	DFO, Cooch Behar [ Rathin Chandra Roy] DFO, Darjeeling Wildlife[Dharamdeo Rai]
	PCCF,		(North)	[Sumita Ghatak]	DFO, Gorumara Wildlife [ Uma Rani N]
	Wildlife	APCCF, Wildlife [ Dr R P Saini]	[ N. S. Murali]		DFO, Jaldapara Wildlife [ Bhaskar JV ]
	$\Longrightarrow_{\mathrm{CWLW}}^{\&}$	[ Di KT Saiii]	(Ujjal Ghosh)		DFD, BTR (E) [ Harikrishnan ] DFD, BTR (W) [Apurba Sen]
	[Dr P		CF, Wildlife(Hqr)		DCF, Wildlife [ Sarajit Mukherjee]
	Vyas]	APCCF & Director   CCF & FD, STR [		[ S Sengupta ]	DED CTD [ V C Monloon]
		SBR	CCF & FD, STR [ N.	Jt. Director, SBR	DFD, STR [ K.S. Mankar ] DFO, 24-Pgs (South) [ Tripti Sah]
		[R Mahtolia ]		[ Rajeev Sharma]	DFO, 24-Pgs (North) [ Netai Saha ]
			CCF, Research & Development	CF, Research [SK Mollay]	DFO, Silviculture (Hill) [ A Dutta ] (on leave) DFO, Silviculture (North) [A.K Dubey]
		APCCF, R & M	[ Rajesh Kumar]	[SK MOHay]	DFO, Silviculture (North) [A.K Dubey] DFO, Silviculture (South) [RN Saha]
	PCCF,	[J.T. Mathew]	1	CF, Development	Dir., WB Forest School [ Santosha G.R]
	$\stackrel{RM \& D}{\longleftarrow}_{[\mathrm{Dr \ B \ R}}$		CCF, Monitoring,	[ Tapas Das] CF, Monitoring	Dir., SFTI, Hizli [ A. Panda ] DFO, Monitoring (South) [ Sumana Bhattacharya]
	Sharma]		Evaluation	[G.C. Kajuri]	DFO, Monitoring (South) [ Sumana Bhattacharya] DFO, Monitoring (North) [ S.S.K Anand ]
			[ MR Bhatta]		
			CCF, Soil Cons. [ Pratibha Raj ]	CF, Soil Cons.(N) [ G.P. Chettri ]	DFO, Kurseong Soil Cons.[ T.T Bhutia ] DFO, Kalimpong Soil Cons.[ N.T Bhutia ]
			[ 1 rationa (Kaj ]	[ G.i . Chemi ]	DFO, Kalinipolig Soil Colls. [N. 1 Blittla ] DFO, Jalpaiguri Soil Cons. [Angela P Bhutia ]
1	∕—\ DCCE (C	eneral) N.K Pandey	· ·		





### FOREST LAND, FOREST COVER AND VEGETATION

#### **Forest Land**

The state of West Bengal has a recorded Forest area of 11,879 sq. Km. These Forest areas are classified into three categories with well defined extent – (1) Reserved Forest having an area of 7,054 ha, (2) Protected Forest with an extent of 3,772 sq km and (3) Unclassed State Forest with an area of 1053 sq. Km. As per the latest report Published by Forest Survey of India, the Forest Cover of the state is 21.35% of the geographical area, which includes both the notified forest areas and the afforestation created in areas outside forest.

(ISFR, 2013, GOI).

**Protected Forest (PF):** 

Classification of Recorded Forest Land (Legal status)

An area notified under the provisions of India Forest Act (IFA), 1927 **Reserved Forest (RF):** 

having full degree of protection. In Reserved Forests all activities

are prohibited unless specifically permitted (Sec. 20 of IFA, 1927).

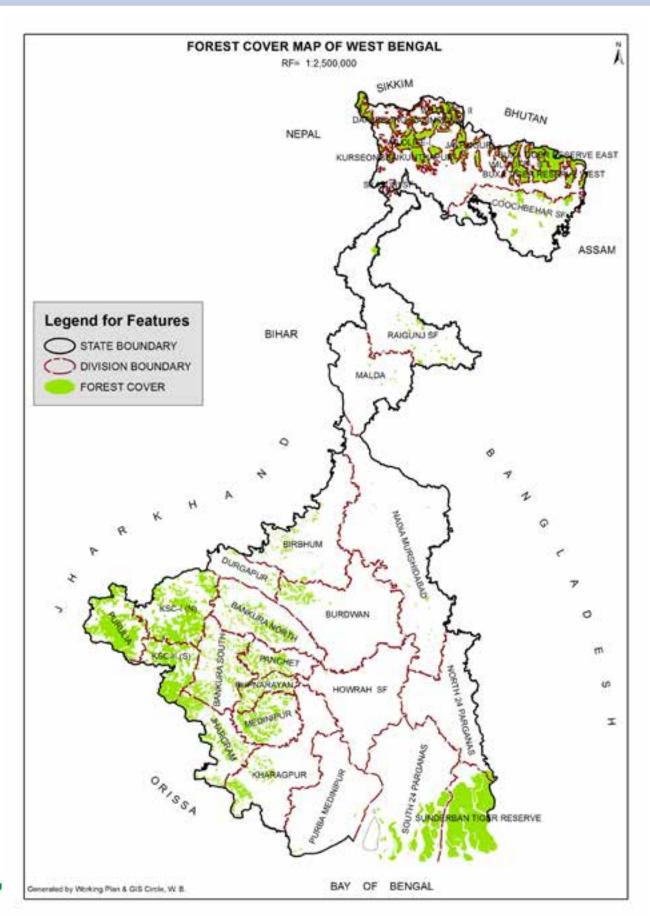
An area notified under the provisions of the Indian Forest Act, 1927

or other State Forest Acts, having limited degree of protection. In Protected Forest all activities are permitted unless prohibited (Sec.

29 of IFA, 1927).

An area recorded as forest but not included in reserved or protected **Unclassed State Forest (USF):** 

forest category.





#### Classification of Recorded forest land (Legal, Status)

**Reserved Forest:** An area notified under the provisions of Indian Forest ACT (IFA), 1927 having full degree of protection. In reserved forest all activities are prohibited unless specifically permitted (sec.20 of IFA, 1927).

**Protected Forest:** An area notified under the provisions of IFA, 1927 having limited degree of protection. In protected forest all activities are permitted unless prohibited (sec.29 of IFA, 1927).

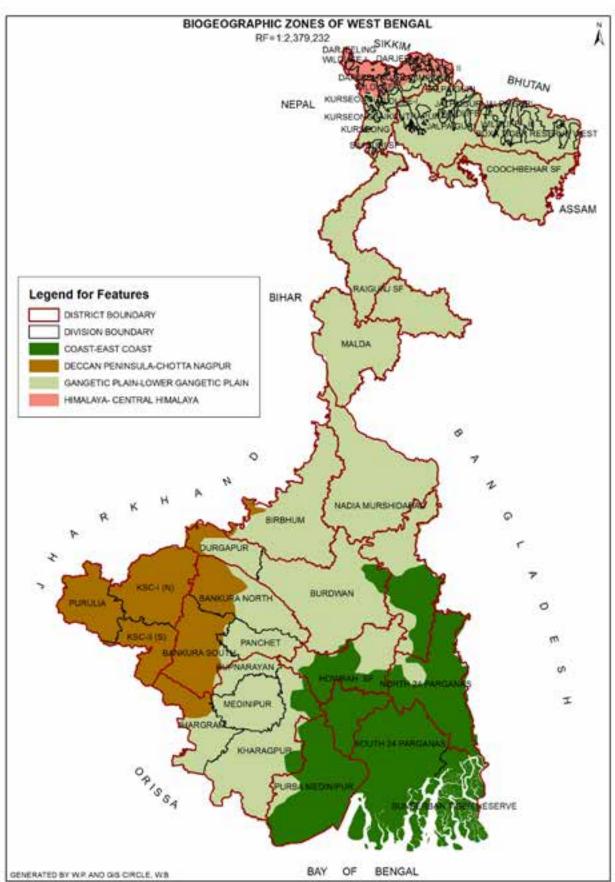
**Unclassed Forest:** An area recorded as forest but not included in reserved or protected forest category. Owneship status of such forest varies from state to state.

Distribution of Geographical and Recorded Forest Land in West Bengal

District	Geographical Area (Sq. Km.)	Recorded Forest Area (Sq. Km.)	%Age of recorded Forest Area
Darjeeling	3.149	1204	38.23%
Jalpaiguri	6,227	1790	28.75%
Coochbehar	3,387	57	1.68%
Bankura	6,882	1482	21.53%
Midnapore	14,081	1709	12.14%
Burdwan	7,024	277	3.94%
Purulia	6,259	876	14%
Hoogly	3,149	3	0.10%
Nadia	3,927	12	0.30%
Nadia	3,927	12	0.30%
Murshidabad	5,324	8	0.15%
Malda	3,733	20	0.54%
Uttar Dinajpur	3,140	10	0.32%
Dakshin Dinajpur	2,219	8	0.36%
Kolkata	104		0.00%
Howrah	1,467		0.00%
24-Parganas (South)	10,159	4,221	41.54%
24-Parganas (North)	3,977	43	1.08%
Total	88,752	11,879	13.38%







Extent of recorded legal status of forest land including land mutated to the Forest Department, GOWB, as on 31.03.2016 in West Bengal

Name of District	Name of Divi- sion	Reserve Forest est (in ha)	Protected Forest (in ha)	Unclassed State Forest (in ha)	Non-Forest Area transferred to and mutated in the name of FD, GoWB and yet to be declared as RE/PF (under FC Act)	Non- Forest Area transferred to and yet to be mutated in the name of FD, GoWB (under FC Act) (in ha)	Total Recorded/Mu- tated Forest land (in ha)
		(a)	(b)	(c)	(d)	(e)	(a+b+c+d)
Alipurduar	Jalpaiguri	2004.770	0.000	3347.670	0.000	000'0	5352.440
Alipurduar	BTR West						
Alipurduar	BTR East						
Bankura	Bankura North	2299.820	48953.200	3340.850	0.000	294.000	54593.870
Bankura	Panchet	878.000	20614.324	11903.868	32.000	0.000	33428.192
Bankura	Bankura South	2042.420	52914.920	1343.135	0.000	23.170	56300.475
Birbhum	Birbhum	1990.760	5390.364	9263.418	238.748	45.048	16883.290
Burdwan	Burdwan	3009.270	16120.603	3659.989	0.000	0.000	22789.862
Burdwan	Durgapur	0.000	6125.961	0.000	0.000	0.000	6125.961
Coochbehar	CoochBehar	0.000	3982.370	287	0.000	0.000	6830.870
Coochbehar	Jaldapara WL	30649.860	0.000		0.000	0.000	30649.860
Dakshin Dinajpur	Raiganj	414.492	291.546	121.388	0.000	0.000	827.426
Darjeeling	Kurseong	16108.600	0.000	264.300	0.000	0.000	16372.900
Darjeeling	Darjeeling WL	24475.120	0.000		0.000	0.000	24475.120
Darjeeling	Siliguri SF	0.000	0.000	)	0.000	0.000	02.770
Darjeeling	Gorumara WL	15989.170	0.000	0.000	0.000	0.000	15989.170
Darjeeling	Kalimpong	36435.79		1	208.414		30805.866
Darjeeling	Darjeeling	17657.120	0.000		2.340	0.000	17662.870
Hooghly	Howrah	112.628	224.653	0.000	0.000	0.000	337.281
Jalpaiguri	Darjeeling WL	3258.880	0.000	0.000	0.000	0.000	3258.880
Jalpaiguri	Baikuntha Pur	6535.100	16335.590	110.230	0.015	0.000	22980.935
Jalpaiguri	Jalpaiguri	25373.580	0.000	36	0.000	0.000	25735.460
Jalpaiguri	Gorumara WL	8905.590	342.784	0.000	142.162	14.130	9390.536
Malda	Malda	773.954	372.038	556.053	0.000	0.000	1702.045
MURSHIDABAD	Nadia Msd	90.110	561.150	118.800	0.000	0.000	770.060
NADIA	Nadia Msd	510.370	317.290	405.770	0.000	0.000	1233.430
Paschim Midnapur	Midnapur	3814.050	44686.950	2736.240	0.000	0.000	51237.240
Paschim Midnapur	Jhargarm	2349.612	55011.672	4748.160	0.000	0.000	62109.444
Pashim Medinipur	Rupnarayan	28.510	29109.480	0.650	0.000	6335.000	29138.640
Pashim Medinipur	Kharagpur	0.000	30713.000	1162.000	0.000	000.0	31875.000
Pashim Medinipur	WB Forest School Hijli	0.000	17.200	0.000	0.000	0.000	17.200



Name of District	Name of Divi- Reserve Forsion est (in ha)	Reserve Forest est (in ha)	Protected Forest (in ha)	Unclassed State Forest (in ha)	Non-Forest Area transferred to and mutated in the name of FD, GoWB and yet to be declared as RF/PF (under FC Act)	Non- Forest Area transferred to and yet to be mutated in the name of FD, GoWB (under FC Act)	Total Recorded/Mu- tated Forest land (in ha)
		(a)	(p)	(c)	(p)	(e)	(a+b+c+d)
Purba Midnapur	Purba Midna- pur	00000	1575.620	311.860	0.000	000.0	1887.480
Purulia	Kangsabati North	000.0	24902.710	2201.460	0.000	000.0	27104.170
Purulia	Kangsabati South	1024.770	23875.820	3658.710	0.000	000.0	28559.300
Purulia	Purulia	9485.620	29935.810	22274.990	394.880	22.140	62091.300
Uttar Dinajpur	Raiganj	207.491	126.382	268.506	0.000	0000	602.379
24 Parganas (N)	24 Parganas (N)	91.980	0.000	0.000	1.720	000.0	93.700
24 Parganas(S)	24 Parganas(S)	163421.000	0.000	268.000	0000	0000	163689.000
24 Parganas(S)	STR	258489.000	0.000	0000	0.000	0000	258489.000
	Total	601991.647	412501.437	75340.607	811.865	6733.488	1090645.556

District wise Extent of Recorded Legal Status Forest Land as on 31.03.2016 in West Bengal

Name of District	Reserve Forest (in ha)	Protected Forest (in ha)	Unclassed State Forest (in ha)	Total Recorded Forest land (in ha)
	(a)	(b)	(c)	(a+b+c)
Alipurduar	2004.770	0.000	3347.670	5352.440
Bankura	5220.240	122482.444	16587.853	144290.537
Birbhum	1990.760	5390.364	9263.418	16644.542
Burdwan	3009.270	22246.564	3659.989	28915.823
Coochbehar	30649.860	3982.370	2848.500	37480.730
Dakshin Dinajpur	414.492	291.546	121.388	827.426
Darjeeling	110665.80	0.000	490.14	105364.356
Hooghly	112.628	224.653	0.000	337.281
Jalpaiguri	44073.150	16678.374	472.110	61223.634
Malda	773.954	372.038	556.053	1702.045
MURSHIDABAD	90.110	561.150	118.800	770.060
NADIA	510.370	317.290	405.770	1233.430
Paschim Midnapur	6192.172	159538.302	8647.050	174377.524
Purba Midnapur	0.000	1575.620	311.860	1887.480
Purulia	10510.390	78714.340	28135.160	117359.890
Uttar Dinajpur	207.491	126.382	268.506	602.379
24 Parganas (N)	91.980	0.000	0.000	91.980
24 Parganas(S)	421910.000	0.000	268.000	422178.000
TOTAL	601991.647	412501.437	75340.607	1089833.691

Note:

(Excluding BTR & Kalimpong Division)

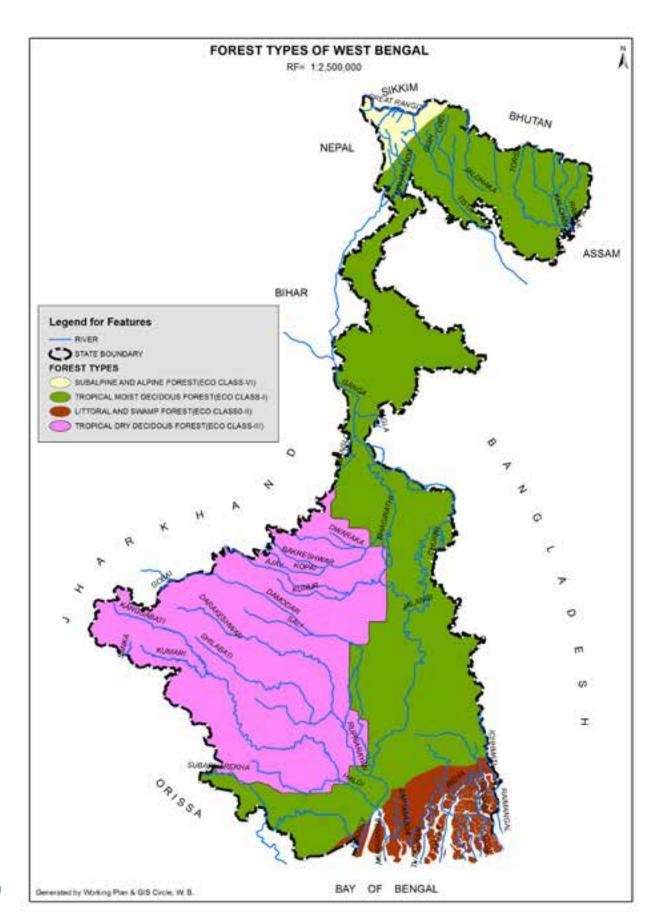




#### Division wise Extent of Recorded Legal Status Forest Land as on 31.03.2016 in West Bengal

Name of Division	Reserve Forest (in ha)	Protected Forest (in ha)	Unclassed State Forest (in ha)	Total Recorded Forest (in ha)
	(a)	(b)	(c)	(a+b+c)
Jalpaiguri	2004.770	0.000	3347.670	5352.440
BTR West				
BTR East				
Bankura North	2299.820	48953.200	3340.850	54593.870
Panchet	878.000	20614.324	11903.868	33396.192
Bankura South	2042.420	52914.920	1343.135	56300.475
Birbhum	1990.760	5390.364	9263.418	16644.542
Burdwan	3009.270	16120.603	3659.989	22789.862
Durgapur	0.000	6125.961	0.000	6125.961
CoochBehar	0.000	3982.370	2848.500	6830.870
Jaldapara WL	30649.860	0.000	0.000	30649.860
Raiganj	414.492	291.546	121.388	827.426
Kurseong	16108.600	0.000	264.300	16372.900
Darjeeling WL	24475.120	0.000	0.000	24475.120
Siliguri SF	0.000	0.000	60.770	60.770
Gorumara WL	15989.170	0.000	0.000	15989.170
Kalimpong	36435.79	0.000	161.66	30805.866
Darjeeling	17657.120	0.000	3.410	17660.530
Howrah	112.628	224.653	0.000	337.281
Darjeeling WL	3258.880	0.000	0.000	3258.880
Baikuntha Pur	6535.100	16335.590	110.230	22980.920
Jalpaiguri	25373.580	0.000	361.880	25735.460
Gorumara WL	8905.590	342.784	0.000	9248.374
Malda	773.954	372.038	556.053	1702.045
Nadia Msd	90.110	561.150	118.800	770.060
Nadia Msd	510.370	317.290	405.770	1233.430
Midnapur	3814.050	44686.950	2736.240	51237.240
Jhargarm	2349.612	55011.672	4748.160	62109.444
Rupnarayan	28.510	29109.480	0.650	29138.640
Kharagpur	0.000	30713.000	1162.000	31875.000
WB Forest School Hijli	0.000	17.200	0.000	17.200
Purba Midnapur	0.000	1575.620	311.860	1887.480
Kangsabati North	0.000	24902.710	2201.460	27104.170
Kangsabati South	1024.770	23875.820	3658.710	28559.300
Purulia	9485.620	29935.810	22274.990	61696.420
Raiganj	207.491	126.382	268.506	602.379
24 Parganas (N)	91.980	0.000	0.000	91.980
24 Parganas(S)	163421.000	0.000	268.000	163689.000
STR	258489.000	0.000	0.000	258489.000
	601991.647	412501.437	75340.607	1089833.691

Note: (Excluding BTR)





#### FOREST COVER AND VEGETATION

Group 1B: NORTHERN TROPICAL WET EVERGREEN FORESTS

Location : Plains of North Bengal upto 150 m. altitude.

Sites : Bagdogra range of Kurseong divison, Khutimari areas of Jalpaiguri division, Damanpur,

Cheko, Gadadhar, Rajabhatkhawa, Rydak of Buxa Tiger Reserve.

Area : 167 sq.km.

Species : Sal, Nageshwar, Jam, Kainjal, Lator, Malagiri, Lali & Canes.

Group 2B: NORTHERN SUB-TROPICAL SEMI-EVERGREEN FORESTS

Location: North Bengal

Sites : Sumbong, Peshok, Buxaduar

Area : 25 sq.km.

Species : Champ, Panisaj, Gokul, Angare.

Group 3C: NORTH INDIA MOIST DECIDUOUS FORESTS

Location: North Bengal

Sites : Almost entire duars and terai area

Area : 1757 sq.km.

Species : The most important forests of the State are in this sub-montane belt consisting of Sal with

Champ, Chilauni, Chikrassi, Gamar, Lali, Lasune, Panisaj, Paccasaj interspresed with riverian forests of Khair, Sissoo, Simul, Toon etc. representing succession from riverian to climax sal. The changes of vegetation that occur with increasing altitude in the Himalayas are similar to those that take place as one travels from tropics to the poles. The proportion of Sal gradually dwindles, stopping short of Damuda rocks (2500 ft.) which are remains of Gondwana sand stones and

are unsuitable for Sal.

Group 4B : LITTORAL & SWAMP FORESTS - THE MANGROVES

Sites : The tidal mangrove forests of Ganga-Brahmaputra delta (Sunderbans):

Area : 4263 sq.km.

Species : Goran (Ceriops roxburghiana) Gnewa (Excoecaria agallocha) Sundari (Heritiera minor)

Baen(Avicennia officinalis) Dhundal (Carpa obovata)

Group 4D: LITTORAL & SWAMP FORESTS-TROPICAL SEASONAL SWAMPS

OF Barringtonia.

Location : Malda & Dinajpur (N & S)

Area :  $20 \,\mathrm{sg.km}$ .

Species : Hijal (Barringtonia acuteangula)

Group 5B: NORTHERN TROPICAL DRY DECIDUOUS FORESTS

Location : Bankura, Purulia, Midnapur, Birbhum, Burdwan

Area : 4527 sq.km.

Species : Sal (Shorea robusta), Peasal (Pterocarpus marsupium), Kend (Diospyros melanoxylon),

Mahul (Madhuka latifolia), Kusum (Schleichera trijuga), Karam (Adina cordifolia), Asan (Terminalia tomentosa), Bahera (T.belerica), Rahara (Soyamida febrifuga), Dhaw

(Anogeissuslatifolia).





Group 8B: NORTHERN SUB-TROPICAL BROAD-LEAVED WET HILL FORESTS

Location: North Bengal hills 300m-1650m altitude.

Sites : Sim, Upper Sumbong, Upper Reyong, Forests blocks of Majua, Lower Babukhola,

Phuguri, Bunklong, Khairbani, Mana, Sittong Numbong, Setikhola, Shivakhola, Mirik,

Paglajhora, Kuhi and Latpanchar

Area : 800 sq.km.

Species : Chilouni, Panisai, Gokul, Sour, Utis, Mauwa, Tarsing.

The species commonly found are Mowa, Chilauni, Katus, Panisaj, Lampate, Phaleado, Saur, Tarsing, Angare, Melo Kapasi, Utis, Toon and Malagiri along with Kutmero, Jhingni, Lek Chilauni, Malata, Thali, Kawla etc. Climbers and epiphytes are common here. Choyabans and

tree Ferns occur locally.

Group 11B: NORTHERN MONTANE WET TEMPERATE FORESTS

Location: North Bengal hills 1650m-3000m.altitude.

Sites : Selimbong, Kankibong, Little Rangit, Lopchu, Mahaldiram, Chattakpur, Dhobijhora,

Upper Babukhola, Phuguri, Paglajhora and Lower Babukhola forest blocks

Area : 150 sq.km.

Species : Kawla, Lkhar, Pipli, Oaks (buk & phalat), Rani champ, Abies densa, Tsuga brunoniana, Acer spp.

The principal species found here are Pipli(Bucklandia populnea), Utis, Saur, Katus, Kapasi, Arkula, Mowa, Khankpa, Sinkoli, Buk, Phalant, Champ, Kawla, Malta, Magnolia, Latasaea and Machilus spp. along with Jhigni, Chiwri, Araliaceous, spp. Ilex spp., Thali and Kharane, The ground flora includes Kimbu, Kagate, Asare, Thotne, Chuletro, Maling, Lycopodium, Basak

and Chirata.

Group 12C: EAST HIMALAYAN MOIST TEMPERATE FORESTS

Location: North Bengal hills 1500m-1800m.

Sites : Rimbik

Area : 150 sq.km.

Species : The species commonly found are Mowa, Chilaune, Katus, Panisaj, Lampate, Phaleado, Saur,

Tarsing, Angare, Melo Kapasi, Utis, Toon, and Malagiri along with Kutmero Jhigni, Lek Chilaune, Malata, Thali, Kawla etc. Climbers and epiphytes are common here. Choyabans and tree Ferns occur locally. This type of forests are met within the forest blocks of Majua, Lower Babukhola, Phuguri, Bunklong, Khairbani, Mana, Sittong Numbong, Setikhola.

Shivakhola, Mirik, Paglajhora, Kuhi and Latpanchar.

Group 14C: SUB-ALIPINE FORESTS

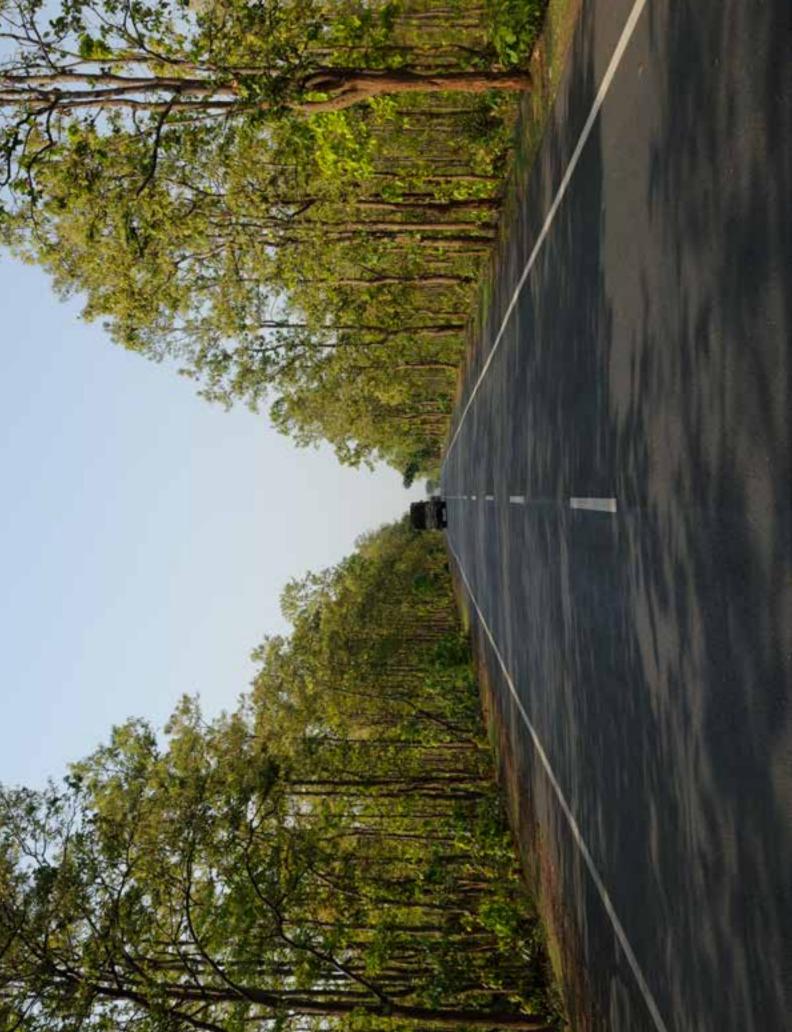
Location : North Bengal hills 3000m-3700m Sites : Sandakpu, Sabarkum, Phalut

Area : 20sq.km.

Species: Important spp. are Putli, Lekh Kapasi, Lekh Pipli, Kapasi, Arupate, Sindure Katus

(Castanopsis sp.), Yew (Taxus bacata), Tsuga brunoniana, Abies densa, Junipers, Birch

(Betula utilis), Rhododendrons, Salix, Berberis, Maling bamboo.

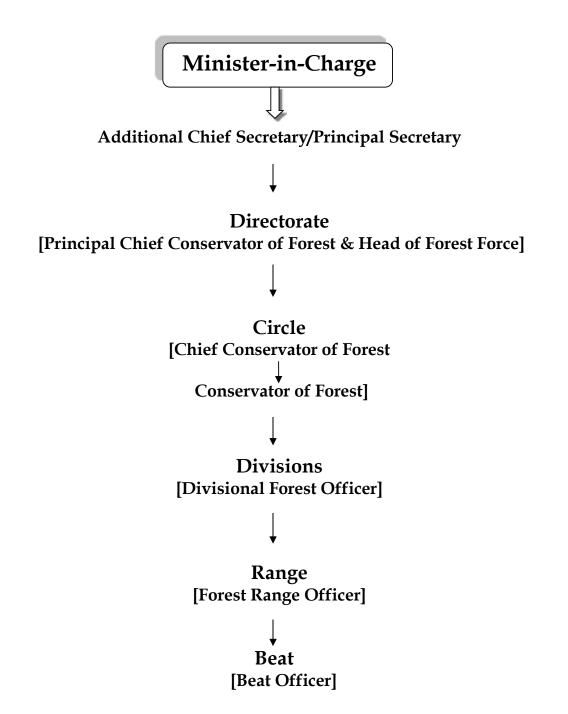




#### FOREST ADMINISTRATION

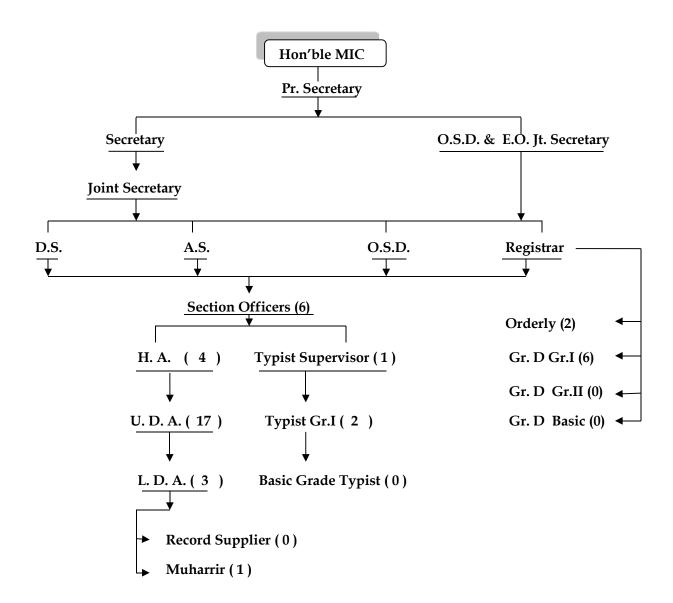
DEPARTMENT OF FOREST, WEST BENGAL

#### ADMINISTARATIVE SET UP OF THE DEPARTMENT OF FORESTS



#### Organizational Structure of Forest Department, Govt. of W.B.

The Department of Forests is a Department with a structure that reflects the diverse range of tasks it is expected to undertake. The administration of this Department is vested in the Principal Secretary. He is assisted by officers and employees working at the Secretariat, Directorate, Districts, Sub-Divisions and Block levels.





#### **Functions of the Secretariat**:

Subject to the overall control of the Hon'ble MIC, Forests, the Secretariat functions under the administrative direction and guidance of the Principal Secretary. The Department monitors and evaluates various projects /schemes implemented through the Directorate.

The Functions of Secretariat are dealt with by different cells headed by the Adll. Secretary and joint Secretary.

- 1) **Departmental Establishment Cell** Service Matters of the Secretariat employees, enforcement of attendance, vigilance matter of Secretariat employees etc.
- 2) Gazetted Establishment Cell all kinds of Service matters of IFS and WBFS officers.
- 3) Non-Gazetted Establishment Cell all kinds of Service matters of non-gazetted employees of Forest Directorate.
- 4) **Vigilance Cell** Vigilance matters of IFS, WBFS officers.
- 5) Law Cell Law matters relating to Directorate & Department
- 6) Wildlife Cell Wildlife related matters and matters relating to framing of Acts/Rules/ Notifications pertaining to different acts, matters related to forest produce, Establishment of State Zoo Authority, matters relating to WBFDC Ltd., WBPDC Ltd and WBWDC Ltd. (excluding Establishment related to WBFDC and WBPDC Ltd.).
- 7) **Budget Cell** Budgetary provisions of Department and Directorate through Fund flow Release Information system Portal of Finance Department, Budget Allotment to the Department and Directorate and Monitoring of fund flow through e-bantan Portal of Finance Department. Monitoring of RIDF scheme through Rural Infrastructure Development Fund Portal of Finance Department, Create new Head of Services for implementation of new schemes, Fund allotment to the Schemes like Jalatirtha, Sabujshree etc.., Create New DDO and DDO code, Payment of compensation to the victims family due to wild animal-human conflict like Human injury, crop damage, hut damage etc.., payment of decretal money. Monitoring over WFTS portal of Finance Department, Credit Confirmation of Central allotment of fund through Online Credit Confirmation System, Re-appropriation and augmentation of fund through e-bantan and sending of file to the Finance Department.
- 8) Accounts Cell Registrar (presently the Assistant Secretary) acts as the drawing and disbursing officer of the Department for drawl of establishment bills after introduction of self DDO-system from December, 2011. Preparation of Establishment Bill, submission to Pay & Accounts office for drawal of cheques, encashment of cheques from the Reserve Bank of India, payment to the employees of the Department, issue of salary Accounts slip etc.
- 9) **Billing Cell** Matters relating to stationary, office budget allotment, Identity Card, Vehicle for Officers, reimbursement of telephone Bill, Newspaper Bill and Medical Bill of Officers, Tour of MIC and Officers.
- 10) Leave Cell Leave matters of Secretariat employees.
- 11) **Medical Cell** Matters relating to WBHS'08, WBHS'14 and other medical cases for Secretariat and Directorate employees.

- 12) RTI, Public Grievances & Protocol Duty Cell Matters relating to RTI, Public Grievances and Protocol Duty for official guests and others matters.
- 13) Audit Cell Settlement of outstanding audit para and matters relating to Assembly / Lok Sabha / Rajya Sabha questions matters related to Assembly Committee, Audit, Plan and non-plan fund of Alipore Zoo & PNHZ Park
- 14) CAMPA Cell Framing of Acts/Rules/Notifications pertaining to different acts, diversion of land under Forest Conservation Acts & Wetland, CAMPA, Saw-mills.
- 15) Miscellaneous Cell All kinds of miscellaneous matters concerned with this Department.
- **16) Issue & Compare Cell** Provide issue numbers, despatch the government letters and documents and compare the draft letters.





# CADRE STRENGTH OF IFS & WBFS IN WEST BENGALAS on 31.03.2016 IFS CADRE OF WEST BENGAL

Sl. No.	Authorised Structure of the Cadre vide G.O No. 16016/2(i)/2011-AIS-(II)(A) dt. 13.03.2012	No of Post	Present Srength of Cadre as on 31.03.2016	No of Post
1	Senior Duty Post under the State Govt	78	Senior Duty Post	73*
2	Central Deputation Reserve @ 20% of (1) above	15	Central Deputation	2
3	State Deputation Reserve @ 25% of (1) above	19	State Deputation	24
4	Training Reserve @ 3.5% of (1) above	2	Training Reserve	11
5	Post to be filled by promotion in accordance with Rule 8 of India Forest Service (Recruitment) Rules,1966 not exceeding 33.33% of items (1),(2),(3) & (4) above	38	Posts Filled by promotion from WBFS	38
6	Leave Reserve & Junior Posts Reserve @ 16.5% if item (1) above	12	Leave Reserve & Junior Posts	6
7	Post to be filled by Direct Recruitment (1+2+3+4+6-5)	88	Posts filled by Direct Recruitment	78
8	Total Authorised Strength	126	Total Present Strength	115

<sup>\*</sup>One Officer of Chhatisgarh cadre who on inter-state deputation is occupying a senior duty post .

#### WBFSCADRE OF WEST BENGAL

### (As per Govt Order No.1499-For dated 15.05.2000 & 3887-For. Dated 10.11.2006)

Sl.No.	Description	Nos.	Actually Posted
1	Direct Recruit Officers	63	34
2	Promoted Officers	63	61
3	Officers in charge of Division/Sr. Duty Post (DFO/DCF)	23	23
4	Officers posted as ADFO/Jr. Duty Post	87	63
5	Officers on deputation @ 10% of (3+4)	11	8
6	Officers undergoing training & Leave Reserve @ 5% of (3+4)	5	1
	Total Authorised Strength:	126	95

<sup>\*</sup> One Ex-Cadre IFS post in the Directorate (PCCF, General)

Statement showing the sanctioned strengths of officers and staff of the Forest Directorate along with the existing strengths and vacancy positions

Sl No	Name of posts	<b>Sanctioned Strength</b>	<b>Existing Strength</b>	Vacancies
1	IFS	126	110	16
2	WBFS	126	94	32
3	A.O.	1	1	0
4	FR	580	274	306
5	DR/ Fr	1277	605	672
6	FG	2444	1441	1003
7	HFG	231	91	140
8	Head Clerk ( Regional )	65	55	10
9	Clerk Accountant ( Regional )	8	5	3
10	Divisional Accountant ( Regional )	53	37	16
11	UDC ( Regional )	327	243	84
12	LDC / CT ( Regional )	350	61	289
13	Typist ( Regional )	28	6	22
14	Head Clerk ( Directorate )	8	8	0
15	Accountant ( Directorate )	2	2	0
16	UDC ( Directorate )	26	26	0
17	LDC ( Directorate )	26	6	20
18	Typist ( Directorate )	15	9	6
19	Assistant Statistician	1	1	0
20	Computing Supervisor	2	2	0
21	Computor	7	0	7
22	Statistician	1	0	1
23	Drivers	146	72	74
24	Aggriculture Extension Officer	2	0	2
25	Asst. Foreman ( Mechanical )	4	0	4
26	Asst. Saw Doctor	2	0	2
27	Attendant	1	0	1
28	Asst. Soil Chemist	1	0	1
29	Band Saw Operator	10	1	9
30	Bearer	3	2	1
31	Boatman	102	46	56
32	Boiler Driver	1	0	1
33	Boiler Fireman	3	0	3
34	Bunglow Chowkidar	94	56	38
35	Bengali Translator	1	1	0
36	Cashaub	1	0	1



Sl No	Name of posts	Sanctioned Strength	<b>Existing Strength</b>	Vacancies
37	Chowkidar	2	0	2
38	Cleaner / Track Cleaner	27	16	11
39	Cook	4	0	4
40	Cook - cum Bearer	2	2	0
41	Crane Operator	3	2	1
42	Cross - cut - Operator	6	1	5
43	C.T. Mobile Medical Unit	1	0	1
44	Compounder	1	1	0
45	Dakwala	104	38	66
46	Darwan	34	24	10
47	Draftsman / Head Draftsman	35	16	19
48	Driver - cum - Mechanic	3	0	3
49	Duftary	13	6	7
50	Duplicating Operator	1	1	0
51	Electrician	1	1	0
52	Engine Driver	9	6	3
53	Electric Workman	4	0	4
54	ECG Technician	1	0	1
55	Fitter	1	0	1
56	Forest Watcher	13	6	7
57	Forest Worker	17	6	11
58	General Duty Attendant ( Medical Unit )	2	0	2
59	Gate Operator / H.G.O.	5	3	2
60	Grass Cutter	36	12	24
61	Game Watcher	2	2	0
62	Game Guard	4	0	4
63	Installation Guard	10	0	10
64	Kilm Supervisor	1	0	1
65	Laskar	17	8	9
66	Lathe man	1	0	1
67	Laboratory Assistant	3	2	1
68	Laboratory Attendant	1	1	0
69	Mahut	25	7	18
70	Majhi	44	23	21
71	Mali	193	91	102
72	Medical Officer	2	0	2
73	Mosalchi	1	0	1
74	Muharir Grade - I , Grade - II	2	2	0

Sl No	Name of posts	Sanctioned Strength	<b>Existing Strength</b>	Vacancies
75	Museum Darwan	1	0	1
76	Night Guard	11	8	3
77	Night Watchman	5	1	4
78	Nurse	2	0	2
79	Oil Man - greaser	9	4	5
80	Orderly	534	391	143
81	Peon	102	83	19
82	Office Superintendent	1	1	0
83	Pharmacist	2	0	2
84	Power Saw Operator	5	0	5
85	Pump Driver	1	0	1
86	Road Roller Driver	3	0	3
87	Record Supplier	2	2	0
88	Renepont Operator	2	1	1
89	Road Roller Mate	3	1	2
90	Research Officer	1	0	1
91	Ropeway Motor Driver	7	0	7
92	Road Khalasi	3	0	3
93	Saw Doctor	1	0	1
94	Sareng	7	5	2
95	Skilled Majdoor	10	0	10
96	Station Helper	5	0	5
97	Personal Assistant	48	46	2
98	Sub - Station Operator	2	1	1
99	Karmabandhu ( Sweeper )	52	18	34
100	Sukhani	5	1	4
101	Tractor Driver	1	0	1
102	Tractor Mate	5	0	5
103	Taxidermist	1	0	1
104	Ticket Seller	1	0	1
105	Technical Assistant	1	0	1
106	Tractor Mount Roller Driver	1	1	0
107	Unskilled Mazdoor	46	1	45
108	Veterinary Officer	1	0	1
109	Watcher	1	1	0
110	X - Ray Assistant	1	1	0
111	Karmasathi ( Zamadar )	2	1	1





### In addition, the following are Permanent Deputation Posts to WBFDC-Ltd.

(vide no.1248-For/6D-1/97(PT-II) dt.: 13/3/2008 of the FD, for Branch, WB.)

Sl No	Name of posts	Sanctioned Strength	<b>Existing Strength</b>	Vacancies
1	Asst. Saw Doctor	3	1	2
2	Boiler Driver	2	0	2
3	Cleaner	4	3	1
4	Darwan	1	1	0
5	Electric Workman	2	1	1
6	Fitter	1	1	0
7	Installation Guard	2	0	2
8	Motor Driver	1	0	1
9	Power Saw Operator	1	1	0
10	Skilled Mazdoor	19	3	16
11	Station Helper	5	0	5
12	Unskilled Mazdoor	6	4	2
	TOTAL:	47	15	32
	PAR	KS & GARDENS WIN	NG	
SI No	Name of posts	Sanctioned Strength	<b>Existing Strength</b>	Vacancies
1	Garden Supervisor	22	17	5
2	Head Uddyan Rakshi	30	17	13
3	Horticulture Officer	5	0	5
4	Senior Horticulture Officer	2	1	1
5	Senior Mali	70	50	20
6	Superintendent Horticulture Officer	1	0	1
7	Uddyan Rakshi	120	76	44
8	Uddyan Shramik	280	152	128
	LLO	YD BOTANIC GARD	EN	
Sl No	Name of posts	Sanctioned Strength	<b>Existing Strength</b>	Vacancies
1	Black Smith	1	0	1
2	Carpenter	1	1	0
3	СТ	1	0	1
4	Darwan	6	2	4
Sl No	Name of posts	Sanctioned Strength	<b>Existing Strength</b>	Vacancies

5	Head Mali	1	0	1
6	Herbarium Cleaner	4	0	4
7	Horticulture Officer	1	0	1
8	Junior Mali	1	0	1
9	Label Writer	1	0	1
10	Man Mazdoor	11	4	7
11	Night Guard / Chowkidar	1	0	1
12	Orchid Supervisor	1	0	1
13	Orderly	1	1	0
14	Plant Collector	1	1	0
15	Peon	1	1	0
16	Sardar	1	0	1
17	Senior Mali	1	1	0
18	Store Keeper	1	0	1
19	Karmabandhu ( Sweeper )	2	0	2
20	UDC	1	1	0
21	Women Mazdoor	25	1	24

### **Supernumerary Posts**

Bana Mazdoor	267
Bana Shramik	2124

### ADMINISTRATIVE UNITS UNDER FOREST DIRECTORATE

	Circle	Division	Range	Beat
Territorial	7	22	243	509
Wildlife	5	9	86	142
Social Forestry	1	7	52	72
Soil Conservation	1	3	22	39
Functional	4	17	71	0
Total	18	58	474	762





#### **RECRUITMENT:-**

#### 1. MINISTERIAL PERSONNEL:-

#### **Direct Recruitment:-**

#### **Direct recruitment of Lower Division Clerks:**

Consequent upon Government approval for recruitment of fifty (50) Nos .of Lower Division Clerks, the West Bengal Staff Selection Commission has recommended engagement of 32 Nos of Lower Division Clerks during this financial year. The process of appointing the candidates is in progress.

#### 2.EXECUTIVE PERSONNEL:-

There has been no direct recruitment of Executive personnel, eg Forest Ranger, Deputy Ranger/Forester and Forest Guards.

However there has been recruitment of Deputy Ranger/ Forester and Forest Guards on Compassionate Ground, details of which is given below under para on Compassionate ground

#### APPOINTMENT ON COMPASSIONATE GROUND:-

During the period, 68 proposals for appointment on compassionate ground were received by this office.

Special eligibility tests were held from time to time to judge the suitability of the candidates for appointment to different Group C and Group D posts. Depending upon their educational qualification, performance in the Special eligibility test and physical standards, the candidates have been offered appointment in different Group C and D posts as shown below:-.

#### DETAILS OF SELECTION FOR APPOINTMENT INGROUP- C ON COMPASSIONATE GROUND

Sl No	Designation	No. of candidate selected for appointment (41 Nos.)
1	Deputy Ranger/Forester	15
2	Forest Guard	24
3	Lower Division Clerk	2

#### DETAILS OF SELECTION FOR APPOINTMENTING ROUP-DONCOMPASSIONATE GROUND

Sl No	Designation	No. of candidates offered appointment (27 Nos.)
1	Orderly	18
2	Peon	4
3	Mali	3
4	BunglowChowkider	2





### **SCHEMES / PROGRAMMES**

#### **State Plan Schemes**

#### A. Agriculture & Allied Activities Sector:-

### I. Soil and Water Conservation and Agricultural Research and education:-

- i) Works of soil and water conservation are taken up in the areas which are ecologically fragile. The objectives of action under the scheme is to mitigate the effects of development in the ecologically fragile areas by providing a buffer from the disastrous effects of natural calamities like landslides and the chronologically imperceptible effects of erosion etc. There is need for adoption of soil and water conservation measures. The approach of catchment management includes vegetative measures like afforestation, agro forestry, vegetative contour barriers, pallisading, whittling and engineering works like checkdams, gully plugging and control measures, guided bandhs/spurs and water harvesting structures.
- ii) Field forestry research includes proper designing of field trials of forestry species, improvement in nursery and plantation techniques, model plantations, collection and use of Source- identified seeds for better productivity, research on growth and yield of forest trees of important economic values etc. The trials are very important for augmentation of biodiversity, forest cover and improvement of forest productivity. For this purpose standardized nursery practices and plantation techniques experimented with in the field trials. Production of quality planting material for the plantation of important species is also very important.
- Training of forest staff in wildlife, soil conservation, computer application, research, Seed technology, Social Forestry and general forestry management and other sectors connected with fringe area development programme is also an important scheme under the core sector of 2415-Forestry Research and Education.

#### **B.** Forestry and Wildlife:-

### 1. Protection and Improvement of Wildlife and Biodiversity:

Schemes under this category are implemented in areas having significantly higher density of wildlife which has become highly endangered species and also include areas that contain highly endangered plant and insect species, amphibians etc. Forest areas in the State which have been brought under total biodiversity conservation and preservation is 4064 sq. km., which is approximately 34% of the recorded forest area of the state and 4.54% of the total geographical area of the state. The objective is to protect the highly endangered species of all genera from poaching and reducing as well deteriorating habitat, and also check the highly lucrative illicit trade of Wildlife.

The activities under this scheme include conservation of the habitats for the Wildlife, management of Wildlife populations, prevention of straying of wild animals such as elephants and wild Gaur into adjoining human habitats, management of tiger Reserves, Sanctuaries and National Parks and management of Man Animal conflict. The following important schemes are implemented under this category.

a) Nature conservation-Protection and improvement of wildlife:

This scheme is meant for improvement of wildlife in the State. It includes improvement of wildlife habitat in different forest areas of the State and improvement of Wildlife Sanctuaries and National Parks. About 34% of forest area of the State is under protected area network.

#### b) Tiger Reserve in Sunderban:

These are 50% Centrally Sponsored Scheme meant for overall development of two tiger Reserves. Eco-development works, infrastructural development works and other developmental programmes are taken up under this scheme. Allocation of funds from the Govt. of India depends on availability of matching grant by the State.

#### c) Tiger Reserve in Buxa:

These are 50% Centrally Sponsored Scheme meant for overall development of two tiger Reserves. Eco-development works, infrastructural development works and other developmental programmes are taken up under this scheme. Allocation of funds from the Govt. of India depends on availability of matching grant by the State.

d) Development of national Park and sanctuaries-Jaldapara sanctuary:

This Scheme is meant for improvement and preservation of wildlife habitat in Jaldapara sanctuary. This is a very important scheme for preservation of the prime rhino habitat of the State.

e) Control of poaching and illegal trade in wildlife with special reference to interstate and international implication:

Control of poaching of rare and endangered animals viz. tiger, rhino, elephant etc. has to be accorded highest priority. Similarly poaching of prey base species like deer also has to be kept at bay. The provision under the scheme is to take care of such activities.

#### 2. Consolidation of Joint Forest Management:

Joint Forest Management (JFM) has evolved as a major component of forest management in the state. West Bengal is the pioneer of JFM in the World Forestry. Till now more than 4000 registered Forest Protection Committees have been formed which comprise of more than 5,62,202 members and provide protection to 5417 sq. km. Of





forests which is more than 40% of the total forest area in the state. The main objective is to reduce the biotic pressure on the forests, so that the forests are conserved to the most productive levels and the biodiversity of the forests remain unaffected.

For the purpose of consolidation of JFM, various support activities are taken up in various FPC areas. Twenty five percent of net revenue collected by way of sale of forest produce is also distributed among the FPC members.

It is therefore necessary, for consolidation of JFM in the state, to provide socio economic security to the FPC members to the best extent possible. For this purpose the following schemes are implemented under this title by means of creation of assets, construction of soil moisture conservation structures for better utilization of nearby agricultural fields, community halls etc. to achieve the objectives as envisaged above.

### a) Community Development:

The foundation of Joint Forest Management (JFM) has been firmly laid in south Bengal through formation of Forest Protection Committees (FPC) and microplanning process. Under the scheme, efforts are made to extend JFM to other parts of the state through community development works in order to address the problem of biotic interference which is responsible for forest degradation. The scheme also has its effect on uplifting the living conditions of Forest villages inside the Forest areas in North Bengal. The result is better management, protection and betterment of valuable Forest resources along with the economic betterment of the people dependent on forest resources.

#### b) Other Allied Works Component:

Apart from the afforestation schemes certain additional works have been included in the State Plan, namely, survey and demarcation of external forest boundaries, improvement of forest roads, construction of small earthen dams and other waterbodies for ground water recharging, gully control and watershed stabilization, social amenities, income generation and employment, for the sustenance of joint forest management.

#### c) Economic rehabilitation of fringe population:

It is being largely felt that forests cannot be protected without enlisting the support of forest fringe dwellers. Participatory Management of forests has taken deep route in some agro-ecological zones of the State. In addition, there is need to implant the same in the right frame. In the initial years such efforts need be nurtured through appropriate JFM-support activities on adopted micro-plans. This includes entry point activities inside the fringe population, enlightening the local population regarding the benefits of protection of forests etc.

#### d) Amenities to Forest Staff and labour:

This is a scheme for providing amenities to forest staff and forest villages. There are more than 10,000 forest staff spread all over West Bengal at more than 200 locations. The scheme has its contribution in harnessing the Human Resource and simultaneously its development in the form of providing them certain basic amenities thus motivating them to work with maximum efficiency.

3. Afforestation:-One of the objectives of National Forest Policy is to increase the National Forest cover to 33% of the geographical area as per the National Forest Policy, 1988. The main area of activity is creation, maintenance and preservation of plantations on both degraded forest land, non forest Government land and private lands through the following schemes.

#### a) Economic Plantation:

This scheme is meant for the plains of Dooars in North Bengal and comprise of plantations of timber producing species.

### b) Plantation of Quick Growing Species:

Under this scheme mainly industrial plantations over laterite zone are created along with maintenance of older plantations.

#### c) Coastal Shelterbelt Plantation:

Mainly plantations in Coastal areas are taken up under this program with the objective of mitigating the fury of cyclones along the coastal areas. This program will be taken up mainly in Midnapur district and some areas of 24 Parganas South.

### d) Mangrove Treatment:

The scheme aims at rehabilitation of mangrove forests in Sunderban areas by taking afforestation in saline blank patches, newly accredited areas on account of deltaic accrual of lands, sandy blanks etc.

#### e) Forestry Treatment:

In view of a very wide range of Agro-ecological conditions prevailing in this state, altogether 12 treatment models have been adopted, which are grouped in two broad categories, namely (a) Rehabilitation of degraded forest lands which constitutes the largest component of the treatment models involving JFM with FPC's including regeneration of degraded Sal forests in SW Bengal from viable root stocks and partly in North Bengal for similar areas. Enrichment planting is also undertaken in blank pockets within these areas and (b) Forestry development on Non Forest Lands the principal focus of which is on the Farm Forestry, which is directed towards small and marginal Farmers. This also includes promotion of Agro-Forestry systems.





### f) Strip Plantation/Farm Forestry:

This scheme is meant for a part of the area that has been earmarked for strip plantation along national highways, canal embankments, roadside plantations etc.

#### 4. Infrastructure Development, Forest protection, management and planning:

Forest staffs are generally required to live in forest areas for protection of forests and for executing various developmental works. This makes it pertinent therefore, to take up construction activities of buildings for different categories of staff and officers.

The computerized cell on GIS is entrusted with the task of updating satellite based spatial information data and to generate real time maps for proper policy framing and planning and monitoring of forest cover and in addition to that also helps in consolidating the forest resources. There is a need to assess the forest cover periodically based on satellite imageries procured in digital data format from NRSA.

Eco tourism is a concept where the programs of nature conservation and tourism are made to coincide so as to produce a synergetic effect. The objective is to sensitize each visitor regarding the importance of conservation on human survival on this earth by inviting them to such protected areas and eco-tourism centers as potential advertisers to spread the message of the need for conservation of the wildlife and their natural habitat. Eco-Tourism is also visualized as a tool to generate local employment and involve FPC/EDC members in economic activities of Eco-Tourism to earn their livelihood and in turn their support in bio-diversity conservation.

In consideration of the aforementioned objectives, the following important schemes are taken up to meet the above mentioned objectives.

### a) Forest Resource Survey:

Under this programme survey of forest resources is done using Geographical Information System. The forest resource position of the state is continuously updated for future planning.

#### b) Forest Consolidation:

The recorded forest area of the state is only 13.4% of the total area of the State. It is therefore important to maintain the boundaries of forest areas. Under this scheme maintenance of forest boundaries is done through periodic survey and demarcation.

#### c) Development of Forest Communications:

Efficient forest Protection in North Bengal will be possible only when remote areas can be approached. At present communication facilities are not adequate. Hence under this scheme improvement of the existing road network in forest areas through up

gradation of the vulnerable bridges and construction of culverts and bridges has been envisaged.

### d) Buildings:

Forest personnel have to live in forest areas for forest protection and execution of developmental works. Construction of staff quarters, barracks, check posts etc is therefore necessary for different categories of staff and officers. There is a necessity of having a separate infrastructure for posting of staff. In remote stations subordinate executives have to be posted in small groups. Deployment at such remote sites of such field executives at Beat/Range HQ, outposts/check posts makes it urgent and imperative to take up construction of buildings for different categories of staff and officers. Such constructional works are taken up under this scheme.

#### e) Forest Protection:

The objective of the scheme is to strengthen forest protection. It includes activities like providing mobility to field staff, procurement of arms and ammunitions, expansion and up gradation of R.T. Network etc.

### f) Integrated Forest Protection Scheme:

One of the important schemes of Government of India which is implemented under the fund sharing mode of 60 % Central Share and 40 % State Share. This scheme consists of 40 % State Share under the centrally aided scheme Intensification of management Scheme, funded 60 % by Government of India. The main objective of the scheme is to prevent forest fire through infrastructure development and improvement in forest protection. This scheme caters to the three basic pillars of forest protection and management viz. Forest fire control and management, Preparation of Working Plans/ Survey and Demarcation of Forest boundaries and Strengthening of Infrastructure for forest protection.

### g) Working Plan:

For working of forest areas, working plans need to be prepared and got approved by the Govt. of India. The Working Plan divisions are entrusted with the writing and revision of working plans. All activities connected with the exercise are funded from the scheme.

### h) Management information System:

For successful management of any resource, a comprehensive and informative database is necessary. In terms of the adopted policy of the State Govt., all district headquarters are proposed to be covered by a wide area net-work.

#### i) Timber Operation:

One of the thrust areas is judicious harvesting of forest resource compatible with ecological, economic and environmental needs. As contractor system has been abolished in West Bengal, this operation is done wholly departmentally all over the





State. Presently the areas of North Bengal are covered under this scheme. Such harvesting of final and intermediate yield as per provisions of approved Working Plan not only create substantial employment in rural area but also generates revenue for the State Exchequer.

### j) Intensification of Management:

With rapid urbanization and rise in demand of forest produce, protection of forests is becoming increasingly difficult. This task is becoming more complex due to opening up of the roads in new directions. The scheme takes care of initiations in strengthening the biotic infrastructure and acquisition of tools for modernization of data collection, storing and retrieval system in different spheres of activities.

### k) Monitoring and Evaluation:

The plantations raised under various state plan schemes and some central sector schemes require regular monitoring. The fund provided under this scheme is utilised to monitor and evaluate the success of the plantations using scientific sampling methods

### 5. Publicity and Extension of Forestry activities:

To fulfill the goal of afforestation to the extent of 33% of the geographical area of the state as envisaged in National Forest Policy 1988 and National Afforestation Program it is not only necessary but urgent to go for the areas outside forests to undertake plantation activities as the recorded forest area in the state is only 13.7% of the total geographical area. It is also desired to sensitize the people in general about the importance of conservation. Therefore activities like publicity, distribution of seedlings, maintenance of Botanical garden, creation of parks and gardens etc are undertaken under various schemes under this category.

### a) Creation and improvement of Parks and gardens:

This and the following two schemes have its roots in rapid industrialization and population growth thus taking up all the available open spaces gradually. These three schemes try to retrieve the balance open spaces by taking up afforestation activities. Also there is a need for taking care of the aesthetic and recreational aspects, which is being increasingly felt in rural, semi-urban and urban areas. Renovation and maintenance of older parks is also done under these schemes.

### b) Llyod Botanical Garden:

The scheme is for the development of prestigious Lloyd Botanical Garden situated in Darjeeling. This is the only Botanical garden located in the high altitude region of Himalayas. This garden has the potential of being developed model garden for the flora of montane and temperate areas of the eastern Himalayas.

## c) Decentralization of Peoples Nurseries:

Seedlings are being raised through Nurseries under this programme with the objective of promoting planting of trees outside forest areas.

#### 6. Zoological Park:-

The West Bengal Zoo Authority was established in the year 2010 and has been fully operational since 2012-13. The Authority is a Government controlled registered society under the Department of Forests, Govt. of West Bengal. The West Bengal Zoo Authority is governed by a 12 member Board headed by the Chief Secretary, Govt. of West Bengal. Additional Chief Secretary, Department of Forests, Govt. of West Bengal is the Vice-chairman of the Authority. The Member Secretary, West Bengal Zoo Authority is the Chief Executive Officer of the Authority and is assisted by around 12 personnel in day to day functioning of the Authority.

The administrative control of 11 nos. Government controlled zoos, viz. Zoological Garden, Alipore; Padmaja Naidu Himalayan Zoological Garden, Darjeeling; Jhargram Zoo, Jhargram; Ramnabagan Zoo, Burdwan; Rasikbil Mini Zoo, Coochbehar; Kunjuanagar Rescue Centre, Jalpaiguri; South Khairbari Rehabilitation Centre, Jalpaiguri; Garchumuk Deer Park, Howrah; Adina Deer Park, Malda; KumariKangsabati Deer Park, Bankura and Surulia Mini Zoo, Purulia, in the State of West Bengal has been transferred to the West Bengal Zoo Authority by the Govt. of West Bengal.

The West Bengal Zoo Authority is in process of finalising Master Plans for all the zoos under its control in consultation with the Central Zoo Authority. The West Bengal Zoo Authority has already received approval of Master Plans for most of the zoos.

The Zoo Authority is in process of creation of a 390 ha. North Bengal Wild Animals Park (Siliguri Safari) near Siliguri. The DPR for the same has already been submitted to the CZA for approval. The same is expected very soon. The total cost of the project is expected to be around Rs.250 crores.

The Zoo Authority is also in process of establishment of a Sundarban Wild Animals Park at Jharkhali. CZA has already agreed in principle for establishment of the park. This will be a first of its kind and on creation only mangrove zoo in the world.

The Zoo Authority has taken up a massive zoo improvement programme of improvement/construction of animal enclosures, veterinary facilities, Nature Interpretation Centres/public conveniences, boundary wall/fencings, road/ footpath, water/electricity/sewage disposal network in different zoos under its control.

The maintenance of funds for the zoological parks are mainly received as grant-in-aid from the State of West Bengal under Non Plan. For different developmental works the Zoo Authority received grant-in-aid from the Govt. of West Bengal under State Plan, Central Zoo Authority and other Departments/institutions of Govt. of India and Govt. of West Bengal. The funds are generated also through its own resources like gate collections, etc.





It is further added that more than 30 lakhs people annually visit its different zoos in the state of West Bengal.

The Zoo Authority has recently initiated a zoo animals adoption scheme by the interested persons/institutions in different zoos to augment its financial resources.

### C. Agricultural Research and Education:-

Under this Major Head 2415- Agriculture and Allied Activities, two schemes namely Forest Research and Training of Staff are implemented for skill development of the Field level staff and officers.

### D. Special Areas Programmes sector:-

Funds under the Major Head of Account 2551 – Hill Areas Development Programme (Including DGHC) are included under this sector. This is entirely under core plan. The scheme caters to afforestation in fragile areas of hills, stabilization of slopes through soil moisture conservation structures, community based development works for supporting Joint Forest Management Committees etc. In consonance with the guidelines of National Forest Policy, which envisages a targeted green cover in the hill areas to the extent of 66 % and to arrest the degradation of the fragile ecosystem of the North Bengal Hills the proposal is justified.

Expenditure Detail of Plantation Heads for 2015-16

		Exp	enditure Deta	Expenditure Detail of Plantation Heads for 2015-16	for 2015-16		
_ , 2	SI.	Heads	Budget Provision (Rs.)	Creation including DPN	Maintenance	Advance work including DPN	Total Expenditure against plantation work
				Phy. (ha.)	Phy. (ha.)	Phy. (ha.)	(Rs.)
l	Н	2406- 01- SP- 102–025-Forestry Treatment - (FR) -50- 1 O.C.	326500000	6402.08	16447.32	3388.30	305034816
<u> </u>	2	2406- 01 - SP- 789–002-Plantation of Quick 2 Growing Species- (FR) -87- Regeneration	9500000	3448.30	2680		90940046
	n	2406- 01- SP- 796–004-Econimic Plantation - (FR) - 3 87- Regeneration	70000000	1246.20	723.80	2403.50	59289285
	4	2406-02-112-005-Decentralized People's Nurseries 4 [FR]-87-Regeneration	1350000			2309.00	13425081
<u> </u>	5	2406-02-789-001-Decentralized People's Nurseries [FR]-87-Regeneration	500000			1090.00	4317048
	9	2551- 60- SP- 101–028-Protective Afforestration - 6 (FR) -50-0.C.	500000	96.36	225		4991784
<u> </u>	7	2402- 00- SP- 102–001-Protective Afforestration - 7 (FR) -87- Regeneration	200000		43		197649
<u> </u>	∞	2402- 00- SP- 789–002-Protective Afforestration - (FR) -87- Regeneration	100000		19		51000
	6		100000				0
		Total=	515400000	11192.94	20138.12	9190.80	478246709
	* *	DPN-Advance 3499 ha.					
		כו כו ממוסו סטסס ומי					

<sup>\*</sup>DPN-Advance 3499 ha. \*DPN-Creation 3380 ha.



#### Rashtriya Krishi Vikash Yojona' (RKVY):

The importance of soil moisture conservation, arresting soil erosion, replenishing the water table by arresting run off cannot be over emphasized. The success of agriculture, upliftment of rural economy and productivity in forestry sector depends on improving soil and soil moisture conservation, arresting soil erosion and replenishment of water table.

To, achieve success in these endeavors the Forest Department utilizes fund from the Additional Central Assistance Scheme – 'Rashtriya Krishi Vikash Yojona' (RKVY), launched by the Central Govt. mainly to incentivize the State to attain 4% annual growth rate in agriculture & allied sectors during the 11<sup>th</sup> plan period. The project is taken up for holistic development of agriculture and allied sectors through the endeavors mentioned above.

The main objectives of the scheme taken up by the Forest Department are :

- 1. Improvement of ground water regime.
- 2. Controlling soil erosion and arrest sedimentation to the extent possible.
- 3. To create small irrigation system for the agriculture lands in the proximity of the forest areas.
- 4. To improve the productivity of the areas under treatment.
- 5. Creating modern infrastructures for improved planting material for ensuring soil stabilization and arresting runoff.

#### Works undertaken:

#### 1. Plantation.

### **Objectives:-**

- a. To take up plantation activities in the degraded forest areas in different districts of South West Bengal and in the plantation areas in North Bengal.
- b. To supply fuel wood and fodder.

#### 2. Soil & Moisture Conservation.

#### A. Contour Trenches in Forest Areas:

#### **Objectives:**

- a. Recharge ground water.
- b. To conserve soil moisture in the plantation areas in the dry seasons.
  - B. Earthen Dam:

#### **Objectives:**

- a. To prevent soil erosion.
- b. To harvest Rain water.
  - C. Gully Plugging work/ Rock check dams:

### **Objectives:**

- **a.** To prevent accelerated erosion.
- **b.** To harvest Rain water
  - D Catch water drain.

#### **Objectives:**

a. To prevent soil erosion.

b. To stabilize hill slopes & check landslide.

#### 3. Minor / Micro irrigation channel.

### A. Digging Ring Wells for water facilities for the Forest Protection Committee villages **Objectives:**

a. To maintain availability of water to the forest protection committee villages,

### 4. Soil & nutrient management.

### A. Renovation of the existing Soil Labs of Forest Directorate:

#### **Objective:**

- a. Creating of scientific management of soil nutrient system,
- b. Creation of infrastructure for the soil nutrient testing and management protocol.

### 5. Vermi composting.

#### **Objective:**

a. Creation of units of vermin/ farm composting in forest villages and forest protection committees so that proper supplement of soil nutrients can be added to the soil.

Table showing inlay of fund during last 3 Financial Year:

Financial Year	Amount (Rs. In Lakhs)
2013-14	1125.83
2014-15	1508.54
2015-16	1308.00

	ITEM OF WORKS FOR RKVY: 2016-17							
I. Infrast	I. Infrastructure & Assets							
(i) Natural Resource Management								
a) Soil & Moisture conservation								
Sl. No.	Particulars of Work	Unit	Physical	Rate (Rs.)	Financial (Rs.)			
1	E.D	Unit	38	8,07,816.00	3,06,97,008.00			
2	Gully Plugging	cum	5986	2,239.00	1,34,02,654.00			
3	Production centres of good quality planting material	No.	32	25,00,000.00	8,00,00,000.00			
TOTAL 12,40,99,662.00								
(ii) Minor / Micro irrigation								
1	Ringwell	No.	300	63,000.00	1,89,00,000.00			
	GRAND TOTAL (i + ii) * 14,29,99,662.00							

(Rupees Fourteen Crores Twenty Nine Lakhs Ninety Nine Thousands Six Hundred and Sixty Two Only)

<sup>\*</sup> Includes 1% Administrative cost out of which cost of Monitoring & Evaluation will be borne.





#### RURAL INFRASTRUCTURE DEVELOPMENT FUND (RIDF)

India's is an agrarian economy with about 80% of the population living in villages and agriculture practices being the major source of income.

Apart from small holdings, the other problems plaguing Indian Agriculture is soil and land erosion, depleted ground water table, uncontrolled run off-all bodies to loss of productivity.

To mitigate the problems and restraining soil and land erosion, recharging of ground water table and arresting uncontrolled run off RIDF schemes have been taken up to achieve success in these endeavours.

The RIDF Tranches presently implemented in the State are stated below:

RIDF Tranches	Project Outlay (Rs. In Crores)
RIDF XVI	3.40
RIDF XVII	5.62
RIDF XIX	2.69
RIDF XX	18.19

Out of the above 4 schemes RIDF XVI and RIDF XVII will close down in the month of September, 2016 leaving RIDF XIX and RIDF XX operational. During 2016-17 RIDF XXII will be initiated. The table shows the total outlay and utilisation in the different RIDF schemes:

(Rs. In Lakhs)

Sl.	Tranche	Division	Sanction by	Scheme	UC upto	Balance as on	1st Release
No.			NABARD		<b>Mar'16</b>	31.03.2016	
1.	XVI (Sept'16	Wildlife – I	344.92	Aff. & all	300.34	44.58	0.00
2.	` 1	Burdwan	242.04	Aff. & all	242.04	0.00	0.00
3.	closing)	Jalpaiguri	294.82	Aff. & all	185.12	109.70	0.00
4.		Wildlife – II	179.13	Aff. & all	133.13	46.00	0.00
5.	XVII (Sept'16	Coochbehar	299.07	Aff. & all	226.49	72.58	0.00
6.	closing)	Paschim Medi- nipur	822.30	Aff. & all	820.98	1.32	0.00
7.		Bankura	762.61	Aff. & all	716.18	46.43	0.00
8.	XIX	Kurseong Soil	486.12	Aff. & all	136.23	349.89	150.00
9.		14 Divisions	618.16	Nurseries	334.34	283.82	283.82
10.		Kharagpur	175.00	Bota. Park	67.61	107.39	107.39
11.	XX	SFTI, Hijli	264.45	Bota. Park	0.00	264.45	74.79
12.		24 Pgs (S)	402.89	Jetties	40.09	362.80	65.00
13.		STR	402.89	Jetties	0.00	402.89	100.00
14.	XXII		Will	start being im	plemented from 20	016-17.	·

Among different works undertaken under RIDF schemes plantation and soil work has been greatly emphasized. Bringing degraded and blank areas under plantation service multiple purposes-(1) stabilising soil and checking erosion, (2) containing run off and (3) improving the soil moisture content and replenishing the ground water label RIDF XIX addressed these issues in North Bengal and plains and structural works for checking soil erosion and soil moisture conservation. RIDF XX has addressed the issue of raising quality planting material in centralised places raising quality plantation which will not only improve soil and soil moisture condition but will also improve the biodiversity and ecology of the area.

### **National Mission for a Green India (GIM)**

#### Introduction

The National Mission for Green India (GIM) is one of the eight Missions outlined under the National Action Plan on Climate Change (NAPCC). It aims at protecting; restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures. It envisages a holistic view of greening and focuses on multiple ecosystem services, especially, biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration as a co-benefit. This mission has adopted an integrated cross-sectoral approach as it will be implemented on both public as well as private lands with a key role of the local communities in planning, decision making, implementation and monitoring.

#### **Mission Goals**

- To increase forest/tree cover over 5 million hectares and improve quality of forest/tree cover on another 5 mha of forest/non-forest lands.
- To improve/enhance eco-system services.and
- To uplift socioeconomic condition of fringe area population of about 3 million households.

#### West Bengal Bridge Plan Project Layout (2014):

Sl. No.	Physical	Financial
1.	State GIM cell and support at landscape	11,00,000/-
2.	Wokshops	4,00,000/-
3.	Micro Planning	21,25,000/-
4.	EPA @ 2.70 lakh per JFMC (85 JFMCs)	2,29,50,000/-
5.	Landscape survey to get baseline information for perspective plans of Green India Mission	18,00,000/-
6.	JFMC Outreach Activities	17,00,000/-
	Total	3,00,75,000/-





#### SPECIAL DEVELOPMENT PROJECT

#### RIDF SCHEMES BEING IMPLEMENTED BY SDP:

India's is an agrarian economy with about 80% of the population living in villages and agriculture practices being the major source of income.

Apart from small holdings, the other problems plaguing Indian Agriculture is – soil and land erosion, depleted ground water table, uncontrolled run off-all leading to loss of productivity.

To mitigate the problems and restraining soil and land erosion, recharging of ground water table and arresting uncontrolled run off RIDF schemes have been taken up to achieve success in these endeavours.

Following is the stages of different RIDF schemes in the state and their performance in the year.

Sl. No.	Tranche	Division	Sanction by NABARD	Scheme	UC upto Mar'16	Balance as on 31.03.2016	1st Release
1.		Wildlife – I	344.92	Aff. & all	300.34	44.58	0.00
2.	XVI (Sept'16 closing)	Burdwan	242.04	Aff. & all	242.04	0.00	0.00
3.	closing)	Jalpaiguri	294.82	Aff. & all	185.12	109.70	0.00
4.		Wildlife – II	179.13	Aff. & all	133.13	46.00	0.00
5.	XVII (Sept'16	Coochbehar	299.07	Aff. & all	226.49	72.58	0.00
6.	closing)	Paschim Medinipur	822.30	Aff. & all	820.98	1.32	0.00
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10.		Kharagpur	175.00	Bota. Park	67.61	107.39	107.39
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12.		24 Pgs (S)	402.89	Jetties	40.09	362.80	65.00
13.		STR	402.89	Jetties	0.00	402.89	100.00
14.	XXII		Will	start being im	plemented from 20	016-17.	

### Namami Gange Project

#### 1. INTRODUCTION

Namami Gange Project or Namami Ganga Yojana is an ambitious Union Government Project which integrates the efforts to clean and protect the Ganga river in a comprehensive manner. It its maiden budget, the government announced Rs. 2037 Crore towards this mission. The project is officially known as Integrated Ganga Conservation Mission project or 'Namami Ganga Yojana'. This project aims at Ganga Rejuvenation by combining the existing ongoing efforts and planning under it to create a concrete action plan for future.

#### 2. BACKGROUND

The Forest Directorate of West Bengal has drafted a DPR for 'Forestry Interventions for Clean Ganga for the State of West Bengal', to be incorporated in the DPR being prepared by FRI for National Mission for Clean Ganga (NMCG), Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India. It aims to analyse the problem areas, listing the mitigation measures, development treatment models and preparations of estimates for implementation over a period of 5 years, to be followed by Phase II for another 5 years.

#### 3. Methodology for Approach

- Generation of GIS Maps & Interpretation with watershed maps
- Collection of data from different Departments & Agencies
- Interpretation of the maps & data for identification of priority treatment areas
- Identification of the problems & the causes for each treatment area
- Evolving mitigation measures to solve the issues/problems
- Generation of technical & financial prescriptions & estimates
- Creation of institutional mechanism with inclusion of civil society
- Concurrent Research and monitoring system
- Evaluation & course correction

#### 4. SCENARIO

The river Ganga has a length of 569 km (out of total 2525 km) in West Bengal. The major cities situated at the bank of the Ganga are Bahrampur, Serampore, Howrah and Kolkata.

#### 5. Agriculture Scenario

Major crops in West Bengal are rice, potato and jute. The state possesses about 14 percent of the nation's rice cultivation area. West Bengal agricultural production includes high value commercial crops like jute and tea. The state also produces significant amount of fruits and vegetables.

#### 6. STATE PROFILE

The state of West Bengal lies between 21°31' and 27°14' latitude and 85°51' and 89°52' longitude with varying altitude from sea level in the southern coastal end to about 4000m or more in the northern Darjeeling Himalayan region. It is situated on the eastern part of India, stretching from the Himalayas in the north to the Bay of Bengal in the south. The state has a total area of 88,752 square kilometres (34,267 sq mi) and is bounded by Sikkim and Bhutan on the north, Nepal on the north west, Bangladesh and Assam on the east, Bihar, Jharkhand and Orissa on the west and south-west and Bay of Bengal on the south.

This northern part of the state has a hilly region. The narrow Terai region separates this region from the plains, which in turn transitions into the Ganga delta towards the south. The Rarh region intervenes between the Ganges delta in the east and the western plateau and high lands. A small coastal region is on the extreme south, while the Sundarbans mangrove forests form geographical area at the Ganges delta.





### Mahatma Gandhi National Rural Employment Guarantee (MGNREGA)

**National Rural Employment Guarantee Act 2005** (or, NREGA) was later renamed as the "Mahatma Gandhi National Rural Employment Guarantee Act" (or, MGNREGA), is an <u>Indian labour law</u> and <u>social security</u> measure that aims to guarantee the '<u>right to work</u>'. It aims to enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

Starting from 200 districts on 2 February 2006, the NREGA covered all the districts of India from 1 April 2008. The statute is hailed by the government as "the largest and most ambitious social security and public works programme in the world". In its World Development Report 2014, the World Bank termed it a "stellar example of rural development".

The MGNREGA was initiated with the objective of "enhancing livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year, to every household whose adult members volunteer to do unskilled manual work". Another aim of MGNREGA is to create durable assets (such as roads, canals, ponds, wells). Employment is to be provided within 5 km of an applicant's residence, and minimum wages are to be paid. If work is not provided within 15 days of applying, applicants are entitled to an unemployment allowance. Thus, employment under MGNREGA is a legal entitlement.

MGNREGA is to be implemented mainly by <u>gram panchayats</u> (GPs). The involvement of contractors is banned. Labour-intensive tasks like creating infrastructure for water harvesting, drought relief and flood control are preferred.

Apart from providing economic security and creating rural assets, NREGA can help in <u>protecting the environment</u>, <u>empowering rural women</u>, reducing <u>rural-urban migration</u> and fostering <u>social equity</u>, among others."

The law provides many safeguards to promote its effective management and implementation. The act explicitly mentions the principles and agencies for implementation, list of allowed works, financing pattern, <u>monitoring</u> and evaluation, and most importantly the detailed measures to ensure transparency and accountability.

#### **Objective of Forest Department for participation on MGNREGA:**

Forest department is one of the Project Implementing Authority (PIA) of MGNREGA since inception. Labour intensive works like creation of plantation, construction of earthen dam for rain water harvesting, digging of elephant proof tranches, soil moisture conservation works etc are done under MGNREGA. Divisional Forest Officer, being the PIA retains co-ordination with District Magistrate & District Nodal Officer, MGNREGA and prepares District Convergence Plan.

As per compiled report of "SAMANNAYA" published by Panchayats & Rural Development Department, Govt. of West Bengal, district wise plan target for the year 2015-16 is as follows:

District	No. of Schemes	NREGA (In Lakhs)	Dept. (In Lakhs)	Beneficiary Contribution	Total Costs (In Lakhs)
Bankura	133	817.500	1708.000	0.000	2550.450
Burdwan	6	97.000	0.000		97.000
Burdwan	35	50.000	29.900		79.900
Coochbehar		308.060	128.790	0.000	436.850
D. Dinajpur		18.570	0.000		18.570
North 24 Pgs	375	297.900	0.000	0.000	297.900
Nadia		136.300	0.000	0.000	136.300
Purulia	148	135.940	30.290	0.000	166.110
SMP		78.628	76.400	0.000	155.028
South 24 Pgs		211.300	211.300	0.000	422.600
Total		2151.198	2184.68		4360.708

In pursuance of State Level Convergence meeting dated 17.02.2015 and Memo No. 1951/P&S(P)/3D-534 dated 05.06.2015 of Department of Forest, following directives are issued for convergence:

- 1. The Department will act as PIA through its local functionary.
- 2. The Department may designate PO(LD).
- 3. Plantation and its maintenance will be the responsibility of the Forest Department.
- 4. The following items of work will be executed in MGNREGA:
  - a) Rock check dam
  - b) Gully plugging
  - c) Digging of pond
  - d) Earthen dam
  - e) Cutting of trenches
  - f) Contour bund/trench
  - g) Cattle trench
  - h) Boundary trench
  - i) Intercropping of medicinal plants of perennial variety
  - j) De siltaion of earthen pond, dam
  - k) Rainwater Harvesting Structure
  - 1) Digging and boulder sausage
  - m) New road and improvement of road
  - n) Gravel / paver block / brick road
  - o) Irrigation canal with feeder channel
  - p) Catch drain
  - q) Vegetative barrier
  - r) Vegetative fencing
  - s) Protective wall
  - t) Compost pit
  - u) Nursery
  - v) Plantation
  - w) Soil-water conservation structure
  - x) Grass turfing for checking erosion including vetiver
- 5. The area of implementation will be forest land, forest village and forest fringe villages dominated by JFMC members.
- 6. The department will enter the data into MIS, both in main and convergence portal. They will keep account separately and as per schematic norm.
- 7. The normal audit, social audit, vigilance & monitoring will be done as per norm.





#### **Eco-Tourism Centres - Role of WBSFDA**

Eco- tourism centres under the Forest Directorate have been created for generating awareness among the general public about our natural wealth, its importance and responsibility of the general public in maintaining & safeguarding the natural wealth.

In order to make these centres more accessible to general public, **20 Eco Tourism centres** had been brought under online booking system. The portal was developed by NIC and WBSFDA took the responsibility of facilitating the task of online booking to provide a single window booking/cancellation facility to all interested tourists.

It became fully functional on and from May 2015. For this a current account is opened in Yes Bank, Dalhousie branch. The payment collected from the visitors are credited to Yes bank through the payment gateway system viz. "PayU".

The status report of Online Booking for the year 2015-16 is given below:-

	Status of Eco- Tourism centre								
		Status report for	2015-16: as on 02.12	.2016					
Sl no	Division	Eco tourism centre	Net booking amount realised during 2015-16	Fund allottment to divisions for maintenance of ETCs	Fund Disbursed during 2016-17 (upto Nov,2016)				
1		Mouchaki Camp	195146.16						
2	Gorumara Wildlife	Horn Bill nest	57598.21	4,00,000.00					
3		Murti tents	166283.75						
4		Kunjanagar	26424.32						
5	Jaldapara Wildlife	South khaibari	51996.83	4,50,000.00	4,50,000.00				
6		Mendabari Jungle Camp	368468.63						
7		Garochira Village	43393.22						
8	Jalpaiguri	Neora Camp	271102.22	3,20,000.00					
9		Bandapani camp	6975.42						
10	Constitution	Patlakhawa	16996.83	20,000,00	20,000,00				
11	Coochbehar	Gosanimari Twin cottage	17257.49	30,000.00	30,000.00				
12	D1 (NI)	Susunia	159205.92	2 00 000 00	2 00 000 00				
13	Bankura (N)	Beharinath ETC	156562.09	3,00,000.00	3,00,000.00				
14	Purulia	Matha tree House	29845.47	30,000.00					
15	Darjeeling	Manebhanjan	1921.43						
16		Gopegarh	94250.61						
17	Medinipur	parimal kanan	24549.43	120000.00	1,20,000.00				
18		kshudiram Bose park	999.81						
19	Birbhum	Bolepur NIC	183347.61	190000.00	1,90,000.00				
20	Nadia- Murshidabad	Bethuadahari	82380.38	80000.00	80,000.00				
	То	tal	19,54,705.83	19,20,000.00	11,70,000.00				

#### **National Medicinal Plants Board**

#### INTRODUCTION

India has 15 Agroclimatic zones and 17000-18000 species of flowering plants of which 6000-7000 are estimated to have medicinal usage in folk and documented systems of medicine, like Ayurveda, Siddha, Unani and Homoeopathy. About 960 species of medicinal plants are estimated to be in trade of which 178 species have annual consumption levels in excess of 100 metric tones.

Medicinal plants are not only a major resource base for the traditional medicine & herbal industry but also provide livelihood and health security to a large segment of Indian population. The domestic trade of the AYUSH industry is of the order of Rs. 80 to 90 billion (1US\$ = Rs.50). The Indian medicinal plants and their products also account of exports in the range of Rs. 10 billion.

There is global resurgence in traditional and alternative health care systems resulting in world herbal trade which stands at US\$ 120 billion and is expected to reach US\$ 7 trillion by 2050. Indian share in the world trade, at present, however, is quite low.

The National Medicinal Plants Board (NMPB) set-up in November 2000 by the Government of India has the primary mandate of coordinating all matters relating to medicinal plants and support policies and programmes for growth of trade, export, conservation and cultivation. The Board is located in the Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homeopathy (AYUSH) of the Ministry of Health & Family Welfare





### AFFORESTATION PROGRAMMES

- 1. Afforestation:-One of the objectives of National Forest Policy is to increase the National Forest cover to 33% of the geographical area as per the National Forest Policy, 1988. The main area of activity is creation, maintenance and preservation of plantations on both degraded forest land, non forest Government land and private lands through the following schemes.
  - a) Economic Plantation:

This scheme is meant for the plains of Dooars in North Bengal and comprise of plantations of timber producing species.

b) Plantation of Quick Growing Species:

Under this scheme mainly industrial plantations over laterite zone are created along with maintenance of older plantations.

c) Coastal Shelterbelt Plantation:

Mainly plantations in Coastal areas are taken up under this program with the objective of mitigating the fury of cyclones along the coastal areas. This program will be taken up mainly in Midnapur district and some areas of 24 Parganas South.

d) Mangrove Treatment:

The scheme aims at rehabilitation of mangrove forests in Sunderban areas by taking afforestation in saline blank patches, newly accredited areas on account of deltaic accrual of lands, sandy blanks etc.

e) Forestry Treatment:

In view of a very wide range of Agro-ecological conditions prevailing in this state, altogether 12 treatment models have been adopted, which are grouped in two broad categories, namely (a) Rehabilitation of degraded forest lands which constitutes the largest component of the treatment models involving JFM with FPC's including regeneration of degraded Sal forests in SW Bengal from viable root stocks and partly in North Bengal for similar areas. Enrichment planting is also undertaken in blank pockets within these areas and (b) Forestry development on Non Forest Lands the principal focus of which is on the Farm Forestry, which is directed towards small and marginal Farmers. This also includes promotion of Agro-Forestry systems.

f) Strip Plantation/Farm Forestry:

This scheme is meant for a part of the area that has been earmarked for strip plantation along national highways, canal embankments, roadside plantations etc.

	EXK	enditure Deta	Expenditure Detail of Plantation Heads for 2015-16	s for 2015-16		
SI. No.	Heads	Budget Provision (Rs.)	Creation including DPN	Maintenance	Advance work including DPN	Tc
			Phy. (ha.)	Phy. (ha.)	Phy. (ha.)	
	2406- 01- SP- 102–025-Forestry Treatment - (FR) -50- 1 O.C.	32650000	6402.08	16447.32	3388.30	
	2406- 01 - SP- 789-002-Plantation of Quick 2 Growing Species- (FR) -87- Regeneration	00000056	3448.30	2680		
	2406- 01- SP- 796–004-Econimic Plantation - (FR) - 3 87- Regeneration	70000000	1246.20	723.80	2403.50	
	2406-02-112-005-Decentralized People's Nurseries 4 [FR]-87-Regeneration	1350000			2309.00	
	2406-02-789-001-Decentralized People's Nurseries 5 [FR]-87-Regeneration	2000000			1090.00	
	2551- 60- SP- 101–028-Protective Afforestration - 6 (FR) -50-O.C.	2000000	96.36	225		
	2402- 00- SP- 102–001-Protective Afforestration - 7 (FR) -87- Regeneration	200000		43		
	2402- 00- SP- 789–002-Protective Afforestration - 8 (FR) -87- Regeneration	100000		19		
	2402- 00- SP- 796–002-Protective Afforestration - 9 (FR) -87- Regeneration	100000				
	Total=	515400000	11192.94	20138.12	9190.80	
	* DPN-Advance 3499 ha. * DPN-Creation 3380 ha.					



### REVENUE AND EXPENDITURE

**The Revenue** of the Forest Directorate, Government of West Bengal is generated through sale of forest products, tariffs and royalties, rents, taxes, levies, fees and other charges. During the year 2015-2016 total revenue earned was ₹.86,73.73 Lakhs. The maximum revenue was generated by the Western Circle (₹.19,66.12 Lakhs). The details of Revenue and Expenditure during the year 2015-16 were as follows:-

**Table - 6.1 REVENUE FROM MAJOR HEADS** 

Heads	Rs. in Lakhs
Timber & poles	6912.65
Fire wood & Charcoal	128.87
Grass & Other MFP	474.17
Bamboo	195.19
Other Receipt	780.95
Rent	18.32
Fine	1,30.66
Lecence fee	32.92
Total:	86,73.73

Table - 6.2 ACTUAL EXPENDITURE UNDER DIFFERENT HEADS

Major Head	Rs. in Lakh
State Plan	21,579.12
Non Plan	26,987.37
Total:	48,566.49

Table - 6.3 Statement showing unit wise Revenue during 2015-16

(Rs. in Lakh.)

Units	Timber & Pole	Firewood & Charcoal	Grazing	Bamboo	Minor F.P	Others	Total
1.General Dir	0.00	0.00	0.00	0.00	0.00	182.83	182.83
2.Publicity	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.Utilisation	0.00	0.00	0.00	0.00	0.00	256.76	256.76
Total: (HQ:)	0.00	0.00	0.00	0.00	0.00	439.59	439.59
4.Monitoring (S)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.Monitoring (N)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (Mon.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.WP&GIS Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.W.Plan (S-I)	0.00	0.00	0.00	0.00	0.00	0.06	0.06
8.W.Plan (S-II)	0.00	0.00	0.00	0.00	0.00	0.18	0.18
9.W.Plan North	0.00	0.00	0.00	0.00	0.00	0.06	0.06
Total(WP&GIS):	0.00	0.00	0.00	0.00	0.00	0.30	0.30
10.Research Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.Silvi(South)	0.00	0.00	0.00	0.00	0.00	1.10	1.10
12.Silvi(North)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.Silvi (Hill)	0.00	0.00	0.00	0.00	0.00	0.99	0.99
Total (Res.)	0.00	0.00	0.00	0.00	0.00	2.09	2.09
14.Devt Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Units	Timber & Pole	Firewood & Charcoal	Grazing	Bamboo	Minor F.P	Others	Total
15.WBF School	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16. F.T.C.(Hijli)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (Dev.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17. S.W. Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18. Purulia	9.35	0.36	0.00	0.08	0.00	7.96	17.75
19.Kansabati (N)	9.89	0.00	0.00	0.00	0.00	12.99	22.88
20. Kansabati (S)	8.89	0.00	0.00	0.00	0.00	7.29	16.18
21.Extn .Forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (S.W)	28.13	0.36	0.00	0.08	0.00	28.24	56.81
22.U.R.F.	0.00	0.00	0.00	0.00	0.00	1.02	1.02
23.P&G (N)	0.00	0.00	0.00	0.00	0.00	1.42	1.42
24.Howrah SF	0.00	0.00	0.00	0.00	0.00	27.76	27.76
Total (P&G):	0.00	0.00	0.00	0.00	0.00	30.20	30.20
25.South East Dir.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.Burdwan	1.55	0.08	0.00	0.00	0.06	18.48	20.17
27.Birbhum	29.22	0.00	0.00	0.00	0.00	17.40	46.62
28.Durgapur	6.87	0.00	0.00	0.00	0.00	5.29	12.16
29.Nadia-Msd	0.00	0.00	0.00	0.00	0.00	20.64	20.64
Total (S.E):	37.64	0.08	0.00	0.00	0.06	61.81	99.59
30.Western Dir.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.Jhargram	136.73	1.72	414.39	0.00	0.00	57.75	610.59
32.Medinipur	294.99	6.64	0.00	98.22	2.21	98.98	501.04
33.Kharagpur	62.49	1.77	0.00	88.68	0.78	57.55	211.27
34.Rupnarayan	569.64	6.19	0.00	0.00	0.00	34.12	609.95
35.Purba Midnapur	6.15	10.35	0.00	0.00	0.86	15.91	33.27
Total (W.C.):	1070.00	26.67	414.39	186.90	3.86	264.31	1966.12
36.Central Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.Bankura (N)	552.07	10.48	0.00	0.00	0.00	23.79	586.34
38.Bankura (S)	253.40	0.00	0.00	0.00	0.00	0.00	253.40
39.Panchet	623.06	5.88	0.00	0.00	13.36	18.77	661.07
Total (C.C.):	1428.53	16.36	0.00	0.00	13.36	42.56	1500.81
40.DFD/STR	0.03	0.07	0.00	0.00	0.00	42.10	42.20
Total (STR):	0.03	0.07	0.00	0.00	0.00	42.10	42.20
41.Jt. Dir/SBR	0.00	0.00	0.00	0.00	0.00	0.02	0.02
42.24-Parg (S)	0.00	0.00	0.00	0.00	0.00	65.73	65.73
43.24-Parg (N)	0.00	0.00	0.00	0.00	0.00	10.75	10.75
Total (SBR):	0.00	0.00	0.00	0.00	0.00	76.50	76.50
44.WL (Hqr)	0.00	0.00	0.00	0.00	0.00	1.21	1.21
Total (WL HQ):	0.00	0.00	0.00	0.00	0.00	1.21	1.21
45.WL(N) Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.Darjeeling WL	22.29	0.00	0.00	0.00	0.00	17.77	40.06



Units	Timber & Pole	Firewood & Charcoal	Grazing	Bamboo	Minor F.P	Others	Total
47.Gorumara WL	0.00	0.00	0.00	0.00	0.00	30.55	30.55
48.Jaldapara WL	287.09	24.47	0.00	0.00	0.00	57.46	369.02
Total:(WL North):	309.38	24.47	0.00	0.00	0.00	105.78	439.63
49.B.T.R. Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.B.T.R (West)	442.24	0.16	0.00	0.00	0.77	10.81	453.98
51.B.T.R (East)	420.89	0.69	0.00	0.00	0.00	31.61	453.19
Total (BTR):	863.13	0.85	0.00	0.00	0.77	42.42	907.17
52. Hill Direction	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53.Darjeeling	95.69	1.37	0.00	4.47	0.00	2.18	103.71
54.Kurseong	1373.11	0.55	0.00	0.00	0.00	6.08	1379.74
55.NTFP	0.00	0.00	0.00	0.00	0.00	0.06	0.06
Total (Hill):	1468.80	1.92	0.00	4.47	0.00	8.32	1483.51
56.Northern Dir	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.Jalpaiguri	600.79	1.56	0.00	0.00	0.00	20.42	622.77
58.Baikunthapur	883.92	0.05	0.00	0.00	0.00	15.20	899.17
59.Coochbehar	0.00	0.00	0.00	0.00	0.00	58.84	58.84
Total (NC):	1484.71	1.61	0.00	0.00	0.00	94.46	1580.78
60. North West Dir.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61. Siliguri S.F	0.00	0.00	0.00	0.00	0.00	3.39	3.39
62. Malda Divn.	0.00	0.00	0.00	0.00	0.00	6.66	6.66
63. Jalpaiguri S.F.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64. Raiganj Divn.	8.52	0.00	0.00	0.00	0.00	28.43	36.95
Total (N.W)	8.52	0.00	0.00	0.00	0.00	38.48	47.00
65. S.C. (North) Dir.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
66. Kurseong S.C.	0.00	0.00	0.00	0.00	0.00	0.06	0.06
67.Kalimpong S.C.	0.00	0.00	0.00	0.00	0.00	0.16	0.16
68. Soil (N),Jalpaiguri	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Soil (North)	0.00	0.00	0.00	0.00	0.00	0.22	0.22
GRAND TOTAL:	6698.87	72.39	414.39	191.45	18.04	1278.59	8673.73

Table – 6.4 Statement Showing unit wise actual expenditure during 2015-2016 (Rs. In lakhs)

Accounting units	State Plan	Non – Plan	Total.
Headquarters:			
General Dir	10934.90	1271.96	12206.86
Publicity	6.96	60.15	67.11
Utilisation	0.00	93.26	93.26
Total:	10941.86	1425.37	12367.23
Monitoring Circle			
Monitoring (S)	39.55	291.77	331.32
Monitoring (N)	9.52	88.23	97.75

Total:	49.07	380.00	429.07
WP & GIS Circle			
WP & GIS Dir	11.91	50.93	62.84
W.Plan (South- I)	20.97	85.52	106.49
W. Plan (South- II)	29.29	80.73	110.02
Working Plan (N)	24.96	109.53	134.49
Total:	87.13	326.71	413.84
Research Circle			
Research Dir	0.00	55.69	55.69
Silvi (South)	87.68	233.38	321.06
Silvi (North)	34.37	194.41	228.78
Silvi (Hill)	72.57	309.23	381.80
	State Plan	Non – Plan	Total.
Total. (Research).	194.62	792.71	987.33
Development Dir	0.00	40.76	40.76
WBF School	5.52	4.01	9.53
F.T.C	35.00	108.33	143.33
Total: (Develp.)	40.52	153.10	193.62
South-West Circle			
S.W. Dir	0.00	54.26	54.26
Purulia	663.23	538.84	1202.07
Kansabati (North)	221.33	415.98	637.31
Kansabati (South)	150.83	352.60	503.43
Extn. Forestry	71.00	284.80	355.80
Total:	1106.39	1646.48	2752.87
P & G Circle			
U.R.F.	153.48	897.84	1051.32
P & G (North)	88.90	423.84	512.74
Howrah SF	72.53	359.96	432.49
Total:	314.91	1681.64	1996.55
South- East Circle			
S.E. Dir	0.00	63.67	63.67
Burdwan	253.31	706.18	959.49
Birbhum	149.62	706.88	856.50
Durgapur	109.48	301.52	411.00
Nadia- Mursidabad	46.13	386.52	432.65
Total:	558.54	2164.77	2723.31
Western Circle			
Western Dir.	0.00	62.26	62.26
Jhargram	551.91	857.43	1409.34
Medinipur	511.53	924.44	1435.97
Kharagpur	518.03	660.87	1178.90
Rupnarayan	477.25	610.17	1087.42



Purba Midnapur	194.30	326.61	520.91
Total:	2253.02	3441.78	5694.80
Central Circle			
Central Dir	0.00	77.86	77.86
Bankura (N)	837.36	1270.05	2107.41
Bankura (S)	940.30	934.08	1874.38
Panchet	375.36	590.06	965.42
Total:	2153.02	2872.05	5025.07
S.T.R:			
DFD/STR	586.05	776.58	1362.63
Total:	586.05	776.58	1362.63
S.B.R			
Jt. Dir/SBR	43.90	130.46	174.36
24- Parg (S)	611.32	704.70	1316.02
24 Parg (N)	39.79	210.51	250.30
Total:	695.01	1045.67	1740.68
WL (Hqr.)			
WL (Hqr.)	125.72	345.39	471.11
Total:	125.72	345.39	471.11
WL (North) Circle Wl (North) Dir	19.55	202.50	222.05
Darjeeling WL	262.75	497.30	760.05
Gorumara WL	272.15	639.93	912.08
Jaldapara WL	214.72	1168.44	1383.16
Total:	769.17	2508.17	3277.34
B.T.R:			
FD/ BTR	1.87	73.61	75.48
BTR. (West)	171.29	874.60	1045.89
BTR. (East)	176.43	808.66	985.09
Total:	349.59	1756.87	2106.46
Hill Circle			
Hill Dir	0.52	81.39	81.91
Darjeeling	178.43	592.05	770.48
Kurseong	149.69	650.53	800.22
NTFP	2.00	166.06	168.06
Total:	330.64	1490.03	1820.67
Northern Circle			
Northern Dir	0.00	94.03	94.03
Jalpaiguri	247.13	968.47	1215.60
Baikunthapur	72.60	795.14	867.74
Coochbehar	108.38	438.25	546.63

Total:	428.11	2295.89	2724.00
North- West Circle			
North –West Dir	0.00	70.38	70.38
Siliguri SF	62.68	178.09	240.77
Malda	80.18	234.88	315.06
Jalpaiguri SF	63.54	139.69	203.23
Raiganj	167.38	326.14	493.52
Total:	373.78	949.18	1322.96
SC (North) Circle			
S.C. (N) Dir	0.00	75.37	75.37
Kurseong SC	88.15	305.59	393.74
Kalimpong SC	36.50	287.13	323.63
Jalpaiguri Soil	97.32	266.89	364.21
Total:	221.97	934.98	1156.95
GRAND TOTAL:	21579.12	26987.37	48566.49

Table - 6.5 Statement showing scheme- wise Actual Expenditure

## **6.5.1: STATE PLAN SCHEMES**

(Rs. in Lakh)

Actual Expenditure during	g 2015-2016				
Schemes/Projects	Normal	TSP	SCP	Total	BE
2401-Crop Husbandry:					
1. Addl Central Assistance-RKVY [FR]	1026.00	0.00	0.00	1026.00	1308.00
Total: "2401"	1026.00	0.00	0.00	1026.00	1308.00
2402-Soil & Water Conservation:					
1. Protective Affn & Erosion Cont [FR]	1.98	0.00	0.51	2.49	4.00
Total: "2402"	1.98	0.00	0.51	2.49	4.00
2406- Forestry & Wildlife:					
1. Forest Resources [FR]	19.24	0.00	0.00	19.24	20.00
2. Buildings [FR]	185.86	0.00	0.00	185.86	250.00
3. Forest Protection [FR]	181.86	0.00	0.00	181.86	200.00
4. Working Plan [FR]	31.24	0.00	0.00	31.24	40.00
5. Management Information System [FR]	7.35	0.00	0.00	7.35	20.00
6. Integrated Forest Protection Scheme [FR]	22.80	0.00	0.00	22.80	26.23
7. Plantation of Quick Growing Spp [FR]	0.00	24.60	909.40	934.00	949.97
8. Economic Plantation [FR]	0.00	592.89	4.19	597.08	699.99
9. Research & Seed Propagation[FR]	34.31	0.00	0.00	34.31	30.00
10. Consv. Of Nature Res. & Eco. Dev. (Sh-Share) OCASPS [FR]	54.77	0.00	0.00	54.77	92.20
11. Consv. Of Nature Res. & Eco. Dev. (Ch-Share) OCASPS [FR]	405.53	0.00	0.00	405.53	445.87
12. Forestry Treatment	3077.30	0.00	0.00	3077.00	3252.08
13. Monitoring & Evaluation [FR]	49.07	0.00	0.00	49.07	50.00



Total: "4406"	399.09	137.31	301.13	1037.73	1/11.00
TE + 1 // 440 CM	200.00	137.51	501.15	1037.75	1711.60
1.Infrastructural facilities-RIDF[FR]	399.09	137.51	501.15	1037.75	1711.60
Total: "4216"	632.82	0.00	0.00	632.82	632.82
2. Housing Sch. EMS of Community -Rural	467.54	0.00	0.00	467.54	467.54
1. Housing Scheme-EWS of Community - Urban	165.28	0.00	0.00	165.28	165.28
4216-Capital Outlay on Housing:					
Total: "2415"	55.52	0.00	0.00	55.52	80.00
2. Training of Staff[FR]	5.52	0.00	0.00	5.52	30.00
1. Forestry Research [FR]	50.00	0.00	0.00	50.00	50.00
Total: "2551"	97.85	0.00	0.00	97.85	118.00
5. Decentralised Peoples Nurseries [FR]	30.00	0.00	0.00	30.00	30.00
4.Improvement of Parks & Gardens [FR]	10.00	0.00	0.00	10.00	30.00
3. Forestry Treatment[FR]	2.94	0.00	0.00	2.94	3.00
2. Protn & Improvement of WL[FR]	4.99	0.00	0.00	4.99	5.00
1. Prot Afforstn & Erosion Control[FR]	49.92	0.00	0.00	49.92	50.00
2551- Hill Areas:					
Total: "2505"	85.00	15.00	18.00	118.00	118.00
1.SCP for District Plan Scheme [DP]	85.00	15.00	18.00	118.00	118.00
2505- Other Programes:					
Total: "4702"	971.82	0.45	28.67	1000.94	3487.91
1.Jalatirtha	971.82	0.45	28.67	1000.94	3487.91
4702- Jalatirtha:					
Total: "2406"	10691.62	2759.33	4156.76	17607.71	18534.02
31. Decentralised People's Nursery[FR]	134.25	0.00	43.17	177.42	184.96
30. Lloyd Botanic Garden, Darjeeling[FR]	5.00	0.00	0.00	5.00	5.00
29. Creation & Improvement of P&G[FR]	245.29	0.00	0.00	245.29	250.00
28. Elephant Conservation [FR]	0.00	606.57	0.00	606.57	769.08
27. Development of Eco-Tour & Nature Edu .	0.00	20.23	0.00	20.23	30.00
26. Conservation of Wetlands [FR]	0.00	13.58	0.00	13.58	20.00
25. Dev. of Medicinal & NTFP Plants [FR]	0.00	15.87	0.00	15.87	30.00
24. Dev. Of WL Habitats (CentShare) OCASPS [FR]	155.48	0.00	0.00	155.48	183.50
23. Dev. Of WL Habitats (StShare) OCASPS [FR]	86.98	0.00	0.00	86.98	100.93
22. Project Tiger (CentShare) OCASPS [FR]	362.57	0.00	0.00	362.57	390.49
21. Project Tiger (St-Share) OCASPS [FR]	238.71	0.00	0.00	238.71	264.27
20. Control of Poaching [FR]	123.74	0.00	0.00	123.74	150.00
19. Protection & Improvement of WL[FR]	629.01	0.00	0.00	629.01	700.00
18. Publicity-cum-Extension [FR]	72.80	0.00	0.00	72.80	78.45
17. Amenity to Forest Staff & Labour[FR]	7.98	0.00	0.00	7.98	30.00
16. Economic Rehab of Fringe Popln[FR]	0.00	36.24	0.00	36.24	50.00
15. Timber Opn. By Mech Logging [FR]	60.48	8.28	0.00	68.76	80.00
14. Integrated For. & Bio-divs. Conservs. (JICA).	4500.00	1441.00	3200.00	9141.00	9141.00

## 6.5.2: SCHEMES :ACTUAL NON PLAN EXPENDITURE DURING THE YEAR 2015-2016 WITH BUGET ESTIMATE

(Rs. in Lakhs)

Schemes/Projects	Budget Estimate	Actual Expenditure
1.Strengthening Soil Con Orgn [FR]	36.69	26.13
2.Protective Affn Erosion Control [FR]	394.51	362.49
3.Soil Cons in RVP-Kangsabati [FR]	149.72	123.20
4. Soil Cons in RVP-Teesta [FR]	159.51	125.88
5. Soil Cons in Himalayan Region [FR]	53.77	67.59
6.Flood Cont in FPR- Ganga Basin [FR]	1.20	0.95
7.Pilot Project for Afforestation [FR]	5.49	1.76
Total : "2402"	800.89	708.00
1.Direction & Administration	21190.51	17451.70
2.Training of IFS Probationers [FR]	199.95	191.75
3. Training of WBFS Probationers [FR]	45.94	7.11
4.Surveys [FR]	10.79	4.61
5.Forest Resources [FR]	21.79	8.20
6. Forest Consolidation [FR]	45.07	9.37
5.Communication [FR]	148.29	119.05
6.Buildings [FR]	590.67	505.42
7.Conservancy & Regn [FR]	366.75	304.59
8. Working Plan [FR]	53.81	21.76
9. Forest Protection [FR]	479.05	451.77
11.Plantation of Quick Growing Spp [FR]	13.56	10.41
12.Farm Forestry- Cum- Fuelwood Pltn. [FR]	6.22	4.31
12. Mixed Pltn etcRural FW Pltn. [FR]	7.00	8.00
13.West Bengal Forestry Projects [FR]	561.88	422.25
14. Area Oriented FW & Fodder Project	14.12	6.64
15.Social Forestry Project [FR]	2328.60	1784.94
16.Timber Operation by Govt Agency[FR]	679.03	572.90
17.Minor Forest Produce [FR]	36.68	23.24
18.MFP:Agro Silviculture [FR]	24.90	19.49
19.MFP:Silvo-Pisciculture [FR]	29.91	20.06

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20.Timber Operation by Mech. Logging[FR]	93.52	69.18
21.Other Office Expenses	635.41	433.29
22.Economic Rehab of Fringe Population [FR]	78.00	54.39
25.Intensification of management [FR]	6.14	2.82
26.Amenity to Forest Staff & Labour [FR]	14.89	9.84
27.WL .Unit-Prot & Improve of WL [FR]	1609.65	1313.41
28.Nature Cons-Protn. & Imp. of WL [FR]	12.08	8.30
29.Sundarbans Tiger Reserve [FR]	176.79	147.74
30.Buxa Tiger Reserve [FR]	22.77	13.53
31.Jaldapara Wildlife Sanctuary [FR](Dev.NP& S)	1.20	0.94
32.Control of Poaching [FR]	2.22	2.02
33.Singhalila National Park [FR]	1.15	0.68
34.Neora Valley National Park [FR]	1.00	0.75
35.Mahananda Wildlife Sanctuary [FR]	1.26	0.27
36.Senchal Wildlife Sanctuary [FR]	1.10	0.68
37.Gorumara Wildlife Sanctuary [FR]	1.10	0.83
38.Parks & Garden Wing [FR]	1813.45	1504.74
39.Lloyd Botanic Garden, Darjeeeling [FR]	74.97	70.67
40.Creation & Improvement of P & G [FR]	18.52	17.45
41.Urban Forestry [FR]	8.59	6.44
42.Greening of Rural Areas [FR]	2.76	13.79
43.Wildlife Unit [FR]	35.38	243.72
44.Reward for Cont of Wild Animals [FR]	522.44	373.86
Total: "2406"	31988.91	26236.91
2551-Hill Areas:		
1.Econ Rehab of Fringe Population [FR]	0.46	0.34
2.Prot Afforstn & Erosion Control [FR]	1.42	1.07
3.West Bengal Forestry Project [FR]	10.89	10.79
4. Prot & Improvement of Wildlife [FR]	1.91	1.44
Total: " 2551"	14.68	13.64
1.Forestry Research [FR]	31.79	28.82
Total: "2415"	31.79	28.82
GRAND TOTAL: NON-PLAN	32836.27	26987.37

Table - 6.5.3: Actual Expenditure under Major Heads during 2005-2006 to 2015-2016

(in Rs.)

			Centrally Spon-			Centrally	
Major Head	Non Plan (LOC & TRG.)	State Plan (Annual Plan)	sored (New Scheme)	Non Plan Development	State Plan (Committed)	Sponsored Scheme Committed	Total
2005-06							
(N.G.) →	1,22,35,14,600	16,46,91,237	14,53,77,927	91,52,950	4,24,800		1,54,31,61,514
2402	3,42,94,495	19,51,072	32,96,790	1	-	-	3,95,42,357
2406	1,13,26,74,884	7,37,95,274	10,54,69,273	91,50,680	-	-	1,32,10,90,111
2551	3,77,472	17,65,999	-	-	4,24,686	:	2,568,157
2415	17,94,569	7,37,824			-	-	25,32,393
4406		6,05,75,471					6,05,75,471
TOTAL	1,16,91,41,420	13,88,25,640	10,87,66,063	91,50,680	4,24,686		1,42,63,08,489
2006-07							
(N.G.) →	1,28,41,26,000	20,07,85,675	12,64,93,316	79,11,400	3,90,000		1,61,97,06,391
2402	4,56,65,632	35,39,999			-	-	4,92,05,631
2406	1,16,65,30,809	16,29,84,195	12,34,19,760	55,91,400	-	:	1,45,85,26,164
2551	4,20,930	52,99,297			3,14,940	-	60,35,167
2415	14,95,372	11,74,537	-	-	-	-	26,69,909
4406		2,14,40,000	-			-	2,14,40,000
TOTAL	1,21,41,12,743	19,44,38,028	12,34,19,760	55,91,400	3,14,940	-	1,53,78,76,871
2007-08							
(N.G.) →	1,35,60,62,000	35,63,54,900	14,05,77,231	87,19,600	3,90,000	1	1,86,17,13,731
2402	4,70,37,488	43,46,642	39,67,482	1	1	1	5,53,51,612
2406	1,27,67,07,907	16,57,24,063	12,60,14,658	86,19,600	1	1	1,57,70,66,228
2551	8,61,919	9,99,954	ł	1	3,14,900	1	18,61,873
2415	16,71,200	16,00,000	I	1	1	1	32,71,200
4406	I	12,62,68,644	l	1	1	1	12,62,68,644
2401		2,23,08,248	-	-	-	-	2,23,08,248
TOTAL	1,32,62,78,514	32,12,47,551	12,99,82,140	86,19,600	3,14,000		1,78,61,27,805



2008-09							
(N.G.) →	1,50,32,80,000	60,38,16,000	16,70,87,000	1,10,47,500	1	l	2,28,52,30,500
2402	5,22,68,156	41,90,000	42,39,000	1	1	1	6,06,97,156
2406	1,40,41,05,8608,36,312	27,61,33,000	13,83,54,000	1,10,34,312	i	1	1,82,96,27,172
2551	16,62,299	10,00,000	i	1	1	1	18,36,312
2415	1	18,00,000	;	;	i	1	34,62,299
4406	l	23,74,75,000	1	;	i	1	23,74,75,000
2401		5,82,00,000	1	l	1	1	5,82,00,000
TOTAL	1,45,88,72,627	57,87,98,000	14,25,93,000	1,10,34,312	1	1	2,19,12,97,939
2009-10							
$(N.G.) \rightarrow$	2,03,58,21,000	73,11,83,000	16,73,78,000	1,16,19,000	!	-	2,94,60,01,000
2402	7,06,96,626	59,92,000		-	-	-	7,66,88,626
2406	2,07,85,07,646	36,90,92,000	15,98,85,000	1,10,35,000	-	23,000	2,61,85,42,646
2551	9,74,065	13,99,000		-	-	-	23,73,065
2415	18,98,296	37,00,000				-	55,98,296
4406		24,83,14,000		-		1	24,83,14,000
2401		5,84,41,000	1,48,52,000	-	-	-	7,32,93,000
4216		2,79,59,000					2,79,59,000
TOTAL	215,20,76,633	71,48,97,000	17,47,37,000	1,10,35,000		23,000	3,05,27,68,633
2010-11							
$(N.G.) \rightarrow$	221,46,47,000	100,94,63,500	16,68,76,554	1,10,30,000	i	1	340,20,17,054
2402	7,48,07,956	1,19,98,899	i	1,09,97,352	1	1	8,68,06,855
2406	224,75,11,025	47,18,68,301	13,33,21,961	1	i	l	286,36,98,639
2551	10,16,803	59,99,299	i	1	1	1	70,16,102
2415	19,64,984	51,74,442	1	1	ŀ	1	71,39,426
4406	-	37,12,06,570	i	1	1	1	37,12,06,570
2401	-	*10,59,01,554	5,56,91,387	1	1	1	16,15,92,941
4216	I	*8,20,19,265	1	1	1	1	8,20,19,265
TOTAL	2,32,53,00,768	105,41,68,330	18,90,13,348	10997352	1	1	3,57,94,79,798

61486619				9 15 67 742	74,74,930	5,40,11,689	2402 2406
							2012-13
3305715530	•	1	200000	179886055	748982281	2376647194	TOTAL:
							4216
34758977	1	1	ı	1	*34758977	1	2401
112351205	1	1	•	*52569772	*59781433	1	4406
158533080	1	1	ı	1	158533080	1	2415
7386023	1	1	•	1	5398681	1987342	2551
5627184	1	1	ı	1	4598300	1028884	2406
2896291891	1	1	•	127316283	473912210	2295063398	2402
90767170	ı	1	200000	1	11999600	78567570	(N.G.) →
3585582554	1	1	8967354	120341200	948857000	2507417000	<u>2011-12</u>

## (Rs. in Lakhs)

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TOTAL:

2013-2014	Non- Plan (LOC & Treasury)	State Plan (AP) (LOC & Treasury)	C.S.S & C.S.	Total:
2401	0:00	719.00	0.00	719.00
2402	709.95	114.80	0.00	824.75
2406	25637.15	12951.26	1221.30	39809.71
2415	49.02	70.02	0.00	119.04
2551	11.64	107.53	00.00	119.17
4406	0.00	965.26	00.00	965.26
GRAND TOTAL:	26407.76	13359.48	1221.30	42556.93





# (Rs. In Lakhs.)

Major Heads 2014-2015	Non- Plan (LOC & Treasury)	State Plan (AP) (LOC & Treasury)	C.S.S & C.S.	Total:
2401	00.00	1507.73	00.00	1507.73
2402	728.21	66.58	00.00	794.79
2406	26,176.24	9,818.30	116.91	36,111.45
2415	37.88	50.00	0.00	87.88
2551	12.63	29.98	0.00	42.61
4216	0.00	1247.08	0.00	1247.08
2049	9.11	0.00	0.00	9.11
4406	0.00	1260.33	0.00	1260.33
GRAND TOTAL:	26,964.07	13,980.00	116.91	41,060.98

# (Rs. In Lakhs.)

Major Head	Non Plan	State Plan	Total:
(2015-2016)		(Annual Plan)	
(Total: Budget Estimate)	32836.27	25994.35	58830.62
2401	00.0	1026.00	1026.00
2402	708.00	2.49	710.49
2406	26236.92	17607.73	43844.65
2415	28.82	55.52	84.34
2505	00.0	118.00	118.00
2551	13.63	97.85	111.48
4216	00:0	632.82	632.82
4406	00.0	1037.75	1037.75
4702	00.0	1000.96	1000.96
GRAND TOTAL:	26987.37	21579.12	48566.49





## FOREST PROTECTION

West Bengal is one of the few states in the country where per capita forest area is the lowest (0.01 ha.) and density of the population around fragmented forests is the highest. Evidently, there is tremendous pressure on forests. Coupled with socio-economic problems of poverty, underemployment and unemployment in the forest fringe areas, the major threat to forest comes from illicit collection of fuelwood, fodder and small timber from the forests by the villagers to sustain their livelihood. This problem has, however, been tackled by and large over a major part of forested tract in the State by formation of Forest Protection Committees and through the process of consolidation of Joint Forest Management. But in areas where there is a problem in the field of timber and poaching of wildlife, protection is provided through intensive patrolling of the areas by protective personnel. Vigilance by departmental protective staff has been intensified in such areas through organization of mobile squads being assisted by 200 men strong specially constituted battalion of State Armed Police. Action has been taken to stop illegal activities by wood-based industries operating in regions vulnerable to operation of gangsters. A post of Inspector General of Police, Forest Protection has been created in the Department of Forests to have the required liaison with the Police Administration to extend their support over district and state level to combat organized gangsters in illicit operation of timber.

An extensive net work of R.T. have been built up connecting Beats/Ranges to the Divisional Headquarters in order to ensure required reinforcement at times of emergency to combat organized plunder of timber and other produces, and poaching of Wildlife.

## FOREST OFFENCES NO OF POR CASES FOR F.Y. 2015-16

During F.Y. 2015-16, total number of offence cases registered was 11849, out of which COR was 6871, UDOR was 4714 and POR was 264 and 8119 no. of trees were reported by the Divisions as illicitly felled.

Division	Illicit felling	Unauthorised graz- ing	Wild life offence	Offence in Non- Forest Area	Forest Con- servation Act	Total POR Cases Reg- istered
Darjeeling	2	0	0	0	0	2
Kurseong	7	0	3	0	0	10
Darjeeling WL	3	00	0	0	0	3
Baikunthapur	32	0	16	0	0	48
Jalpaiguri	32	0	0	0	0	32
BTR East	13	0	2	0	0	15
BTR West	26	0	2	0	0	28
CoochBehar	5	0	0	0	0	5
Jaldapara WL	17	0	7	0	0	24
Gorumara WL	0	0	3	0	0	3
Raiganj	2	0	4	0	0	6
Malda	0	0	1	2	0	3
Bankura North	1	0	0	2	1	4
Bankura South	0	0	0	0	0	0
Panchet	8	0	1	0	0	9
Kangsabati North	0	0	0	0	0	0
Kangsabati South	0	0	0	0	0	0
Purulia	16	0	0	0	0	16
Burdwan	0	0	0	0	0	0
Durgapur	0	0	0	0	0	0
Midnapur	1	0	0	0	0	1
Jhargarm	2	0	0	0	0	2
Rupnarayan	2	0	0	0	0	2
Kharagpur	0	0	4	0	0	4
Purba Midnapur	0	0	0	0	0	0
Birbhum	0	0	0	0	4	4
Nadia Msd	0	0	0	0	0	0
24 Parganas(S)	0	0	4	0	0	4
Howrah	0	0	2	0	0	2
STR	1	2	3	0	0	6
Wildlife HQ	0	0	27	0	0	27
Siliguri SF	0	0	0	0	0	0
24 Parganas (N)	0	0	4	0	0	4
TOTAL	170	2	83	4	5	264

## NO OF COR CASES FOR F.Y. 2015-16

	TII: 14 6 II	TI 41 ' 1	337°1 1 1°C	Offence in		Total
Division	Illicit fell-	Unauthorised	Wild life	Non-Forest	F.C.A	COR Cases
	ing	grazing	offence	Area		Registered
Darjeeling	4	0	0	0	0	4
Kurseong	12	0	0	0	0	12
Darjeeling WL	0	4	5	0	0	9
Baikunthapur	69	14	0	0	0	83
Jalpaiguri	800	77	0	0	0	877
BTR East	237	0	0	0	0	237
BTR West	20	17	0	35	35	107
CoochBehar	17	31	0	85	0	133
Jaldapara WL	120	60	0	169	0	349
Gorumara WL	0	80	0	0	0	80
Raiganj	44	0	0	0	0	44
Malda	0	0	0	8	0	8
Bankura North	209	13	0	0	0	222
Bankura South	108	0	0	18	0	126
Panchet	105	0	0	0	0	105
Kangsabati North	94	0	0	0	0	94
Kangsabati South	22	0	0	0	0	22
Purulia	0	155	0	0	0	155
Burdwan	221	0	0	33	0	254
Durgapur	0	0	0	0	0	0
Midnapur	156	0	0	0	0	156
Jhargarm	302	0	0	0	0	302
Rupnarayan	170	0	0	0	0	170
Kharagpur	54	0	0	0	0	54
Purba Midnapur	0	0	0	0	0	0
Birbhum	101	8	0	2	0	111
Nadia Msd	0	0	0	35	0	35
24 Parganas(S)	45	0	0	0	16	61
Howrah	0	0	0	0	0	0
STR	3050	0	0	0	0	3050
Wildlife HQ	0	0	0	0	0	0
Siliguri SF	0	8	0	0	0	8
24 Parganas (N)	0	0	0	3	0	3
Total	5960	467	5	388	51	6871

## NO OF UDOR CASES FOR F.Y. 2015-16

Division	Illicit fell-	Unauthorised grazing	Wild life offence	Offence in Non-Forest Area	F.C.A	Total UDOR Cases Registered
Darjeeling	6	0	0	0	0	6
Kurseong	120	0	0	0	0	120
Darjeeling WL	150	0	0	0	0	150
Baikuntha Pur	96	0	0	0	0	96
Jalpaiguri	840	0	0	0	0	840
BTR East	862	0	0	0	0	862
BTR West	675	0	0	0	500	1175
CoochBehar	174	0	0	0	0	174
Jaldapara WL	495	0	0	0	0	495
Gorumara WL	19	0	0	0	0	19
Raiganj	29	0	4	0	8	41
Malda	26	0	0	0	0	26



Division	Illicit fell- ing	Unauthorised grazing	Wild life offence	Offence in Non-Forest Area	F.C.A	Total UDOR Cases Registered
Bankura North	43	0	0	0	0	43
Bankura South	53	0	0	0	0	53
Panchet	72	0	0	0	0	72
Kangsabati North	31	0	0	0	0	31
Kangsabati South	21	0	0	0	0	21
Purulia	46	0	0	0	0	46
Burdwan	7	0	0	0	0	7
Durgapur	2	0	0	0	0	2
Midnapur	54	0	0	0	0	54
Jhargarm	105	0	0	0	0	105
Rupnarayan	16	0	0	0	0	16
Kharagpur	24	0	0	0	0	24
Purba Midnapur	15	0	0	0	0	15
Birbhum	17	0	0	0	0	17
Nadia Msd	70	0	0	0	0	70
24 Parganas(S)	26	0	1	1	0	28
Howrah	0	0	0	0	0	0
STR	20	0	0	0	0	20
Wildlife HQ.	0	0	71	0	0	71
Siliguri SF	0	1	0	0	0	1
Siliguri SF	0	0	0	0	0	0
24 Parganas (N)	0	0	14	0	0	14
Total	4114	1	90	1	508	4714

Status of offence case registered and number of tree felled illicitly during F.Y. 2015-16

Division	Total COR Cases Reg-	Total UDOR Cases	Total POR Cases	Total Number of	No of trees il-
21/15/01	istered	Registered	Registered	Cases Registered	licitly felled
Darjeeling	4	6	2	12	3
Kurseong	12	120	10	142	119
Darjeeling WL	9	150	3	162	249
Baikuntha Pur	83	96	48	227	31
Jalpaiguri	877	840	32	1749	1275
BTR East	237	862	15	1114	1550
BTR West	107	1175	28	1310	1904
CoochBehar	133	174	5	312	45
Jaldapara WL	349	495	24	868	0
Gorumara WL	80	19	3	102	0
Raiganj	44	41	6	91	0
Malda	8	26	3	37	50
Bankura North	222	43	4	269	309
Bankura South	126	53	0	179	1027
Panchet	105	72	9	186	0
Kangsabati North	94	31	0	125	0
Kangsabati South	22	21	0	43	0
Purulia	155	46	16	217	0
Burdwan	254	7	0	261	0
Durgapur	0	2	0	2	0
Midnapur	156	54	1	211	0
Jhargarm	302	105	2	409	857
Rupnarayan	170	16	2	188	247
Kharagpur	54	24	4	82	340
Purba Midnapur	0	15	0	15	20

	Total	Total	Total	Total	No of two on il
Division	COR Cases Reg-	<b>UDOR Cases</b>	POR Cases	Number of	No of trees illicitly felled
	istered	Registered	Registered	Cases Registered	nertry reneu
Birbhum	111	17	4	132	0
Nadia Msd	35	70	0	105	93
24 Parganas(S)	61	28	4	93	0
Howrah	0	0	2	2	0
STR	3050	20	6	3076	0
Wildlife HQ.	8	71	27	106	0
Siliguri SF	3	1	0	4	0
24 Parganas (N)	0	14	4	18	0
Total	6871	4714	264	11849	8119

## DETAILS OF TIMBER SEIZED AND STOLEN FORM FOREST AREA AND ITS VALUE DURING F.Y. 2015-16

The quantity of timber seized from forest area during F.Y. 2015-16 is 3905.35 m³ valuing approximately Rs. 52529813.00 and quantity of timber stolen from forest area is 649.906 m³ valuing approximately Rs. 10377578.00.

Divisions	SEIZURE	OF TIMBER	STOLEN	TIMBER
	Volume of Timber	Value of Timber	Volume of Timber	Value of Timber
	(in m³)	(in INR)	(in m <sup>3</sup> )	(in INR)
Darjeeling	4.301	108000	0	0
Kurseong	174.536	1745360	113.987	1139870
Darjeeling WL	93.031	0	74.583	0
Baikuntha Pur	26.087	956323	2.185	80100
Jalpaiguri	762.093	95,26,162	44.813	3,36,097
BTR East	758.14	3,03,25,600	0	0
BTR West			368.24	7183365
CoochBehar	12.21	245000	5.052	1,00,000
Jaldapara WL	598.363	8975445	0	0
Gorumara WL	0.173	1730	3.6	36000
Raiganj	1.119	15,666	1.840	25,760
Malda	10.245	133532	7.398	96424
Bankura North	21	325000	0	0
Bankura South	85.07	850700	0	0
Panchet	36.34	545145	0	0
Kangsabati North	29.535	267570	0	0
Kangsabati South	14.062	0	0	0
Purulia	21.060	93000	0	0
Burdwan	9.143	57497	0	0
Durgapur	0	0	0	0
Midnapur	50.839	3,06,000	0	0
Jhargarm	83.221	6,40,800	0	0
Rupnarayan	19.934	3,09,977	25.335	3,92,692
Kharagpur	20.015	120000	0	0
Purba Midnapur	12.605	88235	0	0
Birbhum	1.93	12000	0	0
Nadia Msd	24.442	2,50,000	0	0
24 Parganas(S)	2.873	10055	2.873	10055
Howrah	0	0	0	0
STR	4.073	24,000	0	0
24 Parganas (N)	0	0	0	0
WL HQ	0	0	0	0
Siliguri SF	0	0	0	0
Total	3905.35	52529813	649.906	10377578



## DETAILS OF ENCOUNTERS WITH OFFENDERS/PUBLIC DURING PROTECTION WORK

As per data provided by Divisions, 9 staffs have been assaulted and 402 persons have been arrested during encounters with offenders/public during protection work. Four persons have been convicted by the Honourable Court.

DIVISIONS	No of Staff As- saulted	No of Staff Murdered	No of person Ar- rested	No of person con- victed in Court
Darjeeling	0	0	3	0
Kurseong	0	0	6	0
Darjeeling WL	0	0	5	0
Baikunthapur	0	0	100	0
Jalpaiguri	0	0	37	0
BTR East	0	0	18	0
BTR West	0	0	25	4
CoochBehar	0	0	2	0
Jaldapara WL	0	0	20	0
Gorumara WL	0	0	0	0
Raiganj	0	0	18	0
Malda	0	0	1	0
Bankura North	4	0	5	0
Bankura South	0	0	2	0
Panchet	3	0	40	0
Kangsabati North	0	0	0	0
Kangsabati South	0	0	0	0
Purulia	0	0	10	0
Burdwan	2	0	0	0
Durgapur	0	0	0	0
Midnapur	0	0	0	0
Jhargarm	0	0	0	0
Rupnarayan	0	0	8	0
Kharagpur	0	0	16	0
Purba Midnapur	0	0	0	0
Birbhum	0	0	0	0
Nadia Msd	0	0	0	0
24 Parganas(S)	0	0	0	0
Howrah	0	0	15	0
STR	0	0	20	0
WL HQ	0	0	46	0
24 Parganas (N)	0	0	5	0
Siliguri SF	0	0	0	0
Total	9	0	402	4



## DETAILS OF VEHICLES SEIZED AND CONFISCATED FOR CARRYING

## ILLEGAL FOREST PRODUCE

A total of 2103 number of vehicles including HMV, LMV, Boat and hand drawn vehicle was seized and 1793 numbers of vehicles was confiscated for carrying illegal forest produce during the F.Y.2015-16.

			ı		1				Т	
Name of	Н	MV	L	MV		an ,thala etc	В	OAT	ОТ	HER
Divisions	Seized	Confisca ted	Seized	Confisca ted	Seized	Confisca ted	Seized	Confisca ted	Seized	Confisca ted
Darjeeling	1	0	1	0	0	0	0	0	0	0
Kurseong	5	0	1	0	36	0	0	0	0	0
Darjeeling WL	1	0	10	0	0	0	0	0	0	0
Baikuntha Pur	28	0	11	0	57	57	0	0	0	0
Jalpaiguri	0	0	26	0	180	180	1	0	0	0
BTR East	0	0	5	0	551	551	0	0	0	0
BTR West	0	0	13	0	902	902	0	0	0	0
CoochBehar	0	2	2	0	63	63	0	0	0	0
Jaldapara WL	14	6	5	1	0	0	0	0	0	0
Gorumara WL	0	0	0	0	2	0	0	0	0	0
Raiganj	2	4	0	0	0	0	0	0	0	0
Malda	0	0	0	0	0	0	0	0	0	0
Bankura North	2	0	4	0	14	14	0	0	0	0
Bankura South	6	1	0	0	0	0	0	0	0	0
Panchet	9	0	0	0	34	0	0	0	1	0
Kangsabati North	0	0	0	0	0	0	0	0	0	0
Kangsabati South	4	2	0	0	0	0	0	0	0	0
Purulia	4	0	0	0	9	0	0	0	0	0
Burdwan	0	0	0	0	0	0	0	0	0	0
Durgapur	1	0	0	0	0	0	0	0	0	0
Midnapur	10	0	0	0	0	0	0	0	0	0
Jhargarm	4	0	0	0	0	0	0	0	0	0
Rupnarayan	0	0	2	0	7	0	0	0	0	0
Kharagpur	1	1	1	0	40	0	0	0	0	0
Purba Mid- napur	0	0	0	0	0	0	0	0	0	0
Birbhum	1	0	2	0	0	0	0	0	0	0
Nadia Msd	0	0	0	0	0	0	0	0	0	0
24 Parganas(S)	0	0	0	0	0	0	9	9	0	0
Howrah	0	0	0	0	0	0	0	0	0	0
STR	0	0	0	0	0	0	16	0	0	0
WL HQ	1	0	2	0	2	0	0	0	0	0
Total	94	16	85	1	1897	1767	26	9	1	0

Note: Total Vehicles seized 2103 & Total Vehicles confiscated 1793.

## DETAILS OF TIMBER & FIRE WOOD SEIZED AND CONFISCATED FROM VEHICLES AND VALUE OF FOREST PRODUCE

A total volume of 318.903 m3 timber valuing approximately Rs. 5208777.00 was seized from the vehicles and 76.191m3 valuing Rs.1779986.00 was confiscated. A total volume of 122.336 m3 firewood valuing approximately Rs. 106231.00 was seized from vehicles and 112.72 m3 valuing Rs.87200.00 was confiscated.

		TIMB	ER			FIRE W	OOD	
Divisions	Seized (in m³)	Confiscated (in m³)	Seized Value (in INR)	Confistd. Value (in INR)	Seized (in m³)	Confistd. (in m³)	Seized value (in INR)	Confs. Value (in INR)
Darjeeling	3.545	0	108000	0	0	0	0	0
Kurseong	7.361	0	73610	0	0	0	0	0
Darjeeling WL	10.064	0	162028	0	0	0	0	0
Baikuntha Pur	85.455	0	41235	0	0	0	0	0
Jalpaiguri	66.222	0	2750000	0	0	0	0	
BTR East	0.571	0	31400	0	0	0	0	0
BTR West	22.177	22.177	442900	442900	73	73	70800	70800
CoochBehar	1.228	15.835	40000	600000	0	0	0	0
Jaldapara WL	17.274	9.565	690960	382600	0	0	0	0
Gorumara WL	0.173	0	1730	0	0	0	0	0
Raiganj	1.119	1.119	15666	15666	0	0	0	0
Malda	0	0	0	0	0	0	0	0
Bankura North	21	21	315000	315000	7	7	14000	14000
Bankura South	7.12	0.115	74886	1150	1.2	0	1440	
Panchet	0	0	0	0	0	0	0	0
Kangsabati North	0	0	0	0	0	0	0	0
Kangsabati South	3.87	1.79	25200	11670	0	0	0	0
Purulia	8.940	4.590	93000	11000	2.72	2.72	0	0
Burdwan	0	0	0	0	0	0	0	0
Durgapur	17.55	0	30000	0	0	0	0	0
Midnapur	7.56	0	44000	0	0	0	0	0
Jhargarm	28.78	0	221600	0	0	0	0	0
Rupnarayan	0	0	0	0	0	0	0	0
Kharagpur	1.427	0	8562	0	1.50	0	3750.	0
Purba Midnapur	0	0	0	0	0	0	0	0
Birbhum	3.394	0	15000	0	6.916	0	13841	0
Nadia Msd	0	0	0	0	0	0	0	0
24 Parganas(S)	0	0	0	0	30	30	2400	2400
Howrah	0	0	0	0	0	0	0	0
STR	4.073	0	24000	0	0	0	0	0
24 parganas (N)	0	0	0	0	0	0	0	0
WL Hq	0	0	0	0	0	0	0	0
Total	318.903	76.191	5208777	1779986	122.336	112.72	106231	87200



## STATUS OF NUMBER OF CASES PENDING AND DISPOSED BY THE COURT

Total Number of cases pending at various Courts as on 01/04/2015 was 2900, No. of new cases registered during 2015-16 was 236 and No. of cases disposed by the Honourable Courts during 2015-16 was 21. The Balance cases pending as on 31/03/2016 is 3115 out of which 2438 number of cases is pending in the Courts of CJM/ACJM, 645 number of cases is pending in the Court of District /Sessions Judge and 31 number of Cases is pending in the Honourable High Court and one number of case was being tried before the Honourable Supreme Court.

Divisions	No of cases pending as on 01/04/2015	No of new cases during 2015-16	Total no of cases	No of cases disposed during 2015-16	Balance cases pending as on 31/03/2016
Darjeeling	52	2	54	0	54
Kurseong	137	10	147	0	147
Darjeeling WL	81	3	84	0	84
Baikunthapur	440	37	477	0	477
Jalpaiguri	528	22	550	7	543
BTR East	180	15	195	7	188
BTR West	448	28	476	4	472
CoochBehar	30	5	35	1	34
Jaldapara WL	217	22	239	0	239
Gorumara WL	67	3	70	0	70
Raiganj	38	6	44	0	44
Malda	3	3	6	1	5
Bankura North	33	4	37	0	37
Bankura South	69	0	69	1	68
Panchet	1	9	10	0	10
Kangsabati North	0	0	0	0	0
Kangsabati South	0	0	0	0	0
Purulia	25	16	41	0	41
Burdwan	38	0	38	0	38
Durgapur	0	0	0	0	0
Midnapur	25	1	26	0	26
Jhargarm	24	2	26	0	26
Rupnarayan	5	2	7	0	7
Kharagpur	23	4	27	0	27
Purba Midnapur	0	0	0	0	0
Birbhum	13	0	13	0	13
Nadia Msd	15	0	15	0	15
24 Parganas(S)	56	4	60	0	60
Howrah	8	2	10	0	10
STR	194	6	200	0	200
Wildlife HQ	128	26	154	0	154
24Parganas(N)	22	4	26	0	26
Total	2900	236	3136	21	3115

## STATUS OF CASE PENDING AT VARIOUS HONOURABLE COURTS AS ON 31/03/2016

Divisions	No of cases	CJM Court/ ACJM	District/Sessions Court	High Court	Supreme Court.
Darjeeling	54	0	54	0	0
Kurseong	147	147	0	0	0
Darjeeling WL	84	84	0	0	0
Baikuntha Pur	477	470	5	2	0
Jalpaiguri	543	143	400	0	0
BTR East	188	187	1	0	0
BTR West	472	471	0	1	0
CoochBehar	34	31	3	0	0
Jaldapara WL	239	237	0	2	0
Gorumara WL	70	70	0	0	0
Raiganj	44	0	44	0	0
Malda	5	5	0	0	0
Bankura North	37	35	2	0	0
Bankura South	68	61	2	5	0
Panchet	10	10	0	0	0
Kangsabati North	0	0	0	0	0
Kangsabati South	0	0	0	0	0
Purulia	41	39	0	2	0
Burdwan	38	34	0	3	1
Durgapur	0	0	0	0	0
Midnapur	26	26	0	0	0
Jhargarm	26	18	5	3	0
Rupnarayan	7	7	0	0	0
Kharagpur	27	17	1	9	0
Purba Midnapur	0	0	0	0	0
Birbhum	13	13	0	0	0
Nadia Msd	15	15	0	0	0
24 Parganas(S)	60	60	0	0	0
Howrah	10	5	5	0	0
STR	200	199	0	1	0
Wildlife HQ	154	28	123	3	0
24 Parganas(N)	26	26	0	0	0
Total	3115	2438	645	31	1

# RAIDS CONDUCTED ON PVT.TIMBER AND FOREST BASED INDUSTRIES DURING 2015-16

Division	No of	1	Plywood and Veener ind	ener indu	lustries		Saw	Saw Mill		Private Ti	Private Timber Depot & other wood base industry	other wood	base industry
		Quanti	Quantity of Wood (in m³)	Valu (i)	Value of Wood (in INR)	Quant	Quantity of Wood (in m³)	Value (in	Value of Wood (in INR)	Quanti (i	Quantity of Wood (in m³)	Value (in	Value of Wood (in INR)
	1	Seized	Confiscated	Seized	Confiscated	Seized	Confiscated	Seized	Confiscated	Seized	Confiscated	Seized	Confiscated
Darjeeling	0	0	0	0	0	0	0	0	0	0	0	0	0
Kurseong	0	0	0	0	0	0	0	0	0	0	0	0	0
Darjeeling WL	09	0	0	0	0	0	0	0	0	74.583	0	48631	0
Baikunthapur	0	0	0	0	0	0	0	0	0	0	0	0	0
Jalpaiguri	1	0	0	0	0	1.527	0	30500	0	0	0	0	0
BTR East	14	0	0	0	0	3.114	3.114	124560	124560	0	0	0	0
BTR West	181	0	0	0	0	3.638	3.638	72760	72760	11.362	11.362	227240	227240
CoochBehar	70	0	0	0	0	34	0	000089	0	0	0	0	0
Jaldapara WL	248	0	0	0	0	0	0	0	0	0	0	0	0
Gorumara WL	0	0	0	0	0	0	0	0	0	0	0	0	0
Raiganj	6	0	0	0	0	0	0	0	0	0	0	0	0
Malda	3	0	0	0	0	41.941	0	125000	0	0	0	0	0
Bankura North	4	0	0	0	0	0	0	0	0	0	0	0	0
Bankura South	0	0	0	0	0	0	0	0	0	0	0	0	0
Panchet	0	0	0	0	0	0	0	0	0	0	0	0	0
Kangsabati North	0	0	0	0	0	0	0	0	0	0	0	0	0
Kangsabati South	0	0	0	0	0	0	0	0	0	0	0	0	0
Purulia	3	0	0	0	0	0	12.12	0	48000	0	0	0	0
Burdwan	0	0	0	0	0	0	0	0	0	0	0	0	0
Durgapur	0	0	0	0	0	0	0	0	0	0	0	0	0
Midnapur	0	0	0	0	0	0	0	0	0	0	0	0	0
Jhargarm	0	0	0	0	0	0	0	0	0	0	0	0	0
Rupnarayan	0	0	0	0	0	0	0	0	0	0	0	0	0
Kharagpur	1	0	0	0	0	2.474	0	14844	0	0	0	0	0
Purba Mid- napur	0	0	0	0	0	0	0	0	0	0	0	0	0
Birbhum	0	0	0	0	0	0	0	0	0	0	0	0	0
Nadia Msd	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Parganas(S)	0	0	0	0	0	0	0	0	0	0	0	0	0
Howrah	0	0	0	0	0	0	0	0	0	0	0	0	0
STR	0	0	0	0	0	0	0	0	0	0	0	0	0
24Parganas (N)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	594	0	0	0	0	86.694	18.872	1047664	245320	85.945	11.362	275871	227240

## Status of Mobile Patrolling Party & Mobile Squads in West Bengal

As reported by Divisions, for undertaking exclusively protection works in forest and protected areas, there are 70 numbers of forest and wildlife Mobile Patrolling Party and Mobile Squad existing in West Bengal.

Name of Division	Name of MPP/MS	Location	Contact Number
Darjeeling	NIL	-	-
Kurseong	Bagdogra Elephant Squad	Bagdogra	-
Darjeeling WL	Wild Life Squad I	Sukna	-
<i>x</i>	MPP Range	Siliguri	-
D 11 41	MPP-2 Range	Belacoba	-
Baikunthapur	MPP-3Range	Odlabari	-
	Belacoba Elephant Squad	Belacoba	-
Jalpaiguri	Jalpaiguri MPP Range	Hakimpara, Jalpaiguri	03561-230118, 9851001588
BTR East	Mobile (East )Range	Kamakshyaguri	-
DED III	MPP Damanpur	Damanpur	-
BTR West	MPP Pana	Pana	-
CoochBehar	Talliguri	Talliguri	-
Jaldapara WL	Madarihat WL Squad	Madarihat	-
	W L Squad II	Malbazar	-
	W L Squad III	Bannaguri	-
Gorumara WL	Khunia W L Squad	Khunia	-
	Ramsi MPP Range	Ramshi	_
Raiganj	Raiganj Mobile Squad	Raiganj	8670912026
Malda	MPP Malda	Malda HQ Range	9749310762
	MPP Sonamukhi	Sonamukhi	9083254717
Bankura North	MPP Beliatore	Beliatore	9083254747
Bankura South	MPP Pirrorgari	Pirrorgari R.O.	-
Dankara South	MPP- Bishnupur range	Bishnupur	_
Panchet	MPP- Bankadaha Range	Bankadaha	_
1 anenet	Quick Response Team	Panchyet Division	<u>_</u>
Kangsabati North	NIL	-	<u>_</u>
Kangsabati South	NIL	_	_
Purulia	Jhalda MPP	Jhalda RO Complex	_
Extension Foresty Div.	NIL		<u> </u>
Burdwan	Raghunathpur MPP	Ijjatganj PS. Kanksa	<u>-</u>
Durgapur	NIL		_
Midnapur	MPP Range	Midnapur	_
_	MPP Jhargarm	Jhargarm	8001846844
Jhargarm	MPP Belpahari	Belpahari	9732122179
Rupnarayan	Mahalisai- I	Mahalisai	9732729688
Kharagpur	MPP Range-1	Panchkahania	-
Purba Midnapur	NIL NIL	-	<u> </u>
Birbhum	NIL	_	<u> </u>
Nadia Murshidabad	NIL	_	<u> </u>
STR	Sandak Khali Floating Camp	_	_
	Pirkhali Floting Camp	_	-
	Tetultala Floting Camp	_	_
	Chilmari Floting Camp		-
	Kakmari Floting Camp	<u> </u>	
	Chayan MPP	<del>   </del>	
	Rampura MPP		-
	Bonraj MPP	<del>  -</del>  -	-
24 Parganas North	NIL	-	-
TT 1.			
Howrah	NIL	[-	-



Name of Division	Name of MPP/MS	Location	Contact Number
Forest Utilisation	NIL	-	-
	Dhanchi Beat,		
	Patharpratima Camp,	Ramganga Range	-
	Chulkati Camp		-
	Mahestala Beat,	Diamand Harbar Danca	_
	Nainan Beat	Diamond Harbor Range	-
	Nalgora Beat	Raidhagi Range	-
	Kultali Beat	Kaluliagi Kalige	-
	Bonnie Camp		-
	Kankramari Camp		
	Sagar Beat	Namkhana Range	-
	Saptamukhi Beat		
24 Parganas(South)	Patibunia Beat		-
8 ( /	Uttar Bakkhali Beat	Bakkhali Range	-
	Dakshin Bakkhali Beat	Bakkilali Kalige	-
	Jambudwip Camp		-
	Jharkhali Beat	Matla Range	-
	Lothian Old Camp		
	Lothian New Camp	Bhagabatpur Range	-
	Chandanpiri Beat		
	CKBS, Narendrapur		-
	Piali Beat		-
	Mathurapur Beat	Baruipur Range	_
	Head Quarter Beat		_
	Sandak Khali Floating Camp	-	=
	Pirkhali Floting Camp	-	_
	Tetultala Floting Camp	-	-
CED	Chilmari Floting Camp	-	-
STR	Kakmari Floting Camp	-	_
	Chayan MPP	-	-
	Rampura MPP	-	-
	Bonraj MPP	-	-
24 Parganas North	NIL	-	
Howrah	NIL	-	-
Utilisation	NIL	-	_

## **INCIDENTS OF FOREST FIRE DURING THE YEAR 2015-16**

The Divisions have reported a total of 380 forest fire incidents in the various forests of the State West Bengal, the maximum incidence being reported from BTR West Division. About 3673.43 ha forest area has been affected by fire and the estimated loss is approximately Rs.5902484.00.

DIVISION	NUMBER OF IN- CIDENTS	Forest Area affected by fire (in ha)	Estimated loss (in INR)
Darjeeling	1	2.50	-
Kurseong	16	80.50	356484.00
Darjeeling WL	22	33.55	-
Baikunthapur	60	712.75	-
Jalpaiguri	3	17.00	160000.00
Gorumara WL	2	32.00	-
BTR East	0	0.00	-
BTR West	90	479.35	-
Coochbehar	0	0.00	-
Jaldapara WL	1	67.30	-
Siliguri SF	1	0.50	19000.00
Raiganj	0	0.00	-
Malda	0	0.00	-
Bankura North	13	41.00	-
Bankura South	46	596.00	2245000.00
Panchet	7	22.50	-
Kangsabati North	16	69.80	500000.00
Kangsabati South	2	12.00	250000.00
Purulia	11	82.18	499000.00
Burdwan	2	12.50	300000.00
Durgapur	2	16.00	256000.00
Midnapur	76	1335.50	-
Jhargarm	0	0.00	-
Rupnarayan	3	3.00	-
Kharagpur	1	20.00	225000.00
Silvi (South)	1	4.00	20000.00
Purba Midnapur	0	0.00	-
Birbhum	4	33.50	1072000.00
Nadia Msd	0	0.00	-
24 Parganas(S)	0	0.00	-
STR	0	0.00	-
24 Parganas (N)	0	0.00	-
Howrah	0	0.00	<del>-</del>
Total	380	3673.43	5902484.00



## Status of Forest Land under Encroachment as on 31.03.2016

As per report received from the Divisions, 3.41 ha forest land was encroached and 540.64 ha encroached forest area was evicted during F.Y. 2015-16. As on 31.03.2016, the total forest land encroached in West Bengal stands at 10214.80 ha.

Forest Division	New Encroachment during F.Y. 2015-16 (in ha)	Encroachment evicted during F.Y. 2015-16 (in ha)	Total area under encroachment as on 31/03/2016 (in ha)
Darjeeling	0.00	0.00	36.44
Kurseong	0.00	0.00	2.82
Darjeeling WL	0.00	0.00	63.95
Baikunthapur	0.00	0.00	198.38
Jalpaiguri	0.00	0.00	160.93
Gorumara WL	0.00	0.00	50.86
BTR East	0.00	0.00	0.00
BTR West	0.00	0.00	0.00
Coochbehar	0.00	0.00	947.09
Jaldapara WL	0.00	0.00	0.00
Raiganj	0.00	0.00	6.93
Malda	0.00	0.00	262.00
Bankura North	0.00	43.00	781.58
Bankura South	0.00	102.32	1571.26
Panchet	0.00	0.00	869.22
Kangsabati North	0.00	0.00	505.82
Kangsabati South	0.00	79.03	254.00
Purulia	3.41	0.00	7.14
Burdwan	0.00	0.00	409.67
Durgapur	0.00	0.00	0.00
Midnapur	0.00	0.00	763.55
Jhargarm	0.00	32.33	1545.42
Rupnarayan	0.00	10.00	1078.25
Kharagpur	0.00	67.65	329.45
Purba Midnapur	0.00	0.00	2.10
Birbhum	0.00	106.31	329.45
Nadia Msd	0.00	0.00	4.00
24 Parganas(S)	0.00	100.00	0.00
STR	0.00	0.00	0.00
24 Parganas (N)	0.00	0.00	0.00
Howrah	0.00	0.00	34.49
Total	3.41	540.64	10214.80





## **CAMPA**

## DIVERSION OF FOREST LAND UNDER FOREST (CONSERVATION) ACT., 1980

1. Introduction: Prior to the enactment of the Forest (Conservation) Act, 1980 the recorded forest lands were valunerable to diversion for different non-forestry activities viz. creation of human settlements, agriculture, construction of dams, bridges, roads and other divelopmental activities. In order to check further depletion of the forest cover and to protect the forests, the Government of India enacted the Forests (Conservation) Act, 1980 and amended it from time to time with insertions of stringent stipulations. As per the Act a majority of such diversions requires prior approval of the Ministry of Environment and Forests, Government of India except for very small areas to be diverted for basic public utilities in rural areas and also in left Wing Extremist Areas where the powers vest with the State Government. As a result the quantum of diversion of forest land for non-forestry purposes has reduced appreciably.

In West Bengal, an area of 2375.9403 ha. of forest land, has been diverted for different non-forestry purposed till March 2016 (Table 4.1). The stipulated Compensatory Afforestation is 3327.3027 ha. (degraded forest land 881.01 ha. and in non forest land is 2446.2969 ha.) The achievement of Compensatory Afforestation in degraded forest land is 661.4138 ha. and in non forest land is 2148.0826 ha. The backlog of Compensatory Afforestation is over 518.00 ha. (degraded forest land 219.6062 ha. and non forest land is 298.2143 ha.)

Table - 4.1(i): Diversion of Forest Land for Non-Forest use in West Bengal since the enforcement of Forest (Conservation) Act, 1980

Year	Area approved for diversion	Diversion Not executed	Temporary Diversion	(Area in Hectares)
1981-1982	29.772	0.200	0.000	29.572
1982-1983	87.190	0.000	0.000	87.190
1983-1984	15.325	2.44	0.000	12.885
1984-1985	13.309	0.000	0.000	13.309
1985-1986	306.000	0.000	0.000	306.000
1986-1987	23.766	0.018	0.000	23.748
1987-1988	16.702	0.000	0.000	16.702
1988-1989	18.925	0.000	0.000	18.925
1989-1990	94.480	0.030	0.000	94.450
1990-1991	19.357	0.627	0.000	18.730
1991-1992	47.500	0.082	0.000	47.418
1992-1993	78.107	67.067	0.000	11.040
1993-1994	232.000	0.000	0.000	232.000
1994-1995	45.000	0.000	0.000	45.000
1995-1996	93.960	0.000	0.000	93.960
1996-1997	1.646	0.000	0.000	1.646
1997-1998	6.798	0.000	0.000	6.798
1998-1999	21.690	1.820	0.000	19.870
1999-2000	3.020	0.000	0.000	3.020
2000-2001	0.997	0.000	0.070	0.927
2001-2002	285.900	0.000	0.000	285.900
2002-2003	10.070	0.000	0.000	10.070
2003-2004	0.000	0.000	0.000	0.000
2004-2005	320.622	18.132	119.000	183.490
2005-2006	357.767	0.117	0.000	357.650

Year	Area approved for diversion	Diversion Not executed	Temporary Diversion	Net Diversion
2006-2007	115.358	0.000	0.000	115.358
2007-2008	37.954	0.000	0.600	37.354
2008-2009	0.075	0.000	0.000	0.075
2009-2010	70.484	0.000	0.000	70.484
2010-2011	174.692	0.173	0.000	174.519
2011-2012	46.579	14.530	0.000	32.049
2012-2013	0.000	0.000	0.000	0.000
2013-2014	58.783	51.902	0.000	6.881
2014-2015	11.031	2.700	0.000	8.331
2015-2016	10.590	0.000	0.000	10.590
Total	2655.448	159.838	119.670	2375.940

For every hectare of the forest land diverted, Compensatory Afforestation is to be done in double the area diverted in degraded forests or in equivalent quantum in non forest area provided by the User Agency in the expense of the User Agency. The following figure indicates the achievements of Compansatory Afforestation plantations since 1980 till 2015-16 and the backlog thereof till date shall be planted from 2016 onwards.

Table - 4.1(ii): Achievement of Compensatory Afforestation Plantation & backlog.

CA stipula	ted (in ha.)	Achievem	ent (in ha.)	Backlog	(in ha.)
Degraded Forest	Non Forest area	Degraded Forest	Non Forest area	Degraded Forest	Non Forest area
area		area		area	
881.01	2446.297	661.404	2148.083	219.606	298.214

**2.** No of approved forest diversion cases: Since 1980, over 115 diversion proposals has been approved by the State and Central Governments and over 2375.9403 ha. of forest land has been diverted under ten catagories. During 2015-16 no CAMPA fund was received & the expenditures incurred was out of the balance fund remaining with the WB CAMPA.

Table - 4.2 : Statement showing the position of cases approved for diversion of Forest Land under Forest (Conservation) Act, 1980 till March, 2016.

Sl No.	Purpose of Diversion	Nos.
1	Irrigation Project	5
2	Hydel Project	5
3	Mining Project	6
4	Construction of Road	15
5	Laying of Railway Line	2
6	Laying of Transmission Line/Pipe Line	34
7	Thermal Project	2
8	Drinking Water Project	4
9	Defence Project	3
10	Others	39
	Total (Nos):	115

**3. West Bengal CAMPA Fund:** Since 2012-13 till 2015-16 no fund was released by Government of India to West Bengal CAMPA. The expenditure incurred during 2015-16 was from the remaining fund available with West Bengal CAMPA.

1	CAMPA Fund received from User Agencies during 2015-16 (Rs.)	NIL
2	CAMPA Fund spent during 2015-16 (Rs.)	2,096,882.50



## WORKING PLANS AND GIS

## STATUS OF WORKING PLANS AND GIS IN WEST BENGAL

All forests are managed under the prescriptions of a working plan/scheme prepared on the basis of principles of sustainable forest management and recognized and innovative silvicultural practices. Working plans have formed the basis of forest management practices over last 100 years. The National Forest Policy, 1988, states that no forest should be permitted to be worked without the government approved management or working plan, which should be in prescribed format and in keeping with the National Forest Policy.

The forests of the State of West Bengal boast of rich biodiversity and are broadly Hill forests of Darjeeling, Moist Tropical forests of Jalpaiguri, Dry Deciduous forests of South Bengal and Mangrove forests of Sunderbans. These are managed under approved Working Plans/Management Plans in conformity with the National Working Plan Code 2004 as well as National Forest Policy, 1988 commensurate with the people's basic needs.

## Working Plan and GIS Circle, West Bengal

The Working Plan and GIS Circle was initially included in Research Circle. In December 1995 as a consequence of reorganization it was formed by bifurcation and designated as Working Plan and GIS Circle. The Working Plan and GIS Circle has three Divisions apart from the Directions Division at the office of Conservator of Forests, Working Plan and GIS.

- 1. Working Plan North Division with headquarters at Darjeeling
- 2. Working Plan South I Division with headquarters at Midnapore
- 3. Working Plan South II Division with headquarters at Bankura

## **GIS** in Forest Management

Development and application of an interdisciplinary approach integrating satellite Remote Sensing; Geographic Information System (GIS) and GPS can solve specific problems of decision making in resource management. Satellite Remote Sensing techniques can be used to generate spatial data on vegetation and land use types while GPS locates the sample plots. The spatial and non-spatial data can be combined to produce thematic maps that are useful in forest management in the areas of yield regulation, growing stock perpetuity, increasing yield and revenue collection, wild life habitat conservation and preservation of forest areas, on steep slopes especially, for soil and moisture.

These advanced technologies facilitate a regular feedback to policy makers and planners engaged in the field of forestry on the state of forest resources and degradation of land. Processing of GIS data models can help prepare working plans by identifying specific land characteristics and analyzing its potential. GIS is a decision support system which is useful for detecting changes in vegetation cover, predicting the susceptibility of land to erosion, for suitability of timber harvest, identification of high-risk zones of forest fire incidents and preparing remedial measures

The history of the application of remote sensing technology in forestry sector in the State can be traced to 1989. Initially the Forest Directorate in West Bengal entrusted the work of classification of forest to Regional Remote Sensing Service Centre (RRSSC), Kharagpur. RRSSC worked on the imageries procured from the National Remote Sensing Agency (NRSA), Hyderabad, for the years 1988, 1991, 1994 and 1997 to generate the forest cover map of the entire state.

The GIS cell was created in July 1999 in the office of the Conservator of Forests, Working Plan & GIS Circle at Kolkata. Initially the cell had started functioning with one license of PC ARC Info and ERDAS Software (DOS Version). At present the work in the GIS laboratory on interpretation of satellite imageries is being carried out on desk top PCs by a trained Forest Range Officer and personnel hired on contract from the Centre of Oceanographic Studies, Jadavpur University.

## The Works undertaken and executed by the WP and GIS Cell, West Bengal:

- 1. In-house digitization of all districts and PS maps of the State.
- 2. Procurement of satellite imageries in digital form (bands 1, 2, 3 & 4) from NRSA, Hyderabad for the entire state, pertaining to the years 1997, 2000, 2002 and 2005, 2006, 2008 and 2009. Satellite imageries for the year of 2006-07, of Coochbehar Forest Division, BTR (E&W) Forest Divisions and Baikunthpur Forest Division (PAN+LISS-III; Scale 1:12,500) were procured. Range, Beat, Blocks and Compartment maps of these forest divisions on a scale of 1:15000 overlaid on the imageries and have been used in order to prepare exact stock maps of the forest divisions from satellite imageries.
- 3. The Stock map of Jalpaiguri Forest division has been digitized for the first time and stock map prepared from the digitized stock maps on an exact scale of 1:15000. The Working plan has been approved by Government of India in 2008. Subsequently, the stock maps of other Divisions have also been digitized and prepared using GIS viz., Malda, Burdwan, Durgapur, Howrah SF, BTR(E&W), Wildlife III, Baikunthpur, Raigunj, Nadia-Murshidabad, Birbhum, Rupnarayan, Purba Midnapur, Jhargram, Midnapur, Khagragpur, Bankura(North), Bankura (South), Panchet and 24-Pargana (South) Division.
- 4. Forest maps up to Block compartment level in North Bengal and Sundarban Tiger Reserve are available in digital Format. Forest Mouza maps in most areas in South Bengal have been digitized and extracted by digitization of forest areas inside mouza maps.
- 5. Correction of old stock maps using Remote Sensing and GIS as per the present field (land, landmark, river, stream etc) position and rectification of the boundary demarcation was also taken up and completed for many areas as required, for achieving the target of preparing stock maps mouza wise on real time.
- 6. Use of GPS was also made in the distribution of land under The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
- 7. GPS has also find extensive use in the monitoring and checking the plantations and other related projects in the State
- 8. Resource survey enumeration and compilation of growing stock has also been taken up in the State for scientific management of the forest resources at our disposal with the help of GIS and GPS technologies. During the preparation of the working plans the Forest Resource Survey has been carried out. During the preparation of the working plan of the Burdwan Division in 2009 it was for the first time the Forest Resource Survey was done for which the detailed data on Growing Stock, Site Quality, prevalence of herbs, shrubs, bamboos etc., soil profile were initiated. The field data collected thus was used as input to Working Plans. The same practice was followed and standards were set as a benchmark.
- 9. West Bengal Forest Department initiated the Daily Forest Fire Alerts since 2007 to various Divisions in the State. The technique as implemented is quite successful as 99% of the forest fire alerts sent to different forest divisions were found to be correct and the feedback received confirmed the forest fire on the given location. A forest fire map for the State has been prepared for the fires that took place during the last three years.





# STATUS OF WORKING PLAN IN WEST BENGAL AS IN 2016

SI. No	District	Forest Division	Working Plan in Progress	Working Plan Period	Sanction Order No	Status	Actions Planned / Work in Progress
1	Darjeeling	Darjeeling	12 <sup>th</sup>	1997-98 to 2017-	13-FCWP/WB-DAG, dt. 15.12.97	Approved	Preparations to be taken for Revision in 2016-17
2		Kalimpong	9th	1997-98 to 2017-	13-FCWP/WB-KLG, dt. 21.11.97	Approved	
3		Kurseong	6 <sup>th</sup>	1997-98 to 2017-	13-FCWP/WB- KURSEONG, dt. 12.12.97	Approved	
4	Jalpaiguri	Jalpaiguri	9th	2007-08 to 2016-	13-FCWP/WB-JP, dt.14.03.2008	Approved	Work in Progress for Revision in the field
5		Baikunthpur	4 <sup>th</sup>	2010-11 to 2019- 20	9 (31)2/2000-FCE, dt. 23rd February, 2012	Approved	
9	Alipur Duar	Buxa Tiger Reserve	&th	2000-01 to 2009-	PWPR sent to RCCF for approval	No more under Working Plan and has now come under Tiger Conservation Plan	Wild Life Wing to take necessary actions when required
		Wildlife-III	$5^{\mathrm{th}}$	2010-2019-20	9 (31)3/2000- FCE, dt. 28.02.2012	Approved	
7	24 Parganas South	24- Parganas, South	2nd	1997-98 to 2007- 08	13-FCWP/WB-PRGN, DT 8.10.97	Modifications required as per the SCC meeting in Dec 2014	Actions taken as required from WP and all Vol I, II &III sent to Wild Life Wing for finalization and submission of Management Plan for the Division. Then the Working Plan would be sent to Regional Office for final approval. Response awaited from the Division since November 2015

SI.	District	Forest Division	Working Plan in Progress	Working Plan Period	Sanction Order No	Status	Actions Planned / Work in Progress
∞	Purba Medinipur	Purba Medinipur Purba Medinipur	2nd	1995 to 2015-16	13-FCWP/WB-MDPR (W), Dt. 7.08.98, 27.06.2000, 30.09.02, 28.07.2007	Modifications required as per the SCC meeting in Dec 2014 for the 3 <sup>rd</sup> Working Plan for 2014-15 to 2023-2024	Actions taken and the final draft after required corrections required from the Working Plan South I Division prior to finalization and sending the same for approval of Regional Office. Stock Maps (Vol-III) are ready in GIS Lab.
6	Paschim Medi- nipur	Midnapore	3rd	2014-2015 to 2023 to 2024	13-FCWP/WB-MDPR (W), Dt. 14.08.2014	Approved	
10		Kharagpur SF	3rd	2014-2015 to 2023 to 2024	13-FCWP/WB-MDPR (W), Dt. 14.08.2014	Approved	
11		Rupnarayan (P&S)	3 <sup>rd</sup>	2014-2015 to 2023 to 2024	13-FCWP/WB-MDPR (W), Dt. 14.08.2014	Approved	
12		Jhargram	3 <sup>rd</sup>	2014-2015 to 2023 to 2024	13-FCWP/WB-MDPR (W), Dt. 14.08.2014	Approved	
13	Bankura	Bankura (N)	2nd	2013-14 to 2022- 23	13-FCWP/WB-BANK, DT 12.07.2013	Approved	
14		Bankura (S)	2nd	2013-14 to 2022-	13-FCWP/WB-BANK, DT 12.07.2013	Approved	
15		Panchet Soil Conservation	2nd	2013-14 to 2022- 23	13-FCWP/WB-BANK, DT 12.07.2013	Approved	

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	5

Status Actions Planned / Work in Progress	ed up to 2014 Details of latest data on  JI Letter Forest Land could not be FCWP- provided by the respective ANK dated Territorial Divisions as per the relevant Notifications.	ed up to 2014 Information awaited. Some DI Letter same. Work in progress.  ANK dated Works and CFC cannot be proposed for the forthcoming year unless the Working Plan is approved by the Regional		p to 2014 etter VP-	p to 2014 etter VP-	p to 2014 etter VP-	p to 2014 etter VP-	p to 2014 etter VP-	p to 2014 etter VP-	etter etter VP- c dated
Extended up to 2014	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013	Extended up to 2014 vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013	Extended up to 2014	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013 Approved	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013 Approved Approved	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013 Approved Approved	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013 Approved Approved Approved Approved	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013 Approved Approved Approved Approved	vide GOI Letter No 13-FCWP- WB-BANK dated 25.09.2013 Approved Approved Approved Approved Approved
		_ ∞	. ∞	, ,					ТО	TC
Sanction Order No	13-FCWP/WB-Purulia/ Bankura, Dt. 17.09.2008	13-FCWP/WB-Purulia/ Bankura, Dt. 17.09.2008	13-FCWP/WB-Purulia/ Bankura, Dt. 17.09.2008		13-FCWP/WB-BVM, DT 12.07.2013	13-FCWP/WB-BVM, D 12.07.2013 13/FCWP/WB-BDN Dt 10.06.2011	13-FCWP/WB-BVM, D 12.07.2013 13/FCWP/WB-BDN Dt 10.06.2011 13/FCWP/WB-BDN Dt 10.06.2011	13-FCWP/WB-BVM, D 12.07.2013 13/FCWP/WB-BDN Dt 10.06.2011 13/FCWP/WB-BDN Dt 10.06.2011 13/FCWP/WB-BDN Dt 10.06.2011	13-FCWP/WB-BVM, L 12.07.2013 13/FCWP/WB-BDN Dt 10.06.2011 13/FCWP/WB-BDN Dt 10.06.2011 13/FCWP/WB-BDN Dt 10.06.2011 22.07.13	13-FCWP/WB-BVN 12.07.2013 13/FCWP/WB-BDN 10.06.2011 13/FCWP/WB-BDN 10.06.2011 13/FCWP/WB-BDN 10.06.2011 9(31)9/2012-FCE da 22.07.13 9(33)3/2003-FCE dt.
Working Plan Period	1997-98 to 2016-	1997-98 to 2016-	1997-98 to 2016- 17		2013-14 to 2022-	2013-14 to 2022- 23 2010-11 to 2019- 20	2013-14 to 2022- 23 2010-11 to 2019- 20 2010-11 to 2019- 20	2013-14 to 2022- 23 2010-11 to 2019- 20 2010-11 to 2019- 20 20 2010-11 to 2019- 20	2013-14 to 2022- 23 2010-11 to 2019- 20 2010-11 to 2019- 20 2010-11 to 2019- 20 2013-14 to 2022- 23	2013-14 to 2022- 23 2010-11 to 2019- 20 2010-11 to 2019- 20 2010-11 to 2019- 20 2013-14 to 2022- 23 2013-14 to 2022- 23
Working Plan in Progress	]st	1 st	<u>]</u> st		2nd	2nd 2nd	2nd 2nd 2nd	2nd 2nd 2nd	2nd 2nd 2nd 2nd	2nd 2nd 2nd 2nd 1st
Forest Division	Purulia	Kangsabati SC-I	Kangsabati SC-II		Birbhum		· SF	-M		
District	Purulia				Birbhum	Birbhum Burdwan	Birbhum	In- WP of		
Si.	16	17	18		19	19 20	20	20 21 22 22	22 22 23 23	20 20 21 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24

District	Forest Division Pla	Working Plan in Progress	Working Plan Period	Sanction Order No	Status	Actions Planned / Work in Progress
Coochbehar	Coochbehar SF 1st		2014-15 to 2023-24		Modifications required as per the SCC meeting in Dec 2014 for the 3 <sup>rd</sup> Working Plan for 2014-15 to 2023-2024	Modifications re- quired as per the SCC mow ready to be communimeting in Dec 2014 for the 3 <sup>rd</sup> Working Plan for 2014-15 to 2023-2024
	Total Approved by GOI	roved by	105		20	
	Under Consideration to be Sent to proval (Finalization)		oe Sent to GOI for Apalization)		E .	
	Under Preparation (in progress)	ation (in	progress)		4	



## Report on Felling during 2015-16 in West Bengal

The felling and other actions are accomplished as per the Working Plan Prescriptions for respective units after due approval of the Ministry of Environment & Forests and Climate Change (MoEF & CC), Government of India. Accordingly, the following report is compiled and submitted for the year under consideration:-

Timber Production Working Circles in West Bengal, felling operations undertaken during 2014-15 and proposed felling during 2016-17 are as detailed below:

The Report on main Production Working Circles in West Bengal is as follows:-

## South Bengal:-

- 1. Sal Coppice Working Circle The area under Sal Coppice Working Circle is approx 2,48,614.62 Ha. This Working Circle covers a large tract of Forest areas in Midnapur, Bankura, Purulia, Burdwan, Birbhum and Nadia Murshidabad districts in West Bengal. The annual felling target in 2014-15 as per Working Plans is 4943 Ha. However during the year 2014-15 an area of 3143.63 Ha was felled. The target for felling in 2016-17 is provisionally 3740 Ha.
- **2. Development Working Circle** The area under Development Working Circle is approx 1,84,565.253 Ha. This Working Circle is in operation in Midnapur, Bankura, Purulia, Burdwan and Birbhum districts in West Bengal. The annual felling target in 2014-15 as per Working Plans is 4077.66 Ha. However during the year 2014-15 an area of 2499.85 Ha was felled. The target for felling in 2016-17 is provisionally 2710 Ha.

## North Bengal:-

- 1. Sal Working Circle The area under Sal Working Circle is approx 20,485.2 Ha. This Working Circle is in operation in Jalpaiguri and Coochbehar districts in West Bengal. The annual felling target in 2014-15 as per Working Plans is 110.09 Ha. However during the year 2014-15 an area of 44.12 Ha was felled. The target for felling in 2016-17 is provisionally 82.74 Ha.
- **2. Miscellaneous Species Working Circle** The area under Miscellaneous Species Working Circle is approx 15,547.97 Ha. This Working Circle is in operation in Jalpaiguri and Coochbehar districts in West Bengal. The annual felling target in 2014-15 as per Working Plans is 88.18 Ha. However, during the year 2014-15 an area of 23.35 Ha was felled. The target for felling in 2016-17 is provisionally 56.89 Ha.
- **3. Broad Leaved Endemic Species Development Working Circle** The area under Broad Leaved Endemic Species Development Working Circle is approx 21737.69 Ha. This Working Circle is in operation in Darjeeling districts in West Bengal. The annual felling target in 2014-15 as per Working Plans is 53.47 Ha. However during the year 2014-15 an area of 25.58 Ha was felled. The target for felling in 2016-17 is provisionally 55.41 Ha.
- **4. Ecotourism and Eco-development Working Circle** The area under Ecotourism and Eco-development Working Circle is approx. 5530.91 Ha. This Working Circle is in operation in Darjeeling Districts in West Bengal. The annual felling target in 2014-15 as per Working Plans is 2.8 Ha. However during the year 2014-15 no felling could be taken up out of total 2.8 Ha. The target for felling in 2016-17 is provisionally 2 Ha.

**Regeneration Operation During 2015-16 based on Felling Achieved in 2014-15** – Target area approved for felling coupes during 2014-15 was 5900.52 Ha of which, 5736.53 Ha was felled and . in due course regenerated fully during the year 2015-16 .

**Thinning Operations during 2014-15** - Out of a targeted thinning area of 3833.52 Ha. In 2014-15 an area of 316.00 Ha was thinned under various thinning schedules. The shortfall in thinning operations during 2014-15 is due to adverse field conditions faced by the field staff in taking up thinning operations on account of unrest in Hills and Terai districts of North Bengal and other local disturbances in South Bengal. The target of thinning area proposed for 2016-17 is 4381.64 Ha under various thinning schedules.

**Timber Yield during 2014-15** - The total timber yield from felled coupes against CFC under different Working Circles during 2014-15 was 11892.602 m³. The total removal from salvage /CD operations was 893.068 m³ while a total of 1125.187 m³ was seized on account of raids conducted to stop illicit theft of timber. A total 5663.085 stacks of firewood was taken out from forests on account of felled coupes, salvage operations and seizure from illicit theft in North Bengal.

The total pole (Sal and plantation) number in South Bengal was 15,76,130 (No.) and logging Sleeper 7,49,083(No.) Fire Wood was 73,958.506 M<sup>3</sup> and pulpwood was 7,80,75.484 M<sup>3</sup> from the South Bengal Forests.



1. Summary of ATR of 2015-16

A) Summary of Last Year Felling (2014-15)

		Tim	Timber Operation 2014-15	014-15	Regeneration (in Ha)	n (in Ha)	
Operations prescribed in the Working Plan/ Working Scheme		Physical Target (in Ha)	Achievement (in Ha)	Shortfall if any (in Ha)	Target (Felled coupes 2014-15)	Regeneration achieved 2015-16	Reasons Cited
Sal Working Circle	North Bengal	110.09	44.12	65.97	110.09	44.12	Area could not be worked at different places due to
Sal Coppice Working Circle	North Bengal	0.00	0.00	0.00	0.00	0.00	following reasons:  1. Less stock.
	S Bengal-I	2550.00	1924.63	625.37	1924.63	1924.63	2. Area in certain parts
	S Bengal-II	2393.00	1219.00	1174.00	1219.00	1219.00	operative condition.
	Total	4943.00	3143.63	1799.37	3143.63	3143.63	3.Area could not be worked due to constant presence of
Development Working Circle	North Bengal	0.00	0.00	0.00	0.00	0.00	wild elephant herds.
	S Bengal-I	1392.00	1113.24	278.76	1113.24	1113.24	4. Area under proposed widening constraction National
	S Bengal-II	2685.66	1386.61	1299.05	1386.61	1386.61	highway of GREF.
	Total	4077.66	2499.85	1577.81	2499.85	2499.85	5. Some area which was afforested was found degraded.
Miscellaneous Species Working Circle	North Bengal	88.18	23.35	64.83	88.18	23.35	6.Local disturbances, Law and order
Conifer & Misc Species Dev Working Circle	North Bengal	2.50	1	2.50	2.50	1	problem and other unavoidable reasons.
Broad Leave Endemic Spec Dev Working Circle	North Bengal	53.47	25.58	27.89	53.47	25.58	
Eco Tourism & Eco Dev Working Circle	North Bengal	2.80	1	2.80	2.80	1	
Grand Total		9277.70	5736.53	3541.17	5900.52	5736.53	

B)(i) Summary of Last Year Thinning (2014-15 ATR) NORTH BENGAL

	Thinning O	Thinning Operation 2014-15			
Operations prescribed in the Working Plan/Working Scheme	Thinning Type	Physical Target (in Ha)	Achievement (in Ha)	Shortfall if Any (Ha)	Reasons cited
Sal Working Circle	5th	233.10		233.10	Area could not be
0	1	27.94		27.94	worked at different
	15th	37.00	1	37.00	places due to following
	25th	19.42	ı	19.42	reasons:
	35th	145.63	1	145.63	1
Sal Coppice Working Circle	7th	62.27		62.27	1. Less stock
Miscellaneous Species Working Circle	5th	3.00		3.00	2. Area in certain parts
	10th	71.92		71.92	inaccessible and in un-
	15th				operative condition.
		40.07		40.07	
	35th	144.45		144.45	-3. Local disturbances
Conifer & Misc Species Dev Working Circle	20th	13.00		13.00	and Unrest in Hills.
	30th	38.00		38.00	4. Unavoidable reasons.
	40th	8.00		8.00	
Broad Leave Endemic Spec Dev Working Circle	20th	224.00		224.00	
	30th	84.04	1	84.04	
	50th	82.94	1	82.94	
Eco Tourism & Eco Dev Working Circle	20th	75.60		75.60	
		28.54	1	28.54	
	50th	11.60	1	11.60	
Riverain working circle	5th	-	-	1	
	7th		1	1	
	10th	16.00	1	16.00	
		49.00	-	49.00	
	25th	-	-	-	
	35th	-	-	-	
TOTAL FOR NORTH BENGAL	5th	236.10	-	236.10	
		62.27	1	62.27	
	10th	115.86	1	115.86	
	15th	00.98	1	00.98	
		312.60		312.60	
	25th	59.49	1	59.49	
	30th	150.58	1	150.58	
	35th	290.08	ı	290.08	
	40th	8.00	1	8.00	
	50th	94.54	1	94.54	
Total		1415.52	-	1415.52	

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B)(ii) Summary of Last Year Thinning (2014-15 ATR) SOUTH BENGAL

			Thi	Thinning Operation 2014-15	2014-15	
Operations prescribed in the Working Plan/ Working Scheme	Division	Thinning Type	Physical Target (in Ha)	Achievement (in Ha)	Shortfall if Any (Ha)	Reasons Cited
Sal Coppice Working Circle	WP South-I	7/4th yr/RDF 2025.00	2025.00	316.00	1709.00	1
Sal Coppice Working Circle	WP South-II	7th year	393.00	0.00	393.00	Local disturbances
TOTAL FOR SOUTH BENGAL			2418.00	316.00	2102.00	

# B)(iii) Summary of Last Year Thinning (2014-15 ATR) STATE TOTAL

			Thinning Operation 2014-15	ation 2014-15	
Operations prescribed in the Working Plan/ Working Scheme	Thinning Type	Physical Target (in Ha)	Achievement (in Ha)	Shortfall if Any (Ha)	Reasons Cited
	4th yr/RDF	2418.00	316.00	2102.00	
	5th	236.10	00.0	236.10	4 Control of 1 to 2 to
	7th	62.27	00.0	62.27	Area could not be worked at different places due to following
	10th	115.86	00.0	115.86	reasons :
	15th	00.98	00.0	00.98	1. Less stock
Total for State	20th	312.60	0.00	312.60	2. Area in certain parts inaccessible and in in-onerative
	25th	59.49	0.00	59.49	condition.
	30th	150.58	00.0	150.58	3. Local disturbances and Unrest
	35th	80.082	00.0	80.08	in Hill
	40th	8.00	00.0	8.00	
	50th	94.54	00.0	94.54	
GRAND TOTAL FOR STATE		3833.52	316.00	3517.52	

C) Summary of Proposed Felling & Regeneration for the year (2016-17) STATE TOTAL

				Regeneration (in Ha)	n Ha)	Remarks
Operations prescribed in the Working Plan/Working Scheme		Felling Target (2016-17) in ha	Target (Felled Coupes in 2015-16) in ha	Cost per Hectare for regeneration Rs/ha	Funds Required in Rs	
Sal Working Circle	North Bengal	82.74	82.96	72,200	59,89,712	
	North Bengal	0	0			
. Lang. O. sanish 200 200 120	S Bengal-I	2292	2359			
Sal Coppice working Circle	S Bengal-II	1448	2103.48	Coppice	Coppice regeneration	
	Total	3740	4462.48			
	North Bengal	0	0	0	0	
Davidonmant Warding Circle	S Bengal-I	1050	1061.25	62,300	6,61,15,875	
Development working circle	S Bengal-II	1660	2632.75	62,300	16,40,20,325	
	Total	2710	3694	62,300	23,01,36,200	
Miscellaneous Species Working Circle	North Bengal	56.89	54.78	87,800	48,09,684	
Conifer & Misc Species Dev Working Circle	North Bengal	2.5	2.55	28,085	71,616.75	
Broad Leave Endemic Spec Dev Working Circle	North Bengal	55.41	53.79	28,085	15,10,692.15	
Eco Tourism & Eco Dev Working Circle	North Bengal	2	2	22,300	44,600.00	
GRAND TOTAL		6,649.54	8,352.56	363,070	242,562,504.90	
*NA: Not Available						

\*NA: Not Available



### D) Summary of Proposed Thinning (2016-17) ATR STATE TOTAL

	Thinning Op	eration 2016-17
Operations prescribed in the Working Plan/Working Scheme	Thinning Type	Physical Target (in Ha)
	5th	-
	10th	26.93
Sal Working Circle	15th	84.00
	25th	42.15
	35th	214.12
Sal Coppice Working Circle	7th	116.96
	5th	-
	10th	62.00
Miscellaneous Species Working Circle	15th	21.28
•	25th	27.07
	35th	79.59
	20th	39.00
Conifer & Miscellanious Species Development Working Circle	30th	81.00
	40th	67.00
	20th	267.50
Broad Leaved Endemic Species Development Working Circle	30th	110.00
	50th	92.64
	20th	97.00
Eco Tourism & Eco Development Working Circle	50th	6.40
	5th	-
	10th	15.00
Riverain	15th	65.00
	35th	8.00
	5th	-
	7th	116.96
	10th	103.93
	15th	170.28
	20th	403.50
Grand Total	25th	69.22
	30th	191.00
	35th	301.71
	40th	67
	50th	99.04
	Total for North Bengal	1522.64
Thinning for South Bengal		
WB South-I	2nd / 7th	2245
WB South-II	4th / 7th	614.00
	Total for South Bengal	2859.00
TOTAL FOR STATE or STATE ABSTRACT		4381.64

2(a). Report on Yield during 2014-15 for North Bengal

Circle         Sail         Track         Misc.         Instackly length         Apple of Lightney         Track length         Misc.         Instackly length         Sail Track length         Misc.         Fig. 1378         Sail Track length         Sail Track length         Misc.         Fig. 1388         3.085         Color Sail Track length         Misc.         Fig. 1388         Sail Track length         Misc.         Fig. 1388         Sail Track length         Misc.         Fig. 1388         Sail Track length         Fig. 1388         Fig. 1389         Fig. 1388         Fig. 1389         Fig. 1388         Fig. 1389         Fig.		Working	CFC Fel	CFC Felling Coupe Yield in M3	pe Yield	FW(Fig	Thinni	ng outt	Thinning outturn M3	FW(Fig		Illicit Felling Timber in M3	er in M3	FW(Fig		CD Operation in M3	rtion in	FW(Fig
Sal WCC	DIVISION	Circle	Sal	Teak	Misc.	in stack)						Teak	Misc.	in stack)		Teak	Misc.	in stack)
Bud Diversity   Bud Diversit		Sal WC	3157.89	1	2433.258	2117	1	1			32.186							420
Bi Diversity	Baikunthapur																	
BD Mac.  BD		Bio Diversity																
Sal WC BD Mais.  BD Mais.																		
MLS   BD Misc.   MLS   BD Misc.   MLS   BD Misc.   MLS   BD Misc.   MLS   ML		Sal WC	2027.43	1	799.082	1397					252.933				162.655			
BD Sall NC   Sal NC   Sall NC   Sa	JaldaparaWLS	BD Misc.																
SalWC		BD Sal																
Misc. Sp WC																		
Mise. Sp WC		Sal WC																
Other WC   BD Sal     BD Sal     BD Riverain     BD Devisity     BLESD WC     BLE		Misc. Sp WC																
BD Sal		Other WC																
BD Riversin   BD- Misc.   Bio Diversity   Bi	Jalpaiguri	BD Sal																
Bio Diversity		BD Riverain																
Bio Diversity		BD- Misc.																
C.& MSD WC   Evolution   Evo		Bio Diversity																
Find BLESD WC   Find BLESD W																		
Eco-Tou. WC		C & MSD WC										7.3						
Eco-Tou. WC         BLESD WC         693.943         1489.806         695.342         116         -         -         -         -         -         -         -         174.469         31.554         16.556         -         117.378         57.089         34.209           ong         BLESD WC         116.347         15.665         463.839         910         -         -         -         -         -         -         174.469         31.554         16.556         -         117.378         57.089         34.209           phong         BLESD WC         116.347         15.665         463.839         910         -	Darjeeling	BLESD WC																
ong         BLESD WC         693.943         1489.806         695.342         116         -         -         -         -         -         -         174.469         31.554         16.556         -         117.378         57.089         34.209           pong         BLESD WC         116.347         15.665         463.839         910         -         -         -         -         -         -         -         15.621         139.361         139.361           pong         Bio Diversity         C & MSD WC         -		Eco-Tou. WC																
Match of the problematic of																		
BLESD WC   116.347   15.665   463.839   910   -   -   -   -   -   30.635   15.74   9.17   5   35.311   156.219   139.361       Bio Diversity   C & MSD WC   C & MSD WC   S   454   4391.521   4540   4540   C   450.223   345.657   289.307   8.085   315.344   257.732   319.994   C   450.223   45.657   289.307   8.085   315.344   257.732   319.994   C   C   C   C   C   C   C   C   C	Kurseong	BLESD WC		1489.806		116		1			174.469				117.378			
Phong   Bio Diversity   C & MSD WC   C & MSD WC   C & MSD WC   S   MSD WC   S   MSD WC   S   MSD WC		BLESD WC	116.347	15.665		910					30.635						139.361	695
C & MSD WC       Intensive Bio.       S995.61       1505.471       4391.521       4540       4540       490.223       345.657       289.307       8.085       315.344       257.732       319.994         Intensive Bio.         5995.61       4391.521       4540       4540       8.085       315.344       257.732       319.994	Kalimpong	Bio Diversity																
Intensive Bio.       5995.61       1505.471       4391.521       4540		C & MSD WC																
5995.61       1505.471       4391.521       4540		Intensive Bio.																
11892.602 4540 893.068 893.068	Total			1505.471		4540					490.223							1115
	Iotai			11892.602		4540						1125.187		8.085		893.068		1115

FW(Fig in stack) - 5663.085

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2(b). Report on Yield in 2014-15 for South Bengal

Division	Are	Area in Ha		Sal Pole in Nos.	Nos.	Pltn. Pole	tn. Pole in Nos.	Total Pole in	Cogging Sle In No.	Cogging Sleeper In No.	Total	Firewood in M3	d in M3	Total		Pulpwood in M3	M3	Total M3
	Sal	Pltn.	<40 cm	41-60 cm	>61 cm	<40 cm	>40 cm	no.	4 ft	5 ft		Sal	Pltm		Sal	Euc	Acacia	
Jhargram	656.13	208.24	74500	97319	6884	23798	34581	237082	89	39088	39156	20178.746	1984.334	22163.08	3388.1	0	0	3388.1
Rupnarayan	416.5	569	68444	25661	66551	78172	38821	277649	25630	98529	124159	1772.023	436.98	2209.003	7587.465	1349.117	709.034	9645.616
Medinipur	269	390	131693	126414	0	84917	62657	405681	27823	129276	157099	12264.2	1733.58	13997.780	8281.76	0	0	8281.6
Khargpur	155	246	0	1721	922	23906	47418	73967	0	1265	1265	5390.296	1380.004	6770.3	2645.731	0	0	2645.731
Total South I	1924.63	1113.24	274637	251115	74357	210793	183477	994379	53521	268158	321679	39605.265	5534.898	45140.163	21903.056	1349.117	709.034	23961.047
Division	Are	Area in Ha	S	Sal Pole in No.	·o	Pltn. Pol	ltn. Pole in No.	Total Pole in	Cogging Sleeper In No.	Sleeper Vo.	Total	Firewoo	Firewood in M3	Total	ď	Pulpwood in M3	13	Total M3
	Sal	Pltn.	<40 cm	41-60 cm	>61 cm	<40 cm	>40 cm	no.	4 ft	5 ft		Sal	Pltn		Sal	Euc	Acacia	
Bankura (North)	246	163	31739	58118	4826	39602	29092	163377	175466	43766	219232	2743.869	508.3	3252.169	2809.171	1530.08	1558.7	5897.951
Bankura (South)	258	221	23612	36039	7090	446	3610	70797	0	33572	33572	2458	557	3015	2197	3278	4651	10126
Panchet	307	869	68012	112138	21386	2650	30979	235165	97459	36248	133707	4701.19	3233.63	7934.82	5415.07	12173.21	16625.53	34213.81
Purulia	95	20	4513	17239		2321	1353	25426	5753	18298	24051	445.109	201.9	647.009	0	17.28	51.78	90.69
Kangsabati (N)																		
Kangsabati (S)	30	29	0	0	0	8089	402	7517	5836	11006	16842	315.57	1184.57	1500.14	0	27.45	1122.14	1149.59
Burdwan	145	86	8434	18560	834	9355	8502	45685	0	0	0	6009.25	2206.88	8216.13	0	0	0	0
Durgapur	20	98	0	6071	0	1054	9537	16662	0	0	0	853.284	1800.37	2653.654	9.72	0	1048.38	1058.1
Birbhum	28	114	303	4222	0	8410	4187	17122	0	0	0	516.535	1082.886	1599.421	205.76	120.28	1273.885	1599.926
Total South II	1129	1379	136613	252387	34136	70646	69628	581751	284514	142890	427404	18042.807	10775.536	28818.343	10636.721	17146.3	26331.415	54114.437
Grand Total for South Bengal	3053.63	2492.24 411250		503502	108493	281439	271446	1576130	338035	411048	749083	57648.072	16310.434	73958.506	32539.777	18495.417	27040.499	78075.484

Report on Yield in 2014-15 for South Bengal

Division	B	Billet in M3	n M3	Post i	in Nos.	T	Timber in M3		Total	Shor	Short Timber in M3	n M3	Total
Division	Sal	Enc	Acacia	Sal	Pltn.	Sal	Euc	Acacia	local	Sal	Euc	Acacia	10141
Jhargram	0	0	0	0	0	323.229	0	0	323.229	0	0	0	0
Rupnarayan	0	0	0	0	0	225.618	0	0	225.618	0	0	0	0
Medinipur	0	0	0	319	0	325.636	0	0	325.636	0	0	0	0
Khargpur	0	0	0	0	0	9.175	0	0	9.175	0	0	0	0
Total South I	0	0	0	319	0	883.658	0	0	883.658	0	0	0	0
Division	В	Billet in M3	n M3	Post i	in Nos.	T	Timber in M3		Total	Shor	Short Timber in M3	n M3	Total
Division	Sal	Euc	Acacia	Sal	Pltn.	Sal	Euc	Acacia	IOI	Sal	Euc	Acacia	10121
Bankura(N)	0	0	0	10	0	11.045	193.95	120.7	325.695	0	0	0	0
Bankura(S)	0	0	L	0	0	657	77	166	006	0	0	0	0
Panchet	0	0	0	0	0	755.87	1763.31	1049.11	3568.29	0	0	0	0
Purulia	0	0	0	0	0	108.41	7.811	12.98	129.201	0	0	0	0
Kangsabati (N)													
Kangsabati (S)	0	0	0	7517	0	17.595	0	146.407	164.002	0	0	0	0
Burdwan	0	0	0	83	733	187.453	115.905	254.067	557.425	159.994	248.769	1074.078	1482.841
Durgapur	0	0	0	0	0	104.826	464.184	442.332	1011.342	0	0	0	0
Birbhum	0	0	0	0	0	115.338	421.775	686.556	1223.669	0	0	0	0
Total South II	0	0	7	7610	733	1957.537	3043.935	2878.152	7879.624	159.994	248.769	1074.078	1482.841
Grand Total for South Bengal	0	0	7	7929	733	2841.195	3043.935	2878.152	8763.282	159.99	248.769	1074.078	1482.841



### JOINT FOREST MANAGEMENT

Joint Forest Management (JFM) was born out of a socio-economic movement in the 1980s The first government resolution – specific to Arabari soci-economic project -- was issued in 1987, just over 30 years back. The subsequent years saw not only the spread of the JFM but also the evolution of its core characteristics. What was once a struggling sapling -- to borrow metaphor from forestry -- in 1980s and 90s, is now a fully grown tree. It has weathered the political upheavals, globalization of economy and an upwardly mobile society and still managed to stay relevant.

A series of government resolutions were passed in 1990s to institutionalize the new form of forest management, formalize the role of parties associated it and spell out benefits that would accrue out of it. The initial resolution was issued for the forest areas in lateritic forest belt of Bengal where JFM really started; but as it spread geographically, new resolutions were issued specific to that geographical area. Thus we had resolutions specific for north Bengal forests, hill forests and Sundarban forests. A separate resolution was necessary for protected areas also.

This cafeteria of government resolutions served the purpose very well at the initial stage. But as we progressed with their implementation, fissures started showing up. It was also felt that there should be one overarching piece of government resolution that covers the JFM all over the state.

The forest department, government of West Bengal was mulling with the idea of replacing the old resolutions with a new one for quite some time. A series of consultations were held, expert opinions were taken; and the ideas generated were examined by a committee for incorporation in the new resolution. The result of this exercise, after getting vetted by the finance department of the government, will be issued in the form a new IFM resolution.

### JFMCs in West Bengal as on 31/03/2016

A total of 4245 numbers of JFMCs having total membership of 491929 with approximate ratio of male: female membership at 9:1 has been reported to be registered in West Bengal covering 504534.21 ha forest area being protected by them. The SC & ST constitute 55.85 % of members in the JFMCs.

54.44	No of	Area Pro-			Mer	nbers		
Division	JMFC	tected (in Ha)	Male	Female	Total	SC	ST	Others
Darjeeling	77	14890.65	4223	486	4709	200	2086	2423
Kurseong	46	13094.61	1158	1643	2801	930	1002	869
Darjeeling WL	0	0.00	0	0	0			
Baikunthapur	66	14023.78	6192	131	6323	4529	790	1004
Jalpaiguri	62	20148.16	10701	601	11302	4818	3526	2958

Total	4245	504534.21	447497	44459	491929	148864	125861	217204
Howrah	4	234.32	788	0	788	348	332	108
24 Parganas (N)	0	0.00	0	0	0	0	0	0
STR	26	25194.00	4698	4400	9098	8736	326	36
24 Parganas (S)	40	42534.00	10801	10718	21519	11830	514	9175
Nadia Msd	11	916.33	957	44	1001	221	254	526
Birbhum	198	9008.23	16869	352	17221	6095	5586	5540
Purba Midnapur	19	1813.11	4699	1097	5796	1112	50	4634
Kharagpur	254	31401.04	29025	1586	30611	7028	8952	14631
Rupnarayan	216	26930.83	26896	1366	28235	6580	7954	13701
Jhargarm	474	52179.31	38254	2449	40703	9135	14906	16662
Midnapur	364	44785.54	48038	2801	50839	10131	9186	31522
Durgapur	23	2436.44	1957	1964	3921	1112	1405	1404
Burdwan	67	17274.62	17158	3142	20300	7756	5559	6985
Purulia	213	30845.22	20812	898	21710	7035	5913	8762
Kangsabati South	305	25446.00	29561	569	30130	4293	10899	14938
Kangsabati North	246	17501.96	24019	885	24904	5748	8100	11056
Panchet	231	27904.13	27426	1590	29016	11118	4767	13131
Bankura South	641	44955.97	55867	4611	60478	14612	18655	27211
Bankura North	543	4355.06	50845	2094	52939	19947	7917	25075
Malda	5	289.52	432	89	521	311	191	19
Raiganj	21	1162.60	1727	74	1801	864	412	525
Gorumara WL	0	0.00	0	0	0	0	0	0
Jaldapara WL	25	7020.79	4360	180	4540	727	2483	1330
Coochbehar	24	4070.90	2893	278	3171	1458	517	1196
BTR West	27	14786.00	3801	308	4109	642	2245	1222
BTR East	17	9331.09	3340	103	3443	1548	1334	561





### **Eco-Development Committees in West Bengal**

A total of 113 numbers of EDCs having total membership of 23475 with approximate ratio of male: female membership at 3:1 has been reported to be registered in West Bengal covering 80882.20 ha forest within protected area being protected by them. The SC & ST constitute 59.59% of members in the EDCs.

Name of	Name of Pro-	No. of	Area Protect-	No	. of Memb	ers			
<b>Forest Division</b>	tected Area	EDC	ed (in Ha)	Male	Female	Total	SC	ST	Others
Darjeeling	Mahananda WLS	15	12406.55	2693	2118	4811	1305	1093	2413
Wildlife	Senchal WLS	15	4114.81	1587	1211	2798	101	1496	1201
	Singalila N.P.	1	350.00	63	72	135	0	59	76
	Neora Valley N.P.	7	5756.58	1524	1419	2943	312	753	1878
Gorumara Wildlife	Gorumara N.P.	10	6352.67	1936	214	2150	560	819	771
	Chapramari WLS	2	1429.73	97	18	115	54	25	36
Buxa Tiger Reserve (E)	Buxa Tiger	14	23534.97	1454	173	1627	223	612	792
Buxa Tiger Reserve (W)	Reserve	7	10809.17	263	181	444	126	318	0
Jaldapara WildlifeI	Jaldapara WLS	33	15611.07	6917	872	7789	3354	2258	2177
Raigunge	Kulik WLS	3	130.00	193	21	214	172	30	12
Birbhum	Ballavpur WLS	4	226.28	276	34	310	9	196	105
Nadia –Mur- shidabad	Bethuadahari WLS	1	66.67	96	6	102	55	29	18
Sunderban Tiger Reserve	Sundarban Tiger Reserve	0	0.00	0	0	0	0	0	0
24 Parganas North	Bibhuti Bhushan WLS	1	93.70	35	2	37	24	5	8
	TOTAL	113	80882.20	17134	6341	23475	6295	7693	9487

### Status of Self Help Group as on 31/03/2016

### (Excluding Women SHG)

As per report received from Divisions, total number of 2340 SHGs is present in all these Division out of which 871 numbers of are exclusively women SHG.

District	Division	No of		Members		No of JFMC/ EDC	Corpus Fund Generated
21341164	211101011	SHG	Male	Female	Total	in SHG	(in INR)
Darjeeling	Darjeeling	17	86	94	180	64	141146.00
Darjeeling	Kurseong	0	0	0	0	0	0.00
Darjeeling	Darjeeling WL	15	67	95	162	8	480077.00
Jalpaiguri	Baikunthapur	63	79	604	683	14	721000.00
Jalpaiguri	Jalpaiguri	0	0	0	0	0	0.00
Jalpaiguri	Gorumara WL	0	0	0	0	0	0.00
Alipurduar	BTR East	0	0	0	0	0	0.00
Alipurduar	BTR West	0	0	0	0	0	0.00
Coochbehar	CoochBehar	0	0	0	0	0	0.00
Coochbehar	Jaldapara WL	0	0	0	0	0	0.00
Uttar&Dakshin Dinajpur	Raiganj	0	0	0	0	0	0.00
Malda	Malda	0	0	0	0	0	0.00
Bankura	Bankura North	3	20	10	30	3	163580.00
Bankura	Bankura South	0	0	0	0	0	0.00
Bankura	Panchet	41	467	0	467	19	0.00
Purulia	Kangsabati North	0	0	0	0	0	0.00
Purulia	Kangsabati South	0	0	0	0	0	0.00
Purulia	Purulia	0	0	0	0	0	0.00
Burdwan	Burdwan	0	0	0	0	0	0.00
Burdwan	Durgapur	0	0	0	0	0	0.00
Paschim Mednipur	Midnapur	197	1741	291	2032	41	0.00
Paschim Mednipur	Jhargarm	172	1637	204	1841	64	0.00
Paschim Mednipur	Rupnarayan	245	632	1925	2557	112	1045390.00
Paschim Mednipur	Kharagpur	27	261	0	261	27	0.00
Purba mednipur	Purba Midnapur	0	0	0	0	0	0.00
Birbhum	Birbhum	91	574	510	1084	0	0.00
Nadia & MSD	Nadia Msd	0	0	0	0	0	0.00
24 Parganas (S)	24 Parganas(S)	0	0	0	0	0	0.00
Howrah	Howrah	0	0	0	0	0	0.00
24 Parganas (S)	STR	0	0	0	0	0	0.00
24 parganas (N)	24 Parganas (N)	0	0	0	0	0	0.00
	TOTAL	871	5564	3733	9297	352	2551193.00



## Status of Self Help Group as on 31/03/2016 (Exclusive Women SHG)

District	Division	No of SHG	Members	No of JFMC/EDC in SHG	Corpus Fund Generated (in INR)
			Female		
Darjeeling	Darjeeling	1	10	10	0.00
Darjeeling	Kurseong	12	36	7	0.00
Darjeeling	Darjeeling WL	3	24	2	76077.00
Jalpaiguri	Baikunthapur	49	675	15	815000.00
Jalpaiguri	Jalpaiguri	14	167	10	0.00
Jalpaiguri	Gorumara WL	14	167	10	0.00
Alipurduar	BTR East	252	2299	0	0.00
Alipurduar	BTR West	0	0	0	0.00
Coochbehar	Coochbehar	0	0	0	0.00
Coochbehar	Jaldapara WL	116	1308	10	0.00
Uttar&Dakshin Dinajpur	Raiganj	0	0	0	0.00
Malda	Malda	0	0	0	0.00
Bankura	Bankura North	60	600	40	566200.00
Bankura	Bankura South	40	320	20	79796.00
Bankura	Panchet	196	2385	45	0.00
Purulia	Kangsabati North	0	0	0	0.00
Purulia	Kangsabati South	0	0	0	0.00
Purulia	Purulia	0	0	0	0.00
Burdwan	Burdwan	0	0	0	0.00
Burdwan	Durgapur	0	0	0	0.00
Paschim Mednipur	Midnapur	3	291	3	0.00
Paschim Mednipur	Jhargarm	66	660	35	0.00
Paschim Mednipur	Rupnarayan	11	110	11	413599.00
Paschim Mednipur	Kharagpur	87	609	87	0.00
Purba mednipur	Purba Midnapur	34	340	34	0.00
Birbhum	Birbhum	134	1456	282	0.00
Nadia & MSD	Nadia Msd	0	0	0	0.00
24 Parganas (S)	24 Parganas(S)	234	2808	6	0.00
24 Parganas (S)	STR	143	1430	26	0.00
24 Parganas (N)	24 Parganas (N)	0	0	0	0.00
Howrah	Howrah	0	0	0	0.00
	TOTAL	1469	15695	653	1950672.00

### STATUS OF FDA as on 31/03/2016

As per report received from Divisions, a total of 1154 numbers of FDA having total membership of 215276 with approximate ratio of male: female membership at 9:1 has been reported to be registered in West Bengal. The SC & ST constitute 54% of members in the FDA.

	No of	No of JFMC/EDC members in FDA						Fund utilisation in NAP/other
Name of FDA	JFMC/EDC in FDA	Male	Female	Total	SC	ST	Others	Schemes (in Rs. Lakhs)
Darjeeling	77	4223	486	4709	200	2086	2423	88.26
Kurseong	46	1158	1643	2801	930	1002	869	13.46
Darjeeling WL	31	4343	3501	7844	1406	2648	3790	0.00
Baikunthapur	66	6192	131	6323	4529	790	1004	0.00
Jalpaiguri	62	10701	601	11302	4818	3526	2958	19.47
Gorumara WL	12	2244	1142	3386	508	691	2187	0.00
BTR East	17	1556	181	1737	456	908	373	0.00
BTR West	33	2013	206	2219	147	1611	461	0.00
CoochBehar	23	1288	77	1365	1045	243	77	7.23
Jaldapara WL	58	9956	650	10606	3660	3804	3142	0.00
Raiganj	0	0	0	0	0	0	0	0.00
Malda	0	0	0	0	0	0	0	0.00
Bankura North	26	2432	97	2529	986	223	1320	20.06
Bankura South	17	2027	55	2082	428	385	1269	8.00
Panchet	0	0	0	0	0	0	0	0.00
Kangsabati North	57	5940	160	6100	789	2563	2748	0.00
Kangsabati South	46	19211	396	19607	3203	7562	8842	5.18
Purulia	49	5961	356	6317	2107	1554	2656	2.63
Burdwan	67	17158	3142	20300	7756	5559	6985	26.24
Durgapur	0	0	0	0	0	0	0	0
Midnapur	2	48038	2801	50839	10131	9186	31522	0.00
Jhargarm	125	12198	693	12891	2135	5192	5564	0.61
Rupnarayan	53	8059	641	8700	2018	2297	4385	0.00
Kharagpur	254	29025	1586	30611	7028	8952	14631	5.85
Purba Midnapur	0	0	0	0	0	0	0	0.00
Birbhum	33	2787	221	3008	805	935	1268	0.00
Nadia Msd	0	0	0	0	0	0	0	0.00
24 Parganas (S)	0	0	0	0	0	0	0	0.00
STR	0	0	0	0	0	0	0	0.00
24 Parganas (N)	0	0	0	0	0	0	0	0.00
Howrah	0	0	0	0	0	0	0	0.00
TOTAL	1154	196510	18766	215276	55085	61717	98474	196.99



		Statement of JFMC	Share in South E	of JFMC Share in South Bengal for the financial year 2015-16	year 2015-16	
SI No	WBFDC Division	Directorate Division	No. Of JFMCs	No of Beneficiaries	Amount In Lac	Share per capita ( RS.)
1		Medinipur	42	4444	159.73	3594.28
2	(C) 1	Rupnarayan	51	6180	264.83	4285.28
3	Medinipui rod	Jhargram	99	7002	178.3	2546.42
4		Kharagpur	36	2856	115.58	4046.92
5		Purulia	0	0	0	0.00
9		Kangasabati North	12	1324	18.56	1401.81
7		Kangasabati South	14	1370	16.47	1202.19
8	ruruna rod	Durgapur	0	0	0	0.00
6		Burdwan	12	3506	58.99	1682.54
10		Birbhum	0	0	, 0	0.00
11		Bankura North	82	9221	439.42	4765.43
12	Bankura FCD	Bankura South	93	9440	316.5	3352.75
13		Panchet	135	76771	976.87	5488.96
	Total-South Bengal	ıgal	543	63140	2545.25	4031.12

The products are also sold through net marketing.



Bamboo Nursery-Taipu



Taipu Ayurvedic medicine unit-cum-Sale Centre





## INFORMATION ON NTFP DIVISION FOR ANNUAL REPORT 2015-16

### 1. New Product Launched:

Herbal Abir (both Red & Green colour) in collaboration with the Parks & Gardens (North) Division was launched in 2015-16 prior to the Holy Festival. The main ingredient for Red Abir was Marigold Flower and that of Green Abir was Bael Leaves.

### 2 Activities:

- Extraction of Citronella Oil is done from Citronella Java variety grass (*Cymbopogon winterianus*). Plantation of Citronella is done every year as intercrop in the plantation areas of territorial Divisions of Jalpaiguri, Jaldapara and Baikunthapur. All plantations are raised, harvested and extraction of oil is done with the help of JFMC members. Funding is done by West Bengal Forest Development Corporation Ltd.
- NTFP Division started bamboo nursery at Taipu during the year 2007-08 by Nodal cutting followed by micro proliferation. At present 80,000 Nos. seedlings are available.
- Besides Bamboo nursery, Medicinal Plant nursery is also maintained at Taipu, Khuntimari, Nilpara, Targhera and Sukna.
- A Non-Timber Forest Produce museum is maintained at Sukna.
- The manufacturing and packaging unit of NTFPs lies at Taipu, where Ayurvedic drugs and cosmetic products are prepared in the form of dust (churna), semisolid (avaleha) and tablet (batika).
- Overall now this Division manufactures the following products.

### (I) Oil: Citronella.

Year	Citronella Plantation (Ha)	Oil Production (Ltr.)
2015-16	49	783.50

- (II) Ayurvedic drug: (a) Churna- Trifala, Amlaki, Kalmegh, Chirata, Bel, Basak, Aswagandha, Gurmar, Trikatu, Thankuni, Tulsi, Gadal, Gulancha, Gokhur, Ulatkambal, Ashoka Bark, Satamul, Alkushi, Latakasturi, Nisinda, Haritaki, Sajina, Ginger, Di-nil, Neem, Manjista.
  - (b) Tablet- Banaliv, Hazmolate, Cough Heal
- (III) Cosmetics & Ointment: Garden fresh, Hair fresh, Banosubhra, Banokomol, Banoshree and Banoneel.

At present total 74 **Nos.** of NTFP Products are manufactured.

• From Sale of NTFP Products:

In the last FY 2015-16 **Rs. 46.85 lakh** NTFP Products were sold including Rs. 45,367/- sold though online marketing.

• Selling of NTFP Items:

We have three (3) Govt. Sale Centre (outlets) managed by this Division:

- i) Siliguri
- ii) Jalpaiguri &
- iii) Coochbehar.

Apart from this we have 45 Authorised Dealers and also the NTFP items are made available through the Sale Centres managed by Divisional Managers, WBFDCL and the DFOs of West Bengal.







### FOREST PUBLICITY

Publicity division was created during 1996 by Forest Department, Government of West Bengal with a aim to create general awareness about Forest of this State. Though this division has total sanctioned strength of 20, but existing strength is 14(6 staff are working in Head office).

Various awareness programs on Forestry and Wild Life are organized by Publicity Division to sensitize the local people. The division had publicize the various Act / achievement / activities of Forest department. The Division has played important role for celebration of **Ban Mahotsov** in the month of **July** and **Banya Pran Dibas** in the month of **November – December in every year**.

Target and achievements of Publicity Division during 2015-16

Sl No	Description of work	Physical	Financial
1	Publication of Banabithi, leaflet, poster, sunguard and its distribution to various division during Banmhotsav and Banya Pran Dibas		440000
2	Publication of Annual Report	700	100000
3	Hoarding for Banmahotsav 2015	13	60000
4	Making Standy, Display board for different festival	10	80000
5.	Advertisement in Newspaper	4	40000
	Total		720000

In 2015, State level programme on Ban Mahotsov was organized at Durgapur on 14th July 2015. District level Ban Mahotsov programme was celebrated through planting tree seedlings, distribution of seedlings, organizing sit & draw competition, joint patrolling in forest with JFMC members, Padjatra, songs, dance, drama etc. in each district along with 3 subdivision viz, Siliguri, Canning & Jhargram, In three hill sub division of Darjeeling district, Ban-Mahotsav was celebrated on 14th June 2015.

During Ban Mahotsov 2015 seedlings were distributed at free of cost and 10% rebate was given to public on various NTFP product & ornamental plants throughout West Bengal.

Slogan for Ban Mahatsov 2015 was approved by the Hon'ble Chief Minister



Padajatra in State Level Ban Mahatsav 2015 at Durgapur on 14th July 2015

Likewise Banya Pran Dibas 2015 was celebrated at Lataguri on 9<sup>th</sup> December 2015for awareness generation regarding wildlife conservation. In 2015 **Ban Bandhob Utsav** was organized at Bishnupur, Chandrakona and Panagarh with the JFMC members ,people and school children.



Banabandhab Utsav At Bishnupur During 2015

Apart from this, the Publicity division also plays pivotal role in publication of following publicity material after finalization of the draft and its distribution:-

- 1. Annual Report 2014 15.
- 2. Annual Review Report 2014 15.
- 3. Pamphlet 4 types.
- 4. Soft & Hard board on forest & wildlife.
- 5. Creation of hoarding is highlighting recent important activities of Forest Department.





### WILDLIFE MANAGEMENT & CONSERVATION

West Bengal has 4692 sq.km. of forests under protected area (PA) network which is 39.50% of the State's total forest area and 5.28% of the total geographical area. After the declaration of West Sundarban Wildlife Sanctuary as a new WLS and increase in area of Neora Valley National Park, now the PA network includes 1488.7246 sq.km. in fifteen Sanctuaries, 1981.4817 sq.km. in six National Parks and the balance areas are being represented by buffer areas of the two Tiger Reserves, viz. Sundarbans Tiger Reserve and Buxa Tiger Reserve. There are two Elephant Reserves viz., Mayurjharna Elephant Reserve with an area of 414.00 Sq.km. and Eastern Dooars Elephant Reserve with an area of 977.51 Sq.km.

In addition there is one Biosphere Reserve viz. Sundarban Biosphere Reserve with an area of 9630 Sq.km. This includes the Sundarban Tiger Reserve, the Lothian Island Wildlife Sanctuary, West Sundarban Wildlife Sanctuary and the Haliday Island Wildlife Sanctuary.

In West Bengal emphasis has been given to conservation and management of sustainable resources in order to achieve the goal of long-term biodiversity conservation. The over all strategy involves protection of critical habitats of endangered species. The strategies also focus on improved PA management, development of infrastructure, habitat improvement programme, reduction of man- animal conflict, capacity building and involvement of local people in management of PA areas.

### Status of Management Plan / Tiger Conservation Plan (TCP) as on 31.03.2016

Name of Protected Area/ Tiger Reserve	Period	Present Status
Sundarban Tiger Reserve (incl. Sundarban NP & Sajnekhali WLS)	2012-13 to 2016-17	Tiger Conservation Plan approved by NTCA
Buxa Tiger Reserve (incl. Buxa NP & Buxa WLS)	2013 to 2022	Tiger Conservation Plan under consideration by NTCA
Mayurjharna Elephant Reserve	2014-15 to 2018-19	Management Plan Operational
Gorumara National Park	2007-08 to 2017-18	Management Plan Operational
Singhalila National Park	2013-14 to 2022-23	Management Plan Operational
Neora Valley National Park	2011-12 to 2021-22	Management Plan Operational
Jaldapara National Park	2007-08 to 2016-17	Management Plan Operational
Mahananda Wildlife Sanctuary	2011-12 to 2021-22	Management Plan Operational
Senchal Wildlife Sanctuary	2012-13 to 2021-22	Management Plan Operational
Chapramari Wildlife Sanctuary	2011-12 to 2021-22	Management Plan Operational
Bethuadahari Wildlife Sanctuary	2013-14 to 2022-23	Management Plan Operational
Bibhutibhusan Wildlife Sanctuary	2011-12 to 2020-21	Management Plan Operational
Ballavpur Wildlife Sanctuary	2009-10 to 2019-20	Management Plan Operational
Ramnabagan Wildlife Sanctuary	2012-13 to 2022-23	Under consideration for approval
Raiganj Wildlife Sanctuary	2011-12 to 2020-21	Management Plan Operational
Halliday Island Wildlife Sanctuary	2008-09 to 2017-18	Management Plan Operational
Lothian Island Wildlife Sanctuary	2008-09 to 2017-18	Management Plan Operational
Chintamoni Kar Wildlife Sanctuary	2010-11 to 2014-15	Preparation of new Management Plan is under process
West Sundarban Wildlife Sanctuary		Under preparation

### PROTECTED AREAS OF WEST BENGAL

Protected Area	Area in Sq. Km.	Notification No. & Date	Bio-geographic Zone	District
National Parks:				
1. Singalila N.P.	78.60	9057-For dt. 2.12.92	2C	Darjeeling
2. Neora Valley N.P.	159.8917	103-FR/O/11M-91/12 dt. 11.01.13	2C	Darjeeling
3. Buxa N.P.	117.10	3403-For dt. 5.12.97	7B	Alipurduar
4. Gorumara N.P.	79.45	1-For dt. 1.1.98	7B	Jalpaiguri
5. Sundarban N.P.	1330.10	2867-For dt. 4.5.84	8B	South-24 Parganas
6. Jaldapara N.P.	216.34	975-For dt. 27.4.12	7B	Alipurduar
Total	1981.4817			
Sanctuaries:				
1. Jorepokhri Salamander W.L.S.	0.04	1107-For dt. 11.03.85	2C	Darjeeling
2. Senchal W.L.S.	38.88	2773-For dt. 19.8.98	2C	Darjeeling
3. Chapramari W.L.S.	9.60	2774-For dt. 19.8.98	7B	Jalpaiguri
4. Mahananda W.L.S.	158.04	2775-For dt. 19.8.98	7B	Darjeeling & partly at Jalpaiguri
5. Raiganj W.L.S.	1.30	1901-For dt. 11.4.85	7B	North Dinajpur
6. Bethuadahari W.L.S.	0.6686	2772-For dt. 19.8.98	7B	Nadia
7. Ballavpur W.L.S.	2.021	4655-For dt. 11.7.77	7B	Birbhum
8. Ramnabagan W.L.S.	0.145	4345-For dt. 30.9.81	7B	Bardhaman
9. Bibhutibhusan W.L.S.	0.64	2776-For dt. 19.8.98	8B	North-24 Parganas
10. Chintamoni Kar Bird Sanctuary (old Narendrapur W.L.S.)	0.07	4300-For dt. 21.10.05	8B	South-24 Parganas
11. Sajnakhali W.L.S.	362.40	5396-For dt. 24.6.76	8B	South-24 Parganas
12. Haliday Island W.L.S.	5.95	5388-For dt. 24.6.76	8B	South-24 Parganas
13. Lothian Island W.L.S.	38.00	2771-For dt. 19.8.98	8B	South-24 Parganas
14. Buxa W.L.S.	314.52	316-For dt. 24.1.86 ; 7588-For dt. 6.10.90 and 12-For dt. 1.1.91	7B	Alipurduar



Protected Area	Area in Sq. Km.	Notification No. & Date	Bio-geographic Zone	District
15. West Sundarban W.L.S.	556.45	1828-For dt. 11.9.13	8B	South-24 Parganas
Total	1488.7246			
Tiger Reserves:				
<ol> <li>Buxa Tiger         Reserve         Core Area         Buffer Area         Total     </li> </ol>	390.5813 370.2886 <b>760.8699</b>	3051-For dt. 06.08.09 3050-For dt. 06.08.09	7B	Alipurduar
2. Sundarban Tiger Reserve Core Area Buffer Area Total	1699.62 885.27 <b>2584.89</b>	6028-For dt. 18.12.07 615-For dt. 17.02.09	8B	South-24 Parganas & North-24 Parganas
* The total area includes	NP and Sanctua	ry areas already mentioned.		1
Total:	3345.7599			
Biosphere Reserve:				
Sundarban Biosphere (including STR, Sajnakhali, West Sundarban, Lothian and Haliday WLSs)	9630	Govt. of India vide No. 16/6/84- CSC dt. 19.03.1989		South-24 Parganas. North-24 Parganas.
Total	9630			
Elephant Reserves :				
Eastern Duars ER Core Buffer Total	484.00 493.51 <b>977.51</b>	3293-For dt. 28.8.2002	7B	Jalpaiguri & Alipurduar
Mayurjharna ER	414.00	3040-For. dt. 24.10.2002	6B	West Midnapur, Bankura and Purulia
Total	1391.51			

### Wildlife Census

### **Tiger**

Sundarbans (2010)	Buxa (2011)
64-90 during 2010 (as per report of Wildlife Institute of India, Dehradun's All India Tiger Estimation 2010)	20 during 2011 (as per Scat analysis through DNA fingerprinting technique) by CCMB-Hyderabad & BTR authority)

### **Sundarbans (2012 & 2013)**

### Tiger estimation by camera trapping

In STR - 80 (minimum) during 2013 (conducted by WWF and Wildlife Institute of India)

In 24-Parganas (South) - 22 (minimum) during 2012 (conducted by WWF)

### **Total Sundarbans – 102 (Minimum)**

Census Year	Location	Total number	Remarks
2014	Sundarban Tiger Reserve & 24-Parganas (South) Division	76 (62-96)	Estimation of Tiger, Co-predators & Prey as per procedure prescribed and conducted through NTCA in collaboration with WII and WWF during 2014
2014	Northern West Bengal	3	-do-

### Rhino

Jaldapara	Gorumara	Total
108	27	135
	31	31
125		125
149	35 *	184
	43 *	43
186		186
	50*	50
204	49 + 2 (Darjeeling WL Division)	255
	108 125 149 186	108 27 31 125 149 35 * 43 * 186 50* 204 49 + 2 (Darjeeling WL Division)

<sup>\* (</sup>Gorumara, Chapramari & adjoining areas og Gorumara N.P. & Chapramari WLS)

Rhino Population (as per Census 2015)						
Protected Area	Male	Female	Sex unidentified	Calf	Total	
Jaldapara NP	68	78	11	47	204	
Gorumara NP (including Chapramari WLS & adjoining areas of Gorumara & Chapramari)	22	17	2	8	49	
Darjeeling Wildlife Division	2	0	0	0	2	
Grand Total	92	95	13	55	255	

### Leopard

Year	Gorumara	Buxa	Jaldapara	Mahananda	Other areas	Total
1984	14	8	7	12	41	82
1989	14	50	5	10	29	108
1992	-	63	-	-	-	-
1993	2	-	9	2	94	107
2002	47	149	33	18	84	331
2004	43	Not done	28	26	67	164
2012		105 (BTR-West)				105



### Gaur

Year	Total Number
1989	240
1993	425
1997	550
1998	530-560
2002	1180-1284
2009-10	Not less than 901 (Gorumara NP & Chapramari WLS only)
2012-13	414 BTR(W)
2013-14	782 BTR(W)

### Elephant

Year	Total Number
1989	175
1993	186
1997	230-250
1998	230-250
2000	327
2002	328*
2005	North Bengal 300-350 & South Bengal 96
2007	North Bengal 300-350 & South Bengal 25 (excluding migratory population)
2010	North Bengal 529 & South Bengal 118 (including migratory population)
2014	North Bengal 590+ Census not done in South Bengal.

### **Crocodile (salt water Crocodile)**

STR & 24-Parganas (South) Division

Year	Indivost sighting	Direct sighting						
icai	Indirect sighting	Adult	Juvenile	Hatchling	Total			
2012	99	69	61	10	140			

### **Man-animal Conflict issues**

Person killed /injured by Wild Animals during 2015-16

Sl. No.	Name of Animals	No. of Persons Killed	No. of Persons injured
(1)	(2)	(3)	(4)
1	Elephant	108	95
2	Tiger	15	
3	Leopard		37
4	Rhinoceros	1	1
5	Gaur (Indian Bison)		5
6	Crocodile		1
7	Deer		1
8	Wild Boar		3
9	Langur		8
	Total	124	151

### Death of Wild Animals during 2015-16 in West Bengal

Name of Animals	Natural Death	Accident	Poaching	Retaliatory Killing	Total
Wild Elephant	22	9	1	14	46
Departmental / Tame Elephant	1				1
Tiger	2				2
Leopard	18	9	1	1	29
Rhinoceros	7		2		9
Gaur	37	3	2		42
Red Panda	1				1
Barking Deer	5	6	3		14
Sambar	1		1		2
Spotted Deer	8	2			10
Hyena		1			1
Wild Boar	4		1		5
Crocodile		1			1
Leopard Cat		1			1
Jungle Cat	1	1		1	3
Civet	1	1			2
Jackal	1				1
Python	1	2			3
Dolphin	1	1			2
Total	111	37	11	16	175

### Seizure of Wildlife & wildlife articles reported during the year 2015-16

Sl.No.	Seized items	Qty.
1	Rhino horn	6 Nos.
2	Elephant tusk	16 pieces
3	Elephant bone	350 Gm.
4	Elephant jaw	1 No.
5	Leopard skin	5 Nos.
6	Leopard skull, jaw & other parts	150 Pcs.
7	Tiger skin	1 No.
8	Tiger bone	88 Nos.
9	Tiger skull	1 No.
10	Deer flesh	60 Kg.
11	Turtle / Tortoise	2641 Nos.
12	Turtle shell	11 Nos.
13	Indian Birds	714 Nos.
14	Snake	27 Nos.
15	Snake venom	6 Jars
16	Gecko	19 Nos.
17	Chameleon	1 No.

# -

# Recognition Status of Rescue Centres / Deer Park / Zoos in West Bengal

SI.	Name	Division / District   Status	Status	CZA's letter no.
12.	12. Junglemahal Zoological Park, Jhargram (Formerly known as Jhargram Deer Park & Mini Zoo)	Jhargram Division	Recognized upto 31.01.2017 (Name changed to Junglemahal Zoological Park vide W.B. Govt. Notification No. 1153-For/O/11M-11/2015 dt. 03.06.15)	F.No.19-204/93-CZA(321) (Vol.I)(M)/4101 dt. 07.01.2014
13.	13. Nature Park, Taratola Road, Kolkata (Private)	Kolkata	Recognized as 'Mini Zoo' upto 30.04.2015	F.No.22-54/2004-CZA(493)(M)/4621 dt. 09.04.2014
14.	<ul><li>14. Sundarban Wild Animals 24-Parganas</li><li>Park, Jharkhali (Jharkhali (South) Division</li><li>Satellite Zoo)</li></ul>	24-Parganas (South) Division	Relocation of Kumari Kangsabati Deer Park, Bankura F.No.19-22. to Sundarban Wild Animals Park, Jharkhali approved by 17.06.2015 the CZA	F.No.19-224/93-CZA(322)(NS)/7298 dt. 17.06.2015
15.	15. Wild Animal Transit facility, Saltlake, Kolkata	Kolkata	Does not required recognition from CZA as the Centre is FNo. 22-52/2004-CZA(490)(M), dt.16.05.2008 used for Transit facility of wild animals & this office No. 1457/WL/2W-266/08 dt. 09.05.08	ENo. 22-52/2004-CZA(490)(M), dt.16.05.2008 & this office No. 1457/WL/2W-266/08 dt. 09.05.08

<sup>\*</sup> Calcutta Snake Park – Recognition cancelled vide CZA's letter No. 19-59/93-CZA(314)(Vol.IV)(AK)/7904 dt. 19.10.2015.

<sup>\*\*</sup> West Bengal Snake Park & Laboratory, Badu - Recognition cancelled vide CZA's letter No. 19-66/93-CZA(313)(Vol.1)(AK)/7772 dt. 15.09.2015.

<sup>\*\*\*</sup> Bengal Natural History Museum, Darjeeling displays specimens of Birds and Animals for public viewing. It is now under the jurisdiction of Padmaja Naidu Himalayan Zoological Park, Darjeeling.



### Animal Rescued in West Bengal during the year 2015-16

Sl. No.	Species	Number	Sl. No.	Species	Number
1	Bird	3050	18	Elephant	13
2	Snake	1355	19	Leopard	28
3	Turtle & Tortoise	4867	20	Clouded Leopard	1
4	Monitor Lizard	51	21	Gaur	6
5	Spiny Tailed Lizard	43	22	Nilgai	4
6	Jackal	21	23	Sambar	1
7	Monkey	221	24	Barking Deer	18
8	Langur	313	25	Spotted Deer	9
9	Jungle Cat	28	26	Hog Deer	1
10	Fishing Cat	11	27	Crocodile	19
11	Leopard Cat	9	28	Dolphin	4
12	Civet	221	29	Binturong	1
13	Porcupine	1	30	Wild Boar	3
14	Pangolin	1	31	Mongoose	1
15	Chameleon	6	32	Bengal Fox	4
16	Gecko	81	33	Indian Wolf	1
17	Badger	7			
				Total	10400

### Wildlife Conservation Awards, 2015:

The State Wildlife Conservation Awards are given for significant contribution in the field of wildlife conservation. The award recognizes outstanding accomplishment by the Forest Officers (upto the Rank of ACF), Forest Staff, NGOs, Community, Panchayat Samity, Joint Forest Management Committees (JFMC) and individuals currently working in the field who have displayed extraordinary courage, dedication and determination in the field of wildlife conservation. The following personnel were awarded during Wildlife Day 2014 celebrated on 8th December 2015 at Lataguri.

### **Award for Protection of Wildlife**

Divisions	Awardees			
,	Shri Sanjoy Dutta, Range Officer, Belacoba, Baikunthapur Division.			
	2. Shri Dipak Roy Pradhan, Forest Guard, Belacoba, Baikunthapur Division.			
	3. Shri Manu Paul, Forest Guard, Belacoba, Baikunthapur Division.			
	4. Shri Ananta Kumar Roy, Banoshramik, Belacoba, Baikunthapur Division.			
	5. Shri Nilkanta Roy, CDL, Belacoba, Baikunthapur Division.			
	6. Shri Chitta Roy, CDL, Belacoba, Baikunthapur Division.			
	Police Personnel: -			
	1. Shri Akash Magharia, IPS, Superintendent of Police, Jalpaiguri			
Baikunthapur	2. Shri Pravat Chakraborty, WBPS, Dy. Superintendent of Police, Jalpaiguri.			
Division	3. Shri Bhim Saibo, WBAP/1062			
	4. Shri Sanjoy Tirkey, C/1010			
	5. Shri Sachin Toppo, C/968			
	6. Shri Rajen Toppo, C/631			
	7. Shri Bifal Ch. Sarkar, C/610			
	8. Shri Sunil Subba. C/1024			
	9. Shri Lendup Bhutia C/1157			
	10. Shri Goutam Sen, C/340			
	11. Shri Pappu Limbu, C/1023			
	Management Award			
Gorumara Wildlife Division	Wildlife Squad-III, Binnaguri, Gorumara Wildlife Division			
Sundarban Tiger Reserve	Shri Niranjan Mandal, Prodhan, Kumirmari Gram Panchayet			
Conservation Aware	ness Award			
Gorumara Wildlife Division	Smt. Sima Chowdhury, Honory Wildlife Warden, Jalpaiguri District			
Participatory Wild Life Management Award				
Sundarban Tiger Reserve	Binapani Juba Sangha Club, Dayapur, South 24-Parganas			
Award for Rescue of	f Wild Animals			





	Shri Amar De, Assist. Field Director, Buxa Tiger Reserve (West)
	2. Smt. Manjula Tirkey, ADFO, Buxa Tiger Reserve (West)
	3. Shri Chandan Dey, Range Officer, East Damanpur Range, Buxa Tiger Reserve (West)
	<ol> <li>Shri Pankaj Thapa, Officer-in-Charge, Samuktala Police Station</li> </ol>
	5. Dr. Deepak Sharma, Veterinary Officer, Buxa Tiger Reserve
	6. Shri Bhaskar Roy, Sub-Officer, Alipurduar Fire Station,
	7. Shri Jiten Karji, Range Officer, Mobile Squad-I Range, Buxa Tiger Reserve (West)
	8. Shri Sankar Chhetri, Dy. Ranger/Forester, Buxa Tiger Reserve (West)
	9. Shri Marshel Xaxa, Dy. Ranger/Forester, Buxa Tiger Reserve (West)
D Ti D	10. Shri Ratan Chettri, Head Forest Guard, Buxa Tiger Reserve (West)
Buxa Tiger Reserve (West)	11. Shri Birendranath Das, Head Forest Guard, Buxa Tiger Reserve (West)
(West)	12. Shri Patrash Oraon, Forest Guard, Buxa Tiger Reserve (West)
	· · · · · · · · · · · · · · · · · · ·
	13. Shri Ratan Hore, Banoshramik, Buxa Tiger Reserve (West)
	14. Shri Nil Rava, Banoshramik, Buxa Tiger Reserve (West)
	15. Shri Ajit Dakua, Head Forest Guard, Buxa Tiger Reserve (West)
	16. Shri Ashok Malakar, Forest Guard, Buxa Tiger Reserve (West)
	17. Shri Rajat Sarkar, Forest Gaurd, Buxa Tiger Reserve (West)
	18. Shri Sambhu Das, PDL, Buxa Tiger Reserve (West)
	19. Shri Debdulal, PDL, Buxa Tiger Reserve (West)
	20. Shri Biswajit Dhar, PDL, Buxa Tiger Reserve (West)
	1. Shri Biraj Pradhan, Asst.Manager, Chuapara Tea Estate,
	<ol> <li>Shri Biraji Fadhan, Asst. Wanaget, Chaapara Tea Estate,</li> <li>Shri Bir Singh Lama, Officer-in-Charge, Fire Station, Hamiltongunj,</li> </ol>
	3. Shri Kashyap Rai, S.I.,O.C. Jaigaon,
	<ol> <li>Shri Kashyap Kai, S.I., O.C. Jargaon,</li> <li>Shri Jagannath Ganguly, Forest Ranger, Buxa Tiger Reserve (West)</li> </ol>
	5. Shri Himangshu Mohan Debnath, Forest Ranger, Buxa Tiger Reserve (West)
	6. Shri Ananda Biswas, Dy. Ranger/Forester, Buxa Tiger Reserve (West)
	7. Shri Yana Rai, Head Forest Guard, Buxa Tiger Reserve (West)
	8. Shri Dal Bahadur Sapkata, Head Forest Guard, Buxa Tiger Reserve (West)
	10. Shri Sunit Oraon, Forest Guard, Buxa Tiger Reserve (West)
	11. Shri Gopal Chettri, Banoshramik, Buxa Tiger Reserve (West)
	12. Shri Sane Lama, Banoshramik, Buxa Tiger Reserve (West)
	13. Shri Gopal Mahata, Banoshramik, Buxa Tiger Reserve (West)
	14. Shri Fagu Tigga, Banoshramik, Buxa Tiger Reserve (West)
	15. Shri Lupeswar Rava, Banoshramik, Buxa Tiger Reserve (West)
	16. Shri Ranjit Bhattacharjee, PDL, Buxa Tiger Reserve (West)
	17. Shri Bapi Ghosh, PDL, Buxa Tiger Reserve (West)
	18. Shri Dilip Chowdhury, PDL, Buxa Tiger Reserve (West)
	19. Shri Suraj Chettri, PDL, Buxa Tiger Reserve (West)
	20. Shri Niranjan Basumata, Head Forest Guard, Buxa Tiger Reserve (West)









### **FORESTRY RESEARCH**

### Introduction

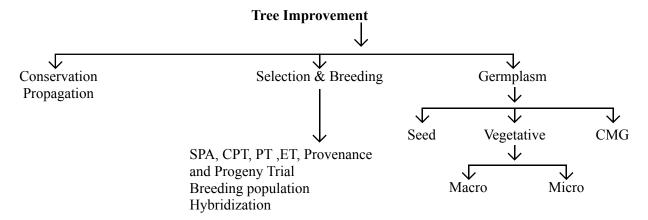
Forestry Research in the State is organized by Research Circle through its three divisions, namely, Silviculture (Hills) Division with its headquarter at Darjeeling, Silviculture (North) Division, headquarter at Siligurii and Silviculture (South) Division with its headquarter at Midnapore.

Major mandate of the Research Circle is as follows:

- 1. Tree Improvement Programme
- 2. Trials on Modern Nursery Practices
- 3. Supply of Quality Planting Materials & Certified Seeds
- 4. In-situ & ex-situ conservation of Trees
- 5. In-situ & Ex-situ conservation of Medicinal Plants
- 6. Soil Testing

### 1. TREE IMPROVEMENT PROGRAMME

With an objective of converting wasteland into productive ones and to maximize wood production from limited forest area Tree Improvement Programme is taken up. The Programme includes :



### A. CREATION/MAINTENANCE OF SEED STANDS /PLUS TREES

Some of the Seed Stands and Plus Trees of important forestry species which have attained their maturity age and thereby have become unfit for further experimentation and / or have outlived their utility are to be discarded. After discontinuation of those Seed Stands there will be absolutely no Seed Stands of the important forest species like Benteak, Jarul, Pacasaj, Malagiri, Mandane, Lali, Toon, kawlo, Arjun, Lator, Lohakat, Chikrasi, Gamar, Simul, Khair, Sisso, Narkeli, Kainjal, Acer osmostonii, Acer hookerii, Quercuslamellosa etc. for future supply of seeds to different user Divisions. However no such pure patch of any species above has been found so far so as to create a new seed stand.

Block Plantation is not in practice since 1980. Present Plantation pattern do not serve the purpose. Creation of very few Plus Trees cannot fulfil the demand of quality seeds for user Divisions. Considering the above fact if each division is asked to raise block plantation of 3 or 4 species as per list above within their normal plantation target under proper protection then in near future source of quality seed supply could possibly be ensured.

For the procurement of superior seeds, Seed Production Areas / Seed Stands are maintained annually. Seeds collected from Seed Stand / Plus Trees are supplied to user Divisions. During 2015-16 4453.50 Kgs of **certified seeds** were supplied to user Divisions. Seeds collected from these stands / Plus trees were also used to raise QPMS and for undertaking various nursery trials. The details regarding **Seed Stand /Plus trees maintained during 2015-16** is given in table below:

Division Wise Area			Maintained during	Created during
Silviculture Hills	Silviculture North	Silviculture South	2015-16	2015-16
170.76 Ha.	220.60 Ha.	37.17 Ha.	220.76 На.	Nil

### **PLUS TREES**

	Division Wise Area	Maintained during	Created during	
Silviculture Hills	Silviculture North	Silviculture South	2015-16	2015-16
504	479	110	554	2+





B. Plus Trees created during 2015-16:

CRE	CREATION OF PLUS TREES Silviculture (Hills) Division	iculture (Hills) Divis	sion						
1.	Pterocarpus marsupium	PANC/PM/1	1	Darjeeling Wild Life Division	Sukna	Koklong	Panchanai	26°48°15.9°°	88º22'01.7"
2.	Phoebe attenuata	PANC/PN/11	1	-op-	-op-	-op-	-op-	26°48°14.1°°	88022'0.6"
	Mangiferasylvatica				Sukna	Punding	Upper Champasari	26°48°15.9°	88º22'01.7"
2	Mangiferasylvatica		1		Sukna	Gulma	Lower Champasari	26°48°52.9°°	88024'44.2"
3	Mangiferasylvatica		1	Darjeeling Wild I ife	Sukna	Gulma	Chuklung	26049'24.9"	8802537.8"
4	Mangiferasylvatica		1	Division	Sukna	Koklong	Panchanai	26048707.2"	88°22′06.3″
5	Cinnamomumcecidodaphne		1		Sukna	Koklong	Panchanai	26°48°25.5°°	88024'54.7"
9	Pterocarpusmarsupium		1		Sukna	Koklong	Panchanai	26048'17.0"	88°21′59.4″

### C. EXPERIMENTAL PLANTATION UNDERTAKEN DURING 2015-16

a. Plantations: For assured supply of genetically improved seeds the Divisions under this circle undertake plantations of **RET** (**Rare, Endangered & Threatened**) species as well as maintenance of **Seedling Seed Orchard** both in North & South Bengal.

### b. Clonal / Progeny Orchards & Provenance Trials

c. Setting up of **Block Plantations** along with regular plantations for long term testing of improved seeds / clones.

### Experimental trials taken up during 2015-16:

Sl. No.	Name of Experi- mental Trial	Species	Objective	Area	Location	Remarks		
Silvic	Silviculture (South) Division							
1	Mud Flat Planta- tions	Mangrove species like- Heritierafomes (Sundari), Avicennia alba (Baen), Xylocar- pusgranatum (Dhundul), Aegicerascorniculatum (Khalsi), Acanthus Ilicifolius (Hargoza) Bruguieragymnorhiza (Kankra) etc.	For reclamation of Sea-shore mud flat area	2.0	Dakshin Kadua under Digha Research Station	State Plan		
2	Experiment on standardization on Plantation Protocol of some indigenous spe- cies	Sal with sal associates 11 nos. of indigenous species like- S. robusta, T. chebula, T. bellerica, , T. arjuna, S. oleosa, C. operculatum, M. latifolia, L. perviflora, B. lanzan, H. cordifolia, P. marsupium, O. oogeinensis,	To study the growth performance in field for current year seed-lings in respect of pit size, spacing, with soil moisture conservation and without soil moisture conservation condition.	3.0	Ghosalbandh, Amlagora under Arabari Res. Range	Under W.B.F.B.C Project (JICA Scheme)		
Silviculture (North) Division								
3.	Seedling Seed	Lohakath, Mehogini, Toon, Kawlo, Dalbergia- cultrata	To create a Seed Production Area with seedlings raised from	3.0	Khariabandar-1	State Plan		
4.	Orchard	Ritha	seedings raised from seeds of identified plus trees for getting quality seeds.	0.3	Khariabandar-1	State Plan		
4.	F1/ Germplasm Plantation	Benteak&Jarul	To see the result oc- curring from seeds of first plantation	2.0	Khariabandar-1	State Plan		



### 3. CERTIFIED SEEDS & QPMs SUPPLIED DURING 2015-16

Certified superior quality seeds are supplied to Divisions with information on the site of seed collection,, seed stand, Plus Tree or seed tree number from where the seed is procured along with the date of collection, germination % and viability etc.

QPM	Quantity supplied	Remarks
<b>Certified Seeds</b>	4453.50 Kgs	
<b>Quality Planting Materials</b>	5,63,882 nos.	2406-02-112-SP-005-Decentralised People's Nurseries(FR)-87-Regeneration
	93303 Nos.	By Silviculture South to User Divisions

### 4. TRIALS ON MODERN NURSERY PRACTICES

Nursey trials are carried out in different nurseries under this circle as listed below :-

Sl. No.	Name of Nursery	Division	Location	Installed Capacity
1.	Sonada Modern Nursery		Sonada	0.20 lakh
2.	Takdah Modern Nursery		Takdah	0.20 lakh
3.	Sukna I Modern Nursery		Sukna	0.20 lakh
4.	Sukna II Modern Nursery	Silviculture (Hills)	Sukna	0.20 lakh
5.	Bhuttabari Modern Nursery		Bhuttabari	0.40 lakh
6.	Lava Modern Nursery		Lava	0.30 lakh
7.	Kalimpong central Nursery		Kalimpong	0.20 lakh
8.	Rajabhatkhawa Central Nursery		Rajabhatkhawa	0.50 lakh
9.	Salugarah Modern Nursery	Silviculture (North)	Salugarah	0.20 lakh
10.	Lataguri Modern Nursery		Lataguri	0.60 lakh
11.	Amlachoti Central Nursery		Amlachoti	2.0 lakhs
12.	Arabari Central Nursery		Arabari	4.0 Lakhs
13.	Beliatore Central Nursery	Silviculture (South)	Beliatore	2.0 lakhs
14.	Manara Central Nursery		Manara	0.50 lakhs
15.	Hatirampur Central Nursery		Hatirampur	2.0 lakhs

### a. STANDARIZATION OF SEED PRETREATMENT TECHNIQUE

Those seeds that fail to germinate even on being exposed to environmental conditions which are necessary for germination are called dormant seeds. The following methods are used for breaking of dormancy in forest tree species.

Sl. No.	Species	No. of Seeds	Reagent Used	Pre-treatment Method	Germination %
Silvi	culture (South) Division				
1	Diospyrosmelanoxylon	100	Nil	Seed are soaked in water for 12 hrs	56
2	Schleicheraoleosa	100	Nil	Seed are soaked in water for 12 hrs	55
3	Buchananialanzan	100	Nil	Seed are soaked in water for 12 hrs	67
4	Aegle marmelos	100	Nil	No treatment was given	83
5	Ougeiniaoogeinensis	100	Nil	Seed are soaked in water for 24 hrs	72
6	Phyllanthusemblica	100	Nil	Soaked in water for 12 hrs.	58
7	Saracaasoca	100	Nil	No treatment was given	84

8	Terminalia bellerica	100	Nil	Soaked in water for a weak	82
9	Semecarpusanacardium	100	Nil	Soaked in water for 12 hrs.	19
10	Sapindus detergent	100	Nil	Nil Seeds are Soaked in water for 12 hrs.	
11	Pterocarpus marsupium	100	Nil	Seeds are Soaked in water for 2 days	72
12	Madhucalatifolia	100	Nil	No treatment was given	87
Silvi	culture (Hills) Division				
1.	Cinnamomumcecidodaphne	50		Seed are soaked in water for 24 hrs	30
2.	Polyalthiasimiarum	20		Seed are soaked in water for 24 hrs	15
3.	Pterocarpus marsupium	20		Seed are soaked in water for 24 hrs	50

b. **Potting Media Trial**: Trials were carried out for standardization of potting media. 20 different potting media were taken up for trial on different species as listed in table below .The results of the trials are as follows.

T1 :: Forest Soil T2 :: Wood dust : Forest Soil T3 :: Sand : Forest Soil

T4:: Vermiculite: Vermicompost T5:: Burn Rice husk: Vermicompost T6:: Compost

T7 :: Wood dust : Compost T8 :: Sand : Compost T9 :: Vermiculite :- Cow dung

T10 :: Buri Rice Husk : Cow dung T11 :: Vermiculite : Forest Soil T12 :: Burn Rice Husk : Forest Soil

T13 :: Vermi compost T14 :: Wood dust : Vermi compost T15 :: Sand : Vermi compost

T16 :: Vermiculite : Compost T17 :: BuriRice husk : Compost T18 :: Cow dung

T19 :: Wood dust : Cow dung T20 :: Sand : Cow dung





SILV	VICULTURE (SOUTH) DIVISION						
Sl.	Species	Treatment	Remarks	Grow Measure			owth irement
No.	Species	Treatment	Keiliaiks	As onAu	ıg-15	As on.	Mar-16
				Ht.	Dia.	Dia	Dia
1	Shorearobusta	T1		19.2	4.1	34.20	4.53
2	Pterocarpus marsupium (Pea Sal)	T6		10.2	2.8	14.2	3.58
3.	Oogeiniaoogeinensis (Panjan)	T4		12.2	4.0	18.6	4.78
4.	Holdinacordifolia(Haldu)	T6	No special	13.8	4.6	20.6	9.3
5.	Buchananialanzan (Pial)	T3	treatment was	6.4	2.2	9.0	2.44
6.	Terminalia belerica	T10	given, seedlings	11.8	4.2	14.75	3.97
7.	Madhucalatifolia (Mohul)	T17	were raised	11.0	3.8	13.22	6.99
8.	Lagerstroemia parviflora (Sidha)	T2	in 150 cc root	11.8	2.2	19.5	3.08
9.	Terminalia chebula (Haritoki)	T7	trainers	15.0	3.4	9.33	2.0
10	Terminalia arjuna (Arjun)	T10		11.0	4.4	34.75	8.79
11.	Schleicheraoleosa(Kusum)	T6		16.4	3.6	18.25	5.3
12.	Syzygiumoperculatum(Chuki Jam)	T16		7.2	2.8	29.25	5.35

T1:: Compost: Leaf Mould: Sand 1:1:1

T2:: Compost: Vermicompost: Leaf Mould: Sand 1:1:1:1

T3:: Compost: Sand 2:1 T4:: Vermicompost: Sand (2:1)

T5 :: Leaf Mould : sand 2:1 T6 :: Cowdung : Sand 2:1

SILV	TCULTURE (HILLS)	DIVISION					
Sl. No.	Species	Treatment	Remarks	Growth Measurement As onAug-15		Measu	owth irement Mar-16
				Ht.	Dia.	Dia	Dia
1.	Taxuswallichiana	T2	Sown in the Sterilized Sand	2.50	0.1	15.65	0.3

c. Trial using different sizes of hykopots: Nursery trials were carried out using different sizes of hykopots. 4 different sizes of hykopots were taken up for trial on different species as listed in table below. The results of the trials are as follows.

T1 :: 60 c.c. T2 :: 100 c.c T3 :: 150 c.c. T4 :: 300 c.c

Sl. No.	Species	Treatment	Potting Media	Meas	rowth surement 1 Aug-15	Measu	owth rement Mar-16
				Ht.	Dia.	Dia	Dia
1.	Shorearobusta (Sal)	T4		20.0	3.35	27.5	3.52
2.	Pterocarpusmarsupium	T2		5.4	1.55	13.0	3.62
3.	Ougeiniaoogeinensis	T4		13.10	3.32	27.9	3.62
4.	Holdinacordifolia	T4		4.5	3.04	21.1	5.97
5.	Buchananialanzan	Т3	Carridona Doma Dias	6.75	1.95	12.0	2.8
6.	Terminalia bellerica	Т3	Cow dung: Burn Rice Husk: Sand = 1:1:1	11.85	3.75	17.21	3.84
7.	Madhucalatifolia	Т3	riusk . Sanu – 1.1.1	11.75	4.05	19.25	5.89
8.	Lagestroemiaparviflora	T2		10.65	2.10	25.75	2.46
9.	Terminalia arjuna	T4		29.8	6.1	49.25	6.84
10.	Schleicheraoleosa	T4		11.4	3.5	17.68	4.58
11.	Syzygiumoperculatum	T4		21.75	4.05	43.5	6.32

# 5. IN SITU&EX SITU CONSERVATION OF FOREST TREES

### In-Situ Conservation

Maintenance of Preservation Plots: These plots are ecological models of existing forest type and are important for studies of ecological succession, recording diversity in plant population with time. A periodic study would be able to monitor record and throw light on such change. During 2015-16 maintenance & floral inventory works were undertaken in different Preservation Plots as given below:

P.P. No.	Area inHa.	Plantation/ H.F.	Year of formation	Division	Range	Beat	Block/ Compartment
Silviculture (South) Division	Division						
WB/Silvi/PP-2	2.0 Ha.	H.F.	1969	Jhargram	Banspahari	Kakrajhore	Kakrajhore
WB/Silvi/PP-4	3.0 Ha.	H.F.	1993	Purulia	Balarampur	Balarampur	Berma
WB/Silvi/PP-1	12.58 Ha	H.F.	1977	Bankura (S)	Ranibandh	Sutan	SutanBarapacha
Silviculture (North) Division	Division						
WB/JP/ LT-1	8.40	H.F	1933	Jalpaiguri	Lataguri	Lataguri	Lower Tondu
WB/JP/3	7.6	ЯΉ	1933	Gorumara WL	S. Gorumara	Gorumara	Gorumara
WB/24/ NDR	20	ŦΉ	1957	BTR(E)	Rydak	Mainabari	Bhutanghat-2
WB/6/ Chilapata	20	Н.F	1933	Jaldapara WL	Chilapata	Bania	Bania-2&7
WB/4/ Jayanti	20	ďН	1934	BTR(E)	Jayanti	Panbari	Panbari-7
WB/8/ Raimatang	8.4	ďН	1933	BTR (W)	Pana	Rimatang	Rimatang-3
Silviculture	Silviculture (Hills) Division						
26	04	Plantation	1959	Kurseong	Bamanpokhri	Bamanpokhri	Bamanpokhri
16	5.8	$_{ m HH}$	1932	Darjeeling	Takdah	Takdah	Lopchu-2
28	12	HF	1965	Kalimpong			Bokhim-5 & Pembling-1



**Linear Sample Plots**: They are laid out in high forests only to identify species, study their rates of growth (5 yearly measurement of all the trees above 90cm b.h.g.) and mortality in natural succession to study the ecology of forest type occurring in that line. During 2015-16 maintenance & floral inventory works were undertaken in different LSPs as given below:

L.S.P. No.	Area in Ha.	Plantation/ H.F.	Year of formation	Division	Range	Beat	Block/ Compartment
WB/JP/2	2.80	H.F	1924	Jalpaiguri	Moraghat	Khutimari	SMG-2
WB/JP/10	1.60	H.F	NA	Gorumara WL Divn.	South Gorumara	Gorumara	Endong-2
WB/Buxa/1	3.12	H.F	1926	BTR(W)	RVK(W)	RVK	SRVK-9
WB/Buxa/2	4.04	H.F	1926	BTR(E)	Jayanti	Jayanti	NRVK-6&7
WB/Buxa/3	2.88	H.F	1926	BTR(W)	Damonpur	Cheko	DOP-8

### **Ex-Situ Conservation**

Sample Plots : These plots are generally laid out in both plantation and high forests to find out the rate of growth and the volume increment of crop thinned at five year interval and to compare the effects of different grades of thinning to prepare the yield table and N / D curves. The following sample plots were maintained & studied during 2015-16.

S.P. No.	Area in Acre	Plantation/ H.F.	Year of formation	Division	Range	Beat	Block/ Compart- ment			
Silviculture (So	uth) Di	vision								
WB/Silvi/SP-6	1.0 Ha	Plantation	1973	Medinipur	Arabari	Arabari	Chandmura			
WB/Silvi/ SP-10	1.80 Ha.	H.F.	1973	Jhargram	Lodhasuli	Lodhasuli	Amlachati			
WB/Silvi/SP-1	1.55 Ha	Plantation	1993	KSC (S)	Barabazar	Barabazar	Barabazar			
WB/Silvi/SP-2	0.40 Ha.	Plantation	1993	Purulia	Matha	Ajodhya	Ajodhya			
Silviculture (N	Silviculture (North) Division									
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil			
Silviculture (H	ills) Div	ision	•		•					
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil			

### **List of Arboretum**

Name of Arbora- tum	Division	Location	Range	Area	Year of creation	Major species
Silviculture (South	) Division		•		•	
Kadamkanan	Jhargram	Kadamkanan	Jhargram	0.60		Sal coppice forests with Misc. Spp.
Khasjungle	Medinipur	Khasjungle	Medinipur	1.30		Misc. Spp.
Mahatpur	Nadia-Mur- shidabad	Mahatpur	Krishnagar	1.25		Misc. Spp.
Chakhatisole		Chakhatisole		0.40		Misc. Spp.
Silviculture (Hills)	Division					
						Acrocarpusfraxinifolia, Amoorawallichii,
Arboretum Part – I at Panchanai	Darjeeling Wildlife	Panchanai	Kurseong Research Range	3.00	1942	Bombaxceiba, Castanopsis spp., Lagerstroemiaflos- reginae, Switeniamacrophylla, Tectonagrandis, Terminalia tomentosa, Xyliadolabriformis
Arboretum Part – II at Kynanuka	Darjeeling Wildlife	Kynanuka	Kurseong Research Range	3.00	1942	Agathisrobusta, Albizzia procera, Amoorarohituka, Cinnamomumcamphora, Cinnamomumcecidodaphne, Lagerstroemia hypoleuca, Sterculiavillosa
Conifer Arbore- tum	Darjeeling Wildlife	Sonada – 4	Hill Research Range – II	2.00		Pinuswallichiana, Pinus- patula, Pinustaeda, Pinusmassoniana, Pinust- hunbergii, Abiesspectabilis, Taxuswallichiana.
Silviculture (North	n) Division	T	1	1	1	
KhutimariArbo- ratum	Jalpaiguri Division	SMG-7	Moraghat  Beat- Khut- imari.	0.62 На.	1929	Misc. Species. Total- 40 Spp.
WRVK Arboratum	BTR(W)	SRVK-10	WRVK Beat- WRVK	1.5 Ha.	1994	Misc. Species. Total- 34 Spp.





### LLOYD BOTANIC GARDEN

Established in 1878, the Garden is located at an elevation of 6,000 ft and covers an area of about 40 acres. It has 133 trees species, including **two living fossil species** (*Gingko biloba* and *Metasequoiaglyptostroboides*), **40 species of climbers and 92 species of orchids**. This beautiful garden attracts a lot of tourists. The garden has a herbarium with about **14,000 sheets representing175 families**, **1,145 genera and 3,584 species**. Digitization of the herbarium sheets has been undertaken to make this unique resource available to visitors.

During 2015-16 52 new species of orchids and 20 other species were added to the already existing stock. 21 new herbarium and 56 nos. of herbarium from different new MPCAswere added.

A fund of Rs. 10.00 lakhs was provided during 2015-16 from RKVY scheme which was utilized for landslide restoration works.

### 6. IN SITU & EX SITU CONSERVATION OF MEDICINAL PLANTS

### **Ex-situ Conservation**

Ex-situ conservation works includes maintenance of Herbal Garden. The following Herbal Garden / demonstration plots under this circle are maintained regularly. One such herbal garden of importance is at Amlachatihaving 854 species of medicinal plants collected from different parts of the state.

Name of Herbal				Area / No. of	Year of	Major s	pecies
Garden / Dem- onstration Plot	Division	Location	Range	beds/species	creation	RET	Regular
Amlachati Ex-Situ site	Jhargram	Amlachati	Lodhasuli	2.0 Ha/ 468 Nos./704 Nos.	2001	Gymnemasylvestre, Tinosporacordifolia, Tylophoraindica,	Centellaasiatica, Bacopamonnie-
Digha Herbal Garden	Purba Medinipur	Khadalgobra	Contai	0.095 Ha./ 70 Nos. / 146 Nos.	2004	Clerodendrumindi- cum, Rouvolfia serpe ntine,Diclipterabuple uroidesetc.	ria, Enhydraftuc- tuans, Wedelia- chinensis etc.,
Sonada	Darjeeling. Wild Life	Sonada				Rauvolfiaserpentine,	
Takdah	Darjeeling	Takdah				Asparagasrecemosus,	
Sukna	Darjeeling. Wild Life	Sukna				Tylophora indica., Gymnemasylvestre,	
Lava	Kalimpong-	Lava				Morindacitrifolia,	
Bhuttabari	WBFDC	Bhuttabari				Dioscoreaprezeri,	
LBG	Silvi (H)	LBG				Hemidesmusindicus Gloriosa superva Tinosporacordifolia Cúrcuma amada	
Salugarah	ВКР	Shorea Na- ture Park	Salugarah Lab Range	220 beds	03-04		Regular
Rajabhat-khawa	BTR(W)	RVK	Buxa- Coochbehar Research Range	122 beds	03-04		Regular

### IN SITU CONSERVATION

There are seven (7) old & seven (7) new MPCAs under this circle. The **new MPCAs** (Medicinal Plant Conservation Areas) were established during 2013-14. Several measures are underway for protection of the species reaching extinction and rare, endangered &threatened (RET) species. These measures include survey and inventorization of plant resources to develop an accurate database for their planning and monitoring purposes.

Details of 7 new MPCAs are as follows:-

	I	Project for Cro	eation of 7 N	ew MPCAs (	CONS/WB-01	/2014)	
Name of MPCAs	Panchanoi	Phalut	Rachela	Bichabhan- ga-1	NRVK	Kankrajhore	Shushunia
District	Darjeeling	Darjeeling	Darjeeling	Jalpaiguri	Alipurduar	P Medinipore	Bankura
Forest Division	Darjeeling WL	Darjeeling WL	Gorumara WL	Jalpaiguri	eBTR (W)	Jhargram	Bankura
Area (in Ha.)	200	200	200	200	200	300	300
	26º47'43.1" N	27º11'50.4" N	27º11'50.4"	26º43'32.8"N	26º41"06" N	26º43'32.8"N	23º23'45.3" N
GPS location	88°24'38.3"E	88º03'33.8"E	N 88º03'33.8"E	88º46'49.6"E	89033'18" E	88º46'49.6''E	86°58'59'8"E
	Altitude 251 M	Altitude2931 M		Altitude165 M	Altitude 158 M	Altitude 165 M	Altitude 235M
Project Period		,	2	2013-14 to 2015	5-16		
Forest Type	cal Broad	Montane Wet Temperate Forest	Montane Wet Temperate Forest	Montane Wet Temperate Forest	Northern tropical Moist deciduous forest	Dry Deciduous Tropical Forest	Dry Deciduous Tropical Forest
Executing Division	Si	lviculture (Hill	s)	Silvicultu	re (North)	Silvicultur	re (South)
Total Project Cost	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs
Fund released to Executing Agency	10 lakh	12 lakh	12 lakh	12 lakh	12 lakh	12 lakh	12 Lakh

JFMC :Peoples' participations in Medicinal plant Conservation : One NMPB funded project has been implemented in South Bengal where medicinal Plants are raised as intercrop with regular and medicinal tree plantations. Since major issue is the post harvest marketing of medicinal plants, arrangements is being done with manufacturers of Ayurvedic drugs to obtain directly from the JFMC thereby ensuring high returns for JFM members.





Total Coverage ::225 FPCs

Total Cost :: Rs. 930 lakhs

Executor ::Forest Directorate

Marketing ::WBFDC & pharmaceutical Companies

Area of Plantation ::310 Hectares Intercropping 170 Hectares

At present JFMC Project is going on atPaschimMedinipore and Bankura District involving 3 Circles & 8 Divisions i.e.

-Western Circle : Medinipore, Jhargram, Kharagpur and Rupnarayan Divisions.

-Central Circle :Bankura (North), Bankura (South) and PanchetDivision.and

-Research Circle: Silviculture (South) Division.

### **Project Calendar:**

Sl. No.	Year	Jhargram	Kharagpur	Rupnarayan	Medinipore	Bankura (N)	Bankura (S)	Bisnupur	Kangsabati (S)	Kangsabati (N)	Total
Mixed P	Plantation of Trees having MFP	Values	S.								
1.	Year-I (2015-16)		15								15
2.	Year II (2016-17)	40	15	30	40						125
3.	Year III (2017-18)					40	40	30	30	30	170
	TOTAL	40	30	30	40	40	40	30	30	30	310

Sl. No.	Year	Jhargram	Kharagpur	Rupnarayan	Medinipore	Bankura (N)	Bankura (S)	Bisnupur	Kangsabati (S)	Kangsabati (N)	Total
Reger	neration of Perennial Herbs and	Shrub	s of Me	dicinal	value (	intercr	opping	in New	Planta	tion)	
1.	Year-I (2015-16)		15								15
2.	Year II (2016-17)	40	15	30	40						125
3.	Year III (2017-18)					40	40	30	30	30	170
	TOTAL	40	30	30	40	40	40	30	30	30	310
Rege	neration of Perennial Herbs and	d Shrub	s of M	edicina	l value(	intercr	opping	in Old	Plantat	tion)	
1.	Year II (2016-17)	15	15	15	15					<sup>^</sup>	60
2.	Year III (2017-18)					20	25	25	20	20	110
	TOTAL	15	15	15	15	20	25	25	20	20	170
	GRAND TOTAL	55	45	45	55	60	65	55	50	50	480

### Achievement 2015-16

### 1. Tree Species Plantations with intercropping:-

Sl. No	Name of the Division	Name of the Range	Name of the Beat	Mouza	Area in Ha.
1	Vh ana aman	Nayagram	Nayagram	Dhansola / Khanamuri	10
2	Kharagpur	Chandabila	Patina	Khasjungle -6	05
	Total in Ha.				15 Ha.

### 2. Intercropping in Older Plantations:-

Sl. No	Name of the Division	Name of the Range	Name of the Beat	Mouza	Area in Ha.
1	Kharagpur	Nayagram	Nayagram	Gamaria	4.50
Total					
in					4.50 Ha.
Ha.					

### 7. LIST OF SOIL TESTING LAB.

There are two soil testing laboratories under the Research Circle, one at Salugarah and another at Midnapore. The laboratories carry out soil analysis to determine pH value, organic carbon, available  $N_2$ , total  $N_2$ , available  $N_2$ 0 and  $N_2$ 0 and  $N_2$ 1 are the laboratory in Salugarah submitted analysis reports of 125 samples sent from 10 Divisions of North Bengal

Division	Location	No. of Soil sample Tested during 2015-16
Silviculture (South)	Soil Testing Lab. Midnapore	Nil
Silviculture (North)		1093
Soil Testing Lab. Salugarah		











Medicinal Tree Species Plantation under NMPB schemeIntercropping inside medicinal tree spp. Pltn.





Phyto-diversity study at SusuniaMPCAEx-situ site at Amlachati-Jhargram





Preparation of Tall Seedlings in Bio-degradable pots Stock of Seedlings at Amlachati Nursery for NMPB Project





### MONITORING OF PLANTATIONS

### Category wise Survival % of plantations: Objective: -

Monitoring and Evaluation of Forest Plantations created by Forest Directorate, Government of West Bengal are being conducted by the Monitoring Circle since last three decades. It is the regular observation and recording of status of survival, height and BHG (only for 5<sup>th</sup> year plantation) in 1<sup>st</sup> year, 3<sup>rd</sup> year and 5<sup>th</sup> year of plantation. Deviations from the Working Plan Prescription if any are also monitored. Monitoring also involves giving feedback regarding the progress of the plantations to the fund providers, implementers and beneficiaries so that the gathered information can be used in decision making for improving the plantation performance in future. Zonal reports are published separately for South and North Bengal.

Survey, Monitoring and Evaluation of Forest Plantations is done by Monitoring Circle with two divisions, namely Monitoring (North) and Monitoring (South) Division under its jurisdiction. Monitoring (N) division with headquarter at Siliguri covers the hilly areas of Darjeeling, Kalimpong, Kurseong and plains of Dooars and Terai region while Monitoring (South) Division with headquarters at Kolkata covers the whole areas of South Bengal. Monitoring Circle is headed by CF, Monitoring and works under the guidance of CCF, Monitoring & Evaluation, APCCF, Research & Monitoring and PCCF, Research, Monitoring & Development, West Bengal.

### **Methodologies of Monitoring**

The individual plantation data in a compiled form was circulated to the respective Divisional Forest Officers and their respective Conservator of Forests in advance for checking & comments. This also helps them to replace the casualties & take other remedial measures targeted towards improvement of quality of plantations. The feedback received from some of the DFOs have been considered in the compilation of draft monitoring report.

Three parameters viz Survival Percentage, Height and Breast Height Girth of seedlings/Saplings taken into consideration are as follows:-

1. 1st year (2015) Plantation

-- Survival % & Height of seedling.

2. 3<sup>rd</sup> year (2013) Plantation

-- Survival % & Height of seedling.

3. 5<sup>th</sup> year (2011) Plantation.

-- Survival %, Height &Breast Height Girth(BHG) of seedling

For the purpose of execution of survey & monitoring works the Statistical Random Sampling technique is adopted.

### **Pre-survey Works:**

- 1) Copies of regeneration maps along with plantation journals are collected from the respective Divisions.
- 2) A grid line is laid over the map with quadrates of 50m x 50m each serially numbered.
- 3) Sample plots are chosen randomly using the statistical random sample table.
- 4) Selection of sample plots is done in such a way so as to have proper representation of the area.

### Field works:

- 1) The selected sample plots are identified in the field.
- 2) Boundary corners are clearly marked with raised earthen mound topped with painted pegging.
- 3) Total enumeration is carried out species wise and in respect of height class intervals.
- 4) At the time of Survey & Monitoring, the staff of respective Range remains present & put their initials on the data sheets as the sign of authentication.

### Calculation of Survival percentage:

As per approved spacing in the regeneration plan, total number of seedlings that should be present in those plots is calculated. Survival percentage is found out as the ratio of actual number to the prescribed number. For 1<sup>st</sup> year survey & monitoring, in a 10 ha plot at 7.5% sampling intensity three samples plots of 50mx50m are taken through RBD sampling. Average of survival percentage values obtained in the three sample plots gives the survival percentage for the 10ha plantation. To obtain the Divisional performance, weighted average survival percentage is calculated. In case of 3<sup>rd</sup> year & 5<sup>th</sup> year old plantations survey & monitoring, in a 10 ha plot at 5% sampling intensity two sample plots of 50m X 50m are taken .

In accordance with the Weighted S.P., the plantations are classified into the following categories:-

Year of plantation	Category A	Category B	Category C	Category D
1st year	WSP: 90% & above	WSP: 89 – 75%	WSP: 74 – 50 %	WSP: < 50%
3 <sup>rd</sup> year	WSP: 75% & above	WSP:74 – 60%	WSP: 59 – 40 %	WSP: < 40%
5 <sup>th</sup> year	WSP: 50% & above	WSP:49 – 40%	WSP: 39 – 30 %	WSP: < 30%

**Best Plantation Awards:** - The Best performing plantations can be derived on the basis of scores obtained according to new Monitoring Methodology for 2015-16 onwards.







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Division -wise Performance (under various schemes) for 2013 Creation 3<sup>rd</sup> Year Monitoring by Monitoring South Division

Division/ Scheme	SDÒ		FT-Sal		Strip Pltn.	ltn.	CMM		Pro-Aff		CSB		Bamboo	00	Medicinal Plant.		Total	<b>Division</b> wise
	Area	WSP	Area	WSP	Area	WSP	Area	WSP	Area	WSP	Area	WSP	Area	WSP	Area	WSP	Area	WSP.
	(Ha)	2	(Ha)		(Ha)	2	(Ha)		(Ha)		(Ha)		(Ha)	2	(Ha)		(Ha)	
MID	497.50	66	100	100	0	0	0	0	0	0	0	0	50	26	0	0	647.50	66
KNG(S)	250	86	20	100	0	0	0	0	0	0	0	0	0	0	0	0	270	86
PRL	225	86	30	26	0	0	0	0	20	66	0	0	0	0	0	0	275	86
RPN	325	66	06	100	0	0	0	0	0	0	0	0	50	84	0	0	465	86
JHR	645	86	50	100	0	0	0	0	0	0	0	0	10	80	0	0	705	86
PNCT	009	26	80	66	0	0	0	0	0	0	0	0	0	0	0	0	089	26
BIR	211	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211	26
KNG(N)	419	96	45	92	0	0	0	0	0	0	0	0	0	0	0	0	464	96
BNK(S)	800	95	50	96	0	0	0	0	0	0	0	0	0	0	0	0	850	95
DGP	115	93	25	100	0	0	0	0	0	0	0	0	0	0	0	0	140	94
BNK(N)	650	95	100	92	0	0	0	0	0	0	0	0	0	0	0	0	750	95
N-M	23	94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	94
KGP	385	93	40	66	55	82	0	0	0	0	0	0	10	64	0	0	490	92
24PGS(S)	0	0	0	0	100	93	220	68	0	0	0	0	0	0	0	0	320	90
BDN	280	88	15	96	100	87	0	0	0	0	0	0	0	0	0	0	395	88
PMID	0	0	0	0	53.42	58	121.266	66	0	0	85.65	85	0	0	0	0	260.34	98
HMH	0	0	0	0	160	85	0	0	0	0	0	0	0	0	0	0	160	85
EFD. PRL	0	0	0	0	30	77	0	0	0	0	0	0	0	0	0	0	30	77
Total	5425.50		645		498.42		341.266		20		85.65		120		0	0	7135.84	95

Division -wise Performance (under various schemes) for 2011 Creation 5th Year Monitoring by Monitoring South Division

Division/ Scheme	<b>S</b> SÒ		FT-Sal		Strip Pltn.		CMM		Pro-Aff		CSB		Bamboo		Medicinal Plant.		Total	Division wise WSP.
	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)	
MID	95	93	100	86	0	0	0	0	0	0	0	0	50	69	0	0	245	92
KNG(S)	300	29	20	38	0	0	0	0	20	96	0	0	20	45	0	0	360	99
PRL	150	89	40	53	0	0	0	0	20	89	0	0	0	0	0	0	210	29
RPN	450	94	70	66	0	0	0	0	0	0	0	0	50	47	0	0	570	91
JHR	155	84	40	91	0	0	0	0	0	0	0	0	0	0	0	0	195	85
PNCT	400	98	70	93	0	0	0	0	0	0	0	0	0	0	40	83	510	87
BIR	211	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211	98
KNG(N)	210	70	40	<i>L</i> 9	0	0	0	0	20	75 (	0	0	0	0	0	0	270	70
BNK(S)	150	68	09	98	0	0	0	0	0	0	0	0	0	0	0	0	460	68
DGP	144	83	25	82	0	0	0	0	0	0	0	0	0	0	0	0	169	83
BNK(N)	280	78	100	77	0	0	0	0	0	0	0	0	0	0	0	0	380	78
N-M	57	93	10	96	0	0	0	0	0	0	0	0	0	0	0	0	29	94
KGP	200	09	50	84	30	50	0	0	0	0	0	0	50	32	0	0	330	59
24PGS(S)	0	0	0	0	06	61	265	53	0	0	0	0	0	0	0	0	355	55
BDN	156	98	15	85	25	77	0	0	0	0	0	0	0	0	0	0	196	85
PMID	0	0	0	0	09	30	08	64	0	0	150	61	10	32	0	0	300	55
HWH	0	0	0	0	200	71	0	0	0	0	0	0	0	0	0	0	200	71
EFD. PRL	0	0	0	0	20	46	0	0	0	0	0	0	0	0	0	0	20	46
Total	3158	0	069	0	425	0	345	0	09	0	150	0	180	0	40	0	5048	81

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Division -wise Performance (under various schemes) for 2015 Creation 1st Year Monitoring by Monitoring South Division

				,												
Division/	SDÒ		FT-Sal	1	Strip Pltn.		CMM		CSB		Bamboo	00	Medicinal Plant.	Plant.	Total	Division wise WSP
	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)											
MID	450	96.48	50	98.86	0	0	0	0	0	0	0	0	0	0	500	
KNG(S)	145	92.90	40	88	35	85.85	0	0	0	0	100	73	0	0	285	
PRL	210	91.42	0	0	0	0	0	0	0	0	09	85.16	0	0	270	
RPN	435	98.82	06	96.61	0	0	0	0	0	0	30	85.33	20	99.35	575	
JHR	501.44	96.74	50	99.14	0	0	0	0	0	0	50	68.52	0	0	601.44	
PNCT	480	95.01	0	0	0	0	0	0	0	0	220	84.15	0	0	700	
BIR	132	92.12	0	0	0	0	0	0	0	0	0	0	0	0	132	
KNG(N)	319	92.76	99	94.63	0	0	0	0	0	0	09	86.75	0	0	435	
BNK(S)	850	90.56	120	99.68	0	0	0	0	0	0	120	70.72	0	0	1090	
DGP	50	06	0	0	0	0	0	0	0	0	0	0	0	0	50	
BNK(N)	158	94.15	0	0	0	0	0	0	0	0	59	98.88	0	0	217	
N-M	15	93.33	0	0	0	0	0	0	0	0	0	0	0	0	15	
KGP	323	95.63	20	100	70	90.05	0	0	0	0	10	85.00	0	0	423	
24PGS(S)	0	0	0	0	0	0	390	86.81	0	0	0	0	0	0	390	
BDN	85	86.38	10	94	120	85.87	0	0	0	0	0	0	0	0	215	
PMID	0	0	0	0	09	95.70	09	87	06	29.86	0	0	0	0	210	
НМН	0	0	0	0	09	90.48	0	0	0	0	0	0	0	0	09	
EFD. PRL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	4153.44	0	436	0	345	0	450	0	06	0	406	0	20	0	6203.44	92.14

## Area Statement for Monitoring South Division Schemes & Year wise Plantations created and Monitored

Scheme of	1st Year (2015)		3rd Year (2013)		5th Year (2011)		Grand Total of three Years	threeYears
Plantation	Total Area (Ha)	Monitored	Total Area (Ha)	Monitored	Total Area (Ha)	Monitored	Total Area (Ha)	Monitored
Bamboo	709	602	120	120	180	180	1009	1009
CMM	450	450	341.26	341.26	345	345	1136.26	1136.26
CSB	06	06	85.65	85.65	150	150	325.65	325.65
FT-Sal	436	436	645	645	069	069	1771	1771
Medicinal	20	20	0	0	40	40	09	09
Prot. Aff	0	0	20	20	09	09	08	08
ÓGS	4153.44	4153.44	5425.50	5425.50	3158	3158	12736.94	12736.94
Strip Pltn.	377	377		498.42	425	425	1268.42	1268.42
Total	6235.44	6235.44	7135.83	7135.83	5048	5048	18419.27	18419.27

## Area Statement for Monitoring North Division Schemes & Year wise Plantations created and Monitored

Scheme of	1st Year (2015)		3rd Year (2013)		5th Year (2011)		Grand Total of three Years	threeYears
Plantation	Total Area (Ha)	Monitored	Total Area (Ha) Monitored	Monitored	Total Area (Ha)	Monitored	Total Area (Ha)	Monitored
CSS	0	0	100	80	180	153	280	233
Eco-Misc	689	669.26	580	536.89	675.71	655.71	1944.71	1861.86
Eco-Sal	165	145.45	349	341.60	270.71	220.71	784.71	97.707
Pro. Aff	0	0	84	50	45	15	129	97.707
Strip	350	330	186	185.05	185	185	721	700.05
Eco. Cons	0	0	0	0	75	99	75	99
RIDF	0	0	0	0	37	30	37	30
RVP	0	0	0	0	360	360	360	360
PAEC	38	25	08	80	0	0	118	105
WBSFDA	30	30	0	0	0	0	30	30
Bamboo	83	08	0	0	0	0	83	08
RKVY	193	193	0	0	0	0	193	193
RKVY (Bam-boo)	20	20	0	0	0	0	90	20
Total	1598	1523.28	1379	1273.54	1828.42	1685.42	4805.42	4482.24

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Division -wise Performance (under various schemes) for 2011 Creation 5th Year Monitoring by Monitoring North Division

Division wise	WSP.	52.80	30.67	38.75	32.35	8.70	35.50	32.00	30.81	76.00	32.18	65.11	37.81	32.72	09.09	79.63	26.95	45.70
Total	Area (Ha)	100.00	40.00	80.00	125.00	50.00	30.00	10.00	120.00	25.00	29.57	98.00	155.14	120.00	521.00	57.50	124.21	1685.42
	WSP	0	0	0	0	0	0	0	0	0	0	0	0	0	0.89	0	0	0
RVP	Area (Ha)	0	0	0	0	0	0	0	0	0	0	0	0	0	360.00	0	0	360
	WSP	0	0	0	37.00	0	0	0	0	0	0	0	0	0	0	0	0	0
RIDF	Area (Ha)	0	0	0	30.00	0	0	0	0	0	0	0	0	0	0	0	0	30
	WSP	0	0	0	0	0	0	0	0	0	0	0	0	0	55.6	0	0	0
Eco. Cons.	Area (Ha)	0	0	0	0	0	0	0	0	0	0	0	0	0	00.99	0	0	99
	WSP	0	0	0	0	0	35.50	32.00	22.20	77.30		72.10	0	0	0	87.00		0
Strip	Area (Ha)	0	0	0	0	0	30.00	10.00	100.0	20.00	0	20.00	0	0	0	5.00	0	185
	WSP	0	0	0	0	0	0	0	0	0	0	0	0	0	31.00	0	0	0
Pro. Aff	Area (Ha)	0	0	0	0	0	0	0	0	0	0	0	0	0	15.00	0	0	15.00
-	WSP	0	0	0	18.00	0	0	0	0	0	30.90	0	27.79	31.15	0	25.40	21.68	0
Eco. Sal	Area (Ha)	0	0	0	35.00	0	0	0	0	0	16.00	0	73.00	20.00	0	2.50	74.21	220.71
	WSP	49.00	37.50	23.30	37.00	8.70	0	0	96.09	70.80	33.70	75.30	51.85	33.03	43.80	81.60	34.78	0
Eco. Misc	Area (Ha)	50.00	20.00	50.00	35.00	50.00	0	0	20.00	5.00	13.57	60.00	72.14	100.00	80.00	50.00	50.00	655.71
	WSP	60.40	17.00	64.50	40.36	0	0	0	0	0	0	23.40	17.00	0	0	0	0	0
CSS	Area (Ha)	50.00	20.00	30.00	25.00	0	0	0	0	0	0	18.00	10.00	0	0	0	0	153
Divi-	me	WL-I	WL-II	ML-III	BTR(E)	BTR (W)	Ω	RGJ (	SLG SF (	JPG SF (	BKP (	COB	JPG	SC (N)	KGN (		KGN	Total

Division -wise Performance (under various schemes) for 2013 Creation 3<sup>rd</sup> Year Monitoring by Monitoring North Division

			•											
Division/ Scheme	CSS		Eco. Misc		Eco. Sal		Pro. Aff		Strip		PAEC		Total	Division wise WSP
	Area (Ha)	WSP	Area (Ha)	WSP	Area (Ha)									
WL-I	0	0	20	75.45	0	0	0	0	0	0	0	0	20	75.45
WL-II	55	55.20	0	0	0	0	0	0	0	0	0	0	55.00	55.20
WL-III	0	0	17	33.80	12	43.36	0	0	0	0	0	0	29.00	37.76
BTR(E)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BTR (W)	0	0	30	55.70	0	0	0	0	0	0	0	0	30.00	55.70
MLD	0	0	30.01	31.00	0	0	0	0	S	42.40	0	0	35.01	33.28
RGJ	0	0	10.00	40.00	0	0	0	0	0	0	0	0	10.00	40.00
SLG SF	0	0	0	0	0	0	0	0	06	67.00	0	0	90.00	67.00
JPG SF	0	0	0	0	0	0	0	0	70.00	90.00	0	0	70.00	90.00
BKP	0	0	29.00	76.15	30.00	57.64	0	0	0	0	0	0	59.00	66.74
COB	0	0	10.00	95.30	0	0	0	0	20.05	85.20	0	0	30.05	90.24
JPG	0	0	87.10	70.70	82.00	42.40	0	0	0	0	0	0	169.10	57.59
SC (N)	0	0	185.80	77.14	70.00	38.00	0	0	0	0	0	0	260.80	73.34
KGN SC	0	0	10.00	47.50	0	0	50.00	22.00	0	0	80.00	58.50	160.00	46.50
DRJ	0	0	75.08	88.60	0	0	0	0	0	0	0	0	75.08	88.60
KGN	0	0	32.90	39.00	147.60	39.00	0	0	0	0	0	0	180.50	39.00
Total	55	0	536.89	0	341.6	0	50	0	185.05	0	08	0	1273.54	64.36

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Division -wise Performance (under various schemes) for 2015 Creation 1st Year Monitoring by Monitoring North Division

			Bamboo	EC Strip Bamboo RKVY	FAEC Strip Bamboo	raec strip bannou	Eco. Sai FAEC Strip Bamboo	Eco. Sai FAEC Strip Bamboo	Eco. Misc Eco. Sai FAEC Strip Bamboo	Bamboo
P Area WSP (Ha)	7.0	Area WSP (Ha)		WSP Area WSP Area (Ha)	Area WSP Area WSP Area (Ha) (Ha)	WSP Area WSP Area (Ha)	WSP Area WSP Area WSP Area (Ha) (Ha)	Area WSP Area WSP Area WSP Area WSP Area (Ha) (Ha) (Ha) (Ha)	WSP Area WSP Area WSP Area WSP Area (Ha) (Ha) (Ha) (Ha) (Ha)	Area WSP Area WSP Area WSP Area WSP Area (Ha) (Ha) (Ha) (Ha)
0 0	1	0 0		0 0	0 0 0 0	0 0 0	0 0 0 0 0	0 0 0 0 0 0	90.5 0 0 0 0 0 0	25 90.5 0 0 0 0 0 0 0
40 70		0 0		0 0	0 0 0 0 0	0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0
0 0		80 81		08 0	08 0 0 0 0	29.30 45.28 0 0 0 80	45.28 0 0 0 0 80	29.30 45.28 0 0 0 80	77.79 29.30 45.28 0 0 0 80	49.23         77.79         29.30         45.28         0         0         0         80
0 0		0 0	0	0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0	84 0 0 0 0 0 0 0 0 0	80 84 0 0 0 0 0 0 0 0 0
0 0		0 0	0	0 0 0	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0	83 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
0	0	0 0 0	0	93 0 0	0 0 30 93 0 0	0 30 93 0 0	0 0 30 93 0 0	0 0 0 30 93 0 0	95 0 0 0 0 30 93 0 0	1 95 0 0 0 0 30 93 0 0
60 92		0 0	0	92.25 0 0	0 0 160 92.25 0 0	0 0 0 160 92.25 0 0	0 0 0 160 92.25 0 0	0 0 0 160 92.25 0 0	92.25 0 0 0 0 160 92.25 0 0	60 92.25 0 0 0 0 160 92.25 0 0
0	0	0 0 0	0	96.2 0 0	0 0 50 96.2 0 0	0 50 96.2 0 0	0 0 50 96.2 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
0	0	0 0	0	94.25 0 0	0 0 50 94.25 0 0	0 50 94.25 0 0	0 0 50 94.25 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
0	0	0 0 0	0	0 0 0	3.10 0 0 0 0 0 0	0 0 0 0 0	83 23.86 63.10 0 0 0 0 0 0	23.86 63.10 0 0 0 0 0 0	83 23.86 63.10 0 0 0 0 0 0	23.35 83 23.86 63.10 0 0 0 0 0 0
91	7	0 0	0	85.43 0 0	0 0 40 85.43 0 0	0 40 85.43 0 0	0 0 40 85.43 0 0	0 0 0 40 85.43 0 0	90 0 0 0 0 40 85.43 0 0	25         90         0         0         0         40         85.43         0         0
0	0	0 0 0	0	0 0 0	0 0 0 0 0	0 0 0 0 0	45.32 0 0 0 0 0 0	70.09 45.32 0 0 0 0 0 0	67 70.09 45.32 0 0 0 0 0 0	70 67 70.09 45.32 0 0 0 0 0 0
89.50	50	0 0 20	0	0 0 0	0 0 0 0 0	0 0 0 0 0 0 0	83.50 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	83.50 0 0 0 0 0 0 0 0	140.68 83.50 0 0 0 0 0 0 0 0 0
0	0	0 0 0	0	0 0 0	10 97 0 0 0 0	0 0 0 0 26	0 10 97 0 0 0 0	0 0 10 97 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
0	0	0 0 0	0	0 0 0	15 95 0 0 0 0	0 0 15 95 0 0 0 0	0 15 95 0 0 0 0	0 0 15 95 0 0 0 0	91.25 0 0 15 95 0 0 0 0	40 91.25 0 0 15 95 0 0 0 0
06	36	0 0 36	0	0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0	93 0 0 0 0 0 0 0 0	50 93 0 0 0 0 0 0 0 0
0	0	0 0 0	0	0 0 0	0 0 0 0 0	0 0 0 0 0	62.70 0 0 0 0 0 0	22.2 62.70 0 0 0 0 0 0 0	88.6 22.2 62.70 0 0 0 0 0 0	25 88.6 22.2 62.70 0 0 0 0 0 0
1	103		08	330 80 193	330 80	25 330 80	145.45 25 330 80	145.45 25 330 80	145.45 25 330 80	80





### DEVELOPMENT CIRCLE

### Introduction

Education and training systems throughout the world are in transition. Education is one of the key resources available to us to meet the challenges of the future. This applies to education, in general, and forestry training, in particular. Forestry courses and the training environment have undergone significant changes since last decade. Training in the forestry sector, are viewed as specialist qualifications and the direction in which they should be developed, varies from one circle to the next. The Development Circle aims to contribute to the development of human resources with a visionary training curriculum in the area of forestry and wildlife.

Training programmes for the various categories of Forest Staff for capacity building is organised by the Development Circle for better management of forests and wildlife Protected Areas. To face the unique problems in Forestry Sector and to fight against the new challenges, training in the form of refreshers' course or short courses are formulated as per the calendar of works published by the Government of West Bengal. The main aim is to rejuvenate forest staff for better management of forests, afforestation, soil conservation, wildlife management, control of man-animal conflict, social forestry, and protection of forests through Joint Forest Management (JFM) and application of modern technology in forestry.



### List of Best Plantation Award of 2015-16

S	Š	Division	Range	Beat	Location	Scheme	Score	Position
Š.	Range		-8					
1		Panchet	Taldangra	Taldangra	Chenchuria - 70	QGS	94	1
2		Kangsabati North	Puncha	Jambad	Baduijore	QGS	85	2
3	Monitoring (S) Kharagpur	Kharagpur	Nayagram	Nayagram	Gamariya - 291	FT-Sal	85	3
4		Midnapore	Midnapore	Baghasole	Baghasole	FT-Sal	84	4
5		Rupnarayan	Hoomgarh	Baromesiya	Baribath 233	FT-Sal	83	5
9		Kalimpong SC	Relli Catchment Algarah	Algarah	Damsang - 2	PAEC	94	1
7		Malda	Malda	Rajadighi	HatimariForest	Eco. Misc	92	2
∞	8 Monitoring (N) Kurseong SC	Kurseong SC	UMC	Deorali	U. Badukhola	Eco. Misc	06	3
6		BTR (E)	South Raydak	Narathali	NRT - II	Eco. Misc	88	4
10		Darieeling	Ghoomsimana	Sukhiapokhri	Gurasedara	Eco. Misc	87	5





### **Training Centres**

Presently there are three training centres functioning:

- 1. The West Bengal Forest School at Dow Hill, Kurseong (established in 1907) and the Forestry Training Centre at Rajabhatkhawa (established in 1983). Both the training centres presently have the capacity of 60 trainees each.
- 2. The State Forest Training Institute at Hijli, Kharagpur (Commissioned in 2016) and have a capacity of 120 trainees. To pertain training to the forester of this state this new campus has been constructed at Mouza-PaschimPathri, JL-186 with an extent on forest land of 11.74 ha funded by Japan International Cooperation Agency (JICA). The entire works will be completed in two phases. In first phase an amount of Rs.927.47 lakh and in second phase Rs.189 lakh has been estimated. For first phase an amount of Rs.371 lakh has been released and an amount of Rs.84 lakh also has been provided from Sate Fund for construction of boundary wall in first phase. The proposed site is just beside the IIT, Kharagpur campus and adjacent to Hijli College. It was inaugurated by Mamata Banerjee, Honourable Chief Minister, Government of West Bengal in February 2016.
- 3. Field accommodation for the use of trainees during their educational tours are located in different places. They are at Sukna, Bamanpokhri, Muhammad Bazar of Birbhum, Hizli (Kharagpur) and Bishnupur (Bankura).

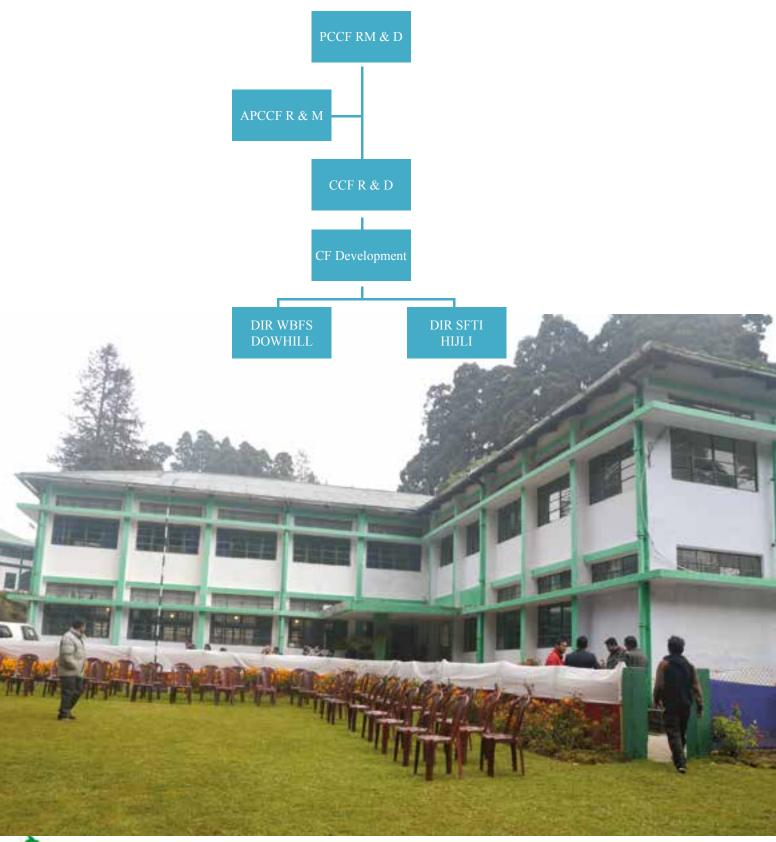








### **Administrative Structure of Development Circle.**



-

# DEVELOPMENT CIRCLE PHYSICAL AND FINANCIAL ACHIEVEMENT DURING 2015-16

No. of trainees
18
36
25
18
FTC 30 Rajabhatkhawa
FTC 30 Rajabhatkhawa
FTC 30 Rajabhatkhawa
37
28
29
22
40
25
16

## West Bengal Forest School Dowhill & FTC Rajabhatkhawa

Sl.No	Name of Course	Duration	tion	Category	Venue	Period	No. of participant
1	2	3		4	5	9	L
		From	То				
1	104th batch DR/Fr. Regular Course	01-06-2015 02-12-2015	02-12-2015	DR/Fr.	WBFSDowhill	6 months	18
2	57th batch FG Regular Course	01-07-2015 01-01-2016	01-01-2016	FG	FTCRajabhatkhawa	6 months	30
3	Arms Training for FG	08-02-2016	13-02-2016	FG	FTCRajabhatkhawa	1 week	30
4	GIS Usages & Photography Training	14-01-2015	14-01-2015	DR/Fr.	WBFSDowhill	1 day	36
5	Community Development	03-11-2015	03-11-2015	WBFPC etc.	WBFSDowhill	1 day	25
9	Short Course on Forest & Wildlife Law	14-12-2015	19-12-2015	FG	WBFSDowhill	1 week	18
7	GIS Training	22-12-2015	23-12-2015	FG	FTCRajabhatkhawa	2 days	30

### State Forest Training Institute, Hijli

Name of Course         Duration         Category         Venue         Period           2         3         4         5         6           From         To         To         5         6           Training for GIS usage and Photograph tagging and storage         06-10-15         06-10-15         Field Staff         SFTI, Hijli         1 day           Community Development under WBFBCP PROJECT         09-10-15         09-10-15         Field Staff         SFTI, Hijli         1 days           Four days refresher Course         24-11-15         27-11-15         Ministerial Staff         SFTI, Hijli         4 days           Four days refresher Course         15-12-15         18-12-15         Field Staff         SFTI, Hijli         4 days           Four days refresher Course         19-01-16         22-01-16         Field Staff         SFTI, Hijli         4 days           Four days refresher Course         19-01-16         22-01-16         Field Staff         SFTI, Hijli         4 days	Venue Period No. of participant	5 6 7		SFTI, Hijli 1 day 37	SFTI, Hijli   1 day   28	SFTI, Hijli   4 days   29	SFTI, Hijli 4 days 22	SFTI, Hijli   4 days   40	SFTI, Hijli 4 days 25	CETI Hiil; A davic 16
Name of Course         Duration           2         3           Training for GIS usage and Photograph tagging and storage         17 From         To           Community Development under WBFBCP PROJECT         09-10-15         09-10-15           Four days refresher Course         17-11-15         20-11-15           Four days refresher Course         24-11-15         27-11-15           Four days refresher Course         15-12-15         18-12-15           Four days refresher Course         19-01-16         22-01-16	Category	4		Field Staff		Ministerial Staff	Ministerial Staff	Field Staff		Field Ctoff
Training for GIS usage and Photograph tagging and storage De-10-15  Community Development under WBFBCP PROJECT 09-10-15  Four days refresher Course 17-11-15  Four days refresher Course 24-11-15  Four days refresher Course 15-12-15  Four days refresher Course 15-12-15	ration	3	To	06-10-15	09-10-15	20-11-15	27-11-15	18-12-15	5 22-01-16	05 02 16
Training for GIS usage and Photograph tagging and storage Community Development under WBFBCP PROJECT Four days refresher Course	Da		From	06-10-15	09-10-15	17-11-15	24-11-15	15-12-15	19-01-16	71 20 00
	Name of Course	2		Training for GIS usage and Photograph tagging and storage	Community Development under WBFBCP PROJECT	Four days refresher Course	Fourth darra motherable			

### Ongoing Trainings during 2016

SI.No	Name of Course	Duration	ıtion	Category	Venue	Period	Period No. of participant
1	2	3		4	5	9	7
		From	To				
1	105th batch DR/Fr. Regular Course	May'2016	Oct'2016	DR/Fr.	WBFSDowhill	6 months	37
2	106th batch DR/Fr. Regular Course	09-08-2016 03-02-2017	03-02-2017	DR/Fr.	SFTI Hijli	6 months	36
3	Special Refresher Course for FG	01-09-2016	30-09-2016	PG	FTCRajabhatkhawa	1 months	50
4	58th batch FG Regular Course	05-09-2016 08-03-2017	08-03-2017	ĐℲ	SFTI Hijli	6 months	42
5	Workshop on FRA	15-09-2016 15-09-2016		DFO,ADFO,RO	SFTI Hijli	1 day	70

### "CAPACITY DEVELOPMENT FOR FOREST MANAGEMENT AND TRAINING OF PERSONNEL" UNDER JICA FUNDED PROJECT UP TO 2015-16 DEVELOPMENT CIRCLE

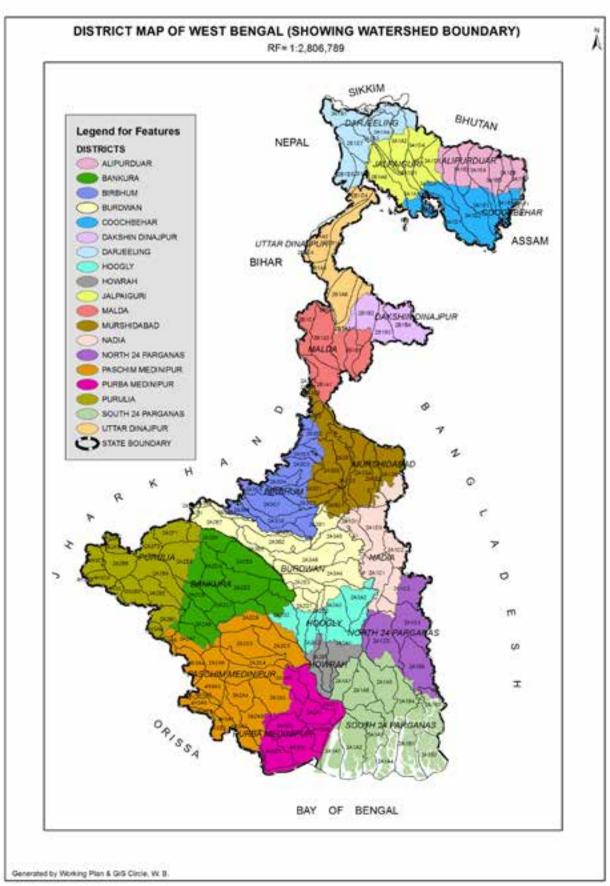
Remarks												
Financial Achievement	(Rs.)	15672103	5616397	7708364	15131386	1197164	00088	1961642	192800	200000	1155987	347640
Financial Target	(Rs.)	15697397	5628013	7708364	15227133	1197164	00088	1971034	1319509	200000	1442092	480697
Particulars of Physical Target		Building A (Renovation) Building A (New Construction)	Building B Building M Building C (NIA Badminton Hall) Building R (Garage)	Building E with Kitchen Building F	Director's Bungalow (Building G) Asstt. Director's Quarter (Building H) Faculty Quarter 2 nos. (Building Na, N2) Faculty Quarter N1 (N1B New) Faculty Quarter 12 (NIC Renovation) Faculty Quarter N2 (2 nos.) Faculty Quarter existing (Building 11) Class III Quarter (Building O) Class IV Quarter Building D (P1 Renovation) Class IV Quarter Building Q) Class IV Quarter (Building Q)	Building L	Soil Test Keport Site Development:- Internal Roads (motorable)	Internal Pathways Storm Water Drain Rain Water Harvesting Provisions Provision for service connection from Rain Water harvesting to Individual Buildings	Distribution pending, Transformer, Generator etc.	Fencing around water storage tank with gates CC Columns MS pipe raining with gate		TOTAL
Items of works		Construction of Building (New construction/Renovation) Academic & Administrative Block	Amenities	Hostel	Staff Quarters	Guest House	Others Site Level Intervention	Drainage	Electrical	Landscaping & Gardening Boundary Wall if required with Gate	Consultation charges of architect	Charges for TPQA
Venue		West Bengal Forest School, Dowhill			·	•		·		·		•
SI. No												

Remarks															
Rem															
Financial Achievement	16378463	1851050	40664857	8254811	67149181	794121	1136863	1986399	3172217	0	20000	63554 280156	2277598	331278	
Financial Target	20276128	2817485	44700507	20468475	6382325	3493100	1136863	3013607	5794142	300000	200000	64299 280554	2345098	895076	
Particulars of Physical Target	Building I (New Construction)	Building II (New Construction)	Building III (New Construction)	Building IV Director's Residence (New Construc.) Building V Faculty Quarter (New Construction) Building VI Class III Quarter (New Construction) Building VII Class IV Quarter (New Construction)	Building VIII (New Construction)	Site Development:- Coarse sand (Murom) roads, path in Phase-I Coarse sand (Murom) roads, Path in Phase-II Interlocking tiles (Phase-II)	Overhead Water Tank Phase-I	Sewerage system External Water Supply System Drains	Distribution Paneling, Transformer, Generator etc. (External Electrification)	Arboretum, Bambusetum, Orchid Garden, Climber Garden Herbal Garden, Cactus Garden, Rose Garden, Water Saving like drip irrigation	Play Ground, Grass Mounds Murals, Tanning Topiary based on forest themes etc.		itect		TOTAL
Items of works	Construction of Building (New construction/Renovation) Academic & Administrative Block	Amenities	Hostel	Staff Quarters	Guest House	Site Level Intervention	Water Supply	External PH works	Electrical	Horticultural Operations	Landscaping & Gardening	Boundary Wall Entrance Gate	Consultation charges of archite	Charges for TPQA	
Venue	State Forest Training In- stitute, Hijli, Kharagpur														
SI. No	-														

	Training C	g Calendar of 2016-17 under Development Circle	2016-	.17 ur	lder D	evelo	pmer	nt Circ	<u>e</u>					
s 8	Activities	Venue/ Institute	Apr,16	Мау,16	June,16	Apr,16 May,16 June,16 July,16 Aug,16 Sept,16 Oct,16 Nov,16 Dec,16 Jan,17 Feb,17 Mar,17	Aug,16	Sept,16	Oct,16	Nov,16	Dec,16	Jan,17	Feb,17	Mar,17
Н	Regular Training(6 months) for Dy Ranger/Forester 105th batch (sponsored).	WBFS Dowhill		6m F	6m F	6m F	6m F	6m F	6m F					
2	Special Refresher Course(1 month) for Deputy Ranger/Forester (Promoted).	WBFS Dowhill									1m F			
ĸ	One week refresher course on Wildlife Management and Bird Watching for Frontline staff.	WBFS Dowhill							1w FLS					
4	Three days workshop on Capacity building in Forestry Sector for Officials other than Forest Officials.	WBFS Dowhill						3 days						
и	Two weeks general refreshers course with special	WRFS Dowhill											2w E1c	
1	Nursery and Computer application for frontline staff.												2	
	Two weeks general refreshers course with special													
9	emphasis on application of modern techniques in GPS,	WBFS Dowhill								FLS				
	Nursery and Computer application for frontline staff.									)				
7	Two days workshop on Yoga and spiritualism for frontline staff	WBFS Dowhill											2 da ys	
∞	Two days workshop on Forest and Wildlife Laws for frontline staff	WBFS Dowhill											2 days	
6	Special Refresher Course(1 month) for Forest Guards (Promoted).	Rajabhatkhawa						1m F						
10	One week refresher course on Forest Protection for grassroot level staff.	Rajabhatkhawa				1w FLS								
11	One week refresher course on Wildlife Management and Bird Watching for Frontline staff.	Rajabhatkhawa							1w FLS					
12	One week Arms Training for frontline staff.	Rajabhatkhawa								1w FLS				
13	One week refresher course on Forest Protection for grassroot level staff.	Sukna					1w FLS							
14	One week refresher course on Wildlife Management and Bird Watching for Fronyline staff.	Sukna					1w FLS							
15	Three days workshop on FRA for frontline staff and other Target Group	Sukna					3 days							

Activities  Activi	Nov,16 Dec,16 Jan,17 Feb,17 Mar,17	2 days		2 days	2 days	6mF 6mF	6m 6m 6m FG FG FG	1W FLS			2w FLS	2w FLS	TLS FLS	2 days	2 days	
Activities         Venue/ Institute         Apr,16 Apr,16 June,16 Apr,16 June,16 Apr,16 June,16 Apr,16 June,16 Apr,16 June,16 Apr,16 June,16 Apr,16 Ap			3 days			6m F			3 da ys	3 da ys						3 days
Activities         Venue/           ays workshop on Yoga and spiritualism for ne staff days workshop on Poga and spiritualism for astaff and ays workshop on FRA for frontline staff and ays workshop on Forest and Wildlife Laws for Madarihat ne staff astaff and Fraining (6 months) for Dy Ranger/Forester SFTI, Hizli ar Training (6 months) for Forest Guard 58th SFTI, Hizli batch.         SFTI, Hizli SFTI, Hizli SFTI, Hizli SFTI, Hizli SFTI, Hizli and Staff and Wildlife Management for ne Staff asis on Forestry and Wildlife Management for ne Staff asis on Forestry and Wildlife Management for ne Staff asis on Forestry and Wildlife Management for ne Staff asis on Forestry and Wildlife Laws for set Arms Training for frontline staff.         SFTI, Hizli SFTI, Hizli SFTI, Hizli SFTI, Hizli ne Staff asis on Forestry and Wildlife Laws for staff asys workshop on Noga and spiritualism for staff asys workshop on FRA for frontline staff and asys workshop on FRA for frontline staff asys workshop on FRA for frontline staff and asys workshop on FRA for frontline staff asys workshop on FRA for frontline staff and asys workshop on FRA for frontline staff asys workshop on FRA for frontline staff and asys workshop on FRA for frontline staff asys workshop on FRA for frontline staff asys workshop on FRA for frontline staff and asys workshop on FRA for frontline staff asys worksho	ay,16 June,16 July,16					6m F										
Two days workshop on Yoga and spiritualism for frontline staff  Three days workshop on FRA for frontline staff and other Target Group  Two days workshop on PRA for frontline staff and other Target Group  Two days workshop on Yoga and spiritualism for frontline staff  Two days workshop on Forest and Wildlife Laws for frontline staff  Regular Training (6 months) for Dy Ranger/Forester 106th batch  One week refresher course on Forest Guard 58th batch  One week refresher course on Forest Protection for grassroot level staff.  Three days workshop on Capacity building in Forestry Sector for Officials other than Forest Officials.  Two weeks general refreshers course with special emphasis on Forestry and Wildlife Management for frontline Staff  One week Arms Training for frontline staff.  Two days workshop on Yoga and spiritualism for frontline staff  Two days workshop on FRA for frontline staff and wher Target Group		Sukna	Madarihat	Madarihat	Madarihat	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	SFTI, Hizli	Bankura
	Activities	Two days workshop on Yoga and spiritualism for frontline staff	Three days workshop on FRA for frontline staff and other Target Group	Two days workshop on Yoga and spiritualism for frontline staff	Two days workshop on Forest and Wildlife Laws for frontline staff	Regular Training(6 months) for Dy Ranger/Forester 106th batch.	Regular Training (6 months) for Forest Guard 58th batch	One week refresher course on Forest Protection for grassroot level staff.	Three days workshop on FRA for frontline staff and other Target Group	Three days workshop on Capacity building in Forestry Sector for Officials other than Forest Officials.	Two weeks general refreshers course with special emphasis on Forestry and Wildlife Management for frontline Staff	Two weeks general refreshers course with special emphasis on Forestry and Wildlife Management for frontline Staff	One week Arms Training for frontline staff.	Two days workshop on Yoga and spiritualism for frontline staff	Two days workshop on Forest and Wildlife Laws for frontline staff	Three days workshop on FRA for frontline staff and













### **SOIL CONSERVATION**

The Soil Conservation (North) Circle, West Bengal, is created vide Department of Forests, West Bengal Memo no 8561/ For – G/4E-14/91 dated the 15th. November 1991 with Head Qr. at Siliguri by carving out from the erstwhile Soil Conservation Circle, West Bengal, Calcutta to exclusively supervise the soil conservation worksdone by the soil conservation divisions of North Bengal. The three districts of North Bengal e.g. Darjeeling, Jalpaiguri, Cooch Behar are being intercepted by almost 20 rivers and other enumerable rivulets that cover a geographical catchments area of approx. 12,726 Km2 of which only 3068 Km2 is under forest cover. These rivers flow through three geographical zones namely,the Hilly Region, the Piedmont Zone and the Active plane .Within this their gradient varies respectively as 1:17 for Neora to 1:1533 for Tista; 1:90 for Sankosh to 1:482 Tista and 1:1833 for Sankosh to 1:4611 for Torsa rest are distributed in between. Except for Tista the other rivers originating from hilly region have steep to very steep fall and consequent high power of erosivity. The details of the Divisions are are summarized as follows:-

Table-A:

Division	Geographical Jurisdiction	Overlapping Forest Juris- diction	HQ	G.O.	
Kurseong	Darjeeling	Darjeeling,Wildlife-I,	V	707-For-dt. 15.2.1965&	
S.C.	&Kurseong Sub- Division,	Kurseong Divisions	Kuseong	3123-For/ 4E –74 dt.23.5.66	
Kalimpong	Kalimpong Sub-	Valimmana Division	Val'	6310- For-dt.9.10.	
S.C.	division	Kalimpong Division	Kalimpong	64	
Jalpaiguri	Dist: Jalpaiguri,	Northern Circle, Cooch Behar Division, Jaldhapara	Jalpaiguri	3002-For- 15-43 /79	
S.C.	Cooch Behar	WL Division,Gorumara WL Division Buxa Tiger Reserve	Jaipaigui	dt.29.6.1981	

The area being part of new fold mountain is geologically unstable. The annual rainfall in the region is one of the highest and is varying in between 3500mm to 5000mm annually. The geological instability, high rainfall and higher intensity of rainfall, porous sandy loam soil and steep slopes all play great role in accelerating erosion and meting consequent damage to land, life and property both public and private almost every year. Hence, need regular treatment through different kind of physical intervention both structural and vegetative for restoration. The task being gigantic in size always damage is for greater than restoration for want of matching fund for the purpose.

Natural Resource Management (Land, Water, Vegetations) on Watershed pattern is basic approach of Circle by keeping in view the socio economic needs of the dependent community on a sustainable manner. This accounts for all factors and forces that come into play and interact with each other within the hydrological unit of consideration and the same are thought to be covered by:

### **Objectives:**

- Multidisciplinary integrated approach to prevent land degradation
- Improvement of land capability and moisture regime
- Promotion of land use to match land capability
- Prevention of Soil loss to reduce siltation down below
- People' involvement
- Up gradation of skills in planning and execution

### **Priority:**

- · Biodiversity as guiding principle
- Soil and Water Conservation by creating small structures with vegetative support
- Afforestation, growing grass and shrubs
- People's involvement to secure best land use
- Clear administrative and institutional mechanism for execution, direction and control

### **Strategy:**

- Project approach
- Integration of sect oral measures
- Proper choice of work area and projectisation for consolidating treatment efforts
- Emphasis on sustainability
- Vegetative thrust
- People's involvement, planning and execution
- To sustain the benefit of treatment through institutional and operational mechanism
- Promotion of skills of fringe dwellers and field functionaries through appropriate institutional linkage
- Effective administrative measures for direction, control and coordination

Soil Conservation (North) Circle has performed all the forestry activities in different forest area like raising plantation, constructing vegetative as well as engineering structures, implementing projects like IWMP,RIDF,RKVY.etc. All Central Nurseries under this circle are well stocked with healthy seedlings for future afforestation programme. Two SMS at MongmongKhola&PeshokeKhola provides the data for sediment loss and runoff potential that helps us to know as to what extent the soil conservation works undertaken by this Circle has become effective. As the project is complete at PeshokeKhola the SMS station has been discontinued. This Circle can really boast of possessing unique Bio-diversity Conservation Plots at Ghoom-Bhanjang in Darjeeling, Rashikbill in Cooch Behar, Khunia in Jalpaiguri and Delo in Kalimpong which have rich collection of rare medicinal herbs, shrubs and orchids of eastern Himalayas. It is helping in conservaing the rare and endangered plant species both in situ & ex situ. The Germ Plot at Rimbick has 18 different species of Rhododendron and constant efforts are being made to add few more new species.

### **Plantations** Activites

The Soil Conservation North Circle has raised plantations through the three divisions under it's control since 1992 in different erosion prone and edaphically challenged sites in forests areas of North Bengal. The divisionswise details of plantations raised during the year (2015-16)s given below:

Scheme	Kurseong SC Divn	Kalimpong SC Divn	Jalpauguri SC Divn	Total
2402-S&WC-00-789-TASP-SP(AP 10th /12th Plan)-002-PAEC on landslide, slip, stream bank in For.Area-87-Reng.	-	-	-	-
2402-S&WC-102-SC-SP(AP 10th/11th Plan)-003-Eco.Cons.of Sensitive Zone-87-Regn.	-	-	-	-
2551-HA-60-OHA-101-DHA-SP(AP& 10th /11th Plan)-028-S & WC Protective Afforestation-50 Other Charges	-	10 Ha.	-	10 Ha.
2406-F&WL-01-F-789-SCP-SP (AP-11th Plan)-001-Economic Plantation (FR)-87 Regeneration	55 Ha.	-	145 Ha.	200 Ha.
Total:	55 Ha.	10 Ha.	145 Ha.	210 Ha.



# Summarised details of Plantations raised& maintained by different divisions of Circle during 2015-16:

Division	Adv.work during 2015-16	Creation of 2015-16 Pltns.	Maint.of 1st yrs. Pltn. (2014-15)	Maint.of 2nd yrs.Pltn. (2013-14)	Maint.of 3rd yrs.Pltn. (2012-13)	Total Area (Ha)
KurseongS.C.Divn	15 Ha	55 Ha.	55 Ha.	155 Ha.	155 Ha.	435
KalimpongS.C.Divn	10 Ha.	10 Ha.	10 Ha.	145 Ha.	145 Ha.	320
Jalpairugi S.C. Divn	95 Ha.	145 Ha.	145 Ha.	210 Ha.	194.2 Ha.	789.2
Total in Ha	120 Ha	210На	210 Ha	510 Ha	494.2 Ha	1544.2 Ha

# **Nurseries**

Nurseries maintained by different divisions of the circle for the year 2015-2016 are listed below. These seedlings were raised with purpose to create plantations under State Plan, to infill older plantations, to keep some of the seedlings for the next year and also to distribute during **Van Mahotsav**.

Divisions	No of Sites	No of Seedlings
KurseongS.C.Division	04	400000
KalimpongS.C.Division	04	200000
Jalpaiguri S.C. Division	05(field nurseries)	233750
Total	13	833750



**Ghoomtee Central Nursery** 

# Physical Performance:Summarised details of Structural works during 2015-16 under State Plan & RKVY Scheme

Nature of Work	Kurseong S.C.Divn	Kalimpong S.C.Divn	JalpaiguriS.C.Divn
Boulder Sausage(m3)	60 m3	60 m3	-
River Training Work(Boulder Sausages)	80 m3	100 m3	100 m3
Construction of BAN BHAWAN	1	-	-
C.W. Drain (mt)	0.762 Km.	1 Km.	-
Gully Plugging(m3)/Rock check dam (m3)	300 m3	218.18 m3	200 m3
Construction of Irregation Channel	-	-	1500 Mt.

# Expenditure during the year 2015-2016 (Detailed Head of Service - wise)

Case A-Accounts submitted to Accounts General, West Bengal (excluding Civil Deposits.)

Head of Service Non Plan	Sanction Grant	Expenditure (in lakhs)	Revenue
0406-01-800-Rev.& Rt.			12768.00
2551	107000	106829	
2406	69742106	65638887	
2402	27325220	31187942	
Total Non Plan:	97174326.00	96933658.00	
2406	18828800.00	18828800.00	
2402	197800.00	197800.00	
2551	2215000.00	2215000.00	
2401-RKVY	4400000.00	4400000.00	
4406-RIDF -XIX	1931520.00	1931520.00	
Total State Plan :	27573120.00	27573120.00	
Grand Total:	124747446.00	124506778.00	

Physical & Financial Target & Achievement Under Wbsfda(Rkvy) During The Year2015-2016

Sl.	Particulars of work	Target		Achievement	
No.	rarticulars of work	Physical	Financial	Physical	Financial
01.	Gully Plugging	718.18 m3	1646000.00	718.18 m3	1646000.00
02.	Boulder Sausage wall	280 m3	1176000.00	280 m3	1176000.00
03.	Construction of Irregation Channel	1500 mt.	1327500.00	1500 mt.	1327500.00
	Total		4149500.00		4149500.00





# INTREGRATED WATERSHED MANAGEMENT PROGRAMME (IWMP)

The participatory watershed management for conserving rain water and other valuable natural resources is quite promising for potential use of these untapped & under tapped resources to bring about changes in agricultural prodiuction and to improve rural livelihood in the rainfed ecosystem. To bring all the watershed in to a single umbrella, the National Rainfed Area authority (NRAA) under the aegis of Planning Commission of India developed "Common Guidelines for Watershed Development Projects" in the year 2008 (which has been revised during 2011) and various schemes related to watersheds have been in operation at different points of time which have now been brought under the single umbrella of Integrated Watershed Management Programme (IWMP).

The West Bengal State Watershed Development Agency (WBSWDA), an independent agency constituted under the Society Registration Act, 1961 by the Department of Agriculture, Government of West Bengal, is engaged for implementation of the Integrated Watershed Management Programme (IWMP) sponsored by DoLR, MORD, GOI and Government of West Bengal in the State.

Main objective of watershed development programme:

- (i) Conservation, development and sustainable management of natural resources (arable &nonarable lands, water, animals, vegetation and social) including their use.
- (ii) Enhancement of agricultural productivity and production in a sustainable manner.
- (iii) Restoration of ecological balance in the degraded and fragile rainfed ecosystem.
- (iv) High water use efficiency.
- (v) Livestock, Pisciculture, other household production / development.
- (vi) Development / conversion of waste land.
- (vii) Reduction in regional disparity between irrigated and rainfed areas.
- (vii) Creation of sustained employment oppurtunities for the rural community including the landless.

Funding pattern under IWMP: The Department of Land Resources, MORD, GOI is the funding agency for implementation of IWMP in India and the funding patterns involves cost sharing between the Central and State Gevernments on a 90: 10 ratio.

Institutional set up under Watershed Development Projects :The Agriculture Department has been identified as the nodal Department of the project, the various institution that are required to be in place for the IWMP are: State level- WBSWDA, District level- WCDC, Project level – PIA, Watershed level- WDT and Microwatershed level- WC.

Detailed Project Report :RS-GIS, Kolkota, will help in preparation of DPRs of Micro-watersheds under the Soil Conservation (N) Circle. The process of DPR is going on.

Preparatory Phase: 6% of total Project cost was released for the implementation of Preparatory phase, of which is for Entry Point Activities, 1% is for praparation of DPR and 0.5% is for Administrative cost and 0.5% is for Institution & CapacityBuilding.

# LIST OF WATERSHED PROJECTS

Sl. No.	Division	District	Name of Watershed	No of MWS	Area to be Treated (Ha)	Project Cost (Rs. Lakh)	
1	Kalimpong S.C. Divn	Darjeeling	Tashiding	4	4400	675	
	Kurseong		Sittong	5	5000	750	
2	2 S.C .Divn	Darjeeling	Latpancher	4	4100	660	
			GhoomPahar	4	4500	615	
		Coochbehar	Patlakhawa	6	5000	600	
		Cootiotim	& Putimari	Ů	2000	000	
			Hollong	4	4400	528	
3	JalpaiguriS.		Gadadhar-II	4	4500	540	
)	C.Divn	Iolmojovni	Chapramari	4	4200	504	
		Jalpaiguri	Buribesra	5	4500	540	
			Mantadari	5	4400	528	
			Moraghat	5	4500	540	

Project period is for 5 years out of which 1st year is preparatory 2nd to 4th year Watershed work phase and 5th year is consideration and withdrawal phase.

# Implementation of Integrated Watershed Management Project under Soil Conservation (North) Circle during 2015-16

Name of Division	Name of District	Opening Balance	Allotment During the Year 2015-16	Expenditure Up to March 2016	Balance	Remarks
Kurseong S.C.		11374500	00	6535024	4839476	
Kalimpong S.C.	Darjeeling	2666801	2005920	2042564	2630157	
	Jalpaiguri	15480400	12000000	5021500	22458900	
Jalpaiguri S.C.	Coochbehar	730000	2000000	691700	2038300	
	TOTAL:	30251701	16005920	14290788	31966833	



Gully plugging at Paingoan -9 under Relli Catchment Range (RKVY)





# BIODIVERSITY CONSERVATION PARK

An Arboratumcum Biodiversity plotand a Shrubbery were created in the year 1994 in Ghoom-3 and Bhanjyang-5 and maintained. Attempts were made to include rare and endangered species and high altituderange (1500 mt. to 4000 mt). During the year under report above plots were redesigned and renamed as Biodiversity Park.

# **BASIC AIMS & OBJECTIVES:**

- 1. Ex-Situ Genepool Conservation and Research for Endangered, Vulnerable, Rare & indigenous floral Diversity of Darjeeling. Including Eastern Himalayan Wildrare Medicinal Plants .
- 2. Propagation of Planting Material.
- 3. Soil and moisture conservation demonstration for public awareness
- 4. Eco-Tourism for environmentaly conscious tourists of Darjeeling.
- 5. Taxonomic awareness for school kids and college students.

# Biodiversity Parks maintained are as follows:

Sl. No.	Name of Division	Location with Block	Area in Ha.
1.	Kurseong S.C. Divn.	ng S.C. Divn. GhoomBhanjanunderBhanjan Block	
2.	Kalimpong S.C. Divn.	Dello	2.14 Ha.
2	Iolnoiquei S.C. Dive	Khuniaunder Panjhora-6 Block	1.25 Ha.
3.	Jalpaiguri S.C. Divn.	Rasik Bill	1.0 Ha.









**Orchid House** 

Boulder Sausage Work on Torsa River -45 mtr. at PutimariBoxirbus under Mansai Catchment Range





# WEST BENGAL FOREST DEVELOPMENT CORPORATION LTD

# A. Objectives:

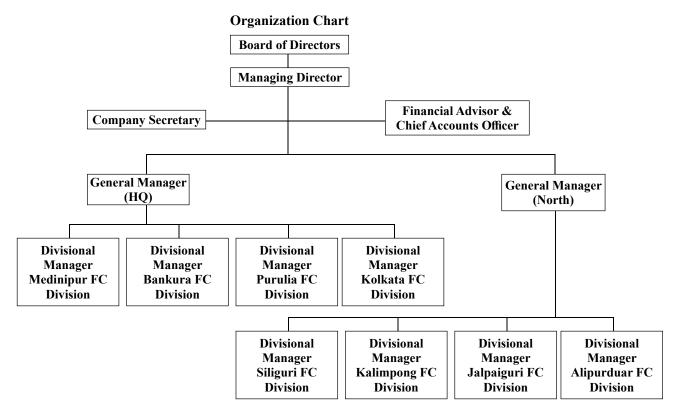
West Bengal Forest Development Corporation Limited (WBFDCL) came into existence in 1974. The Corporation was incorporated on 19<sup>th</sup> July, 1974 under the Companies Act, 1956.

# **Board Objectives of the Corporation are as follow:**

- To help conserve fragile ecosystem of the areas it operates in Darjeeling Himalayas.
- To promote Joint Forest Management (JFM) with people's participation in South Bengal and North Bengal.
- To provide forest produce, such as timber, firewood, poles, small timber etc., to the market.
- To provide non-timber forest produce and value-added forest products at reasonable prices.
- To develop awareness for conservation of nature through eco-tourism.
- To help develop and promote wood-based industries.
- To generate rural employment through forestry, eco-tourism and related activities.

# **B.** Organization Structure:

The WBFDCL is managed under the supervision and Control of the Board of Directors appointed by the Governor of West Bengal. A detail organization structure is given below.



#### C. Board of Directors:

During the year 2015-16 the Board of Directors of WBFDCL was constituted with the following directors

- 1. Sh.Rabindranath Ghosh Chairman &MLA
- 2. Sh. Chandan Sinha, IAS, Principal Secretary, department of Forest
- 3. Sh.Srikanata Mahata- Hon'ble MLA
- 4. Sh.Dipankar Dasgupta-Member of PSC
- 5. Sh.Dulal Murmu- Hon'ble MLA
- 6. Sh.Anil Adhikari- Hon'ble MLA
- 7. Sh. Joachim Baxla-Ex MP
- 8. Dr. Tejinder Singh Additional PCCF (Central)
- 9. Sh. Azam Zaidi- Ex-PCCF (HOFF)
- 10. Sh. Rakesh Sinha, IFS Managing Director (Up to 31/07/2015)
- 11. Sh. Pradeep Shukla, IFS-- Managing Director (from 31/07/2015 to 27/08/2015)
- 12.Sh. Subrat Dhaundyal, IFS Managing Director (since 27/08/2015)

# D. Major Activities:

# i) Territorial Functions

The Total management of Kalimpong Division has been given on lease to WBFDCL since 2.11.1974, which is the largest territorial Division in North Bengal. The ambit of WBFDCL in this Division encompasses all territorial functions, protection of forest and wildlife and administration of forest villages and Forest Protection Committees.

# ii) Harvesting & Sale of Timber in North Bengal

The North Bengal project was initiated as joint venture between WBFDCL and Forest Directorate during 2003-04 for a period of 10 years. After the expiry of the said ten years the project was extended on year to year basis by the department of Forest, the Govt of West Bengal. The WBFDCL arranges for harvesting of timber and firewood operation in North Bengal forests and its disposals through auctions and tenders and the revenue is deposited with the Forest Directorate after deducting the share of this Corporation towards recovery of Administrative and Financial Charges and share of the Forest Protection Committees. WBFDCL gets 17% of the net sale proceeds as the Recovery of Administration and Financial Charge. The Alipurduar Forest Corporation Division, Siliguri Forest Corporation Division and Jalpaiguri Forest Corporation Divisions are working for this project. The activities earned revenue of Rs.1306.58 Lakhs (UNAUDITED) during 2015-16.

# iii) Harvesting and Sale of Timber in South Bengal

At present WBFDCL is undertaking harvesting and Marketing of Timber on behalf of the Forest Directorate. The revenue is deposited with the Forest Directorate after deducting the share of this Corporation towards recovery of Administrative and Financial Charges and the share of the Forest Protection Committees. West Bengal Forest Development Corporation Limited gets 20% of the net sale produce as the said Administrative and Financial Charges. The Medinipur Forest Corporation Division, Bankura Forest Corporation Division and Purulia Forest Corporation Division are working for harvesting of the matured Sal crop & plantations in South West Bengal. During the year 2015-16 total revenue earned from the said activity was Rs 2002.77 Lakhs (UNAUDITED)



# iv) Eco-tourism:

WBFDCL is maintaining Eco-Resorts at the different places of West Bengal. At present the Eco-Resorts at Barodabari, Bodaganj, Garchumuk, Garhpanchokot, Gorubathan, Kalimpong, Jhargram, Lava, Lepchajagat, Loleygaon, Mongpong, Mukutmonipur, Paren, Murti, Rashikbeel, Buxa –Jungle Lodge, Suntaleykhola are functioning. The online booking facility for the aforesaid Eco-resorts is also extended to tourists through the E-payment Gateway system of this Corporation. This Corporation is also undertaking the internet booking of the Eco-resorts owned by the different private parties in order to augment its income. The gross revenue earned from the Eco-resorts for the year 2015-16 stood at Rs 390.88 Lakhs (UNAUDITED)

# v) Joinery & Carpentry Products:

WBFDCL runs five Joinery and Carpentry Units at Madarihat, Siliguri, Rajgang, Salt Lake and Durgapur and supplies its products to various prestigious organizations including Yava Bharati Krirangan (Saltlake), Bhawan, Aliah University, National Institute of Bio-Medical Genomics, Haj House, National Institute of Jute Textile at CGO Complex (Govt. of India), Alipore Civil Court, Paschim Banga Agri-Marketing Corporation (Govt. of West Bengal) Ltd, Newly Constructed Diamond Harbour and Kakdwip Court, English Medium Madrasa at Jibantala, Lalababa College at Howrah, Circuit House South 24 Parganas, Bengal Brick Field Owners Association etc. The total revenue from these units was Rs. 540.92 lakh (UNAUDITED) for the year 2015-16.

# vi) Saw Mills & sale of Sawn Timber:

WBFDCL runs 4 Saw mills at Siliguri (Govt Saw Mills), Salugara, Bhuttabari, and Madarihat. Sawn timber is sold to public through different sale centers located at Siliguri, Raiganj, Salt Lake, Durgapur, Midnapur, Purulia, Darjeeling, Kalimpong, Kurseong and Bhuttabari.WBFDCL also sells sawn timber through authorized dealers located in different parts of the state. The gross revenue earned through sales of sawn timber during 2015-16 was Rs. 164.80 Lakh (UNAUDITED).

# vii) Honey Operation:

The Corporation procures honey through the members of Joint Forest Forest Management Committees (JFMCs) under Sunderbans Tiger Reserve & 24 Parganas (S) Division and sells after refinement under the brand name MOUBAN. The total revenue earned during 2015-16 was Rs.87.54 Lakh (UNAUDITED).

# viii) Non-Timber Forest Produce & Medicinal Plants:

The functional control of Non-Timber Forest Produce Division of the Forest Directorate was placed under this Corporation. **WBFDC** Ltd. processes and markets about 30 products through NTFP Division, Siliguri under the brand name **Banaja**. The products include herbal medicines like *Churnas* of *Triphala*, *Amla*, *Ashwagandha*, *Bel*, *Kalmegh*, *Chirata* etc., Herbal cosmetics-Garden Fresh Face pack (neem based), Ayurvedic Hair Shampoo, Amla based hair pack; Ayurvedic tea—Arjuna tea & Tulsi tea; Spices—Turmeric and Ginger powder; Toiletries-Citronella based phenyl, Ginger powder handwash, incense sticks besides Citronella oil and honey. WBFDC Ltd has been utilizing processing plant at Taipoo for processing and manufacture of these products. All these products have a very good demand in market and production is hardly sufficient to meet the market requirement. The plant belongs to NTFP division of Forest Directorate but almost all activities relating to works for processing of different medicinal, aromatic and toiletry products are financed by WBFDC Ltd. The revenue from the said activity was Rs 51.63 Lakhs(UNAUDITED). for the year 2015-16.

# ix) Greening of Waste Lands in South West Bengal:

West Bengal Forest Development Corporation Ltd (WBFDCL) has initiated a programme for plantation of Eucalyptus clones on private waste lands in the rural areas of Medinipur, Purulia and Bankura districts in South Bengal with a view to improve the socio economic condition of weaker section of the Society. This activity aims to help the poor land owners who are presently unable to get any benefit from their unused land and

simultaneously improve the earnings of the Corporation. The entire investment for plantation and harvesting will be borne by the Corporation and the revenue of the produce or Crop will be shared by the Corporation and the Individual land owners in the ratio of 3:1. During 2015-16, an area 1375 Ha was planted under this scheme

# x) Darjeeling-Rangit Valley Ropeway:

The Ropeway which was reopened for public on 2.2.2012 in collaboration with a private partner viz, M/s Conveyer & Ropeways Services Private Ltd has been continuing its public service as a source of pleasure & amusement at the Darjeeling District. The revenue earned during 2015-16 has been Rs.31.57 Lakhs (UNAUDITED).

# xi) Financial results

The summary of working result of your Corporation for the year 2015-16 as compared to the earlier year was as follows:

		Current year 2015-16	Previous year 2014-15
	REVENUE FROM OPERATION		
	Sale of Goods	1429.45	1400.66
	Other Operating Income	3746.08	4066.80
I	TOTAL REVENUE FROM OPERATION	5175.53	5467.46
II	OTHER INCOME	4436.37	1173.59
III	TOTAL REVENUE (I+II)	9611.90	6641.05
IV	TOTAL EXPENSES	4940.35	4445.77
V	PROFIT BEFORE EXTRAORDINARY ITEMS AND TAX (III-IV)	4671.55	2195.28
VI	PROFIT BEFORE TAX	4671.55	2195.28
VII	TAX	1688.99	705.88
VIII	PROFIT FOR THE YEAR	2982.56	1489.40







# WEST BENGAL PULPWOOD DEVELOPMENT COR-PORATION LIMITED

# 1. **OBJECTIVE**:

The West Bengal Pulpwood Development Corporation Ltd. was set up as a joint venture between West Bengal Forest Development Corporation Ltd. and The Titaghur Paper Mills Company Ltd.to ensure supply of Raw materials for the manufacture of paper, by envisaging a creation of about 24,000 hectares of plantation of bamboo and Pulpwood Species for this purpose.

# 2. ORGANIZATION DETAILS:

The Authorized Share Capital of the Company is Rs.3,00,000 (Rupees Three Crores) divided into 3,00,000 Equity Shares of Rs.100/- each with the power to increase and reduce the Capital of the Company and to divide the shares into Capital for the time being into several classes and to attach thereto respectively such Preferential, Qualified or Special Rights privileges or conditions as may be determined by or in accordance with the regulations of the Company and vary, modify or abrogate any such rights, privileges or conditions in such manner as may be permitted by the Companies Act. 1956 (1956) and provided by the Articles of Association of the Company for the time being.

# 3. BOARD OF DIRECTORS:

- (i) Shri Hiten Burman, Chairman
- (ii) Shri DebasishGoswami, Vice-Chairman
- (iii) Shri Narendra Kumar Pandey, IFS, Managing Director.
- (iv) Shri N.V.Rajashekhar, IFS, Director
- (v) Shri Vinod Kumar Yadav, IFS, Director
- (vi) Shri Rajesh Kumar, IFS, Director

# 4. MAJOR ACTIVITY

- (a) To promote farming and development of all categories of bamboo, wood, grasses and other vegetative crop on lands obtained for management from the Government, body corporate, any individual or acquired by purchase, leasetransfer agreement or otherwise in West Bengal or any other States within the territory of India to increase the availability of raw materials for the manufacture for Paper and Paper products.
- (b) During 2015-16 plantation harvested 109.8hectares and plantation raised 85.75hectares.

# 5. SHEDULE OF BOARD MEETING HELD

Board Meeting held during 2015-2016 - Board of Directors meeting of 2015-16 was held on 26.06.2015, 31.08.2015, 18.12.2015, & 30.03.2016.

# 6. FINANCIAL RESURLT:

Total Revenue : Rs. 1,40,58,932.00 Less: Total Expenses : Rs. 1,18,43,087.00

Profit during 2015-16 : Rs. 22,15,845.00

Less: Tax : Rs. 8,81,638.00

Profit during 2015-16. : Rs. 13,24,207.00

7. **PROFIT & LOSS** : As stated above under item No.6

# IVEST BENGAL TOREST DEVELOPMENT CORPORATION LIMITED (A Severament of West Bengal Undertaking)

	HERT AS AT 314	Asst []	As at
Particulars	Note	21st Merch, 2015	31st March, 2015
EQUITY AND HABILITIES	The second		
Shareholders' Funds			16
Shere Capital	2	62,275,200	62,275,20
Heserves and Surplus	3	1,070,807,189	773,304,58
	4	1,133,002,309	835,679,78
Current Liabilities			
Trade Payables	4 4	57,691,535	772,735,74
Other Current Mabilities	5	765,612,496	231,839,13
Short Term Provisions	6	105,209,519	2,565,66
		924,513,550	1,007,140,52
TOTAL.		2,961,595,929	1,842,720,31
TO IAM	1	2,041,320,747	aparago a spare
ASSETS			
Non-Current Assais		11	
Fixed Anaets	D 550 3		
Yangible Assets	7	120,283,392	125,711,48
Intangible assets	7	\$0,693	90,60
Capital work-to-progress	7	17,800,511	8,609,177
Hon Current townshounts	8	1,000,000	5,100,00
Referred Tax Assets(Net)	9	4,737,317	1,827,61
Long Term Leans and Advances	10	330,675,042	103,662,78
Other Non-Current Assets	- 11	1,150,067	1,211,30
	1	489,697,012	326,211,87
Current Assets	1	1 man 14	
lovestories	1 12	237,360,628	125,638,35
Trado Servivables	13	13,170,374	20,718,40
Cash and Bank Balances	14	1,282,489,776	1,332,655,91
Short Term Loans and Advances	15	10,895,189	3,398,51
Other Current Assets	16	27,974,063	33,897,24
		1,571,098,927	1,516,508,438
TOTAL		2.061,895,939	1,812,720,310
Notes on Financial Statements	1 to 27	Annual Care and the collection of the collection	
as per our Report of even date Attached		For and o	a behalf of the Board
for and on behalf of	51	3 hallenhaysa	Carall
Doshi Chattorien Bagri & Co LLE		ay Bhattacharya	Alit Kumar Mallick
	the second second	ipany Secretary	Fingaciál Advisor &
Chartered Accountant		than serious	Chief Accounts Officer
Firm's Registration No. 325 1974/E30002			La I
( ) ( )	Marie M	walled !	HC
(Chandi Proxid Bagchi)		erat Dhaundyat	Pragnep Shukta
Partner (S ( x	utials   5 Bins	laging Director	Director
Memberahlp No.52626	131		
	MARCO		
Kolkata	6.1 BL C C 2		





# WEST BENGAL WASTELAND DEVELOPMENT CORPORATION LTD.

The West Bengal Wasteland Development Corporation Ltd. (A Govt. of West Bengal undertaking) has been incorporated in 1989 with the main objectives to develop wastelands in the project area through appropriate technology and financial support for productive use. Within this framework the pertinent part would consist of treatment of wasteland through raising variety of plantations to meet economic as well as environmental needs. The plantations to be raised in wasteland would not only ensure easy availability of firewood, timber, fodder, bamboo, fruits and host of associated forest product but also help in improvement of soil and moisture regime, the two basic physical inputs for increasing land productivity. Other objectives of West Bengal Wasteland Development Corporation Ltd. are:-

- To expeditiously develop wasteland by raising plantation.
- To plant, re-plant, afforest and re-afforest in such wasteland.
- To support and promote tree planting activities on private lands in order to help in meeting domestic as well as raw materials needs for a host of industries both cottage and small scale as well as medium and large scale industries and also improve environmental scenario in addition.
- The Share Capital of the company is Rs.10,00,00,000/- divided into 10,00,000 Equity Shares of Rs.100/- each with rights, privilege and conditions attaching thereto as provided by the regulations of the company for time being, with power to increase and reduce the capital of the company and to divide the shares in the capital for the time being, into different classes.

The company is run by a **Board of Directors**. They are –

1.	Dr.KalyanRudra	•••	Chairperson.
2.	Shri Partha Roy Chowdhury		Vice Chairman.
3.	Shri Chandan Sinha, IAS		Director.
4.	Shri Pradeep Shukla, IFS		Director.
5.	Shri Narendra Kr. Pandey, IFS	•••	Director.
_	01 1 0 1 D1 1 1 TF0		<b>.</b>

6. Shri SubratDhaundyal, IFS ... Director.

7. Shri Pradeep Vys, IFS ... Director.

8. Shri Raju Das, IFS ... Managing Director.

The following activities have been carried out during the year 2015-16:-

# (A) Harvesting and disposal of roadside trees from National Highways and State Highways:-

Government of West Bengal vide their Notification No.585(2)-FOR dated 20.03.2012 declared MD, West Bengal Wasteland Development Corporation Ltd. as designated agency for harvesting and disposal of all roadside trees from National Highways within the jurisdiction of West Bengal. Accordingly, following sections of roads in National Highways have been taken up and works are almost completed:-

- (i) Harvesting and disposal of roadside trees from NH-34 and NH-2.
- (ii) Harvesting and disposal of roadside trees from State Highways in Uttar and DakshinDinajpur districts.
- (iii) Raised compulsory plantation against harvesting over an area of 60 ha.



# (B) Eastern Coalfields Ltd.:-

The Eastern Coalfields Ltd. authority approached the WBWDCL to take up plantations on the Over Burdened Dump areas of the worked out collieries in the district of Burdwan and Bankura. Accordingly, WBWDCL has taken up plantations from 2011-12. During 2015-16 WBWDC Ltd. raised 100 ha. plantation on the Over Burdened Dump areas of the worked out collieries in addition to maintenance of all plantations raised during last four years.







# (C) <u>Damodar Valley Corporation</u>:

The landscaping, beautification and afforestation works in the thermal projects at Durgapur Steel Plants, Thermal Power Station at Andal (DSTPS), on ash ponds and lower catchment areas at Mejhia Thermal Power Station (MTPS), at Mejhia, Raghunathpur Thermal Power Station at Raghunathpur, Purulia (RTPS) and the PanchetHydal Project at Panchet, Purulia under the DVC organisation have been entrusted with this Corporation and the creation and maintenance works are continued during 2015-16 with full satisfaction of the DVC authorities.

# (D) **<u>WB HIDCO</u>**:-

The West Bengal Housing Infrastructure Development Corporation (WB HIDCO) has entrusted WBWDCL to take up landscaping and beautification works along with raising plantations of bamboo and grass in New Town, Rajarhat areas on their land. WBWDCL has maintained all works raised by WBWDCL during previous years and in addition created a Tall Tree Nursery on the land provided by WB HIDCO on a contract of sharing of profits for a tenure of 10 years during the year 2015-16.

Construction of one Bird Aviary on WB HIDCO land has been taken up during the year 2015-16 and the work is in progress.

One Deer Rehabilitation Centre has also been constructed and commissioned by WBWDCL on WB HIDCO land during the year 2015-16 by translocation of deer from Taratala under the instruction of Central Zoo Authority and West Bengal State Zoo Authority. The park is being maintained by WBWDC Ltd.

# (E) IT Parks of WEBEL:

During 2015-16 eight number of IT Parks in Phase-II have been created in different locations namely, Durgapur, Barjora, Purulia, Bolpur, Kharagpur, Asansol, Siliguri and Rajarhat. Reconditioning of landscaping and beautification of two IT Parks in Durgapur and Siliguriraised in Phase-I have also been done during the year 2015-16.





# (F) Parks & Gardens of Govt. of West Bengal:

Regular maintenance of parks and gardens in all districts of West Bengal are placed with the WBWBDCLtd. by Govt. of West Bengal vide G.O.No. 697-FOR/FR/11M-44/12, dated 28.03.2012. Some of the famous parks thus maintained are – Banabitan at Salt Lake, Eden Gardens, ParimalKanan, Subhas Udyan at Purulia, Teesta Udyan, Mal Park, M.N. Roy Park. Different developmental activities have been taken up in the existing parks to attract visitors on sustained basis.





# (G) Landscaping and beautification works at International Check Post, Petrapole:-

Indo-Bangladesh Border Check Post at Petrpolehas been taken up by WBWDC Ltd. during the year for landscaping and beautification works in the Cargo Campus funded by Land Port Authority of India. Works have been completed satisfactorily before inauguration of the campus by Ministry of Home Affairs, Govt. of India.









# (H) <u>Integrated development of wasteland and associated activities for sustainable livelihood in</u> <u>JungalMahalunder Garbeta-2 Block in PaschimMedinipur District:</u>

PaschimanchalUnnayanParishad West Bengal has handed over an area of 55.00 ha. of wasteland for integrated development and sustainable livelihood of 640 families of two villages in due course. Community development Projects have been formulated and implemented (about 60%) during 2015-16. It may be adjudged as a model for integrated development of wasteland with the help of beneficiaries in Jungle Mahal.





# (I) Compulsory plantation against felling of trees for Mahakaran and Esplanade Metro Stations:-

Kolkata Metro Rail Corporation Ltd. has entrusted WBWDC Ltd. to take up compensatory afforestation in Eastern Metropolitan Bye-pass, Kolkata against felling of the trees undertaken by them for construction of Mahakaran and Esplanade Metro Railway Stations. They have approved the estimates submitted by WBWDC Ltd. and released advance fund. Works have been initiated accordingly for creation of plantations during 2016-17.



# (J) West Bengal Eco Tourism Advisory Board:

The West Bengal Eco Tourism Advisory Board (WBETAB) utilized the infrastructure of WBWDC Ltd. for its functioning and day to day activities. Number of meetings have been conducted by Chief Executive Officer, WBETAB during 2015-16.





# WEST BENGAL FOREST & BIODIVERSITY CONSERVATION PROJECT

# **Objective:**

Based on the Exchange of Notes between the Government of Japan and Government of India (GOI), Japan International Cooperation Agency (JICA) has extended a loan to implement the "West Bengal Forest and Biodiversity Conservation Project".

The Govt. of West Bengal vide its Resolution No. 1450-For/FR/O/G/6M-12/12, dated 28.06.2012, declared to form a Society under the name and style of, the West Bengal Forest & Biodiversity Conservation Society, under the administrative control of the West Bengal in the Department of Forests for smooth implementation of WBFBC Project.

The objectives of the Society are:

- a) To improve Forest eco-system and to conserve biodiversity by undertaking afforestation, regeneration and wildlife management activities through Joint Venture Management approach, including institutional capacity development, thereby contributing to environmental conservation and harmonious socioeconomic development of West Bengal.
- b) To strengthen the Joint Forest Management, to arrest land degradation and also to enhance the capacity of local people for higher income generation and thereby improving the livelihood of forest dwellers and other forest dependent communities.
- c) To adapt an integrated approach for forest and biodiversity conservation.
- d) To adapt an integrated approach to implement the objectives noted at a, b & c above.
- e) To highlight the necessity of the Institutional Capacity Development of the West Bengal Forest Development and of the Community Development Component in the Forest Sector of the State of West Bengal.

# **Organization Details:**

WBFBC Society → Governing Body → PMU → DMU → FMU

According to the Rules & Regulations and Bye-laws of the Society, overall responsibility lies on a Governing Body in which senior officials of the Government of West Bengal are ex-officio members as shown below

The members of the Governing Body of the Society and their designation are as follows in Table 1:

# Table 1

Sl. No.	Name	Designation
(i)	Addl. Chief Secretary / Principal Secretary to Govt. of West Bengal, Department of Forests	Chairperson
(ii)	Principal Chief Conservator of Forests, Head of Forest Force, West Bengal	Member
(iii)	Principal Chief Conservator of Forests, Wildlife and Chief Wildlife Warden, West Bengal	Member
(iv)	Principal Chief Conservator of Forests, General, West Bengal	Member
(v)	Principal Chief Conservator of Forests, Research, Monitoring and Development	Member
(vi)	Representative of Finance Department, Government of West Bengal, not below the Rank of Joint Secretary, to be nominated by the Additional Chief Secretary/ Principal Secretary to the Government of West Bengal, Finance Department	
(vii)	Representative of Department of Forests, Government of West Bengal, not below the Rank of Joint Secretary, to be nominated by the Additional Chief Secretary/ Principal Secretary to the Government of West Bengal, Department of Forests	
(viii)	Managing Director West Bengal Forest Development Corporation Ltd.	Member
(ix)	Managing Director West Bengal Wasteland Development Corporation Ltd.	Member
(x)	Addl. Principal Chief Conservator of Forests, Human Resource Development, West Bengal	Member
(xi)	Addl. Principal Chief Conservator of Forests, Finance, West Bengal	Member
(xii)	Addl. Principal Chief Conservator of Forests, North Bengal	Member
(xiii)	Chief Project Director, West Bengal Forest and Biodiversity Conservation Project	Member-Secretary

The State Government, vide its no. 2623-For/G/6M-38/12 dated 21.12.2012, has adopted the resolution that the Society will establish the administrative, supervisory and monitoring mechanism in respect of WBFBC Project and will get the project implemented by the Project Management Unit (PMU) to be set up within the **Society and that** at the field level, **Divisional Management Units (DMUs)** and **Field Management Units (FMUs)** will be established under the Society.

The activities of the Society shall vest in a Project Management Unit (PMU) comprising personnel of Forest Department of the Government of West Bengal at different levels and headed by the Chief Project Director.

PMU shall function for the overall project coordination, procurement management, financial management including collating the expenditure statements from field offices and preparation and submission of reimbursement claims to JICA, monitoring and evaluation, and preparation of reports such as Quarterly Progress Reports (QPR) and Project Completion Report (PCR).

There shall also be Divisional Management Units (DMU) who will function under the guidance of PMU.

DMUs will implement the activities of the project in the Division and assist the PMU in planning, fund management, work progress monitoring and documentation at the field level. The DMUs will receive project fund from PMU for the execution of the works and disburse it to project implementers such as FMUs/JFMCs/EDCs/SHGs/NGOs. The rules and the regulations of the West Bengal Forest Department and instructions issued by PMU from time to time will be followed by concerned officers heading DMU in execution of the works of the Project.

At the grass root level Field Management Units (FMU) will be set up who shall ensure project implementation at the Range level.



FMU will be created within the office of Range Officer (RO). FMU will have following major functions:

- 1) Execution of works
- 2) Technical support to JFMCs, EDCs and SHGs etc. at the village level. At the field level, concerned Division Management Units (DMU) will monitor the functioning of FMUs.

36 DMUs have been formed. Out of which 34 DMUs are participating in the Project activities at present. 174 FMUshave also been constituted. Out of 174 FMUs formed 170 FMUs are participating in the Project activities.

# **Schedule of Meetings held:**

- i. The 6th 7th meetings of the Governing Body of West Bengal Forest and Biodiversity Conservation Society were held on 10.06.2015 & 17.11.2015 respectively at AranyaBhawan. The 8th meeting of the GB was held at Conference hall of PMU office at LB-2, 2nd Floor, Sector-III, Salt Lake City, Kolkata-700106 on 18.03.2016. All these meetings were chaired by The Principal Secretary, Department of Forests, Government of West Bengal.
- ii. The 3<sup>rd</sup>meeting of the HPC was held on 21.03.2016 at Chief Secretary's Conference Room at Nabanna, to discuss various issues relating to the JICA assisted West Bengal Forest and Biodiversity Conservation Project. The meeting was chaired by the Chief Secretary, Govt. of West Bengal and Chairperson of HPC.
- iii. The 3<sup>rd</sup>AGM of West Bengal Forest and Biodiversity Conservation Society was held on 17.11.2015 at AranyaBhawan.
- iv. <u>Mid Term Review (MTR)</u> of the West Bengal Forest & Biodiversity Conservation Project was planned & executed in the year through a series of meetings & technical sessions with the JICA officials & high officials from Directorate of Forests, WB &MoEF, New Delhi in 2016.

The 1<sup>st</sup> MTR meeting on MTR was held at AranyaBhawan& was chaired by PCCF (HoFF). Subsequent meetings with JICA officials were held at Conference hall of PMU, WBFBC Project on 7<sup>th</sup>& 8<sup>th</sup> January, 2016, 3<sup>rd</sup>& 4<sup>th</sup> February, 2016. The follow-up meetings on MTR were held in New Delhi with JICA officials, MoEF officials & DEA officials, Ministry of Finance, GoI in the month of February & March, 2016 to finalise the proposals on MTR.

# **Major Activities:**

The activities to be undertaken in the Project have been put under the following components:

- Afforestation
- Biodiversity Conservation
- Community Development
- Institutional Capacity Development

All project activities at the village level are being undertaken in Joint Forest Management (JFM) mode. The 600 targeted FPCs/EDCs (576 FPCs & 24 EDCs) have been selected in batches, based on the stipulated criteria. Services of local NGOs is being sought to catalyse inputs of civil society for long term sustainability of the project activities.

# Afforestation

During 2015-16 Creation of plantations have been undertaken over an area of 5737 ha under different models as shown below (Table 2)

# Table 2

2015-16 Plantation Creation			
Model	Area (ha)		
A1( Eucalyptus high-yielding Clonal pltn)	166.00		
A2 (South West Bengal Sal & associate spppltn)	406.00		
A3 (South Bengal Quick growing species pltn)	1,642.50		
A4 (Rehabilitation of degraded Sal forest through coppice regeneration)	2,923.00		
A5 (North Bengal & Hills, Miscl. Species pltn)	160.00		
A6 (North Bengal, Sal & associate spp. pltn)	110.00		
B1 (Tree Plantation outside Forest Area, Strip pltn.)	310.50		
B2(Tree Plantation outside Forest Area, Block pltn.)	19.00		
Total	5,737.00		

# **Production of Quality Planting Material**

In the year 2015-16, 6.75 units of New Central Nurseries & 6 units of upgradation of existing Central Nurseries have been completed & production of QPM has been started at these units. Thus, under the Project, targets of 22.5 units of New Central Nurseries and for expansion of 12.5 units of existing Nurseries have been already established. During 2015-16, about 50.00 lakhs QPM were produced in these nurseries & used for plantation.

# **Biodiversity Conservation:**

After floating tenders in respect of undertaking studies on selected <u>Research topics</u>, two organizations namely SACON and Aranyak have been awarded with the three following research works.

Salim Ali Centre for Ornithology &Natural History (SACON), Anaikatty, Coimbatore-641108 will carry out studies on Ecology of Elephants in South-West Bengal.

ARANYAK, Guwahati-781028 will carry out studies on Ecology of Elephants in North Bengal and Ecology of Gaur in North Bengal.

These organizations have also submitted inception reports on the said projects which are under active consideration of the committee constituted for the purpose of examination and acceptance of the same.

During FY 2015-16,**100 ha of** <u>Grassland Fodder Plantation</u> was raised by Wildlife DMUs. Plantation by working out Malling Bamboo areas over 5 ha were also raised in the Hills during 2015-16.

# **Community Development:**

# **Preparation of Micro-plans**

The exercise for preparation of micro-plans is being carried out in the field. About 524 micro-plans (502 FPCs & 22 EDCs) have been finalized till 31.3.2016. With the help of NAEB Eastern Zone Branch located in site Jadavpur University Premises, about 335 nos of Microplans have been scrutinized & documented.

# **Institutional Capacity Development**

# **Baseline Survey**

Work orders for conducting Socio-Economic Baseline Survey vide N.I.T No. WBFBCP/NIT-03 (e)/2015-16 has been assigned to NABCON, C-24, G Block BandraKurla Complex, Bandra (East), Mumbai-400051 vide this office no. 239/WBFBCP/22-1/13 dated 25.01.2016. The said agency has started their field work.



EOI for Baseline Survey of Forest Resources will be taken up in 2016-17 as the e-tender was unsuccessful in 2015-16.

# **Construction of Administrative Buildings**

The civil construction of new building including electric installation at AE-391, Salt Lake, Kolkatagot completed in 2015-16.

Vertical extension of AranyaBhawan, Salt Lake, Kolkata in two floors are in progress after floating the tender in open market.

No progress could be made in respect of the administrative building at Siliguri as the appointed architect has not given any complete plan and estimates.

The construction of buildings for field staff is also under progress. 15 no. Beat Officers' Office Complex-II(Group D quarters), 10 nos. Beat Officers' Office Complex-I (Group C quarters) and 3nos. ROs quarters/Range offices were completed in 2015-16 (28 total out of a project target of 30 nos).

# **Trainings**

Training Workshops for Frontline staff and FPC members have been organized for hands on experience on micro-plan preparation. About 6024 Frontline staff and FPC members have participated in these trainings during 2015-16.

Also during this year, Hands on trainings for <u>usage of GPS(16 nos.)</u> have also been conducted by the MIS & GIS Expert of the PMC for the field staff (about 182 nos.) of Western, Central, South East, South West, Northern, Wildlife North and Hill Circles.

Hands on trainings on <u>Accounting Procedure</u> (11 nos.) have also been conducted for the Heads of DMU (DFOs), Heads of FMUs (ROs) & Accountants/Computer Operators (about 51 nos.).

Hands on trainings on <u>Nursery Technique-Composting & Potting mixture</u> (4 nos.) have also been conducted for the Heads of FMUs (ROs), Dr/FRs & other front line staff in North & South Bengal (about 104 nos.).

Study Tours (2 nos.) and exposure visits were organised from 23.11.2015 to 29.11.2015 at Odisha and 16.01.2016 to 25.01.2016 at Rajasthan, where 35 nos. of officials visited those States for exposure to the JICA assisted Project activities in these two states.

Under Package 2 for Middle and Junior officers in <u>Indian Institutes Short term training</u> (10-15 days) were organised. In total 125 officials were trained for skill up gradation as mentioned below.

- 1. In Indian Institute of Forest Management, Bhopal, 14 nos. officials were sent for training in Wildlife and Biodiversity Management from 4<sup>th</sup> to 13<sup>th</sup> January, 2016.
- 2. Two batches of officers comprising of 16 Heads in each batch were sent to Indian Institute of Soil and Water Conservation, Dehradun from 14<sup>th</sup> to 23<sup>rd</sup> December, 2015 and 13<sup>th</sup> to 19<sup>th</sup> January, 2016.
- 3. In Kerala Forestry Research Institute, Peechi, 15 officials were trained in Nursery and Composting Technique from 10<sup>th</sup> to 16<sup>th</sup> February, 2016.
- 4. 14 officers were also trained in GIS and MIS application at Indian Institute of Remote Sensing, Dehradun from 16<sup>th</sup> February to 5<sup>th</sup> March, 2016.
- 5. This project has also lent support to the Directorate for sending 5 IFS Officers to skill upgradation Training course at IGNFA, Dehradun from 16<sup>th</sup> November, 2015 to 22<sup>nd</sup> January, 2016.
- 6. In the School of Oceanography, Jadavpur University, Training on GPS based GIS usage were imparted to total 45 nos. of Field level officers on 04.06.2015 & on 23<sup>rd</sup> -24<sup>th</sup> September, 2015.

#### **Procurements**

# GIS Equipment including computers and printers

During FY 2015-16, 87 nos. GPS have been procured and distributed among 10 DMUs and West Bengal Forest Development Corporation Ltd.

During FY 2015-16, 54 nos. Sony Digital cameras have been procured and distributed among 17 DMUs.

During FY 2015-16, 1 Computer and 1 Printer were procured for PMU and have been put under use.

# **Financial Results:**

The Society received Grants-in Aid of Rs. 1.3525 crores in 2012-13, Rs. 55.08 crores during the year 2013-14 and Rs. 91.41 crores during the year 2015-16 respectively (Rs 147.84 crores cumulative since beginning of the project).

Till 31.3.2016, the Society has incurred a cumulative expenditure of Rs 67.93 crores. During the FY 2015-16 Rs. 34.15 crores was utilized for implementation of the Project Activities.

Re-imbursement claim settled by JICA authorities upto 09.03.2016 Rs. 50.336 crores (cumulative since the beginning of the project).

Details of utilization of Reimbursable and Non-reimbursable grants are depicted as follows.

Items	Particulars	Unit	Achievements 2012-13	Achievements 2013-14	Achievements 2014-15	Achievements 2015-16	Total achievement (Upto 31.03.16)
			Financial	Financial	Financial	Financial	Financial
	Reimbursable	Rs. Lakhs	-	198.87	1,702.96	3874.90	5776.73
	Non- reimbursable	Rs. Lakhs	-	56.63	295.50	463.80	815.93
Utilisation of Grants	Total Utilisation Grants	Rs. Lakhs	-	255.50	1,998.46	4338.70	6592.66
	Non-Grant Fund	Rs. Lakhs	-	-	121.79	78.83	200.62
	Grand Total	Rs. Lakhs	-	255.50	2,120.25	4417.54	6793.29
	Reimbursable	Rs. Lakhs	-	176.90	1,320.38	3,335.70	4,832.98
Re- imbursements	Non-Grant Fund	Rs. Lakhs	-	-	121.79	78.83	200.62
	Total	Rs. Lakhs	-	176.90	1,442.17	3,414.53	5,033.60







G+3 Building at AE-391 Salt Lake funded by WBFBC Project



Hi-Tech Central Nursery at Hijli FMU under Kharagpur DMU



2015 B1 Plantation at Kolkala Khari Canal Bank Plantation under Balurghat FMU of Raiganj DMU



2015 SAL (A2) Plantation at Mahasole Beat of Arabari FMU under Medinipur DMU







Training for preparation of Microplan at Jhargram  $DM\ensuremath{U}$ 



PRA Exercises as a prelude to preparation for Microplan at Jaldapara.





# WEST BENGAL STATE FOREST DEVELOPMENT AGENCY

National Afforestation and Eco-Development Board (NAEB), Ministry of Environment, Forests and Climate Change, Government of India launched the National Afforestation Programme (NAP) to be implemented by Forest Development Agencies (FDA) of the States during 10<sup>th</sup> Plan period. As per its guidelines, a State Level Co-ordination Committee was formed vide Notification No.5890-For dated 10.12.2007 and No.3491-For dated 18.08.2010. Subsequently, in compliance with guidelines of the NAEB, 'West Bengal State Forest Development Agency' (WBSFDA) was registered as Society in the year 2010.

In addition to the NAP program, WBSFDA was made one of the signatories of the quadripartite agreement for implementation of the 'Capacity Development for Forest Management & Training of Personnel" funded by JICA in 2010.

Regulations for WBSFDA were notified vide Notification No.1130-FRIIIM-19/2003 dated 10<sup>th</sup> June, 2014.

Some of the key schemes taken up by the WBSFDA and their performance in the year 2015-16 are given below:

# **EXECUTIVE BODY**

West Bengal State Forest Development Agency Aranya Bhawan, Block LA 10A, Sector III, Salt Lake City, Kolkata- 700 106

WBSFDA Executive Body Members are as follows:-

- 1. The Principal Chief Conservator of Forests & HoFF
- 2. The Principal Chief Conservator of Forests, General
- 3. The Principal Chief Conservator of Forests, Wildlife
- 4. The Addl. Principal Chief Conservator of Forests, Finance
- 5. The Addl. Principal Chief Conservator of Forests, North Bengal
- 6. Project Director, WBFBCP (JICA)
- 7. The Chiarman, SPMU of JICA for Project on training
- 8. The Chief Conservator of Forests, SDP

Principal Chief Conservator of Forests & Head of Forest Force - Chairman.

Chief Conservator of Forests, Special Development Project - Member Secretary.

Upper Division Clerk

Chief Accounts Officer

# WBSFDA, General Body Members are as follows:-

- 1. The Principal Chief Conservator of Forests & HoFF
- 2. The Principal Chief Conservator of Forests, General
- 3. The Principal Chief Conservator of Forests, Wildlife
- 4. The Addl. Principal Chief Conservator of Forests, Finance
- 5. The Addl. Principal Chief Conservator of Forests, North Bengal
- 6. Project Director, WBFBCP (JICA)
- 7. The Chiarman, SPMU of JICA for Project on training
- 8. The Chief Conservator of Forests, SDP
- 9. All Chairmen of FDAs
- 10. To Secretaries of FDAs nominated by PCCF & HoFF
  - During the Year 2015-16, the 9th EB & GB Meeting had Been held on 30.10.2015





# Rashtriya Krishi Vikas Yojana (RKVY):

The importance of soil moisture conservation, arresting soil erosion, replenishing the water table by arresting run off cannot be over emphasized. The success of agriculture, upliftment of rural economy and productivity in forestry sector depends on improving soil and soil moisture conservation, arresting soil erosion and replenishment of water table.

To, achieve success in these endeavors the Forest Department utilizes fund from the Additional Central Assistance Scheme – 'Rashtriya Krishi Vikash Yojona' (RKVY), launched by the Central Govt. mainly to incentivize the State to attain 4% annual growth rate in agriculture & allied sectors during the 11<sup>th</sup> plan period. The project is taken up for holistic development of agriculture and allied sectors through the endeavors mentioned above.

The main objectives of the scheme taken up by the Forest Department are:

- 1. Improvement of ground water regime.
- 2. Controlling soil erosion and arrest sedimentation to the extent possible.
- 3. To create small irrigation system for the agriculture lands in the proximity of the forest areas.
- 4. To improve the productivity of the areas under treatment.

Creating modern infrastructures for improved planting material for ensuring soil stabilization and arresting runoff.

Against the allotment of Rs 11 crores for the year 2013-2014 and Rs 15 crores for the year 2014-15 and Rs. 13.08 crores for 2015-16, the respective expenditure is tabulated below:

(Rs.In Crores)	2013-14	2014-15	2015-16
Plantation Scheme	1.9914	3.52	1.67
Soil Conservation	5.7478	7.06	10.86
Total	7.7392	10.58	12.53

Out of Rs. 13.08 crores received during 2015-16, allotment was made for Rs. 9.24 crores during 2015-16 and Rs. 3.72 crores during 2016-17.

# **National Afforestation Program (NAP):**

During the Year 2015-16, Rs.134.36 lakhs received from Divisions & Govt. During the year 2015-16,a sum of Rs.115.77 lakhs has been booked by divisions & corporate office keeping a credit balance of Rs.8.90 lakhs as closing balance.

The following is the expenditure of different FDAs for the year 2015-16. (Rs. In Lakhs)

FDA	Arabari	Midnapur	Midnapur (West)	Kharagpur	Rup- narayan	Bankura (S)	Bankura (N)	KSC·S	Purulia	Corp. ofc
Exp	Nil	Nil	Nil	32.25	Nil	Nil	17.13	5.18	0.20	3.50
FDA	Jalpaiguri	Baikun-	Cooch	Burdwan	Jaldapara	WL-I	Garumara	Darjeeling	Kurseong	Birbhum
		thapur	Behar SF							
Exp	20.03	Nil	7.23	16.09	Nil	Nil	Nil	Nil	14.16	Nil

# **Ecotourism Projects of the Forest Directorate being monitored by WBSFDA:**

Fund received under different tourism projects during 2015-16 are stated below:

SI. No.	Project	Fund received from	Circle	Division	Fund Received (Rs. in lakh)
1	Repair & renovation of the existing forest bungalow, construction of tree houses, boating facility at Chilapata	North Bengal Development Deptt.	Northern	Jalpaiguri	10.00
2	Takdah Orchid Centre	Tourism Deptt.	Hill	Darjeeling	38.66
3	Takdah FPC village Ecotourism	Tourism Deptt.	Hill	Darjeeling	33.40

# **Online Booking System:**

In March 2015, WBSFDA has started the Online Booking System for different eco-tourism centres in the State. The web site is <a href="https://www.wbsfda.gov.in">www.wbsfda.gov.in</a>. The inventory of accommodation is given below:

SI. No.	Name	Location	Divisions	Cottages/Rooms	Receipts during 2015-16 (Rs.)
1	Mouchaki Camp	Samsing	Gorumara Wildlife	4 Rooms (DB)	3,07,420.00
2	Hornbill Nest	Biehabhanga	Gorumara Wildlife	4 Cottages (DB)	1,69,872.00
3	Murti Tents	Murti	Gorumara Wildlife	4 Cottages (DB)	2,78,558.00
4	Kunjanagar	Kunjanagar	Jaldapara Wildlife	4 Rooms (DB)	26,424,.00
5	South Khairbari Eco Park	South Khairbari	Jaldapara Wildlife	3 Cottages (DB)	51,997.00
6	Mendabari Jungle Camp	Mendabari	Jaldapara Wildlife	2 Rooms (DB) 1 Dormitory (4beds)	3,68,468.00



SI. No.	Name	Location	Divisions	Cottages/Rooms	Receipts during 2015-16 (Rs.)
7	Garochira Village Eco Tourism	Garoehira	Jalpaiguri	3 Rooms (DB)	43,393.00
8	Neora Camp	Lataguri	Jalpaiguri	4 Rooms (DB)	2,71,102.00
9	Bandapani Camp	Bandapani	Jalpaiguri	1 Room (DB)	6,975.00
10	Patlakhawa Cottages	Patlakhawa	Cooehbehar	2 Rooms (DB)	16,997.00
11	Gosanimari Twin	Gosanimari	Cooehbehar	2 Rooms (DB)	17,257.00
12	Manebhanjan Trek- kers Hut	Manebhanjan Trekkers Hut	Darjeeling	2 Rooms (DB)	1,921.00
13	Susunia Eco Tour- ism Centre	Susunia	Bankura North	2 Rooms (DB) 2 Cottages (DB) 1 Dormitory (8 Beds)	1,59,206.00
14	Beharinath ETC	Beharinath	Bankura North	4 Rooms (DB)	1,56,562.00
15	Matha Tree House	Matha	Purulia	1 Room (DB)	29,845.00
16	Gopegarh ETC	Gopegarh (Near Midnapore Town)	Medinipur	4AC DB Rooms 1 Dorm.(10 Beds)	94,251.00
17	Parimal Kanan	Chandrakona	Medinipur	Paribahan Cottages 2 Rooms AC, DB 2 Rooms Non AC, DB Bakul Cottage 1 Room DB Balaka Cottage 2 Rooms DB 2 Dormitories (24 beds)	24,549.00
18	Kshudiram Bose Park	Khudiram Bose Park	Medinipur	3 Cottages (DB)	1,000.00
19	BolepurNIC	Bolepur	Birbhum	3 Rooms Non AC, DB 3 RoomsAC, DB 1 Dormitory (6 Beds).	1,83,348.00
20	Bethuadahari Cottages	Betuaduari Park	Nadia-Murshidabad	2 Rooms (DB)	82,380.00
		Tot	al		22,65,101.00

# **Green India Mission**

WBSFDA is the implementing Agency of Green India Mission for the State. During 2015-16 anallocation of Rs. 229.50 lacks was made to the Divisions for entry point activities but no expenditure has been booked as on 31.03.2016.

Fund received from GoI = Rs. 300.75 lakhs Fund allotted to Divisions = Rs. 229.50 lakhs

GIM DPR preparation = Jadavpur University, RC, NAEB

The task of preparation of DPR has been awarded to Regional Centre, NAEB, Jadavpur University.

# **West Bengal Pollution Control Board**

Large quantity of vacant land is available in the Industrial Belts of the state both inside & outside the Forest area. Raising plantations & bringing degraded areas under Forest covers is one of the many ways to mitigate environment pollution. The funding for creating such plantations in Industrial Belts was made available by Pollution Control Board which made available a fund of Rs. 10.00 Crores & taking up plantation raising Quality Planting Material & treating degraded forest in those areas. The items of work undertaken and fund allotment is given below:-

Sl. No.	Item of works	Area	Fund allotted
1.	Industrial Plantation	1035 ha	Rs. 896.85 lakhs
2.	Neem Plantation	30.45 ha	Rs. 21.32 lakhs
3	Central Nursery at Birbhum	1 No.	Rs. 49.00 lakhs
4	RDF (Birbhum)	50 ha	Rs. 2.50 lakhs
	Total	•	Rs. 969.67 lakhs

Total approved outlay expenditure = 969.67 lakhs

Balance available as on 31.03.2016

# **NMPB Scheme**

Funds were received in different stages from Government of India, Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homeopathy (AYUSH) of the Ministry of Health & Family Welfare for emphasising the importance of medicinal plants, its cultivation, production and marketing and strengthening the natural product based system for health and welfare.

Fund received	Allotment	Expenditure
Rs. 84.00 lakh from NMPB GoI, For "Socio-Economic Upliftment of JFMC through Conservation of Medicinal Plants" – creation of 7 MPCs in the State of West Bengal.	Rs. 84.00 lakh	Rs. 79.61 lakhs
Rs. 2.6 lakh from SMPB, GoWB, For creation of AMLA plantation.	Rs. 2.6 lakh	Rs. 2.6 lakh
Rs. 465 lakhs from NMPB*, For "Socio-Economic Upliftment of JFMC through Conservation of Medicinal Plants, Value Addition & Marketing of Medicinal plants" – to be implemented in 225 FPCs of 9 Divisions in the State of West Bengal.	Rs. 302.85 lakhs	Nil

<sup>\*</sup>Balance fund available for expenditure as on 31.03.2016

515.52 lakhs

# **MPLAD Fund**

SFDA received Rs.25.00 lakhs from D M Bankura during 2015-16 for installing watch tower. The distribution & expenditure is given below :

Division	Allotment (Rs. In lakhs)	Expenditure (Rs. In lakhs)
Bankura (North)	12.00	6.18
Bankura (South)	4.50	4.50
Panchet	7.50	7.41
Total	24.00	18.09

# Planning Dept of Govt of W.B

During the year 2015-16 WBSFDA has received Rs. 118.00 lakes towards the expenditure pertaining to Planning Department. During 2016-17 WBSFDA released 84.86 lakes to SFTI, Hijli but expenditure reported by SFTI, Hijli only Rs. 3.86 lakes upto June, 2016.

<sup>= 469.39</sup>  lakhs.



AKANYA BHAWAN, BLOCK-LA-10A SECTOR-III, SALTLAKE,KOLKATA-98

BALANCE SHEET AS AT 31ST MARCH 2016						
Liabilities	Notes	As at 31st	March 2016	As at 31st March 2015		
Capital Account						
Capital Reserve						
-Reserve & Surplus	1 2		38,47,147,00	100	38,47,147	
General Fund	1		3,38,24,230.02		84,97,807	
13TH FINANCE COMMISSION	90	1000000000		P)		
Citaniali	2	44,55,613		SERVICES.	P 92	
GREEN INDIA MISSION	3	89,43,779		1,13,29,019.00		
IFM Scheme	4	2,90,75,911		13,00,000.00		
NMPB SCHEME	5	1,89,730		11,61,730.00		
Pollution Control Board	6	4,69,39,190		5,20,60,738.00		
Sports Scheme	7	5,15,52,262		9,13,45,853.00		
Tourism	8	44,640		7,90,000.00		
RKVY Scheme	9	92,78,764	31	1,44,30,648.00		
STATE PROJECT MGT UNIT(SPMU)	10	9,08,44,562		8,53,33,930,00		
carbon Flux Tower	0.000	revened to		81.04,000.00		
MP LADS FUND	11	21,91,080				
71 0 0000 0000 00000	12	6,90,685		- 1		
Namani Gange Project Planning Project	13	3,66,421		3.		
RIDE Fund	14	1,18,00,000		-		
NAP Fund	15	-4,81,180.00		10,37,285.00		
Note Fund	16	-29,57,447.00		+48,16,982.00		
	cross C		25,29,54,010.00		26,20,76,231.	
Earnest Money Security Deposit	17	10 15 1	14,57,128.00	42	16,57,506	
	18		6,60,356.00	X		
Correct Liabilities	19		2,13,548.08	20 1	1,94,79,649.	
Citability for expenses Other Current Liabilities		- 3	3,45,428.00		ia - Perina	
Advance Received	200				1,26,628.6	
navance received	20	- 1	28,398.00			
SawMill(one time Processing fees)	21		6.75.605			
CO TOURISM CENTER-ON ACCOUNT		- 9	6,75,685			
CO TOURISM CENTER-SPOT BOOKING		- 1	19,56,711			
ASSETS		1	29,62,76,797.10		29,58,84,766.0	
Fixed Assets		1	25,02,70,757.10		20,00,04,200.0	
Tangible Assets	10000	7,14,887.00		4,37,481		
Intengible Assets	22	28,406.00		37,875		
		20,400.00	7,43,073.00	31,013	4.75.356 (	
NVESTMENT	1	1	1,0001000		4,70,3303.	
Fixed Deposits	23		17,71,66,159.00		25,64,50,000 (	
Current Assets	2.7		77,7 1,00,100.00		20,04,30,000	
lobs in Progress at DFO's	24		1,93,83,755.50	-	1,08,93,511.0	
Other Current Assets	-		1,00,00,100.00	3300 NASSO	1,00,93,311.0	
cans & Advances	25		62,88,108.00	12 ON 12	62.27.400	
CONTROL OF THE CONTRO	,,,,,		02,00,100.00	K Kata P	62,27,190.0	
Cash and Bank Balances	26		9 26 97 701 62	18 C		
VALUE OF A SPAIN CHARLES OF	*0		9,26,97,701.60	The same of the sa	1,16,38,709.0	
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Dated :

L-SAO

Member Secretary

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Wast Bengal State Forest Development Ag

Surjya Kanta Chandra Chief Accounts Officer WBSFDA, KOLKATA Subharrary Chanda, L.F.S., Member Secretary West Bengal State Forest Development Agans,





## WEST BENGAL ZOO AUTHORITY

The National Wildlife Action Plan (2002-2016) emphasis on the role of zoos for ex situ breeding of endangered species of wild fauna and their rehabilitation into the wild. The Central Zoo Authority felt that critically endangered wild animal species with few hundred/thousand left in the wild need to be taken up for ex-situ conservation breeding in the zoos on immediate basis in the country. The Authority has identified 73 critically endangered wild animal species for planned and coordinated conservation breeding in Indian zoos. It is felt that Indian Zoos must have atleast 100 properly and scientifically bred and physically, genetically and behaviourally healthy individuals of each endangered wild animal species in captivity, to act as insurance cover in case of population loss of the species in the Wild.

Considering the needs for ex situ conservation breeding of wild fauna as one of the main objective through scientific management, West Bengal Zoo Authority, a Registered Society was constituted under Department of Forests, Govt. of West Bengal vide Notification No. 10036-For/IIM-27/2002 dated 23.12.2009 and Authority became functional from April 2012.

Management of Zoological Garden, Alipore (ZGA), Padmaja Naidu Himalayan Zoological Park (PNHZP), Darjeeling and other 9 no. Mini Zoos were handed over to West Bengal Zoo Authority vide G.O. No. (i) 3841/For/FR/0/11M-27/2002 dated 14.09.2010 (ii) 3842/For/FR/0/11M-27/2002 dated 14.09.2010 (iii) 747-For dated 03.04.2012 & 912-For dated 19.04.2012 for scientific management of the Zoos.

### **Objective**

West Bengal Zoo Authority was constituted mainly for Scientific Management of Zoo for Ex-situ Conservation of Wildlife. Other objectives are appended below:

- to take over the management of the Government controlled Zoological Parks/Gardens, Deer Parks, Breeding Centres, Rescue Centres, Safari Parks and other similar establishments/organisations in West Bengal as may be specifically ordered, from time to time, by the Government of West Bengal,
- to co-ordinate the animal collection and exchange programmes and to procure such animals as may be required for the enrichment of the zoos/parks/gardens by purchase or exchange from other states in India or from abroad.
- to function as the apex technical advisory body for the Zoological Parks/Gardens, Deer Parks, Breeding Centres, Rescue Centres, Safari Parks and other similar establishments/organisations in West Bengal,
- to promote zoo activities in West Bengal,
- to undertake collection, preservation etc. of endangered species of animals.
- to undertake programmes for restocking and reintroduction of captive bred animals,
- to undertake research on habits and breeding of animals and birds in their natural habitat as well as in captivity,
- to create awareness about the rich faunal diversity by organising programmes, exhibitions, seminars, etc. and publishing journals, bulletins, etc.,
- to undertake dissemination of zoo education, and
- to carry on non-profit seeking business as buyers or sellers of or dealers in living and dead fauna of all kinds of skins, horns and other animals products.

### **Organisation details**

West Bengal Zoo Authority, a Registered Society was constituted under Department of Forests, Govt. of West Bengal and is being governed by a Governing Body consists of 14 members. Chief Secretary, West Bengal is the Chairman and Principal Secretary, Department of Forests is the Vice Chairman and Member Secretary is the Chief Executive Officer of West Bengal Zoo Authority. West Bengal Zoo Authority has its own Regulations and Memorandum of Association to run the activities of Society. West Bengal Zoo Authority has its Secretariat at KB-19, Sector III, 2nd Floor, Salt Lake, Kolkata - 700098.

Technical Committee of West Bengal Zoo Authority headed by Principal Chief Conservator of Forests, Wildlife and Chief Wildlife Warden, as Chairman and other 5 members are:

Director, Padmaja Naidu Himalayan Zoological Park, Darjeeling

Director, Zoological Garden, Alipore, Kolkata

Director, Animal Husbandry & Veterinary Services

Zoo Expert

Member Secretary, West Bengal Zoo Authority is the Convenor of Technical Committee.

Technical Committee provide technical assistance to Zoos under West Bengal Zoo Authority for proper and scientific development/management.

West Bengal has 5 year clearly identifiable eco-regions. The WBZA is in process of establishing at least one representative zoo in each eco-region of the State. State has an already established zoo at Darjeeling (Padmaja Naidu Himalayan Zoological Park) dealing with the Himalayan Fauna of Darjeeling hills. A new zoo has been set up at Siliguri (North Bengal Wild Animals Park, viz. Bengal Safari) mainly to deal with the Megafauna of North Bengal flood plains. A Mangrove Zoo (Sundarban Wild Animals Park) to focus on the Megafauna at Sundarban is being created at Jharkhali. It was proposed to develop the zoo at Jhargram mainly for focusing on the Megafauna of Paschimanchal/Junglemahal like Leopard, Hyena, Grey Wolf, Bengal Fox, Jackal, Porcupine, different Herbivores and Birds. The Jhargram Zoo has already been identified as a major zoo by the CZA.

West Bengal Zoo Authority is also in process of developing Ramnabagan Mini Zoo to focus on the fauna of Gangetic Plains (Alluvial region).

Renaming of Jhargram Zoo and Ramnabagan Mini Zoo as Junglemahal Zoological Park, and Bardhaman Zoological Park has been approved by Hon'ble Chief Minister, West Bengal.

Zoological Garden, Alipore is one of the oldest Zoo in the country dealing with major fauna of the country.

In addition to above representative zoos of respective eco region there are another 5 Zoos viz., (i) Rasikbeel Mini Zoo, (ii) Surulia Mini Zoo, (iii) Garchumuk Deer Park (iv) Adina Deer Park, & (v) South Khairbari Rescue Centre are managed by West Bengal Zoo Authority.





### **Board of Directors**

The West Bengal Zoo Authority is governed by a 14 Member Body headed by the Chief Secretary, West Bengal as Chairman and Principal Secretary, Department of Forests, Govt. of West Bengal as the Vice-Chairman, Member Secretary is the Chief Executive Officer of the West Bengal Zoo Authority. Detailed list of Governing Body of West Bengal Zoo Authority is appended below:

	y of West Bengar 2007 tutnority is appended below.		T == .
1.	Chief Secretary to the Govt. of West Bengal	:	Chairman
2.	Principal Secretary to the Govt. of West Bengal,	:	Vice-Chairman
	Department of Forests		
3.	Secretary to the Govt. of West Bengal, Department of Finance	:	Member
4.	Principal Chief Conservator of Forests, West Bengal		Member
	Timespar ciner conservator or reveals, west Bengar	÷	1/10111001
5.	Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, West Bengal		Member
J.	Timespar emer conservator of Forests (whathe) and emer whathe warden, west bengan	+	Wiemoer
6.	Member Secretary, Central Zoo Authority, New Delhi	+	Member
0.	Weinder Secretary, Central Zoo Authority, New Deini	•	Wiemoei
7	Country West Donal 7 - Androite		Manufacin Caranatana
7.	Secretary, West Bengal Zoo Authority	ļ:	Member Secretary
8.	Director, Animal Husbandry & Veterinary Services, West Bengal	:	Member
9.	Director, Padmaja Naidu Himalayan Zoological Park, Darjeeling	:	Member
10.	Director, Zoological Garden, Alipore, Kolkata	:	Member
11.	Sri Nantu Paul, nominated by the Govt. of West Bengal	:	Member
12.	Sri Mihir Chadraborty, All Backward Class Relief & Development Mission nominated by	•	Member
12.	the Govt. of West Bengal	ľ	
13.	Sri Sankar Dhar, People's for Animals, Alipurduar nominated by the Govt. of West Bengal	1:	Member
<u> </u>	r, r	Ť	
14.	A person from the South of West Bengal by notification by the Govt. of West Bengal	+	Member
17.	11 person from the South of west Bengar by notification by the Govt. of west Bengar	Ι.	1710111001

### Schedule of meetings held

During 2015 the meetings of Governing Body and Technical Committee were held as follows:

### **Governing Body Meeting**

10th Governing Body Meeting : On 20.012015 11th Governing Body Meeting : On 24.07.2015 12th Governing Body Meeting : On 25.02.2016

**Technical Committee Meeting** 

12th Technical Committee Meeting : On 20.07.2015 13th Technical Committee Meeting : On 29.01.2016

### Facilities having wild animals in captivity in West Bengal:

- (a) West Bengal Zoo Authority controlled, recognised (by the Central Zoo Authority) government zoos in West Bengal:
- 1. Zoological Garden, Alipore, Kolkata
- 2. Padmaja Naidu Himalayan Zoological Park, Darjeeling
- 3. North Bengal Wild Animals Park, Siliguri
- 4. Sundarban Wild Animals Park, Jharkhali
- 5. Junglemahal Zoological Park, Jhargram
- 6. Bardhaman Zoological Park, Bardhaman
- 7. Garhchumuk Deer Park, Howrah
- 8. Rasikbeel Mini Zoo, Coochbehar
- 9. South Khairbari Rescue Centre, Alipurduar
- 10. Surulia Mini Zoo, Purulia
- 11. Adina Deer Park, Malda
- (b) Private zoos/ rescue centres /circuses (recognised as zoo by the CZA) in the State of West Bengal.
- 1. Marble Palace Zoo, Kolkata: Small Zoo ( to be developed as heritage Zoo).
- 2. Weston Circus.
- 3. Asiad Circus.
- 4. Asian Circus.
- 5. Ajanta Circus.
- 6. Olympic Circus.
- 7. Famous Circus.
- 8. Kohinoor Circus.
- 9. Natraj Circus.
- 10. Empire Circus.
- (c) Facilities having wild animals in captivity and functioning as Conservation Breeding Centres in West Bengal.
- 1. Birchhill Conservation Breeding Center (Snow Leopard & Red Panda), Darjeeling
- 2. Topkedara Conservation Breeding Center (Snow Leopard & Red Panda), 3rd mile.
- 3. Dawhill Conservation Breeding Center (high altitude herbivores & Pheasants), Kurseong.
- 4. Vultures Conservation Breeding Centre, Rajabhatkhawa (Buxa Tiger Reserve).
- 5. Swamp Deer Conservation Breeding Centre, Jaldapara (Jaldapara National Park).
- 6. Sundarban Crocodilian Species Conservation Breeding Centre, Bhagabatpur (Sundarban Biosphere Reserve).
- 7. Hog Deer Conservation Breeding Center, Kunjanagar (Jaldapara National Park).
- 8. Pygmy Hog Conservation Breeding Centre, Kalipur (Gorumara National Park) (to be established).



### **Physical Achievements**

- North Bengal Wild Animals Park, viz., Bengal Safari has been inaugurated by Hon'ble Chief Minister, West Bengal on 21.01.2016. Herbivore Safari has been started and it has become very popular amongst the visitors. Five (5) Airconditioned Vehicles are being used for the purpose of safari. Administrative Building, Veterinary Hospital, Kitchen for animals and the Stores Building as well as Restaurant are being constructed as per the approved Master Layout Plan.
- The Master Layout Plan and the Master Plan of Sundarban Wild Animals Park, Jharkhali as Mangrove Zoo has been prepared and submitted to the Central Zoo Authority for approval. Presently, there are three Tigers in the Tiger Rescue Centre at Jharkhali.
- Modernization of Alipore Zoological Garden, Kolkata is under progress and the enclosure for Leopard,
   Jaguar and Indian Elephant is being constructed. Effort is being made to increase the variety of animals for display in the zoo.
- Management of Padmaja Naidu Himalayan Zoological Park, Darjeeling on scientific lines. The zoo
  is presently considered as the best Zoological Park in the country and has received many national and
  international recognition for its scientific works. Conservation Breeding Programme of Snow Leopard and
  Red Panda is going on and new enclosures were constructed at Topkeydara, Darjeeling District.
- The upgradation of Jhargram Zoo, Jhargram and Ramnabagan Zoo, Burdwan as major zoo from mini
  category zoos has been initiated. Renaming of Jhargram Zoo as Junglemahal Zoological Park, Jhargram
  and Ramnabagan Zoo as Bardhaman Zoological Park, Bardhaman has been made as approved by Hon'ble
  Chief Minister, West Bengal.

Paschimanchal Unnayan Parishad provided financial support of Rs.3.998 crore for different developmental works towards ex-situ conservation in Junglemahal Zoological Park, Jhargram.

Paschimanchal Unnayan Parishad also provided financial assistance for face lifting of Surulia Mini Zoo at Purulia. Developmental works are in progress in Surulia Mini Zoos, Purulia.

• WBZA has finalized the Master Layout Plan and Master Plan for all the zoos under its control for their future development during the period.

### **Budget 2015-16**

### Non-Plan

Name of the Department provided Fund	Head of Service	Name of Zoos	Amount (Rs.)
Department of Forests, Govt. of West Bengal	Non Plan of 2015-16 "2406-02-111-NP-002-31-01-V"	For maintenance of all Zoos under WBZA	20.717 crore
West Bengal Zoo Authority Fund	Non Plan	- do -	7.9361 crore

### **State Plan**

Name of the Department provided Fund	Head of Service	Name of Zoos	Amount (Rs.)
Department of Forests, Govt. of West Bengal	State Plan(Annual Plan) 2015-16 "2406-02-111-SP-002-31-02-V"	For improvement and development of all Zoos under WBZA	3.00 crore
- do -	- do -	North Bengal Wild Animals Park	5.16 crore
Department of Tourism, Govt. of West Bengal	"5452-01-800-SP-002-53-00-V"	North Bengal Wild Animals Park	5.00 crore
North Bengal Development Department	"4545-Capital Outlay-Special Areas Programme-60-others-001-Direction and administration-SP-State Plan (Annual Plan & XIIth Plan)-001-Scheme for Development of North Bengal-53-Major Works/Land & Building-00-V"	- do -	15.56 crore
- do -	- do -	- do -	6.77 crore
Department of Paschimanchal Unnayan Affairs	"2525-Special Areas Programme- 02-Backward Areas-789-Special Component Plan for SC-SP-State Plan-103-Department of Paschimanchal Unnayan Parshad (PN)-31-grants-in-aid- 02-other grants"	Junglemahal Zoological Park	3.998 crore
- do -	- do -	Surulia Mini Zoo	1.80 crore

### Performance 2015-16

## A. Statement of Non-plan Fund allocated during the year 2015-16

Sl.No.	Name of Zoo	Fund Allocation (Rs)	Amount Spent (Rs.)
1	Head Office WBZA	1,10,00,000	86,11,420
2	Zoological Garden, Alipur	13,30,00,000	10,97,39,314
3	Padmaja Naidu Himalayan Zoological Park	7,94,00,000	6,65,95,862
4	North Bengal Wild Animal Park (Bengal Safari)	1,68,00,000	1,26,79,272
5	Junglemahal Zoological Park	86,25,000	57,18,931
6	Sundarban Wild Animal Park	45,00,000	45,00,272
7	Bardhaman Zoological Park	82,50,000	52,03,605
8	Rasikbeel Mini Zoo	39,37,000	38,58,896
9	Surulia Mini Zoo	45,30,000	44,34,612
10	Garchumuk Deer Park	47,30,000	48,17,092
11	Adina Deer Park	30,22,000	23,15,324
12	Kumari Kangsabati Deer Park	17,00,000	14,59,678
13	South Khairbari and Kunjanagar Rescue Centre	70,37,000	67,97,290
	Total	28,65,31,000	23,67,31,568



## B. Details of Plan Fund utilised by different Zoos/Parks for the year 2015-16

Sl.No.	Name of Zoos/Parks	Department	Expenditure (Rs.)
1	Zoological Garden, Alipore	S P Forest	61,36,408
2	Padmaja Naidu Himalayan Zoological Park, Darjeeling	S P Forest	1,68,94,744
3	North Bengal Wild Animals Park, Siliguri	North Bengal Development Deptt.	10,64,29,000
		S P Forest	1,86,89,000
		Tourism	76,38,000
4	Junglemahal Zoological Park, Jhargram	S P Forest	47,15,969
5	Sundarban Wild Animals Park, Jharkhali	S P Forest	29,25,750
6	Bardhaman Zoological Park, Bardhaman	S P Forest	30,48,444
7	Rasikbeel Mini Zoo, Coochbehar	S P Forest	28,68,752
8	Surulia Mini Zoo, Purulia	S P Forest	20,02,947
9	Garchumuk Deer Park, Howrah	S P Forest	32,45,134
	Total		17,45,94,148

### Revenue Collection

Revenue Conection			
Month	Amount (Rs.)		
April 2015	66,27,346		
May 2015	39,99,021		
June 2015	55,76,398		
July 2015	41,57,466		
August 2015	48,64,448		
September 2015	48,32,886		
October 2015	42,37,167		
November 2015	81,07,087		
December 2015	63,85,373		
January 2015	2,33,62,337		
February 2015	2,33,38,505		
March 2016	75,39,458		
Total	10,30,27,492		

SL. NO.	DATE	NAME OF ZOO /RESCUE CENTRE	ANIMAL NAME	SCIENTIFIC NAME	NUMBERS
1	08.10.2015	Padmaja Naidu Himalayan Zoological Park, Darjeeling	SAMBAR DEER	<u>Rusa unicolor</u>	0:1:0
2	08.10.2015	Padmaja Naidu Himalayan Zoological Park, Darjeeling	BARKING DEER	Muntiacus muntjac	8:4:1
3	28.11.2015	Kunjanagar	SPOTTED DEER	<u>Axis</u> axis	8:6:0
4	28.11.2015	Kunjanagar	SAMBAR DEER	<u>Rusa unicolor</u>	2:4:0
5	29.11.2015	Kunjanagar	SPOTTED DEER	<u>Axis</u> <u>axis</u>	6:4:0
6	02.12.2015	Rasikbeel Mini Zoo, Coochbehar	SPOTTED DEER	<u>Axis</u> axis	20:17:0
7	05.12.2015	Kholta	SAMBAR DEER	<u>Rusa unicolor</u>	4:4:0
8	06.12.2015	Kholta	SPOTTED DEER	<u>Axis</u> axis	9:7:0
9	11.12.2015	Mahananda Wildlife Sanctuary	INDIAN ONE HORNED RHINOC- EROS	Rhinoceros unicornis	1:0:0
10	31.12.2015	Padmaja Naidu Himalayan Zoological Park, Darjeeling	SAMBAR DEER	<u>Rusa unicolor</u>	0:1:0
11	06.01.2016	Padmaja Naidu Himalayan Zoological Park, Darjeeling	BARKING DEER	Muntiacus muntjac	2:3:0
12	06.01.2016	Padmaja Naidu Himalayan Zoological Park, Darjeeling	RED JUNGLE FOWL	<u>Gallus gallus</u>	3:3:0
13	06.01.2016	Padmaja Naidu Himalayan Zoological Park, Darjeeling	GOLDEN PHEAS- ANT	Chrysolophus pictus	3:3:0
14	06.01.2016	Padmaja Naidu Himalayan Zoological Park, Darjeeling	SILVER PHEAS- ANT	Lophura nycthemera	1:2:0
15	08.01.2016	Salt Lake Deer Park, Kolkata	JUNGLE CAT	<u>Felis chaus</u>	2:0:0
16	12.01.2016	Adina deer Park, Malda	SPOTTED DEER	Axis axis	7:18:0
17	13.01.2016	Adina deer Park, Malda	SPOTTED DEER	Axis axis	10:13:0
18	14.01.2016	Adina deer Park, Malda	SPOTTED DEER	<u>Axis axis</u>	3:7:0
19	14.01.2016	Sukna Rescue Centre	SPOTTED DEER	Axis axis	0:1:0
20	14.01.2016	Sukna Rescue Centre	BARKING DEER	Muntiacus muntjac	0:1:0



### Major Activities regarding Translocation, Release and Exchange

### **Programs**

# ANIMALS TRANSLOCATED FROM ZOOLOGICAL GARDEN, ALIPORE TO JALDAPARA NATIONAL PARK & FROM JALDAPARA NATIONAL PARK TO ZOOLOGICAL GARDEN, ALIPORE DURING 2014–2015

	2014–2015					
SL. NO.	DATE	NAME OF ZOO	ANIMAL NAME	SCIENTIFIC NAME	NUMBERS	
1	07.11.2014	Zoological Garden, Alipore	ELEPHANT	Elephus maximus	3	
2	04.11.2014	Zoological Garden, Alipore	RHINO CALF	Rhinoceros unicornis	1	
3		Zoological Garden, Alipore	SUB ADULT ELEPHANT	Elephus maximus	2	

### **ABSTRACT**

11201		
Spotted Deer	:	136 Nos.
Samber Deer	:	16 Nos.
Barking Deer	:	19 Nos.
Rhino	:	1 No.
Red Jungle Fowl	:	6 Nos.
Jungle Cat	:	2 Nos.
Golden Pheasant	:	6 Nos.
Silver Pheasant	:	3 Nos.

## **EXCHANGE OF ANIMALS BETWEEN ZOOS (2013-2014)**

Exchange of Animals between Zoos is made as per approval of the Central Zoo Authority.

The details are shown below:

Name of the animal	From	То
Snow Leopard (0:2)	Lodz Zoo, Germany	Padmaja Naidu Himalayan Zoologi- cal Park, Darjeeling
<ol> <li>Himalayan Goral         (Nemorhaedus goral) (1:1)</li> <li>Lady Amherst         (Chrysolophus amherstiae) (1:1)</li> <li>Blue Sheep         (Pseudois nayaur) (1:1)</li> </ol>	Pt. Govind Ballabh Pant High Altitude Zoo, Nainital	Padmaja Naidu Himalayan Zoologi- cal Park, Darjeeling
1. Red Jungle Fowl (Gallus gallus) (1:1) 2. Kalij Pheasan) (Lophura leucomelnos) (1:1) 3. Grey Peacock Pheasant (Polypectron bicalcaratum) (1:1)	Zoological Garden, Alipore	Padmaja Naidu Himalayan Zoologi- cal Park, Darjeeling
1. Common Grey Langur (Sminopethicus entellus) (0:2)	Padmaja Naidu Himalayan Zoological Park, Darjeeling	Rajkot Zoo, Gujarat
<ol> <li>Red Panda         (Ailurus fulgens) (0:1)</li> <li>Common Leopard         (Panthera pardus) (1:0)</li> <li>Blue Sheep         (Pseudois nayaur) (1:1)</li> <li>Golden Pheasant         (Chrysolophus pictus) (1:1)</li> <li>Grey Peacock Pheasant         (Polypectron bicalcaratum) (1:1)</li> </ol>	Padmaja Naidu Himalayan Zoological Park, Darjeeling	Himalayan Zoological Park, Sikkim
<ol> <li>Golden Pheasant         (Chrysolophus pictus) (1:1)</li> <li>Red Jungle Fowl         (Gallus gallus) (1:1)</li> <li>Kaleej Pheasant         (Lophura leucomelnos) (1:1)</li> </ol>	Padmaja Naidu Himalayan Zoological Park, Darjeeling	Jhargram Mini Zoo
<ol> <li>Common Grey Langur (Sminopethicus entellus) (1:1)</li> <li>Kaleej Pheasant (Lophura leucomelnos) (1:2)</li> <li>Golden Pheasant</li> </ol>	Padmaja Naidu Himalayan Zoological Park , Darjeeling	National Zoological Park, Delhi
(Chrysolophus pictus) (1:3) 4. Lady Amherst (Chrysolophus amherstiae) (1:1)		
Common Leopard     (Panthera pardus) (1:1)     Grey Peaock Pheasant     (Polypectron bicalcaratum) (1:1)	Padmaja Naidu Himalayan Zoological Park , Darjeeling	Rasikbeel Mini Zoo , Cooch Behar
Grey Peacock Pheasant     (Polypectron bicalcaratum) (1:1)     Golden Pheasant     (Chrysolophus pictus) (1:1)	Padmaja Naidu Himalayan Zoological Park, Darjeeling	Zoological Garden, Alipore



### **EXCHANGE OF ANIMALS BETWEEN ZOOS (2014-2015)**

Exchange of Animals between Zoos is made as per approval of the Central Zoo Authority. The details are shown as follows:-

Sl. No	Name of the animal	From	То
1	1 Snow leopard (Uncia uncia)	Jhilava Zoo, Czech Republic	Padmaja Naidu Himalayan Zoo- logical Park, Darjeeling
2	1♂, $♀$ 1 Red Panda ( <i>Ailurus fulgens</i> )	Padmaja Naidu Himalayan Zoologi- cal Park, Darjeeling	Pt. Govind Ballabh Pant High Altitude Zoo, Nainital
3	1♂, $♀$ 1 Aldabara Tortoise ( <i>Aldabrachelys gigantea</i> )	Victoria-Mahe, Seychelles	Zoological Garden, Alipore
4	1. Kaleej Pheasant (Lophura leucomelnos) (1♂) 2. Golden Pheasant (Chrysolophus pictus) (2♂, ♀2) 3. Red Jungle Fowl (((G (Gallus gallus) (2♂, ♀2) 4. Silver Pheasant (Lophura nycthemera) (1♂,♀2)	Padmaja Naidu Himalayan Zoologi- cal Park, Darjeeling	Assam State Zoo cum Botanical Garden Gauhati, Assam
5	Snow Leopard (Uncia uncia) (13)	Jhiava Zoo, Czech Republic	Padmaja Naidu Himalayan Zoological Park, Darjeeling

### **EXCHANGE OF ANIMALS BETWEEN ZOOS (2015-2016)**

Exchange of Animals between Zoos is made as per approval of the Central Zoo Authority. The details are shown as follows:-

Sl.	Name of the animal	From	То
<b>No</b> 1	Sub-adult Giraffe (18) (Giraffa camelopardalis rothshildi)	Zoological Gardens, Alipore, Kol- kata	Nandankanan Biological Park, Bhubeneswar, Odisha
2	Normal coloured Tiger $(1 \circlearrowleft, \ \ \ \ \ \ )$ (Panteratigristigris)	Nandankanan Biological Park, Bhubeneswar, Odisha	Zoological Gardens, Alipore, Kolkata
3	White Tiger (1♂) (Panteratigristigris)	Nandankanan Biological Park, Bhubeneswar, Odisha	Zoological Gardens, Alipore, Kolkata
4	Nilgai (2♂, ♀8) (Boselaphus tragocamelus)	Adina Deer Park, Malda	Junglemahal Zoological Park, Jhargram
5	Palm Civet (2♂) (Paradoxurus hermaphroditus)	Deer Rescue Centre, Salt Lake	Rasikbeel Mini Zoo, Coochbehar

## **Animal Adoption Program details**

## STATEMENT OF ADOPTION OF ANIMALS OF ZOOLOGICAL GARDEN, ALIPORE DURING THE YEAR 2013-14

Sl.	Name & Address	Adopt Animals	Sex	Age	Adopti	on Period	Amount	
No.				(Year)	From	То	(Rs.)	
1	Ms. Lata Devi Barojia, 24/1/1, Alipore Road, Kol- kata-27.	Fishing Cat	M		04.09.2013	03.09.2014	20,000/-	
2	Mr. Sandip Sinha Roy, (Data Search Pvt. Ltd.).	1. Leopard 2. Zebra	M F	6 5	04.09.2013	03.09.2014	50,000/- 50,000/-	
3	Dr. Avijit Banerjee, 576/A/7B, D.H. Road, Behala.	Sloth Bear	F	15	04.09.2013	03.09.2014	50,000/-	
1	Limelight Hotels Pvt. Ltd., 32/1, B.B.D. Bag, Kolkata-1.	Bule & Yellow Macaw	M		04.09.2013	03.09.2014	30,000/-	
5	Mrs. Miranda Chatterjee & Mr. Bhaskar Mukherjee, 49P, Swinho Lane, Kolkata-42.	Common Peafowl (Peacock)	M		04.09.2013	03.09.2014	15,000/-	
5	Ms. Daulat Bodhanwala, 10, Ganesh Ch.Avenue, KolKata -13.	Bule & Yellow Macaw	M		04.09.2013	03.09.2014	30,000/-	
7	Ms. Avi Nauzer Batlivala, 103, Ripon Street, Kolkata-16	Red Kangaroo	F	1.9	04.09.2013	03.09.2014	50,000/-	
3	Mr. Renu Podder, 6, Queens Park, Kolkata-19.	Bengal Tiger	M	13	11.09.2013	10.09.2014	1,50,000/-	
9	Mr. Nazir Ahmed (Park Exports)	1. Leopard 2. Leopard	M F	14 13	11.09.2013	10.09.2014	50,000/- 50,000/-	
10	Ms. Rita Das 174, Dover Terrace Kolkata-19	Sulpher Crested Cockatoo	M		18.09.2013	17.09.2014	10,000/-	
11	Mr. Avinandan Mitra 33B, Sardar Sankar Road Kolkata-29.	Ostrich	M		18.09.2013	17.09.2014	30,000/-	
12	Mr. Ayan Banerjee 14, Ghosal Para Road Kolkata-124.	Rosy Pelican	M		18.09.2013	17.09.2014	10,000/-	
13	Anjan Infrastructure Pvt. Ltd., 33A, Jawaharlal Nehru Road, Kolkata-71	1. Bengal Tiger 2. Leopard 3. Blue & Yellow Macaw 4. Zebra 5. Giraffe	F F M F M	13 11 5 11.7	18.09.2013	17.09.2014	1,50,000/- 50,000/- 30,000/- 50,000/- 1,50,000/-	
14	Mr. Sundeep Bhutoria 25B, Camac Street, Kolkata-16.	Bengal Tiger	F	8.5	18.09.2013	17.09.2014	1,50,000/-	
15	Mr. Harshavardhan Neotia 7/2, Queen's Park, Kolkata-19.	White Tiger	M	6.10	24.09.2013	23.09.2014	1,50,000/-	
16	Mr. Jyotee Khaitan & Mr. Devansh Khaitan, 13/2, Ballygunge Park Road, Kolkata-17.	Leopard	F	5	24.09.2013	23.09.2014	50,000/-	



17	Mr. Soumyajit Ganguly	Common Peafowl	M		18.09.2013	17.09.2014	15,000/-
	Wave India 190, Jodhpur Gardens, Kolkata-45	(Peacock)					
18	Padma Steel Industries, 38 & 39/27, Jai Bibi Road Howrah-107	Common Peafowl (Peacock)	M		18.09.2013	17.09.2014	15,000/-
19	Century Plyboards (I) Ltd. 6, Lyong Range, Kokatya-1.	Bule & Yellow Macaw	M		18.09.2013	17.09.2014	30,000/-
20	Mr. Rabindra Nath Mitra, 77, Vivekananda Road, Kolkata-6.	Chimpanzee     Mandarin Duck     Golden Pheasant	M	24.10	18.09.2013	17.09.2014	1,50,000/- 10,000/- 15,000/-
		4. Moluccan Cockatoo 5. Common Peafowl (Peacock)	M M				20,000/-
21	Parivar Enclave Pvt. Ltd. 46C, Chowringhee Road Kolkata-71	Himalayan Black Bear	F	12	18.09.2013	17.09.2014	50,000/-
22	Parivar Entertainment Pvt. Ltd., 46C, Chowringhee, Road, Kolkata-71.	Common Peafowl (Peacock)	M		18.09.2013	17.09.2014	15,000/-
23	Mrs. Minu Budhia, Addlife Caring Minds.	Indian One Horned Rhinoc- eros	M	26	27.09.2013	26.09.2014	50,000/-
24	Mr. P. C. Kankaria, Coral Softwares Ltd.	Spoonbill	M		27.09.2013	26.09.2014	10,000/-
25	Mr. R. S. Agarwal, Executive Chairman, Emami Limited.	Bengal Tiger     Indian Elephant	F F	12 20.5	01.10.2013	30.09.2014	1,50,000/- 1,50,000/-
26	Mr. Tapan Kumar Giri Dharmatola, Santragachi, Howrah-104.	Zebra	M	5	11.10.2013	10.102014	50,000/-

## STATEMENT OF ADOPTION OF ANIMALS OF ZOOLOGICAL GARDEN, ALIPORE DURING THE YEAR 2015-16

Sl. No.	Name & Address	Adopt Animals	Sex	Age (Year)	Adoptio	on Period	Amount (Rs.)
					From	То	
1	Mr. Abhijit Banerjee 576/a/7B, D. H. Road Kolkata - 700034, Behala	Sloth Bear,			05.09.2015	04.09.2016	50,000/-
2	Ms. Rita Das, Dover Terrace Kolkata - 700019	Cockatoo Macaw		17	29.09.2015	28.09.2016	50,000/-
3	Pyaridevi Chabiraj Steels Pvt. Ltd., Jaya Bibi Road 38&39/27, Ghusuri, Howrah - 711107	Peafowl	M		18.09.2015	17.09.2016	15,000/-
4	Emami Ltd., Emami Tower 687, Anandapur, EM Bypass, Kolkata - 700017	Elephant	F		17.11.2015	16.11.2016	2,00,000/-
5	Master Aman & Arush Jalan & Lata Devi Bajoria 76, Garden Reach Road Kolkata	Fishing Cat	M		-	-	20,000/-
6	Ms. Debjani Choudhury Nath, 60/2, Kabi Bharati Sa- rani, Kolkata - 700029	Black Swan			21.12.2015	20.12.2016	20,000/-
7	Shaikh Usuir Rahaman 72, Cannaught Road, Surry England	Tiger, Lion & Leopard			18.01.2016	17.01.2018	26,00,000/-
8	Mr. Deepanjan Banerjee Sri Ram Smriti Apartment Attibele Road, Bangalore	Crowned Crane			19.03.2016	18.03.2017	10,000/-



## STATEMENT OF ADOPTION OF ANIMALS OF PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DURING THE YEAR 2013-14

Sl.	Name & Address	Adopt Animals	Sex	Age	Adoptio	on Period	Amount
No.	Ivame & Address	Adopt Animais	ЭСХ	(Year)	From	То	(Rs.)
1	Ms. Gitanjali B Bisawas	Himalayan Mondal			01.04.2013	31.03.2014	4,000/-
2	Ms. Gandhali Karnik	African Grey Parrot			01.04.2013	31.03.2014	2,000/-
3	Mr. Sandip Sinha Roy	Temminck's Tragopan			16.08.2013	15.07.2014	4,000/-
4	Mr. Chandranath Das	Blue and Gold Macaw			01.11.2013	13.12.2014	5,000/-
5	Pallishree Limited, Kolkata	Red Panda			01.11.2013	13.12.2014	50,000/-
6	Pallishree Limited, Kolkata	Snow Leopard			01.11.2013	13.12.2014	1,00,000/-
7	Pallishree Limited, Kolkata	Himalayan Thar			01.11.2013	13.12.2014	8,000/-

## STATEMENT OF ADOPTED ANIMALS OF PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DURING THE YEAR 2014-15

Sl.	Name & Address	Adopt Animals	Age (Year)	Adoptio	Amount	
No.	Name & Address	Adopt Animais		From	То	(Rs.)
1	Dr. Sayantani Bhattacharjee	Red and Blue Macaw		10.06.2014	31.05.2015	10,000/-
2	Pallishree Limited, Kolkata	Snow Leopard		02.03.2014	31.11.2015	1,00,000/-
3	Pallishree Limited, Kolkata	Red Panda		02.03.2014	31.11.2015	50,000/-

### Visitors of Zoos

STATE	MENT OF VISITORS OF DIFFER FINANCIAL YE				HORITY DURING
Sl. No.	Name of the Zoo	2012-13	2013-14	2014-15	2015-16
1	Zoological Garden, Alipore, Kolkata	24,61,090	28,57,346	29,72,455	30,93,290
2	Padmaja Naidu Himalayan Zoological Park, Darjeeling	4,98,696	4,22,704	5,51,818	5,41,379
3	Junglemahal Zoological Park, Jhargram	59,689	70,558	95,227	1,05,722
4	Bardhaman Zoological Park, Bardhaman	1,24,300	1,09,050	1,14,610	1,10,068
5	Rasikbeel Mini Zoo, Cooch Behar	1,13,005	86,900	81,465	90,000
6	Surulia Mini Zoo, Purulia	35,000	32,867	24,560	23,212
7	Garchumuk Deer Park, Howrah	3,05,156	3,62,288	3,94,725	1,57,908
8	Adina Deer Park, Maldah	83,459	72,192	62,600	42,105
9	Kunjanagar Eco-Park, Coochbehar	85,600	60,500	-	-
10	North Bengal Wild Animals Park, Siliguri	-		-	82,523
11	Sundarban Wild Animals Park, Sundarban	-	-	-	-
	Total No.	37,65,995	40,74,405	42,97,460	42,46,207

During 2013-14, 2014-15 & 2015-16 several animals exchange between the Zoos were made as per approval of the Central Zoo Authority.

Adoption of Wild Animals Scheme was introduced in the year 2013-14 both in Zoological Garden, Alipore and Padmaja Naidu Himalayan Zoological Park, Darjeeling. Statement of Revenue Collection through Adoption of Animals is appended below:

Name of the Zoo	2013-14	2014-15
Zoological Garden, Alipore	21,20,000	29,65,000
Padmaja Naidu Himalayan Zoological Park, Darjeeling	1,73,000	1,60,000
Total	22,93,000	31,25,000





Inauguration of North Bengal Wild Animals Park (Bengal Safari), Siliguri, on 21.01.2016 by Hon'ble Chief Minister, West Bengal



Inaugural Function of North Bengal Wild Animals Park (Bengal Safari), Siliguri



Entry Gate of North Bengal Wild Animals Park (Bengal Safari), Siliguri



Safari Bus, North Bengal Wild Animals Park (Bengal Safari), Siliguri







Inauguration of Reptile House by Hon'ble Chief Minister, West Bengal at Zoological Garden, Alipore, Kolkata



Reptile House of Zoological Garden, Alipore, Kolkata



## Section B Annual Administrative Report



## **STATE DEMOGRAPHY**

### **Census of India 2011**

### **Provisional Population Totals for West Bengal**

Area, Population, Decennial Growth Rate and Density for 2001 and 2011 at a glance for West Bengal and the Districts

Sl. No	District	Area Sq.Km	Population 2001			Po	pulation 20	011	Decennial Growth Rate		Population Density Per Sq.Km.	
110		Sq.IXIII	P	M	F	P M F		1991- 2001	2001- 2011	2001	2011	
1	2	3	4	5	6	7	8	9	10	11	12	13
	West Bengal	88,752	80176197	41465995	38710212	91347736	46927389	44420347	17.77	13.93	903	1029
1	Darjilling	3,149	1609172	830644	778528	1842034	934796	907238	23.79	14.47	511	585
2	Jalpaiguri	6,227	3401173	1751145	1650028	3869675	1980068	1889607	21.45	13.77	546	621
3	Koch Bihar	3,387	2479155	1272094	1207061	2822780	1453590	1369190	14.19	13.86	732	833
4	Uttar Dina- jpur	3,140	2441794	1259737	1182057	3000849	1550219	1450630	28.72	22.90	778	956
5	Dakshin Dinajpur	2,219	1503178	770335	732843	1670931	855104	815827	22.15	11.16	677	753
6	Maldah	3,733	3290468	1689406	1601062	3997970	2061593	1936377	24.78	21.50	881	1071
7	Murshidabad	5,324	5866569	3005000	2861569	7102430	3629595	3472835	23.76	21.07	1102	1334
8	Birbhum	4,545	3015422	1546633	1468789	3502387	1791017	1711370	17.99	16.15	663	771
9	Bardhaman	7,024	6895514	3588376	3307138	7723663	3975356	3748307	13.96	12.01	982	1100
10	Nadia	3,927	4604827	2366853	2237974	5168488	2655056	2513432	19.54	12.24	1173	1316
11	North 24- Parganas	4,094	8934286	4638756	4295530	10082852	5172138	4910714	22.69	12.86	2182	2463
12	Hugli	3,149	5041976	2589625	2452351	5520389	2819100	2701289	15.77	9.49	1601	1753
13	Bankura	6,882	3192695	1636002	1556693	3596292	1840504	1755788	13.82	12.64	464	523
14	Puruliya	6,259	2536516	1298078	1238438	2927965	1497656	1430309	14.02	15.43	405	468
15	Haora	1,467	4273099	2241898	2031201	4841638	2502453	2339185	14.57	13.31	2913	3300
16	Kolkata	185	4572876	2500040	2072836	4486679	2362662	2124017	3.93	1.88	24718	24252
17	South Twenty Four Parganas	9,960	6906689	3564993	3341696	8153176	4182758	3970418	20.85	18.05	693	819
18	Paschim Medinipur*	9,345	5193411	2648048	2545363	5943300	3032630	2910670	15.76	14.44	556	636
19	Purba Medini- pur*	4,736	4417377	2268322	2149055	5094238	2631094	2463144	14.87	15.32	933	1076

<sup>\*</sup>Figures of Paschim Medinipur & Purba Medinipur for 2001 have been recast as erstwhile Medinipur divided into two districts after 2001 Census.

<u>TABLE-10</u>
Administrative Units in West B engal-2014 Number

Division & District	Sub- Division	Police Station	Development Blocks	Panchayat Samiti	Gram Panchayat	Villages	Munici- palities	МС
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
West Bengal	66	487(20)	341	333	3349	40218	121	6
Burdwan Divn	27	182(10)	164	164	1524	25009	46	3
Burdwan	6	35(2)	31	31	277	2502	9	2
Birbhum	3	23(1)	19	19	167	2458	6	-
Bankura	3	24(1)	22	22	190	3823	3	-
Purba Medinipur	4	23(1)	25	25	223	2998	5	-
Paschim Medinipur	4	30(2)	29	29	290	8695	8	-
Hooghly	4	25(2)	18	18	207	1866	12	1
Purulia	3	22(1)	20	20	170	2667	3	-
Presidency Divn.	21	227(6)	108	108	1108	7697	53	2
North 24-Pargaas.	5	45(2)	22	22	200	1528	27	-
South 24- Parganas.	5	36(2)	29	29	310	2044	7	-
Kolkata	-	78	-	-	-	-	-	1
Howrah	2	19(1)	14	14	157	650	2	1
Nadia	4	22(1)	17	17	187	1308	10	-
Murshidabad	5	27	26	26	254	2167	7	-
Jalpaiguri Divn	18	78(4)	69	61	717	7512	22	1
Uttar Dinajpur	2	9	9	9	98	1494	4	-
Dakshin Dinajpur	2	8	8	8	65	1631	2	-
Malda	2	12(1)	15	15	146	1772	2	-
Jalpaiguri	3	18(1)	13	13	146	733	4	-
Darjeeling	4	20(2)	12	4	134	688	4	1
Cooch Behar	5	11	12	12	128	1194	6	-

<sup>#</sup> Women Police Stations are mentioned in Parenthesis but excludes 43 G.R.P. of Sealdah, Howrah, Kharagpur & Siliguri.

### Sources ::

- (1) Directorate of Panchayat & Rural Development, Govt. of West Bengal.
- (2) Primary Census Abstruct, 2011.
- (3) Directorate of Police, Govt. of West Bengal.





Table 1.11 :: Districtwise Population of West Bengal

By Rural and Urban Areas, 2011

		Population 2011 (P)		Percentage of Urban
District	Total	Rural	Urban	Population
Bankura	3596292	3295613	300679	8.36
Barddhaman	7723663	4644079	3079584	39.87
Birbhum	3502387	3054019	448368	12.80
Kolkata	4486679	0	4486679	100.00
Darjeeling	1842034	1123859	718175	38.99
Haora	4841638	1776970	3064668	63.30
Hugli	5520389	3388395	2131994	38.62
Jalpaiguri	3869675	2825001	1044674	27.00
Koch Bihar	2822780	2533480	289300	10.25
Malda	3997970	3446056	551915	13.80
Purba Medinipur	5094238	4500770	593468	11.65
Paschim Medinipur	5943300	5228308	714992	12.03
Murshidabad	7102430	5697224	1405206	19.78
Nadia	5168488	3730897	1437591	27.81
North 24-Parganas	10082852	4275724	5807128	57.59
Puruliya	2927965	2554584	373381	12.75
South 24-Parganas	8153176	6065179	2087997	25.61
Uttar Dinajpur	3000849	2638662	362187	12.07
Dakshin Dinajpur	1670931	1434856	236076	14.13
West Bengal	91347736	62213676	29134060	31.89

P : Provisional

### DEMOGRAPHY OF WEST BENGAL

	Demography		
		1991	
Danielskien	Total	68077965	80176197
Population	Male	35510633	41465985
	Female	32567332	38710212
% Share in Country's Population		8.12	7.79
% Share in Urban Population (India)		27.48 (25.73)	27.97 (27.82)
% Share in Rural Population (India)		72.52 (74.27)	72.03(72.18)
% Share in Major religious communities	<u>Hindus</u>	74.72 (72.00)	72.47(80.46)
(India)	Muslims	23.61(12.12)	25.25(13.43)
% Share of SC (India)		23.62 (16.48)	23.02(16.2)
% Share of ST (India)		5.59 (8.08)	5.50 (8.2)
% Share of Children (0-6)		16.98 (17.94)	14.24 (15.93)
	All	917 (927)	934 (933)
Son Datia (India)	SC	931 (922)	949 (936)
Sex Ratio (India)	ST	964 (972)	982 (978)
	Children of (0-6)	967 (945)	960 (927)
Population Density (per Sq.Km.)		767 (274)	903 (324)
Decadal Growth rate (%) (India)		24.73 (23.85)	17.77 (21.34)

		Edu	cation	
Literary	All		1991	2001
-		Total	57.70 (52.21)	68.64 (64.8)
Rate (%)		Male	67.81 (64.13)	77.20 (75.3)
		Female	46.56 (39.29)	59.61 (53.7)
(India)		Rural	50.50 (44.69)	63.42 (38.7)
		Urban	75.27 (73.08)	81.25 (79.9)
	SC	Total	42.21 (37.41)	59.04 (54.7)
		Male	54.55 (49.91)	70.54 (66.6)
		Female	28.87 (23.76)	46.90 (41.9)
		Total	27.78 (29.60)	43.40 (47.1)
		Male	40.07 (40.65)	57.38 (59.2)
	ST	Female	14.98 (18.19)	29.15 (34.8)
Gender Gap in Liter	racy			
			Primary	Upper Primary
No. of Schools-SSA	x-2006		50255 (Govt.)	11440 (Govt/Govt. added)
Pupil - Teacher Rat	Pupil – Teacher Ration (Govt)-SSA-'06			61.41
Net Enrolment Ratio	o (Overall) SSA	'06	98.03	78.74
Dropout Rate (Coho	ort study SSA-20	004)	19.92	29.70

Health							
Infant Mortality Rate (India)	2003	46 (60)					
	2004	40 (58)					
	2005	38 (58)					
Under five Mortality Rate	1998-1999	67.6 (94.9)					
Maternal Mortality Rate	1998	266 (407)					
Birth Rate	2003	20.3 (24.8)					
Death Rate	2003	6.6 (8.0)					
Life Expectancy (2001)	Male	65					
	Female	69					
Mean age at Marriage (IIPS)	Male	24.7 (24.5)					
·	Female	18.5 (19.5)					
Beds per lakhs population(2003)		36					



Administrative Information					
No. of Sub-divisions	66				
No. of Municipalities (2004)	120				
No. of Municipal Corporation (2004)	6				
No. of Blocks	341				
No. of Mouza	40782				
No. of Police Stations (2004)	456				
No. of Gram Panchayats	3354				
Inhabited Villages (2001)	37945				
Area (Sq. Km.)	88752				
No. of Family Welfare Centre	506				
No. of PHCs	922				
% of Electrified Villages	83.6				
Electrified Household (%) (01.04.05)	24.34				
Av. Population Per Bank Offices (RBI-2005)	19000				

Indices		
NHRE-2001	Value	Rank
Human Development Index (India)	0.4404 (0.381)	20
Gender Disparity Index (India)	0.631 (0.676)	26

Employment								
		2001						
		Male	Female					
	Rural	54.1 (52.11)	20.9 (30.79)					
Work participation rate (India)	Urban	53.7 (50.60)	11.6 (11.88)					
% of main worker (India)	Rural	45.8 (44.51)	9.1 (16.77)					
	Urban	50.2 (47.46)	9.2 (9.12)					
% of marginal worker (India)	Rural	8.3 (7.85)	11.8 (14.21)					
	Urban	3.6 (3.38)	2.4 (2.43)					
% of agricultural laboures		22.7 (20.82)	32.2 (39.43)					
No. of registration during the year through employment exch.(2004)	353944							
No. of placements effected during 2004	11530							

Others							
Per Capita Income (2003-2004) at current prices in Rs.	208.95.64						
% of cultivable area to total area (04-05)		65.48					
Cultivable area per agri worker (04-05) (hectres)		0.44					
% of forest area )04-05)		13.52					
% of BPL families (P&RD,2002)		36.38					
% of Population below poverty (1999-2000) (NSS) (India)	Total	27.02 (26.10)					
	Rural	31.85 (27.09)					
	Urban	14.86 (23.62)					
No. of Dowry Deaths	2003	313					
	2004	386					
% change in Dowry Deaths	2002-2003	16.36					
	2003-2004	22.32					

**TABLE 7.0 Livestock in West Bengal** 

(Number in thousand)

Particulars	2010	2011	2012
(1)	(2)	(3)	(4)
1. Cattle:	20229	20607	16514
2. Buffalo:	689	666	597
3. Others:	20628	21820	13234
(i) Sheep	1714	1763	1076
(ii) Goats	18153	19315	11506
(iii) Horses & Ponnies	4	4	4
(iv) Pigs	757	738	648
4. Poultry	86175	97463	52838
(i) Fowl	74315	85675	46216
(ii) Duck	11611	11540	6535
(ii) Other Poultry	249	248	86

Note: 1) Figures of 2010 & 2011 are projected figures

2) 2012 (19th Livestock Census figure)

Source: Directorate of Annual Resources & Animal Health

Govt. of West Bengal.

### District-wise Geographical Area Of West Bengal

State/District	Geog	graphical Area in Sq.Kms.2001 (R	ms.2001 (Revised)			
State/District	Total Geographical Area	Rural Geographical Area	Urban Geographical Area			
••••	In Sq.Kms.	In Sq.Kms.	In Sq.Kms.			
West Bengal	88752.00	85427.26	3324.75			
Darjeeling	3149.00	3073.77	75.23			
Jalpaiguri	6227.00	6105.93	121.07			
Cooch Behar	3387.00	3345.66	41.34			
Uttar Dinajpur	3140.00	3095.64	44.36			
Dakshin Dinajpur	2219.00	2196.30	22.70			
Malda	3733.00	3707.63	25.37			
Murshidabad	5324.00	5195.11	128.89			
Birbhum	4545.00	4495.02	49.98			
Burdwan	7024.00	6223.82	800.18			
Nadia	3927.00	3716.83	210.17			
North 24-Parganas	4094.00	3594.44	499.56			
Hooghly	3149.00	2950.19	198.81			
Bankura	6882.00	6820.51	61.49			
Purulia	6259.00	6179.63	79.37			
Medinipur	14081.00	13695.78	385.22			
Howrah	1467.00	1247.76	219.24			
Kolkata	185.00	-	185.00			
South 24-Parganas	9960.00	9783.24	176.76			



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Table: 1.6: District-wise Scheduled Tribe and Scheduled Caste Population in West Bengal 2011 Census data

1		ST Male	-		ST Female		ST Grand		ST Male		3	ST Female		ST Grand
strict	Urban	Rural	Total	Urban	Rural	Total	Total	Urban	Rural	Total	Urban	Rural	Total	Total
Paschim Medinipur	13290	426541	439831	13694	426490	440184	880015	6969	523162	570125	47129	511015	558144	1128269
Ashoigari	20833	345035	365868	20559	345277	365836	731704	153274	597567	750841	145613	561824	707437	1458278
Purulla	4421	267382	271803	6000	264440	268849	540652	39379	251410	290789	37871	239107	276978	567767
Burdwan	55232	188349	243581	54953	190913	245866	489447	303346	776238	1079584	288240	747895	1036135	2115719
Darjeeling	38333	158918	197251	39987	160151	200138	397389	46629	114866	161495	45824	109956	155780	317275
Bankusa	1733	181734	183467	1577	183646	185223	368690	34206	559234	593440	34588	546419	581007	1174447
	3372	154156	157528	2987	153469	156456	313984	36107	396637	432744	31831	370855	402686	835430
Dakshin Dinajpur	3714	134311	138025	3739	133602	137341	275366	21892	226420	248312	20590	213762	234442	482754
North 24 Parganas	34503	92966	134179	33174	97244	130418	264597	569308	646150	1115458	447077	606549	1053626	2169084
Birbhum	4765	115022	119787	5053	117644	122697	242484	50100	478901	529001	48986	455153	504139	1033140
sooghly .	8902	104347	113249	8721	107273	115994	229243	148125	532867	680992	142157	520872	620899	1344021
Mrr Dinajpur	2200	79631	81831	2239	78746	80985	162816	34959	383329	418288	31837	357825	389662	807950
	10188	60954	71142	10212	59346	69558	140700	207720	590538	798258	197856	550803	748659	1546917
South 24 Parganas	3641	45554	49195	3446	44335	47781	96936	205180	1061324	1266504	196555	1000973	1197528	2464032
Murshidebad	5636	43527	46163	2395	42477	44872	91035	86755	373388	460143	83058	354333	437391	897534
Purba Medinipur	2086	12110	14196	1838	11918	13756	27952	35240	348478	383718	32931	328785	361716	745434
Coochbehar	653	8735	9388	009	8137	8737	18125	32252	696254	728506	31427	654403	685830	1414336
Howrah	5686	2075	7761	5383	1950	7333	15094	159522	207531	367053	151614	200284	351898	718951
V	5729	0	5729	4955	0	4955	10684	128053	0	128053	113879	0	113879	241932
TOTAL	221917	2428057	2649974	219921	2427058	2646979	5296953	2239010	8764294 11003304	11003304	2129153	8330813	8330813 10459966 21463270	21463270





## LAND USE, CLIMATE AND SOIL

#### 2.1 LAND USE

The overall land use pattern in the state of West Bengal depends mostly on the physiographic condition of the area. Total geographical area of the state is divided into two major classes i.e. (a) arable land, that includes net sown area and fallow land (b) non-arable land, which includes forest, area not available for cultivation and other uncultivable land excluding current fallow. The percentage of arable land is about

63.48 % and about 34.36% land is under non-arable category (Economic Review, GoWB, 2009-10), which includes notified forest area to the tune of 13.38% of total geographical area. Agricultural activities are mostly restricted to the Gangetic plains having fertile cultivable land. The percentage of net sown area is higher (above

70%) in Uttar and Dakshin Dinajpur, Nadia, Murshidabad, Cooch Behar, North 24-Parganas, Hoogli, Burdwan and Birbhum districts. High percentage of forest cover exists in the Districts having hills and mountain ranges and also in the coastal areas. Protected forests also cover considerable areas in Purulia, Bankura, Medinipur, Burdwan and Birbhum districts. The maximum area under forest (44.68 %) is found in Darjeeling district.

#### **CLIMATE**

In general, the climate of West Bengal varies from subhumid to perhumid with uniformity of temperature. The tropic of cancer runs across the middle of Nadia, Burdwan, northern parts of Bankura and Purulia districts. In spite of its position in equatorial zone, the Himalayan Mountains in the north, Bay of Bengal in the south and extensive network of rivers, canals, tanks etc. do not allow extreme climatic conditions to prevail in the state.

Heavy rainfall occurs in the northern part of West Bengal and gradually decreases towards south forming an area of moderate rainfall zone around central part of West Bengal. The annual rainfall is maximum (>3000 mm) at the foothill region on the north (sub-Himalayan West Bengal). Whereas, the coastal region in the south receives around 1500-2000 mm of rainfall, and it decreases to 900 mm in SouthWest. The average annual rainfall in the state is about 1,900 mm of which 1,600 mm occurs during monsoon months.

In the Northern part of the state that includes the mountain region (Himalayas), temperature ranges from freezing point to 10°C in winter. It hovers around 12°C to 18°C in the plains. January is the coldest month and winter starts from the end of November and extends to February. Darjeeling has a normal mean temperature ranging from 5.8°C to 17.0°C where snowfall also occurs occasionally. Rest of the area has mean winter temperature ranging from 9°C to 14°C.

The summer season begins from the month of March and temperature starts rising upto June. May is the hottest month. The summer temperature shows variation from 20°C in Darjeeling district to about 48°C in Purulia district. Temperature in the rainy seasons is more or less uniform in the plains and it varies from 21°C at Kolkata to 30°C at Canning. This uniformity indicates the influence of southwest monsoon in lowering temperatures.

### **SOIL**

In the Himalayan region the soils are predominantly shallow to moderately shallow but also deep at places, well drained, coarse-loamy to gravelly loamy in texture. These soils occur on steep side slopes. They are classified as Typic Haplumbrepts and Typic Udorthents.

In the foothills of Himalayas and in piedmont plains the soils are deep to very deep, imperfectly drained and coarse-loamy to fine loamy in texture and are placed in Aquic Ustifluvents and Fluventic Eutrochrepts.

Soils of the alluvial plain which includes Indo-gangetic alluvium (recent, active and old) are also very deep, imperfectly to poorly drained, fine-loamy and also coarse-loamy in texture and with moderate flooding problem in some cases. These soils are classified as Aeric Haplaquepts, Typic Fluvaquents, Typic Haplaquepts, and Typic Ustochrepts. Undulating plain area is represented by very deep, fine-loamy and coarse-loamy soils with moderate erosion and classified as Aeric Ochraqualfs, Typic Ustifluvents and Typic Haplustalfs.

The western part of the state i.e., predominantly Chhotanagpur plateau area have soils shallow to very shallow, well-drained and gravelly loam and coarse-loamy in texture with moderate erosion whereas soils in the remaining part are deep to very deep, well drained, fine loamy in texture. They are classified as Lithic Haplustalfs and Typic Haplustalfs.

Coastal plain is represented by soils of both sandy as well as fine in texture, very deep with salinity problems in some places. Soils are placed in Aquic Ustipsamments and Vertic Haplaquepts. Whereas soils of delta plain are very deep, imperfectly to poorly drained, fine in texture and has the problem of inundation and salinity and classified as Aeric Haplaquepts and Typic Haplaquepts.

The physiography of West Bengal can be divided into two major regions:

- A. Himalayan Region
- B. Gangetic Plains
- A. Himalayan Region : This is sub-divided further into two parts:
- i) Darjeeling Himalayas: This zone consists of Darjeeling district (except the Siliguri Sub-Division). The hills are comparatively of recent origin, generally steep sided and prone to landslides. Soils are brown, loamy in nature, rich in nutrients, organically rich and acidic in reaction. Most of the rivers originate here.
- ii) Sub-Himalayan: This zone comprises of the plains districts of Jalpaiguri and Cooch Behar and Siliguri Sub-Division of Darjeeling district. Soils are mostly sandy, highly acidic, heavily leached and poor in base and plant nutrients. Since most of the hilly river flow through this region, these areas are flood prone.
- B. Gangetic Plains: The Lower Ganga Plain in West Bengal forms a part of the Indo-Gangetic Plains.

14 districts of West Bengal are contained in this physiographic region. This region is further divided into four micro physiographic zones. These are :

- Barind tract comprising Cooch Behar, Malda, North and South Dinajpur districts.
- Moribund Delta comprising of Murshidabad and Nadia districts.
- Proper Delta consisting of the districts of Burdwan, Kolkata, Hooghly, Howrah, South & North 24-Parganas.
- Rarh plain is spread over Purba and Paschim Medinipur districts, Bankura, Birbhum and Purulia.

Agro climatic zoning refers to the division of an area of land into land resource units, based on numerical expressions of crop climate quantified in the form of agro-climatic indices, having an unique combination of landforms, soils and climatic characteristics with a specific range of potentials and constraints for land use.





#### Mean Maximum and Minimum Temperature By Station and Month in West Bengal (Average of daily Maximum and Minimum Temperature) - 2005 January February March May June April Station/Degrees in Celssius Max Min Max Min Max Min Max Min Max Min Max Min **Hill Station** Kalimpong Darjeeling **Sub Himalayan West** Bengal Jalpaiguri Coochbehar Balurghat Malda **Gangetic West Bengal** Kolkata Krishnagar Berhampur Burdwan Suri Bankura Midnapur Purulia

Mean	Mean Maximum and Minimum Temperature By Station and Month in West Bengal											
	(Average of daily Maximum and Minimum Temperature) - 2005											
Station/Degrees in	Ju	ıly	Auş	gust	Septe	ember	Oct	ober	Nove	mber	Dece	mber
Celssius	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	2	3	4	5	6	7	8	9	10	11	12	13
Hill Station												
Kalimpong	23	20	30	26	26	20	25	17	23	13		
Darjeeling	19	13	20	13	21	13	17	9	16	4	14	6
Sub Himalayan West Bengal												
Jalpaiguri	32	25	32	25	34	25	30	21	30	16	28	13
Coochbehar	32	25	32	26	33	25	29	21	29	16	27	12
Balurghat		27							28	17		14
Malda	32	26	33	27	34	27	30	24	28	18	26	14
Gangetic West Bengal												
Kolkata	32	26	33	27	33	26	30	24	30	18	27	15
Krishnagar	33	27	33	27	34	26	31	24	30	17	26	13
Berhampur	32	26	32	26	33	26	30	23	28	18	26	14
Burdwan	32	26	33	26	33	26	30	23	29	16	26	14
Suri	32	26	33	26	33	25	22	22	29	15	26	13
Bankura	32	26	33	27	33	26	30	24	29	16	26	12
Midnapur	32	26	32	26	31	26	30	24	28	17	25	14
Purulia												



### **Annual Rainfall in West Bengal**

District	Normal	1990	2009	2010	2011	2012	2013	2014
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Burdwan	1271	1557	1229	856	1322	1030	1216	1045
Birbhum	1234	1542	1278	985	1482	976	1319	1130
Bankura	1271	1640	1231	917®	1740	1269	1809	1028
Purba Medinipur			1301	1244	1538	1342	2078	1728
Paschim Medinipur	1428	2152	1191	1055	1656	1222	1977	1119
Howrah	1676	1953	1352	1219	1502	1138	2179	1189
Hooghly	1516	1571	1263	1044	1556	1152	1494	1188
North 24-Parganas			1410	1180	1669	1208	1658	1321
South 24-Parganas	1579	2208®	1415	1227	1535	1420	1701	1413
Kolkata (Alipur)	1605	2077	158 3	1536	1583	1656	2355	1381
Nadia	1401	1685®	1209	940	1488	1039	1245	1129
Murshidabad	1338	1538®	1180	989	1526	1001	1143	1126
Uttar Dinajpur	1802	2377®	1521	1588	1785	1163	1580	1328
Dakshin Dinajpur			1256	1683	1479	1244	1428	1327
Malda	1498	1526®	1204	1129	1440	955	1265	1293
Jalpaiguri	4136	3434	3155	3882	3146	3787	3506	3047
Darjeeling	3212	3810	3341	4018	3415	2845	3254	3186
Cooch Behar	3193	3157	2438	3673	2669	3354	2431	2552
Purulia	1365	1811	1024	798	1557	1396	1560	1023

#### Source:

- i) Agricultural Meteorologist. Directorate of Agriculture, Govt. of West Bengal (Other than District Kolkata)
- ii) Meteorological Department, Govt. of India (Only for Kolkata)

Table 1.2: Agro-climate regions/zones in India

SL.No.	Agro-climatic regions in India	States represented
I	Western Himalayan regions	Himachal Pradesh, Jammu & Kashmir, Uttarakhand
II	Eastern Himalayan region	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, West Bengal
III	Lower Gangetic plain region	West Bengal
IV	Middle Gangetic plain region	Uttar Pradesh, Bihar
V	Upper Gangetic plain region	Uttar Pradesh
VI	Trans Gangetic plain region	Chandigarh, Delhi, Haryana, Punjab, Rajasthan
VII	Eastern plateau and hills region	Chattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, West Bengal
VIII	Central plateau and hills region	Madhya Pradesh, Rajasthan, Uttar Pradesh
IX	Western plateau and hills region	Madhya Pradesh, Maharashtra
X	Southern plateau and hills region	Andhra Pradesh, Karnataka, Tamil Nadu
XI	East coast plains and hills region	Andhra Praedesh, Orissa, Pondicherry, Tamil Nadu
XII	West coast plains and ghat region	Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu
XIII	Gujrat plains and hills region	Gujrat, Dadra & Nagar Haveli, Daman & Diu
XIV	Western dry region	Rajashtan
XV	Island region	Andaman & Nicobar Islands, Lakshdweep

Source: Planning Commission (Khanna, 1989) has identified 15 resource development regions in the country, 14 in the main landand remaining one in the islands f Bay of Bengal and Arabian Sea.

**Table: Land utilisation in West Bengal** 

Land Use	Area (m.ha.)
Total geographical area	8.87
Reporting area for land utilisation statistics	8.84
Forest	1.09
Area is available for cultivation	1.63
Other uncultivated land excluding fallow land	0.36
Fallow land	0.43
Net area sown	5.33

Source: Economic Review, Bureau of Applied Economics and Statistics. GeM. of West Senpl, 1988-89.

Table: Description of agro-ecological subregions

Agro-ecological subregion number	Description		
16.2	Darjeeling Himalayas, warm, perhumid agro-ecological subregion with shallow to moderately deep, loamy Brown	2.9	
	and Red hill soils, low to medium Awc (75-100 mm/m)		
	and more than 300 days of LGP		
16.1	Moderately to gently sloping foothills of Bhutan Himalayas,	1.9	
	warm to hot perhumid agro-ecological subregion with shallow		
	to moderately deep loamy skeletal to loamy Tarai soils, low to		
	medium AWC (50-120 mm/m) and 270-300 days of LGP		
15.3	Level Teesta Plain, hot, perhumid agro-ecological subregion	9.6	
	with deep, loamy to clayey alluvium-derived soils, medium		
	AWC (100-150 mm/m) and 270-300 days of LGP.		
15.1	Nearly level to gently sloping Ganga plain (Bengal Basin),	55.7	
	hot moist-subhumid agro-ecological sub-region with deep,		
	loamy to clayey, alluvium-derived soils, medium to high		
	AWC (150-200 mm/m) and 210-240 days of LGP.		
18.5	Gently sloping to level Gangetic lower Delta, moist sub-	7.6	
	humid agro-ecological subregion with deep,. loamy to clayey		
	coastal and Deltaic Alluvium-derived soils, medium Awc		
	(150-200 mm/m) and 240-270 days of LGP.		
12.3	Gently sloping andlor gently undulating Chottanagpur	22.3	
	plateau, hot, dry-subhumid agro-ecological subregion, deep,		
	loamy to clayey Red and Lateritic soils, medium Awc		
	(100-150 mm/m) and 150-180 days ) of LGP.		

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)



Table: Soils under limiting depth classes

Class	Location		Area affected	Area affected	
	Agro-eco subregion	Distribution	'000ha	Percent of Mapped Area	
		(District)		(% of TGA)	
Very Shallow (0-	Hot	Purulia	30.7	0.4(0.3)	
25cm)	Subhumid				
Shallow (25-50 cm)	Warm	Part of	15.4	0.2 (0.2)	
	Perhumid	Darjiling			
	Hot	Purulia,	303.00	3.5 (3.4)	
	Subhurriid	Medinipur,			
		Bankura			
Moderately		Part of	109.8	1.3 (1.2)	
shallow	Warm	Darjiling			
(S0-75 em)	Perhurnid				
	Hot	Part of	15.4	0.2 (0.2)	
	Subhurnid	Medinipur,			
		Barddhaman,			
		Birbhum,			
		Purulia,			
		Bankura			

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)

Table: Soils under limiting drainage classes

Class	Location		Area affected	
	Agro-eco subregion	Distribution	'000ha	Percent of Mapped Area
		(District)		(% of TGA)
Very poor	Hot Subhumid	Part of	173.4	2.0 (1.9)
		Medinipur, Hooghly and 24-Parganas(S)		
Poor	Hot Part	Part of	2453.3	28.4 (27.6)
	Perhumid to Subhumid	24-Parganas,		
		Nadia,		
		Murshidabad, Jalpaiguri, Kochbihar, .		
		Medinipur, Hawrah		
		Hooghly		
Imperfect	Hot Subbumid	Part of Barddhaman,	1747.6	20.3 (19.7)
		Birbhum, Hooghly, W. Dinajpur, Malda, Medinipur & Purulia		
Excessive	Warm Perhumid	Part of Dariling and	56.1	0.6(0.6)
		Jalpaiguri		
	Hot	Part of	8.6	0.1 (0.1)
	Subbumid	Bankura & Purulia		

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)

Table : Soils under limiting erosion classes

Class	Location		Area affected	
	Agro-eco subregion	Distribution (District)	'000ha	Percent of Mapped Area (% of TGA)
Severe	Warm Perhumid	Darjiling(part)	37.0	0.4(0.4)
	Hot Subhumid	Western part of Puru- lia, Birbhum, Bankura and Medinipur	20.4	0.2(0.2)
Moderate,	Hot Subhumid	Western part of Barddhaman Birbhum, Medi- nipur, Bankura Murshidabad, Malda, N&S Dinajpur, Cooch-bihar and entire Purulia	1137.1	13.2 (12.8)
	Warm Perhumid	Darjiling Jalpaiguri (part)	166.0	1.9 (1.8)

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)

Table : Soils under limiting textural classes (surface)

Class	Location	Location		Area affected	
	Agro-eco subregion	Distribution (District)	'000ha	Percent of Mapped Area (% of TGA)	
Sandy	Hot Subhumid	Coastal part of Medinipur	13.7	0.16(0.2)	
Gravelly loam	HotSubhumid / Warm Perhumid	Part of Darjling, Medinipur, Bankura, Purulia	488.4	5.6(5.5)	
Clayey	Hot Subhumid	24-Parganas(S)  Medinipur, Barddhaman, Murshidabad,  Nadia	1550.7	18.0 (17.5)	

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)



Table :Soils under limiting salinity classes

Class	Location		Area affecte	ed
	Agro-eco subregion	Distribution (District)	'000ha	Percent of Mapped Area (% of TGA)
Very Strong	Hot Subhumid	South strong 24-Parganas & Medinipur	241.0	2.8 (2.7)
Strong	do	do	5.7	0.06 (0.06)
Moderate	do	do	131.0	1.5 (1.5)

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)

Table : Soils under limiting flooding classes

Class	Location		Area affected	
	Agro-eco subregion	Distribution (District)	'000ha	Percent of Mapped Area (% of TGA)
Moderate	Hot Humid	Part of Jalpaiguri, Kochbihar, North	1.3(1.3)	
	Hot Subhurnid	Dinajpur Part of North Dinajpur, MaIda, Murshidabad, Nadia, Barddhaman, 24-Parganas, Medinipur	931.2	
Severe	Hot Subhumid	Part of Hooghly Medinipur, Murshidabad, Nadia and 24-Parganas	907.2	10.5( 10.2)

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)

Table : Soils under limiting water logging classes

Class	Location		Area affected	
	Agro-eco subregion	Distribution (District)	'000ha	Percent of Mapped Area (% of TGA)
Moderate	Hot Perhumid	Coochbihar Jalpaiguri	111.3	1.3 (1.2)
	Hot, moist Subhumid(Bengal Basin)	W.Dinajpur Medinipur Bardhaman, Birbhum, Murshidabad	337.5	3.9(3.8)
Slight	Hot, Perhumid	Darjling Jalpaiguri, Coochbihar	189.8	2.2(2.1)
	Hot,moist, Subhumid (Bengal Basin)	W.Dinajpur Maldah, Murshidabad, Birbhum, Medinipur, Hooghly, Bardhaman, Nadia, Howrah	618.5	7.1(6.9)

(Source: Soils of West Bengal for Optimising Land Use. NBSS Pub!. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India), December, 1992)





# **FORESTS**

## FOREST LAND, FOREST COVER, AND VEGETATION

The state of West Bengal extends from the Himalayas in the north to the Bay of Bengal in the south. It lies between 200 31' N and 270 12' N latitude and 850 50' E and 890 52' E longitude covering a geographic area of 88,752 sq.km. Five States (Sikkim, Assam, Bihar, Jharkhand and Orissa) and three countries (Bhutan, Nepal and Bangladesh) surround West Bengal – Sikkim to the North, Bhutan to the North-East, Assam and Bangladesh to the East, Nepal, Bihar and Jharkhand to the West and Jharkhand and Orissa to the South-West. The exteme south end touches the Bay of Bengal.

Total recorded forest land in the state is 11,879 sq.km, of which 7,054 sq.km. is Reserved Forest, 3,772 sq.km. is Protected Forest and 1,053 sq.km. is Unclassed State Forest, thus constituting 13.38% of the geographical area of the state.

The forest cover including the forests created outside the recorded forest area is 15.68% of the geographical area as assessed by the GIS Cell of the W.B. Forest Department in the year 2006 on the basis of Satellite Imagery procured from NRSA, Hyderabad in digital data format. While computing the forest cover of the State, the protocol developed by RRSSC, Kharagpur under Dept. of Space, GOI, NRSA, Hyderabad in earlier studies was followed. Estuarine water bodies like rivers & creeks in mangrove forest and river flowing through the recorded forest land in Jalpaiguri and other districts have been included while computing the forest cover. Similarly large portions of farm foresty plantations, raised out side forest land, having forest like micro-ecosystem, have been enumerated as forest cover.

As perclassification of satellite imageries, the vegetation cover of the state is more than 27% of the geographical area as in 2006. The vegetation cover include village orchards/groves, tea garden and horticulture plantations.

Geographical Area	88,752 sq km
Population (as per Census 2011)	91.27 million
Urban	29.09 million (11.29%)
Rural	62.18 million (88.71%)
Tribal	5.30 million (5.80%)
Average Population Density	1,028 per sq km
Livestock population (as per 18th Live Stock Census)	37.41 million
No. of Districts (as per Census 2001)	18
No. of Hill Districts	1
No. of Tribal Districts	11

Land use Pattern					
Land Use	Area in '000 ha	Percentage			
Total Geographical Area	8,875				
Reporting area for land utilization	8,684	100			
Forests	1,174	13.52			
Not available for cultivation	1,834	21.12			
Permanent pastures and other grazing lands	3	0.03			
Land under Misc. Tree crops and groves	50	0.57			
Culturable wasteland	24	0.27			
Fallow lands other than current fallows	15	0.18			
Current fallows	379	4.37			
Net area sown	5,205	59.94			

Source: Landuse Statistics, Ministry of Agriculture, GOI, 2012-13.

Forest Cover Within Green Wash	
Very Dense Forest	2,648 sq km
Moderately Dense Forest	2,413 sq km
Open Forest	2,134 sq km
Sub Total	7,195 sq km
Forest Cover Outside Green Wash	
Very Dense Forest	300 sq km
Moderately Dense Forest	1,759 sq km
Open Forest	7,574 sq km
Sub Total	9,633 sq km
Total Forest Cover	16,828 sq km
Tree Cover	2,088 sq km
Total Forest & Tree Cover	18,916 sq km
Per capita Forest & Tree Cover	0.021 ha
Of State's Geographical Area	21.31%
Of India's Forest & Tree Cover	2.38%

Fore	st Cover Information in Different Patch Si	ize Class		(Area in km²)
S. No.	Patch Size Range ( sq km)	No. of Patches	Area (sq km)	Percentage
1.	<= 0.01 <=1.0	69,152	4,600	27.33
2.	> 1.0 <=10	1,159	3,076	18.28
3.	>10 <=100	191	4,898	29.11
4.	>100 <= 500	7	1,098	6.53
5.	>500 <=1000	1	516	3.07
6.	>1000 <=5000	2	2,640	15.68
7.	>5000 <=10000	0	0	0
8.	>10000	0	0	0
	Total	70,512	16,828	100



Forest Types		(Area in km²)
Forest Type	Area	Percent
2B/2S3 Sub Himalayan Secondary Wet Mixed Forest	357.50	2.86
3C/C1 ai East Himalayan Sal	323.67	2.59
3C/C1 bi East Himalayan Upper Bhabar Sal	151.95	1.22
3C/C1 bii East Himalayan Lower Bhabar Sal	126.22	1.01
3C/C1c Eastern Tarai Sal	326.32	2.61
3C/C2d iii Eastern Heavy Alluvium plain Sal	5.08	0.04
3C/DS1 Moist Sal Savannah	12.33	0.10
3C/C3a West Gangatic Moist Mixed Deciduous Forest	10.98	0.09
3C/C3b East Himalayan Moist Mixed Deciduous Forest	378.87	3.05
3C/2S2 (Secondary Euphorbiaceous, Scrub)	6.33	0.05
3/1S1 Low Alluvial Savannah Woodland (Salmalia - Albizzia)	34.44	0.28
4B/TS1 Mangrove Scrub	123.12	0.99
4B/TS2 Mangrove Forest	1,025.33	8.22
4B/TS3 Salt Water Mixed Forest	487.72	3.91
4B/TS4 Brackish Water Mixed Forest	313.62	2.51

Forest Types			
Forest Type	Area	Percent	
4B/E1 Palm Swamp Forest	151.61	1.21	
4C/FS2 Sub Montane Hill-valley Swamp Forest	3.26	0.03	
4D/SS2 Barringtonia Swamp Forest	10.83	0.09	
4D/2S1 Eastern Wet Alluvial Grassland	4.59	0.04	
5B/C1c Dry Penisular Sal Forest	2,732.05	21.88	
5B/C2 Northern Dry Mixed Deciduous Forest	429.41	3.44	
5/DS1 Dry Deciduous Scrub	84.38	0.68	
5/E5 Butea Forest	109.97	0.88	
5/1S2 Khair Sissoo Forest	219.89	1.76	
5/1S2 Khair Sissoo Forest	339.41	2.72	
11B/C1 a Lauraceous Forest	123.39	0.99	
11B/C1 b Buk Oak Forest	56.58	0.45	
11B/C1c High Level Oak	20.34	0.16	
12/C3 a East Himalayan Mixed Coniferous Forest	295.36	2.36	
14/C2 East Himalayan Sub-alpine Birch/Fir	14.21	0.11	
Plantation/TOF	4,202.24	33.67	
Total	12,481	100	

Source: Atlas Forest Types of India, 2011

Growing Stock	
Growing Stock in Recorded Forest Area	84.32 million cum
Growing Stock in TOF	37.69 million cum

Recorded Forest Area	
Reserved Forest	7,054 sq km
Protected Forest	3,772 sq km
Unclassed Forest	1,053 sq km
Total	11,879 sq km
Of State's Geographical Area	13.38 %
Of India's Forest Area	1.55 %

Table 7.30a: District-wise Forest Cover of West Bengal

District-wise Forest Cover (Area in km²)								
District	Geo- graphi- cal Aea	Very Dense Forest	Mod. Dense Forest	Open Forest	Total	Percent of GA	Change	Scrub
Bankura <sup>T</sup>	6,882	212	379	673	1,264	18.37	20	35
Bardhman <sup>T</sup>	7,024	60	88	168	316	4.50	-3	9
Birbhum <sup>T</sup>	4,545	1	30	144	175	3.85	-1	1
Kolkata	185	0	0	0	0	0.00	0	0
Coochbehar	3,387	0	27	322	349	1.30	1	0
Dakshin Dinajpur <sup>T</sup>	2,219	0	5	82	87	3.92	0	0
Darjeeling <sup>TH</sup>	3,149	724	652	1,002	2,378	75.52	0	6
Howrah	1,467	0	50	254	304	20.72	0	0
Hoogli	3,149	0	14	145	160	5.08	0	0
Jalpaiguri <sup>T</sup>	6,227	718	439	1,699	2,856	45.86	-7	35
Malda <sup>T</sup>	3,733	0	214	290	504	13.50	0	0
Medinipur <sup>T</sup>	14,081	211	810	1,973	2,994	21.26	10	12
Murshidabad <sup>T</sup>	5,324	0	54	295	349	6.56	1	2
Nadia	3,927	1	159	319	479	12.20	0	1
North 24 Pargana	4,094	13	185	526	724	17.68	-1	0
Purulia <sup>T</sup>	6,259	31	310	531	872	13.93	3	21
South 24 Pargana <sup>T</sup>	9,960	977	753	1,052	2,782	27.93	8	1
Uttar Dinajpur	3,140	0	3	232	235	7.48	-8	0
Grand Total	88,752	2,948	4,172	9,708	16,828	18.96	23	133



Table 7.30b: Change Matrix of West Bengal

Forest Cover Change Matrix						(Area in km²)
			2015 Assessn	nent		
Class	VDF	MDF	OF	Scrub	NF	Total ISFR 2013
Very Dense Forest	2,946	8	10	1	6	2,971
Moderately Dense Forest	1	4,116	19	3	7	4,146
Open Forest	0	39	9,521	7	121	9,688
Scrub	0	0	7	103	1	111
Non Forest	1	9	151	19	71,656	71,836
Total ISFR 2015	2,948	4,172	9,708	133	71,791	88,752
Net Change	-23	26	20	22	-45	

Table 7.30c: Altitude-wise Forest Cover of West Bengal

Altitude-wise Forest (	Cover			(Area in km²)
Altutude Zone	VDF	MDF	OF	Total
0-500m	2,315	3,629	9,010	14,954
500-1000m	142	270	263	675
1000-2000m	268	223	392	883
2000-3000m	197	46	41	284
>3000m	26	4	2	32
Total	2,948	4,172	9,708	16,828

# Reasons for change detected in 2015 assessment:

The increase in the forest cover is due to plantation activities, coppice growth inside the forest, also growth of commercial plantation, shade trees inside the tea garden and mangrove rehabilitations.

Table - 4.1(i): Diversion of Forest Land for Non-Forest use in West Bengal since the enforcement of Forest (Conservation) Act, 1980

(Area in Hectares)

Year	Area approved for diversion	Diversion Not executed	Temporary Diversion	Net Diversion
1981-1982	29.772	0.200	0.000	29.572
1982-1983	87.190	0.000	0.000	87.190
1983-1984	15.325	2.44	0.000	12.885
1984-1985	13.309	0.000	0.000	13.309
1985-1986	306.000	0.000	0.000	306.000
1986-1987	23.766	0.018	0.000	23.748
1987-1988	16.702	0.000	0.000	16.702
1988-1989	18.925	0.000	0.000	18.925
1989-1990	94.480	0.030	0.000	94.450
1990-1991	19.357	0.627	0.000	18.730
1991-1992	47.500	0.082	0.000	47.418
1992-1993	78.107	67.067	0.000	11.040
1993-1994	232.000	0.000	0.000	232.000
1994-1995	45.000	0.000	0.000	45.000
1995-1996	93.960	0.000	0.000	93.960
1996-1997	1.646	0.000	0.000	1.646
1997-1998	6.798	0.000	0.000	6.798
1998-1999	21.690	1.820	0.000	19.870
1999-2000	3.020	0.000	0.000	3.020
2000-2001	0.997	0.000	0.070	0.927
2001-2002	285.900	0.000	0.000	285.900
2002-2003	10.070	0.000	0.000	10.070
2003-2004	0.000	0.000	0.000	0.000
2004-2005	320.622	18.132	119.000	183.490
2005-2006	357.767	0.117	0.000	357.650
2006-2007	115.358	0.000	0.000	115.358
2007-2008	37.954	0.000	0.600	37.354
2008-2009	0.075	0.000	0.000	0.075
2009-2010	70.484	0.000	0.000	70.484
2010-2011	174.692	0.173	0.000	174.519
2011-2012	46.579	14.530	0.000	32.049
2012-2013	0.000	0.000	0.000	0.000
2013-2014	58.783	51.902	0.000	6.881
2014-2015	11.031	2.700	0.000	8.331
2015-2016	10.590	0.000	0.000	10.590
Total	2655.448	159.838	119.670	2375.940

Extent of Recorded Legal Status Forest Land including land Mutated to the Forest Department, GOWB, as on 31.03.2016 in West Bengal

															7
Remarks		Forest Land under	<b>BuxaTiger Reserve</b>	not matching with Notification for Core & Buffer area of BTR, Commu- nication sent to concerned Divisions for reconciliation but no response received till date.											
Total Recorded/ Mutated Forest land (in ha)	(a+b+c+d)	5352,440			54593.870	33428.192	56300.475	16883.290	22789.862	6125.961	6830.870	30649.860	827.426	16372.900	24475.120
Non-Forest Area transferred to and yet to be mutated in the name of FD, GoWB (under FC Act)	(e)	0.000			294.000	0.000	23.170	45.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Non-Forest Area transferred to and mutated in the name of FD, GoWB and yet to be declared as RF/PF (under FC Act)	(p)	0.000			0.000	32.000	0.000	238.748	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unclassed State Forest (in ha)	(3)	3347.670			3340.850	11903.868	1343.135	9263.418	3659.989	0.000	2848.500	0000	121.388	264.300	0.000
Protected Forest (in ha)	(b)	0000			48953.200	20614.324	52914.920	5390.364	16120.603	6125.961	3982.370	0.000	291.546	0.000	0.000
Reserve Forest (in ha)	(a)	2004.770			2299.820	878.000	2042.420	1990.760	3009.270	0.000	0.000	30649.860	414.492	16108.600	24475.120
Name of Division		Jalpaiguri	BTR West	BTR East	Bankura North	Panchet	Bankura South	Birbhum	Burdwan	Durgapur	CoochBehar	Jaldapara WL	Raiganj	Kurseong	Darjeeling WL
Name of Dis- trict		Alipurduar	Alipurduar	Alipurduar	Bankura	Bankura	Bankura	Birbhum	Burdwan	Burdwan	Coochbehar	Coochbehar	Dakshin Dina- ipur	Darjeeling	Darjeeling

Remarks					Report on Forest Land under Kalim- pong Division not received till date.												
Total Recorded/ Mutated Forest land	(III III)	(a+b+c+d)	60.770	15989.170		17662.870	337.281	3258.880	22980.935	25735.460	9390.536	1702.045	770.060	1233.430	51237.240	62109.444	29138.640
Non-Forest Area transferred to and yet to be mutated in the name of FD, GoWB	(under FC Act)	(e)	0.000	0.000		0.000	0.000	0000	0.000	0.000	14.130	0.000	0.000	0.000	0.000	0.000	6335.000
Non-Forest Area transferred to and mutated in the name of FD, GoWB and yet to be declared as RF/PF	(under FC Act) (in ha)	(p)	0.000	0.000		2.340	0.000	0.000	0.015	0.000	142.162	0.000	0.000	0.000	0.000	0.000	0.000
Unclassed State Forest (in ha)		(3)	60.770	0.000		3.410	0.000	0.000	110.230	361.880	0.000	556.053	118.800	405.770	2736.240	4748.160	0.650
Protected Forest (in ha)		(p)	0.000	0.000		0.000	224.653	0.000	16335.590	0.000	342.784	372.038	561.150	317.290	44686.950	55011.672	29109.480
Reserve Forest (in ha)		(a)	0.000	15989.170		17657.120	112.628	3258.880	6535.100	25373.580	8905.590	773.954	90.110	510.370	3814.050	2349.612	28.510
Name of Division			Siliguri SF	Gorumara WL	Kalimpong	Darjeeling	Howrah	Darjeeling WL	Baikuntha Pur	Jalpaiguri	Gorumara WL	Malda	Nadia Msd	Nadia Msd	Midnapur	Jhargarm	Rupnarayan
Name of Dis- trict			Darjeeling	Darjeeling	Darjeeling	Darjeeling	Hooghly	Jalpaiguri	Jalpaiguri	Jalpaiguri	Jalpaiguri	Malda	MURSHID- ABAD	NADIA	Paschim Mid- napur	Paschim Mid- napur	Pashim Medi- nipur





Remarks												(Excluding BTR & Kalimpong Division)
Total Recorded/ Mutated Forest land (in ha)	(a+b+c+d)	31875.000	17.200	1887.480	27104.170	28559.300	62091.300	602.379	93.700	163689.000	258489.000	1090645.556
Non-Forest Area transferred to and yet to be mutated in the name of FD, GoWB (under FC Act)	(e)	0.000	0.000	000.0	0000	0.000	22.140	0.000	0.000	0.000	0.000	6733.488
Non-Forest Area transferred to and mutated in the name of FD, GoWB and yet to be declared as RF/PF (under FC Act)	(p)	0.000	0.000	0.000	0.000	0.000	394.880	0.000	1.720	0.000	0.000	811.865
Unclassed State Forest (in ha)	(c)	1162.000	0.000	311.860	2201.460	3658.710	22274.990	268.506	0.000	268.000	0.000	75340.607
Protected Forest (in ha)	(b)	30713.000	17.200	1575.620	24902.710	23875.820	29935.810	126.382	0.000	0.000	0.000	412501.437
Reserve Forest (in ha)	(a)	0.000	0.000	0.000	0.000	1024.770	9485.620	207.491	91.980	163421.000	258489.000	601991.647
Name of Division		Kharagpur	WB Forest School Hijli	Purba Mid- napur	Kangsabati North	Kangsabati South	Purulia	Raiganj	24 Parganas (N)	24 Parganas(S)	STR	Total
Name of Dis- trict		Pashim Medinipur	Pashim Medinipur	Purba Midna- pur	Purulia	Purulia	Purulia	Uttar Dinajpur	24 Parganas (N)	24 Parganas(S)	24 Parganas(S)	

Name of District	Reserve Forest (in ha)	Protected Forest (in ha)	Unclassed State Forest (in ha)	Total Recorded Forest land (in ha)	Remarks
	(a)	(p)	(c)	(a+b+c)	
Alipurduar	2004.770	0.000	3347.670	5352.440	Forest Land under BuxaTiger Reserve not matching with Notification for Core &Buffer area of BTR, Communication sent to concerned Divisions for reconciliation but no response received till date. Hence, forest land area under BTR could not be included in Alipurduar District
Bankura	5220.240	122482.444 16587.853	16587.853	144290.537	
Birbhum	1990.760	5390.364	9263.418	16644.542	
Burdwan	3009.270	22246.564	3659.989	28915.823	
Coochbehar	30649.860	3982.370	2848.500	37480.730	
Dakshin Dinajpur	414.492	291.546	121.388	827.426	
Darjeeling	74230.010	0.000	328.480	74558.490	Report on Forest Land under Kalimpong Division <b>not received till date</b> . Hence, forest land area under Kalimpong Division could not be included in Darjeeling District
Hooghly	112.628	224.653	0.000	337.281	
Jalpaiguri	44073.150	16678.374	472.110	61223.634	
Malda	773.954	372.038	556.053	1702.045	



Name of District	Reserve Forest	Protected Forest	Unclassed State Forest	Total Recorded Forest land	
	(in ha)	(in ha)	(in ha)	(in ha)	
	(a)	(p)	(c)	(a+b+c)	
MURSHID- ABAD	90.110	561.150	118.800	770.060	
NADIA	510.370	317.290	405.770	1233.430	
Paschim Midnapur	6192.172	159538.302	8647.050	174377.524	
Purba Mid- napur	0.000	1575.620	311.860	1887.480	
Purulia	10510.390	78714.340	78714.340 28135.160	117359.890	
Uttar Dina- jpur	207.491	126.382	268.506	602.379	
24 Parganas (N)	91.980	000'0	0.000	91.980	
24 Parganas(S)	421910.000	0.000	268.000	422178.000	
TOTAL	TOTAL 601991.647		75340.607	412501.437   75340.607   1089833.691   (Excluding BTR & Kalimpong Division)	

# District wise Extent of Recorded Legal Status Forest Land as on 31.03.2016 in West Bengal

# Note:

- 1. Regarding Kalimpong Division, communication sent by official email, telephone & latest by this office M.No. 9306/2M-37/2016 dt. 08.12.2016(copy enclosed)
- 2.Regarding BTR (E) & BTR(W) Division, communication sent by official email, telephone & latest by this office M.No. 9308/2M-37/2016 dt. 08.12.2016(copy enclosed)

Division wise Extent of Recorded Legal Status Forest Land as on 31.03.2016 in West Bengal



Name of Division	Reserve For-	Reserve For- Protected For-	Unclassed State	Total Recorded	
	est	est	Forest	Forest	Remarks
	(in ha)	(in ha)	(in ha)	(in ha)	
	(a)	(q)	(c)	(a+b+c)	
WB Forest School Hijli	0.000	17.200	000.0	17.200	
Purba Midnapur	0.000	1575.620	311.860	1887.480	
Kangsabati North	0.000	24902.710	2201.460	27104.170	
Kangsabati South	1024.770	23875.820	3658.710	28559.300	
Purulia	9485.620	29935.810	22274.990	61696.420	
Raiganj	207.491	126.382	268.506	602.379	
24 Parganas (N)	91.980	0.000	0.000	91.980	
24 Parganas(S)	163421.000	0.000	268.000	163689.000	
STR	258489.000	0.000	0.000	258489.000	
	601991.647	412501.437	75340.607	1089833.691	(Excluding BTR & Kalimpong Division)

Table -	Table - 4.2 : Statement showing the position of cases approved for diversion of Forest Land under	Innder
	Forest (Conservation) Act, 1980 till March, 2016.	
SI No.	Purpose of Diversion	Nos.
1	Irrigation Project	5
2	Hydel Project	2
3	Mining Project	9
4	Construction of Road	15
5	Laying of Railway Line	2
9	Laying of Transmission Line/Pipe Line	34
7	Thermal Project	2
8	Drinking Water Project	4
6	Defence Project	3
10	Others	39
	Total (Nos) :	115





# **ADMINISTRATION**

# CADRE STRENGTH OF IFS & WBFS IN WEST BENGALAS on 31.03.2016

# IFS CADRE OF WEST BENGAL

Sl. No.	Authorised Structure of the Cadre vide G.O No. 16016/2(i)/2011-AIS-(II)(A) dt. 13.03.2012	No of Post	Present Srength of Cadre as on 31.03.2016	No of Post
1	Senior Duty Post under the State Govt	78	Senior Duty Post	73*
2	Central Deputation Reserve @ 20% of (1) above	15	Central Deputation	2
3	State Deputation Reserve @ 25% of (1) above	19	State Deputation	24
4	Training Reserve @ 3.5% of (1) above	2	Training Reserve	11
5	Post to be filled by promotion in accordance with Rule 8 of India Forest Service (Recruitment) Rules,1966 not exceeding 33.33% of items (1),(2),(3) & (4) above	38	Posts Filled by promotion from WBFS	38
6	Leave Reserve & Junior Posts Reserve @ 16.5% if item (1) above	12	Leave Reserve & Junior Posts	6
7	Post to be filled by Direct Recruitment (1+2+3+4+6-5)	88	Posts filled by Direct Recruitment	78
8	Total Authorised Strength	126	Total Present Strength	115

<sup>\*</sup>One Officer of Chhatisgarh cadre who on inter-state deputation is occupying a senior duty post .

## WBFSCADRE OF WEST BENGAL

(As per Govt Order No.1499-For dated 15.05.2000 & 3887-For. Dated 10.11.2006)

Sl.No.	Description	Nos.	Actually Posted
1	Direct Recruit Officers	63	34
2	Promoted Officers	63	61
3	Officers in charge of Division/Sr. Duty Post (DFO/DCF)	23	23
4	Officers posted as ADFO/Jr. Duty Post	87	63
5	Officers on deputation @ 10% of (3+4)	11	8
6	Officers undergoing training & Leave Reserve @ 5% of (3+4)	5	1
	Total Authorised Strength:	126	95

<sup>\*</sup> One Ex-Cadre IFS post in the Directorate (PCCF, General)

Statement showing the sanctioned strengths of officers and staff of the Forest Directorate along with the existing strengths and vacancy positions

Sl No	Name of posts	Sanctioned Strength	Existing Strength	Vacancies
1	IFS	126	110	16
2	WBFS	126	94	32
3	A.O.	1	1	0
4	FR	580	274	306
5	DR/ Fr	1277	605	672
6	FG	2444	1441	1003
7	HFG	231	91	140
8	Head Clerk ( Regional )	65	55	10
9	Clerk Accountant ( Regional )	8	5	3
10	Divisional Accountant ( Regional )	53	37	16
11	UDC ( Regional )	327	243	84
12	LDC / CT ( Regional )	350	61	289
13	Typist ( Regional )	28	6	22
14	Head Clerk ( Directorate )	8	8	0
15	Accountant ( Directorate )	2	2	0
16	UDC ( Directorate )	26	26	0
17	LDC ( Directorate )	26	6	20
18	Typist ( Directorate )	15	9	6
19	Assistant Statistician	1	1	0
20	Computing Supervisor	2	2	0
21	Computor	7	0	7
22	Statistician	1	0	1
23	Drivers	146	72	74
24	Aggriculture Extension Officer	2	0	2
25	Asst. Foreman ( Mechanical )	4	0	4
26	Asst. Saw Doctor	2	0	2
27	Attendant	1	0	1
28	Asst. Soil Chemist	1	0	1
29	Band Saw Operator	10	1	9
30	Bearer	3	2	1
31	Boatman	102	46	56
32	Boiler Driver	1	0	1
33	Boiler Fireman	3	0	3
34	Bunglow Chowkidar	94	56	38
35	Bengali Translator	1	1	0
36	Cashaub	1	0	1



Sl No	Name of posts	Sanctioned Strength	Existing Strength	Vacancies
37	Chowkidar	2	0	2
38	Cleaner / Track Cleaner	27	16	11
39	Cook	4	0	4
40	Cook - cum Bearer	2	2	0
41	Crane Operator	3	2	1
42	Cross - cut - Operator	6	1	5
43	C.T. Mobile Medical Unit	1	0	1
44	Compounder	1	1	0
45	Dakwala	104	38	66
46	Darwan	34	24	10
47	Draftsman / Head Draftsman	35	16	19
48	Driver - cum - Mechanic	3	0	3
49	Duftary	13	6	7
50	Duplicating Operator	1	1	0
51	Electrician	1	1	0
52	Engine Driver	9	6	3
53	Electric Workman	4	0	4
54	ECG Technician	1	0	1
55	Fitter	1	0	1
56	Forest Watcher	13	6	7
57	Forest Worker	17	6	11
58	General Duty Attendant ( Medical Unit )	2	0	2
59	Gate Operator / H.G.O.	5	3	2
60	Grass Cutter	36	12	24
61	Game Watcher	2	2	0
62	Game Guard	4	0	4
63	Installation Guard	10	0	10
64	Kilm Supervisor	1	0	1
65	Laskar	17	8	9
66	Lathe man	1	0	1
67	Laboratory Assistant	3	2	1
68	Laboratory Attendant	1	1	0
69	Mahut	25	7	18
70	Majhi	44	23	21
71	Mali	193	91	102
72	Medical Officer	2	0	2
73	Mosalchi	1	0	1
74	Muharir Grade - I, Grade - II	2	2	0

Sl No	Name of posts	Sanctioned Strength	Existing Strength	Vacancies
75	Museum Darwan	1	0	1
76	Night Guard	11	8	3
77	Night Watchman	5	1	4
78	Nurse	2	0	2
79	Oil Man - greaser	9	4	5
80	Orderly	534	391	143
81	Peon	102	83	19
82	Office Superintendent	1	1	0
83	Pharmacist	2	0	2
84	Power Saw Operator	5	0	5
85	Pump Driver	1	0	1
86	Road Roller Driver	3	0	3
87	Record Supplier	2	2	0
88	Renepont Operator	2	1	1
89	Road Roller Mate	3	1	2
90	Research Officer	1	0	1
91	Ropeway Motor Driver	7	0	7
92	Road Khalasi	3	0	3
93	Saw Doctor	1	0	1
94	Sareng	7	5	2
95	Skilled Majdoor	10	0	10
96	Station Helper	5	0	5
97	Personal Assistant	48	46	2
98	Sub - Station Operator	2	1	1
99	Karmabandhu ( Sweeper )	52	18	34
100	Sukhani	5	1	4
101	Tractor Driver	1	0	1
102	Tractor Mate	5	0	5
103	Taxidermist	1	0	1
104	Ticket Seller	1	0	1
105	Technical Assistant	1	0	1
106	Tractor Mount Roller Driver	1	1	0
107	Unskilled Mazdoor	46	1	45
108	Veterinary Officer	1	0	1
109	Watcher	1	1	0
110	X - Ray Assistant	1	1	0
111	Karmasathi ( Zamadar )	2	1	1



# In addition, the following are Permanent Deputation Posts to WBFDC-Ltd.

(vide no.1248-For/6D-1/97(PT-II) dt.: 13/3/2008 of the FD, for Branch, WB.)

Sl No	Name of posts	Sanctioned Strength	Existing Strength	Vacancies
1	Asst. Saw Doctor	3	1	2
2	Boiler Driver	2	0	2
3	Cleaner	4	3	1
4	Darwan	1	1	0
5	Electric Workman	2	1	1
6	Fitter	1	1	0
7	Installation Guard	2	0	2
8	Motor Driver	1	0	1
9	Power Saw Operator	1	1	0
10	Skilled Mazdoor	19	3	16
11	Station Helper	5	0	5
12	Unskilled Mazdoor	6	4	2
	TOTAL:	47	15	32
	DA DIZ	S O CADDENIC	WINC	
	PARKS	S & GARDENS		
SI No	Name of posts	Sanctioned Strength	Existing Strength	Vacancies
1	Garden Supervisor	22	17	5
2				
_	Head Uddyan Rakshi	30	17	13
3	Head Uddyan Rakshi Horticulture Officer	30 5	17 0	13 5
	· ·			
3	Horticulture Officer Senior Horticulture Officer Senior Mali	5	0	5
3	Horticulture Officer Senior Horticulture Officer	5 2	0	5
3 4 5	Horticulture Officer Senior Horticulture Officer Senior Mali Superintendent Horticulture	5 2 70	0 1 50	5 1 20

	LLOYD BOTANIC GARDEN					
Sl No	Name of posts	Sanctioned Strength	Existing Strength	Vacancies		
1	Black Smith	1	0	1		
2	Carpenter	1	1	0		
3	СТ	1	0	1		
4	Darwan	6	2	4		
5	Head Mali	1	0	1		
6	Herbarium Cleaner	4	0	4		
7	Horticulture Officer	1	0	1		
8	Junior Mali	1	0	1		
9	Label Writer	1	0	1		
10	Man Mazdoor	11	4	7		
11	Night Guard / Chowkidar	1	0	1		
12	Orchid Supervisor	1	0	1		
13	Orderly	1	1	0		
14	Plant Collector	1	1	0		
15	Peon	1	1	0		
16	Sardar	1	0	1		
17	Senior Mali	1	1	0		
18	Store Keeper	1	0	1		
19	Karmabandhu ( Sweeper )	2	0	2		
20	UDC	1	1	0		
21	Women Mazdoor	25	1	24		

# **Supernumerary Posts**

Bana Mazdoor	267
Bana Shramik	2124

# ADMINISTRATIVE UNITS UNDER FOREST DIRECTORATE

	Circle	Division	Range	Beat
Territorial	7	22	243	509
Wildlife	5	9	86	142
Social Forestry	1	7	52	72
Soil Conservation	1	3	22	39
Functional	4	17	71	0
Total	18	58	474	762





#### **RECRUITMENT:-**

#### 1. MINISTERIAL PERSONNEL:-

#### **Direct Recruitment:-**

#### **Direct recruitment of Lower Division Clerks:**

Consequent upon Government approval for recruitment of fifty (50) Nos .of Lower Division Clerks, the West Bengal Staff Selection Commission has recommended engagement of 32 Nos of Lower Division Clerks during this financial year. The process of appointing the candidates is in progress.

#### 2.EXECUTIVE PERSONNEL:-

There has been no direct recruitment of Executive personnel, eg Forest Ranger, Deputy Ranger/Forester and Forest Guards.

However there has been recruitment of Deputy Ranger/ Forester and Forest Guards on Compassionate Ground, details of which is given below under para on Compassionate ground

#### APPOINTMENT ON COMPASSIONATE GROUND:-

During the period, 68 proposals for appointment on compassionate ground were received by this office.

Special eligibility tests were held from time to time to judge the suitability of the candidates for appointment to different Group C and Group D posts. Depending upon their educational qualification, performance in the Special eligibility test and physical standards, the candidates have been offered appointment in different Group C and D posts as shown below:-.

#### DETAILS OF SELECTION FOR APPOINTMENT INGROUP- C ON COMPASSIONATE GROUND

Sl No	Designation	No. of candidate selected for appointment (41 Nos.)
1	Deputy Ranger/Forester	15
2	Forest Guard	24
3	Lower Division Clerk	2

# DETAILS OF SELECTION FOR APPOINTMENT INGROUP- D ON COMPASSIONATE GROUND

Sl No	Designation	No. of candidates offered appointment (27 Nos.)
1	Orderly	18
2	Peon	4
3	Mali	3
4	BunglowChowkider	2

# **DEPLOYMENT OF WBFS (DFO/DFC):**

SI. No.	Name of Division	SI. No.	Name of Division
1.	DFO Working Plan South-I Division	13.	Deputy Conservator of Forest, Personnel
2.	DFO Working Plan South-Il Division	14.	Deputy Conservator of Forest, Legal
3.	DFO Kangsabati (South) Division	15.	Forest Utilisation Division
4.	DFO, Purulia Extension Forestry Division	16.	Director, SITI, Hijli
5.	Rupnarayan Division	17.	Raigunj Division
6.	Kharagpur Division	18.	Siliguri SF Division
7.	Purba Midnapur Division	19.	Non Timber Forest Produce Division
8.	Panchet Division	20.	Jalpaiguri SF Division
9.	Durgapur Division	21.	Parks and Gardens North Division
10.	24 Parganas North Division	22.	Jalpaiguri SC Division
11.	Howrah Division	23.	Coochbehar Division
12.	Publicity Division		

# **DEPLOYMENT OF ADFOs:**

SI.	Name of Division	Sanctioned	SI.	Name of Division	Sanctioned
No.		Strength	No.		Strength
1.	Personnel Management Cell	1	30.	DFO, Planning	1
2.	Working Plan (N) Division	1	31.	Attached to APCCF (NB)	1
	Working Plan (N) Division				-
					•.
3.	Working Plan (S-I) Division	1	32.	CF/Working Plan	1
4.	Working Plan (S-II) Division	1	33.	Birbhum Division	1
5.	Monitoring (S) Division	1	34.	Durgapur Division	1
6.	Monitoring (N) Division	1	35.	Howrah Division	1
7.	Publicity Division	1	36.	Burdwan Division	1
8.	Forest Utilization Division	1	37.	URF Division	1
9.	WBF School, Dow Hill	3	38.	Kurseong SC Division	1
10.	SITI, Hijli	2	39.	Kalimpong SC Division	1



11.	Research Circle	1	40.	Jalpaiguri SC Division	1
12.	Silviculture (Hill) Division	1	4I.	Siliguri SF Division	1
13.	Silviculture (N) Division	1	42.	Raigunj Division	2 (one for Balurghat)
14.	Silviculture (S) Division	1	43.	Malda Division	1
15.	24 Parganas (N) Division	1	44.	Parks & Gardens Division	1
16.	24 Parganas (S) Division	2	45.	NTFP Division	1
17.	Nadia-Murshidabad Division	on 2 (1 for Murshidabad) 46. Darjeeling Division		Darjeeling Division	2
18.	Jhargram Division	3	47.	Kurseong Division	2
19.	Midnapore Division	2	48.	Baikunthapur Division	2
20.	Purba Medinipur Division	1	49.	Jalpaiguri Division	3
21.	Kharagpur Division	2	50.	Jalpaiguri SF Division	1
22.	Rupnarayan Division	2	SI.	Cooch Behar Division	1
23.	Bankura (N) Division	2	52.	Wildlife (Hqrs)	2
24.	Bankura (S) Division	2	53.	STR	2
25.	Extension Forestry Division	1	54.	BTR (West) Division	2
26.	Panchet Division	2	55.	BTR (East) Division	2
27.	Purulia Division	2	56.	Darjeeling Wildlife Division	2
28.	Kangsabati (S) Division	2	57.	Gorumara Wildlife Division	2
29.	Kangsabati (N) Division	2	58.	Jaldapara Wildlife Division	2





# JOINT FOREST MANAGEMENT COMMITTEE

# JFMCs in West Bengal as on 31/03/2016

A total of 4245 numbers of JFMCs having total membership of 491929 with approximate ratio of male: female membership at 9:1 has been reported to be registered in West Bengal covering 504534.21 ha forest area being protected by them. The SC & ST constitute 55.85 % of members in the JFMCs.

	No of	Area Pro-			Mei	nbers		
Division	JMFC	tected (in Ha)	Male	Female	Total	SC	ST	Others
Darjeeling	77	14890.65	4223	486	4709	200	2086	2423
Kurseong	46	13094.61	1158	1643	2801	930	1002	869
Darjeeling WL	0	0.00	0	0	0			
Baikunthapur	66	14023.78	6192	131	6323	4529	790	1004
Jalpaiguri	62	20148.16	10701	601	11302	4818	3526	2958
BTR East	17	9331.09	3340	103	3443	1548	1334	561
BTR West	27	14786.00	3801	308	4109	642	2245	1222
Coochbehar	24	4070.90	2893	278	3171	1458	517	1196
Jaldapara WL	25	7020.79	4360	180	4540	727	2483	1330
Gorumara WL	0	0.00	0	0	0	0	0	0
Raiganj	21	1162.60	1727	74	1801	864	412	525
Malda	5	289.52	432	89	521	311	191	19
Bankura North	543	4355.06	50845	2094	52939	19947	7917	25075
Bankura South	641	44955.97	55867	4611	60478	14612	18655	27211
Panchet	231	27904.13	27426	1590	29016	11118	4767	13131
Kangsabati North	246	17501.96	24019	885	24904	5748	8100	11056
Kangsabati South	305	25446.00	29561	569	30130	4293	10899	14938
Purulia	213	30845.22	20812	898	21710	7035	5913	8762
Burdwan	67	17274.62	17158	3142	20300	7756	5559	6985
Durgapur	23	2436.44	1957	1964	3921	1112	1405	1404
Midnapur	364	44785.54	48038	2801	50839	10131	9186	31522
Jhargarm	474	52179.31	38254	2449	40703	9135	14906	16662
Rupnarayan	216	26930.83	26896	1366	28235	6580	7954	13701
Kharagpur	254	31401.04	29025	1586	30611	7028	8952	14631
Purba Midnapur	19	1813.11	4699	1097	5796	1112	50	4634
Birbhum	198	9008.23	16869	352	17221	6095	5586	5540
Nadia Msd	11	916.33	957	44	1001	221	254	526
24 Parganas (S)	40	42534.00	10801	10718	21519	11830	514	9175
STR	26	25194.00	4698	4400	9098	8736	326	36
24 Parganas (N)	0	0.00	0	0	0	0	0	0
Howrah	4	234.32	788	0	788	348	332	108
Total	4245	504534.21	447497	44459	491929	148864	125861	217204

# **Eco-Development Committees in West Bengal**

A total of 113 numbers of EDCs having total membership of 23475 with approximate ratio of male: female membership at 3:1 has been reported to be registered in West Bengal covering 80882.20 ha forest within protected area being protected by them. The SC & ST constitute 59.59% of members in the EDCs.

Name of	Name of Pro-	No. of	Area Protect-	No	o. of Memb	ers			
<b>Forest Division</b>	tected Area	EDC	ed (in Ha)	Male	Female	Total	SC	ST	Others
Darjeeling	Mahananda WLS	15	12406.55	2693	2118	4811	1305	1093	2413
Wildlife	Senchal WLS	15	4114.81	1587	1211	2798	101	1496	1201
	Singalila N.P.	1	350.00	63	72	135	0	59	76
	Neora Valley N.P.	7	5756.58	1524	1419	2943	312	753	1878
Gorumara Wildlife	Gorumara N.P.	10	6352.67	1936	214	2150	560	819	771
	Chapramari WLS	2	1429.73	97	18	115	54	25	36
Buxa Tiger Reserve (E)	Buxa Tiger	14	23534.97	1454	173	1627	223	612	792
Buxa Tiger Reserve (W)	Reserve	7	10809.17	263	181	444	126	318	0
Jaldapara WildlifeI	Jaldapara WLS	33	15611.07	6917	872	7789	3354	2258	2177
Raigunge	Kulik WLS	3	130.00	193	21	214	172	30	12
Birbhum	Ballavpur WLS	4	226.28	276	34	310	9	196	105
Nadia –Mur- shidabad	Bethuadahari WLS	1	66.67	96	6	102	55	29	18
Sunderban Tiger Reserve	Sundarban Tiger Reserve	0	0.00	0	0	0	0	0	0
24 Parganas North	Bibhuti Bhushan WLS	1	93.70	35	2	37	24	5	8
	TOTAL	113	80882.20	17134	6341	23475	6295	7693	9487





# Status of Self Help Group as on 31/03/2016 (Excluding Women SHG)

As per report received from Divisions, total number of 2340 SHGs is present in all these Division out of which 871 numbers of are exclusively women SHG.

District	Division	No of		Members		No of JFMC/ EDC	Corpus Fund Generated
District	Division	SHG	Male	Female	Total	in SHG	(in INR)
Darjeeling	Darjeeling	17	86	94	180	64	141146.00
Darjeeling	Kurseong	0	0	0	0	0	0.00
Darjeeling	Darjeeling WL	15	67	95	162	8	480077.00
Jalpaiguri	Baikunthapur	63	79	604	683	14	721000.00
Jalpaiguri	Jalpaiguri	0	0	0	0	0	0.00
Jalpaiguri	Gorumara WL	0	0	0	0	0	0.00
Alipurduar	BTR East	0	0	0	0	0	0.00
Alipurduar	BTR West	0	0	0	0	0	0.00
Coochbehar	CoochBehar	0	0	0	0	0	0.00
Coochbehar	Jaldapara WL	0	0	0	0	0	0.00
Uttar&Dakshin Dinajpur	Raiganj	0	0	0	0	0	0.00
Malda	Malda	0	0	0	0	0	0.00
Bankura	Bankura North	3	20	10	30	3	163580.00
Bankura	Bankura South	0	0	0	0	0	0.00
Bankura	Panchet	41	467	0	467	19	0.00
Purulia	Kangsabati North	0	0	0	0	0	0.00
Purulia	Kangsabati South	0	0	0	0	0	0.00
Purulia	Purulia	0	0	0	0	0	0.00
Burdwan	Burdwan	0	0	0	0	0	0.00
Burdwan	Durgapur	0	0	0	0	0	0.00
Paschim Mednipur	Midnapur	197	1741	291	2032	41	0.00
Paschim Mednipur	Jhargarm	172	1637	204	1841	64	0.00
Paschim Mednipur	Rupnarayan	245	632	1925	2557	112	1045390.00
Paschim Mednipur	Kharagpur	27	261	0	261	27	0.00
Purba mednipur	Purba Midnapur	0	0	0	0	0	0.00
Birbhum	Birbhum	91	574	510	1084	0	0.00
Nadia & MSD	Nadia Msd	0	0	0	0	0	0.00
24 Parganas (S)	24 Parganas(S)	0	0	0	0	0	0.00
Howrah	Howrah	0	0	0	0	0	0.00
24 Parganas (S)	STR	0	0	0	0	0	0.00
24 parganas (N)	24 Parganas (N)	0	0	0	0	0	0.00
	TOTAL	871	5564	3733	9297	352	2551193.00

# Status of Self Help Group as on 31/03/2016 (Exclusive Women SHG)

District	Division	No of SHG	Members	No of JFMC/EDC in SHG	Corpus Fund Generated (in INR)
			Female		(III II (II)
Darjeeling	Darjeeling	1	10	10	0.00
Darjeeling	Kurseong	12	36	7	0.00
Darjeeling	Darjeeling WL	3	24	2	76077.00
Jalpaiguri	Baikunthapur	49	675	15	815000.00
Jalpaiguri	Jalpaiguri	14	167	10	0.00
Jalpaiguri	Gorumara WL	14	167	10	0.00
Alipurduar	BTR East	252	2299	0	0.00
Alipurduar	BTR West	0	0	0	0.00
Coochbehar	Coochbehar	0	0	0	0.00
Coochbehar	Jaldapara WL	116	1308	10	0.00
Uttar&Dakshin Dinajpur	Raiganj	0	0	0	0.00
Malda	Malda	0	0	0	0.00
Bankura	Bankura North	60	600	40	566200.00
Bankura	Bankura South	40	320	20	79796.00
Bankura	Panchet	196	2385	45	0.00
Purulia	Kangsabati North	0	0	0	0.00
Purulia	Kangsabati South	0	0	0	0.00
Purulia	Purulia	0	0	0	0.00
Burdwan	Burdwan	0	0	0	0.00
Burdwan	Durgapur	0	0	0	0.00
Paschim Mednipur	Midnapur	3	291	3	0.00
Paschim Mednipur	Jhargarm	66	660	35	0.00
Paschim Mednipur	Rupnarayan	11	110	11	413599.00
Paschim Mednipur	Kharagpur	87	609	87	0.00
Purba mednipur	Purba Midnapur	34	340	34	0.00
Birbhum	Birbhum	134	1456	282	0.00
Nadia & MSD	Nadia Msd	0	0	0	0.00
24 Parganas (S)	24 Parganas(S)	234	2808	6	0.00
24 Parganas (S)	STR	143	1430	26	0.00
24 Parganas (N)	24 Parganas (N)	0	0	0	0.00
Howrah	Howrah	0	0	0	0.00
	TOTAL	1469	15695	653	1950672.00



# **STATUS OF FDA as on 31/03/2016**

As per report received from Divisions, a total of 1154 numbers of FDA having total membership of 215276 with approximate ratio of male: female membership at 9:1 has been reported to be registered in West Bengal. The SC & ST constitute 54% of members in the FDA.

	No of JFMC/		No of J	JFMC/EDO	C members	in FDA		Fund utilisation in NAP /other
Name of FDA	EDC in FDA	Male	Female	Total	SC	ST	Others	Schemes (in Rs. Lakhs)
Darjeeling	77	4223	486	4709	200	2086	2423	88.26
Kurseong	46	1158	1643	2801	930	1002	869	13.46
Darjeeling WL	31	4343	3501	7844	1406	2648	3790	0.00
Baikunthapur	66	6192	131	6323	4529	790	1004	0.00
Jalpaiguri	62	10701	601	11302	4818	3526	2958	19.47
Gorumara WL	12	2244	1142	3386	508	691	2187	0.00
BTR East	17	1556	181	1737	456	908	373	0.00
BTR West	33	2013	206	2219	147	1611	461	0.00
CoochBehar	23	1288	77	1365	1045	243	77	7.23
Jaldapara WL	58	9956	650	10606	3660	3804	3142	0.00
Raiganj	0	0	0	0	0	0	0	0.00
Malda	0	0	0	0	0	0	0	0.00
Bankura North	26	2432	97	2529	986	223	1320	20.06
Bankura South	17	2027	55	2082	428	385	1269	8.00
Panchet	0	0	0	0	0	0	0	0.00
Kangsabati North	57	5940	160	6100	789	2563	2748	0.00
Kangsabati South	46	19211	396	19607	3203	7562	8842	5.18
Purulia	49	5961	356	6317	2107	1554	2656	2.63
Burdwan	67	17158	3142	20300	7756	5559	6985	26.24
Durgapur	0	0	0	0	0	0	0	0
Midnapur	2	48038	2801	50839	10131	9186	31522	0.00
Jhargarm	125	12198	693	12891	2135	5192	5564	0.61
Rupnarayan	53	8059	641	8700	2018	2297	4385	0.00
Kharagpur	254	29025	1586	30611	7028	8952	14631	5.85
Purba Midnapur	0	0	0	0	0	0	0	0.00
Birbhum	33	2787	221	3008	805	935	1268	0.00
Nadia Msd	0	0	0	0	0	0	0	0.00
24 Parganas (S)	0	0	0	0	0	0	0	0.00
STR	0	0	0	0	0	0	0	0.00
24 Parganas (N)	0	0	0	0	0	0	0	0.00
Howrah	0	0	0	0	0	0	0	0.00
TOTAL	1154	196510	18766	215276	55085	61717	98474	196.99





# **FORESTRY RESEARCH**

#### INTRODUCTION

Forestry Research in the State is organized by Research Circle through its three divisions, namely, Silviculture (Hills) Division with its headquarter at Darjeeling, Silviculture (North) Division, headquarter at Siligurii and Silviculture (South) Division with its headquarter at Midnapore.

#### 1. TREE IMPROVEMENT PROGRAMME

With an objective of converting wasteland into productive ones and to maximize wood production from limited forest area Tree Improvement Programme is taken up.

## C. EXPERIMENTAL PLANTATION UNDERTAKEN DURING 2015-16

- a. Plantations: For assured supply of genetically improved seeds the Divisions under this circle undertake plantations of **RET** (**Rare**, **Endangered & Threatened**) species as well as maintenance of **Seedling Seed Orchard** both in North & South Bengal.
- b. Clonal / Progeny Orchards & Provenance Trials
- c. Setting up of **Block Plantations** along with regular plantations for long term testing of improved seeds / clones.

# Experimental trials taken up during 2015-16:

Sl.	Name of Experi-	Species	Objective	Area	Location	Remarks
No.	mental Trial	•	- ·- <b>J</b> - · · · ·			
Silvici	ulture (South) Div					
1	Mud Flat Planta- tions	Mangrove species like- Heritierafomes (Sundari), Avicennia alba (Baen), Xylocar- pusgranatum (Dhundul), Aegicerascorniculatum (Khalsi), Acanthus Ilici- folius (Hargoza) Brugui- eragymnorhiza (Kankra) etc.	For reclamation of Sea-shore mud flat area	2.0	Dakshin Kadua under Digha Research Station	State Plan
2	Experiment on standardization on Plantation Protocol of some indigenous spe- cies	Sal with sal associates 11 nos. of indigenous species like- S. robusta, T. chebula, T. bellerica, , T. arjuna, S. oleosa, C. operculatum, M. latifolia, L. perviflora, B. lanzan, H. cordifolia, P. marsu- pium, O. oogeinensis,	To study the growth performance in field for current year seed-lings in respect of pit size, spacing, with soil moisture conservation and without soil moisture conservation condition.	3.0	Ghosalbandh, Amlagora under Arabari Res. Range	Under W.B.F.B.C Project (JICA Scheme)
Silvici	ulture (North) Div					
3.	Seedling Seed Orchard	Lohakath, Mehogini, Toon, Kawlo, Dalbergia- cultrata	To create a Seed Production Area with seedlings raised from	3.0	Khariabandar-1	State Plan
4.		Ritha	seeds of identified plus trees for getting qual- ity seeds.	0.3	Khariabandar-1	State Plan
4.	F1/ Germplasm Plantation	Benteak&Jarul	To see the result oc- curring from seeds of first plantation	2.0	Khariabandar-1	State Plan

# 5. Maintenance of sample plots

**Linear Sample Plots**: They are laid out in high forests only to identify species, study their rates of growth (5 yearly measurement of all the trees above 90cm b.h.g.) and mortality in natural succession to study the ecology of forest type occurring in that line. During 2015-16 maintenance & floral inventory works were undertaken in different LSPs as given below:

L.S.P. No.	Area in Ha.	Plantation/ H.F.	Year of for- mation	Division	Range	Beat	Block/ Compart- ment
WB/JP/2	2.80	H.F	1924	Jalpaiguri	Moraghat	Khutimari	SMG-2
WB/JP/10	1.60	H.F	NA	Gorumara WL Divn.	South Goru- mara	Gorumara	Endong-2
WB/Buxa/1	3.12	H.F	1926	BTR(W)	RVK(W)	RVK	SRVK-9
WB/Buxa/2	4.04	H.F	1926	BTR(E)	Jayanti	Jayanti	NRVK-6&7
WB/Buxa/3	2.88	H.F	1926	BTR(W)	Damonpur	Cheko	DOP-8

## **Ex-Situ Conservation**

Sample Plots : These plots are generally laid out in both plantation and high forests to find out the rate of growth and the volume increment of crop thinned at five year interval and to compare the effects of different grades of thinning to prepare the yield table and N / D curves. The following sample plots were maintained & studied during 2015-16.

S.P. No.	Area in Acre	Plantation/ H.F.	Year of formation	Division	Range	Beat	Block/ Compart- ment				
Silviculture (So	Silviculture (South) Division										
WB/Silvi/SP-6	1.0 Ha	Plantation	1973	Medinipur	Arabari	Arabari	Chandmura				
WB/Silvi/SP-	1.80 Ha.	H.F.	1973	Jhargram	Lodhasuli	Lodhasuli	Amlachati				
WB/Silvi/SP-1	1.55 Ha	Plantation	1993	KSC (S)	Barabazar	Barabazar	Barabazar				
WB/Silvi/SP-2	0.40 Ha.	Plantation	1993	Purulia	Matha	Ajodhya	Ajodhya				
Silviculture (No	orth) Di	vision									
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil				
Silviculture (Hi	Silviculture (Hills) Division										
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil				



# **List of Arboretum**

Name of Arbora- tum	Division	Location	Range	Area	Year of creation	Major species
Silviculture (South	) Division	I	L		L	1
Kadamkanan	Jhargram	Kadamkanan	Jhargram	0.60		Sal coppice forests with Misc. Spp.
Khasjungle	Medinipur	Khasjungle	Medinipur	1.30		Misc. Spp.
Mahatpur	Nadia-Mur- shidabad	Mahatpur	Krishnagar	1.25		Misc. Spp.
Chakhatisole		Chakhatisole		0.40		Misc. Spp.
Silviculture (Hills)	Division					
Arboretum Part – I at Panchanai	Darjeeling Wildlife	Panchanai	Kurseong Research Range	3.00	1942	Acrocarpusfraxinifolia, Amoorawallichii, Bombaxceiba, Castanopsis spp., Lagerstroemiaflos- re- ginae, Switeniamacrophylla, Tectonagrandis, Terminalia tomentosa, Xyliadolabriformis
Arboretum Part – II at Kynanuka	Darjeeling Wildlife	Kynanuka	Kurseong Research Range	3.00	1942	Agathisrobusta, Albizzia procera, Amoorarohituka, Cinnamomumcamphora, Cinnamomumcecidodaphne, Lagerstroemia hypoleuca, Sterculiavillosa
Conifer Arboretum	Darjeeling Wildlife	Sonada – 4	Hill Research Range – II	2.00		Pinuswallichiana, Pinuspat- ula, Pinustaeda, Pinusmas- soniana, Pinusthunbergii, Abiesspectabilis, Taxuswal- lichiana.
Silviculture (North	) Division					
KhutimariArbora- tum	Jalpaiguri Division	SMG-7	Moraghat Beat- Khuti- mari.	0.62 Ha.	1929	Misc. Species. Total- 40 Spp.
WRVK Arboratum	BTR(W)	SRVK-10	WRVK Beat-WRVK	1.5 Ha.	1994	Misc. Species. Total- 34 Spp.

## IN SITU & EX SITU CONSERVATION OF MEDICINAL PLANTS

# **Ex-situ Conservation**

Ex-situ conservation works includes maintenance of Herbal Garden. The following Herbal Garden / demonstration plots under this circle are maintained regularly. One such herbal garden of importance is at Amlachatihaving 854 species of medicinal plants collected from different parts of the state.

Name of Herb-						Major s	pecies	
al Garden / Demonstration Plot	Division	Location	Range	Area / No. of beds/spe- cies	Year of creation	RET	Regular	
Amlachati Ex-Situ site	Jhargram	Amlachati	Lodhasuli	2.0 Ha/ 468 Nos./704 Nos.	2001	Gymnemasylvestre, Tinosporacordi- folia, Tylopho-	Centellaa- siatica, Baco- pamonnieria, Enhydrafluctu-	
Digha Herbal Garden	Purba Medinipur	Khadalgobra	Contai	0.095 Ha./ 70 Nos. / 146 Nos.	2004	raindica, Clero- dendrumindicum, Rouvolfia serpentin e,Diclipterabupleur oidesetc.		
Sonada	Darjeeling. Wild Life	Sonada				Rauvolfiaserpen- tine, Asparagasrecemo-		
Takdah	Darjeeling	Takdah				sus, Tylophora indica.,		
Sukna	Darjeeling. Wild Life	Sukna				Gymnemasylvestre, Morindacitrifolia, Dioscoreaprezeri, Hemidesmusindi-		
Lava	Kalim-	Lava				cus Gloriosa superva		
Bhuttabari	pong- WBFDC	Bhuttabari				Tinosporacordi- folia Cúrcuma amada		
LBG	Silvi (H)	LBG						
Salugarah	ВКР	Shorea Na- ture Park	Salugarah Lab Range	220 beds	03-04		Regular	
Rajabhat-khawa	BTR(W)	RVK	Buxa- Coochbehar Research Range	122 beds	03-04		Regular	



### IN SITU CONSERVATION

There are seven (7) old & seven (7) new MPCAs under this circle. The **new MPCAs**(Medicinal Plant Conservation Areas) were established during 2013-14. Several measures are underway for protection of the species reaching extinction and rare, endangered &threatened (RET) species. These measures include survey and inventorization of plant resources to develop an accurate database for their planning and monitoring purposes.

Details of 7 new MPCAs are as follows:-

		Project for C	reation of 7 Ne	w MPCAs (CON	NS/WB-01/201	4)	
Name of MPCAs	Panchanoi	Phalut	Rachela	Bichabhanga-1	NRVK	Kankrajhore	Shushunia
District	Darjeeling	Darjeeling	Darjeeling	Jalpaiguri	Alipurduar	P Medinipore	Bankura
Forest Division	Darjeeling W	Darjeeling WL	Gorumara WL	Jalpaiguri	eBTR (W)	Jhargram	Bankura
Area (in Ha.)	200	200	200	200	200	300	300
GPS location	26°47'43.1" N 88°24'38.3"E Altitude 251 M	27°11'50.4" N 88°03'33.8"E Altitude2931 M	27°11'50.4" N 88°03'33.8"E Altitude2931	26º43'32.8''N 88º46'49.6''E Altitude165 M	26º41"06" N 89033'18" E Altitude 158 M	26º43'32.8''N 88º46'49.6''E Altitude 165 M	23°23'45.3" N 86°58'59'8"E Altitude 235M
Project Period			20	013-14 to 2015-1	6		
Forest Type	Sub Tropical Broad Leaved hill Forest	Montane Wet Temperate Forest	Montane Wet Temperate Forest	Montane Wet Temperate Forest	Northern tropical Moist deciduous forest	Dry Deciduous Tropical Forest	Dry Deciduous Tropical Forest
Executing Division		Silviculture (Hill	(s)	Silviculture	e (North)	Silvicultur	re (South)
Total Project Cost	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs	30 Lakhs
Fund released to Executing Agency	10 lakh	12 lakh	12 lakh	12 lakh	12 lakh	12 lakh	12 Lakh





# **MISCELLANEOUS INFORMATION**

	District a			lills and other Wood	Dascu
		Industries of We	est Bengal as on 31		
SI. No.	District	Division	No. of licensed units (General Category)	No. of licensed units (Secondary non-Pasting Category)	No. of licensed units (OGL Category)
1.	Paschim	Medinipur	41	65	0
2.	Medinipur	Jhargram	19	51	0
3.		Rupnarayan	12	35	0
4.		Kharagpur	151	373	0
5.	Purba	Purba	159	279	3
	Medinipur	Medinipur			
6.	Bankura	Bankura (North)	28	125	0
7.		Bankura (South)	33	113	0
8.		Panchet	23	33	0
9.	Purulia	Purulia	14	58	0
10.		Kangsabati (North)	31	77	0
11.		Kangsabati (South)	9	13	0
12.	Birbhum	Birbhum	74	358	0
13.	Burdwan	Burdwan	116	322	0
14.		DurgapurSF	87	94	0
15.	Howrah	HowrahSF	63	866	70
16.	Hooghly	HowrahSF	121		
17.	North 24	24 Parganas (North)	162	830	11
17.	Parganas	2 i i diguitas (i tortii)	102	030	
18.	South 24	24Parganas (South)	144	727	11
19.	Parganas	Sunderban TR	0	15	0
20.	Nadia	Nadia-Murshidabad	85	272	1
21.	Murshidabad	Nadia-Murshidabad	77	212	1
22.	Kolkata	Forest Utilization	175	122	1
23.	Malda	Malda	118	388	0
24.	Uttar Dinajpur	Raigunj	68	560	0
25.	Dakshin	Kaiguiij	29	300	U
23.	Dinajpur		2)		
26.	Dinajpui	Darjeeling	3	13	0
27.	Daijeeinig	Kurseong	9	57	0
28.		Kalimpong	1	0	0
29.		Baikunthapur	23	394	0
30.	Jalpaiguri	Baikunthapur Baikunthapur	68	374	V
31.	Jaipaiguri	•	80	121	0
31.		Jalpaiguri			
		Jaldapara WL-III	12	125	0
33.		Buxa TR (East)	12	98	0
34.	Ca - 1.1. 1	Buxa TR (West)	15	61	0
35.	Coochbehar	Coochbehar	135	668	0
	Grand Total		2197	7313	97

**ANNUAL REPORT - 2014-2015** 

# Length (in Km) of Forest Roads (31.03.2015)

District	Division	Water bound Macadam	Black top Motorable	Cement Concrete	Unsurfaced roads including earthen roads, non-motorable foottracks, inspection paths, firelines, etc	Total
24-Parganas (N)	24-Parganas (N)			0.42	10.5	10.92
24-Parganas (S)	24-Parganas (S)		1.5		15.45	16.95
24-Parganas (S)	STR				8.4	8.4
Alipurduar	BTR(E)		55		574	629
Alipurduar	BTR(W)		63		570	633
Bankura	Bankura(N)		465		372	837
Bankura	Bankura (S)	165	286	2	518	971
Bankura	Panchet		118		204	322
Birbhum	Birbhum				113.50	113.50
Burdwan	Burdwan				264.5	264.5
Burdwan	Durgapur	9	1	1	16	27
Coochbehar	Coochbehar	36	1		62.5	99.5
Coochbehar	Jaldapara WL	65			435	500
Darjeeling	Darjeeling	6	13.3		420	439.3
Darjeeling	Darjeeling WL	30	29.7		332	391.7
Drajeeling	Kalimpong	35	201		145	381
Darjeeling	Kurseong		7.88	2	50.50	60.38
Howrahand Hoogly	HowrahSF				5	5
Jalpaiguri	Baikunthapur				205.03	205.03
Jalpaiguri	GorumaraWL	14			187.97	201.97
Jalpaiguri	Jalpaiguri	180			239.09	419.09
Malda	Malda		2.40		6.50	8.90
Nadia& Murshidabad	Nadia- Murshidabad				40	40
Paschim Medinipur	Jhargram	270			505	775
Paschim Medinipur	Kharagpur				5	5.00
Paschim Medinipur	Medinipur	271				271.00
Paschim Medinipur	Rupnarayan	73.5	23.5		368	465
Purbo Medinipur	Purbo Medinipur				20	20
Purulia	Kangsabati (N)				27.45	27.45
Purulia	Kangsabati (S)				52.00	52
Purulia	Purulia		15.30	0.5	187.70	203
Uttar Dinajpur & Dakshin	Raiganj				2.5	2.5
Dinajpur	TOTAL	1154.50	1283.58	5.92	5962.59	8406.09

**Source: ANNUAL REPORT 2014-15** 





Statement for Parks & Beautification areas & expenditure under control of Deputy Conservator of Forests, Urban Recreation Forestry Division for the year 2015-16

SI.No.				entry rees (2013-	Expenditure during
	Name of the Park	Name of the Range	Area in Acres	16)	2015-16( in Rs.)
-	Eden Gardens	Eden Garden Range	15.00 acres including 0.50 acres water body	No entry fee	5874170.00
2	W.B. Assembly	Eden Garden Range	6.54 acres	No entry fee	2061917.00
3	Southern Avenue Garden	Calcutta (South) Range	4.00 acres	No entry fee	310000.00
4	S.N. Park	Calcutta (South) Range	2.00 acres	No entry fee	340000.00
5	Jodhpur Park	Calcutta (South)Range	2.00 acres	No entry fee	256145.00
9	Banabitan Park	Salt Lake Range	84.00 acres including 22.00 acres water body	Rs.20/- Adult Rs.12/- Children	1631670.00
7	Jawharkunj Garden	Jawaharkunj Range	19 acres	Rs.25/- Adult Rs.10/- Children	1822102.00
00	Barasat Garden	Jawaharkunj Range	2.55 acres	Rs.20/- Adult Rs.10/- Children	484554.00
6	Kalyani Central Garden	Kalyani Range	4.15 acres	Rs.20/- Adult Rs.10/- Children	298000.00
10	Kalyani Picnic Garden	Kalyani Range	14.82 acres	Rs.20/- Adult Rs.10/- Children	887500.00
11	Shantipur Rastriya Udyan	Kalyani Range	8.00 acres	Rs.12/- Adult Rs. 5/- Children	250987.00

Deputy Conservator of Forests Urban/Recreation Forestry Division

Pa	rks permanently ma	nintained by	y Parks & G	ardens (Nortl	n) Division
Sl.	Name of Park	Area	Range	Beat	District
No.	Truine off unix	(in acre)	range	Dear	
1	Siliguri	1.19	Siliguri	Siliguri	Darjeeling
2	Mal	6.10	Siliguri	Mal	Jalpaiguri
3	Oodlabari	2.00	Siliguri	Mal	Jalpaiguri
4	Nagrakata	3.75	Siliguri	Mal	Jalpaiguri
5	Islampur	2.03	Siliguri	Siliguri	Uttar Dinajpur
6	Teesta Udyan	4.45	Jalpaiguri	Teesta	Jalpaiguri
7	Birpara Sishu Udyan	3.50	Jalpaiguri	Birpara	Alipurduar
8	Banarhat	3.00	Jalpaiguri	Birpara	Jalpaiguri
9	Dhupguri	2.53	Jalpaiguri	Dhupguri	Jalpaiguri
10	Maynaguri	2.00	Jalpaiguri	Dhupguri	Jalpaiguri
11	Falakata	1.23	Jalpaiguri	Birpara	Alipurduar
12	Haldibari	2.50	Jalpaiguri	Teesta	Coochbehar
13	N. N. Park	13.62	Coochbehar	N. N. Park	Coochbehar
14	Alipurduar	2.10	Coochbehar	Coochbehar	Coochbehar
15	Lataguri	1.00	Jalpaiguri	Lataguri	Jalpaiguri
16	Kranti	2.00	Jalpaiguri	Lataguri	Jalpaiguri
17	Karala Beautification	2.00	Jalpaiguri	Teesta	Jalpaiguri
18	Keshab Ashram	2.17	Coochbehar	Coochbehar	Coochbehar
19	Golbagan (H. N. Park)	0.32	Coochbehar	Coochbehar	Coochbehar
20	Station Garden	0.79	Coochbehar	Coochbehar	Coochbehar
21	Shahid Bag	0.73	Coochbehar	Coochbehar	Coochbehar
<i>Z</i> I	(Mukta Mancha)	0.73	Coochbenar	Coochbenar	Coochdenar
	Total Area (acre)	59.01 Ac.			





# Length of Forest Road (in Km) as on 31.03.2016

The length of Forest Road as on 31.03.2016 was 6202.872 km.

District	Name of Division	Water Bound Macadam	Block Top Motorable	Cement concrete	Earthen	Non Motor- able Foot Tracks	Other Motorable Road	Total
Darjeeling	Darjeeling	6.000	13.300	0.000	0.000	92.000	0.000	328.000
Darjeeling	Kurseong	0.000	7.875	2.000	5.000	45.500	0.000	60.375
Darjeeling	Kalimpong Soil Con.	0.000	2.000	0.000	0.000	0.000	0.000	2.000
Darjeeling	Darjeeling WL	50.000	29.772	0.000	36.300	251.025	0.000	337.097
Jalpaiguri	Baikuntha Pur	0.000	0.000	0.000	76.530	120.000	0.000	196.530
Jalpaiguri	Jalpaiguri	202.000	0.000	0.000	50.000	130.000	0.000	382.000
Jalpaiguri	Gorumara WL	160.000	0.000	0.000	0.000	4.000	0.000	164.000
Alipurduar	BTR East	0.000	55.000	0.000	254.000	320.000	0.000	629.000
Alipurduar	BTR West	0.000	63.000	0.000	203.000	367.000	0.000	633.000
Coochbehar	CoochBehar	54.000	6.000	0.000	34.000	0.000	0.000	94.000
Coochbehar	Jaldapara WL	65.000	0.000	0.000	172.500	262.500	0.000	500.000
Uttar&Dakshin Dinajpur	Raiganj	0.000	0.000	0.000	2.000	0.500	0.000	2.500
Malda	Malda	0.000	2.400	0.000	2.000	4.500	0.000	8.900
Bankura	Bankura North	0.000	0.000	0.000	175.000	197.000	465.000	837.000
Bankura	Bankura South	0.000	0.000	0.000	62.000	0.000	0.000	62.000
Bankura	Panchet	0.000	118.000	0.000	204.000	0.000	0.000	322.000
Purulia	Kangsabati North	0.000	0.000	0.000	0.000	275.450	0.000	275.450
Purulia	Kangsabati South	0.000	0.000	0.000	52.000	55.000	0.000	107.000
Purulia	Purulia	131.000	72.000	0.000	0.000	0.000	0.000	203.000
Burdwan	Burdwan	0.000	0.000	0.000	164.500	100.000	0.000	264.500
Burdwan	Durgapur	9.000	1.000	1.000	6.000	10.000	0.000	27.000
Paschim Med	Midnapur	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Paschim Med- nipur	Jhargarm	0.000	0.000	0.000	94.000	0.000	0.000	94.000
Paschim Med-	Rupnarayan	73.500	23.500	0.000	335.500	37.500	0.000	470.000
Paschim Med	Kharagpur	0.000	0.000	0.000	0.000	0.000	0.000	165.000
Purha medninur	Purba Mid- napur	0.000	0.000	0.000	20.000	0.000	0.000	20.000
	Birbhum	0.000	0.000	0.000	113.500	0.000	0.000	113.500
	Nadia Msd	0.000	0.000	0.000	30.000	10.000	0.000	40.000
24 Darganag (C)	24 Parganas(S)	0.000	2.900	0.000	12.900	0.000	0.000	15.800
	STR	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	24 Parganas (N)	0.000	0.000	0.420	0.000	10.500	0.000	10.920
Howrah	Howrah	0.000	0.000	0.000	10.000	15.000	0.000	25.000
Total		750.500	396.747	3.420	2114.730	2307.475	630.000	6202.872

## Forest Villages (FV), North Bengal

District	Division	Name of forest villages	No. of FV	No. of Registered Forest Villagers
Jalpaiguri	Jalpaiguri	Sipchu, Panjhora, Khunia, Indong(N), Indong(S), Mugalkata, Kalamati, Bamni, Baradighi, Gosaihat Sonakhali, Khoklong, Mela, Khutimari, Totapara, Dalgaon, Reti, Kalapani, Budhram, Sursuti, Bicha- bhanga.	21	431
Jalpaiguri	Wildlife-I1	Dhupjhora, Kalipur.	2	32
Jalpaiguri	BKP	Magurmari, Sologharia, Mechbusti, Gazaldoba.	4	150
Jalpaiguri	COB- Jaldapara	Dhumchi, Khairbari (N), Khairbari (S), Balalguri, Kodalbusti, Mendabari(N), Mendabari(S), Montharam, Salkumar, Andubusti, Kurmai, Banla.	12	290
Jalpaiguri	BTR-West	Bhutri, Dalbadal, Godamdabri, Bamni, Pampu, 20 <sup>th</sup> Mile, 21 <sup>st</sup> Mile, Kalkut, Panijhora, Gadadhar, Garam(E), Garam(W), Pana, Raimatang, Nimati, Poro(N), Poro(S), Gangutia, Garobusty, Adhmabusty.	20	375
Jalpaiguri	BTR-East	Bengdoba, Sankosh, Kumar-Gram, New-Lands, Siltong, Tiamari, Chipra, Lepraguri, Indu-basty, Khuntimari, Balapara, Santrabari, Chunabhati, Tashigaon-Lepchakhawa, Buxa-Road-28/29-Miles, Bhutia- busty.	16	358
Darjeeling	Kurseong	Kataria, Singamari, Berrick, Naya-basty, Lower Kundong, 6th Mile, Bamanpokhari, Tukriajhar, Kolabari, Central F\l, Phuaguri, Singbuli, Mahaldiram- V, Mahaldiram-I, Mahaldiram-V, Babukhola, Dhobikhola, Dohera, Jholi, Sittong, Karmet, Upper Kundong.	22	413
Darjeeling	Kalimpong	Nazoke, Mongpong, Mangchu, Burikhola, Lava, Paingaon, Chiloni, Merong, Ichey, Tashi-Ding, Chuna-bhatti, Barogaria, 15 Gharia, Mal-8, Dalim- kote, Campoundbusty, Coppice, Paren, Fari, Bhut- tabari, Noam, Fagu, Mal-4, Chumang, Mourey, Sakkam, Kharkhola, Kameshi, Bhalukhope.	29	799
Darjeeling	Darjeeling	Turzam, Mangwa, Pashoke, Deorali, Sombong, Poo-bong, Ghoom, Gurashdara, Pullongdong, Khopidara, Gurdum (Tonglu), Group-Batasia, Lopchu, Barbatia, Rong-Bong, Gurdum(Singhlila), Rithu, Ungsebong, Namla, Ramam, Badamtam, Dargaon, Samandin, Sirikhola, Majdhura, Bichgaon(Majhia).	27	352
Darjeeling	Wildlife-I	Punding, Khairani, 10th Mile, Chamta, Koklong, Rambhi, Chetakpur, Paschim, Rampuria, Dhotaria, Rangiram, Reshope, Khairjhora, Gorkhey.	14	274
COB	COB-SF	Atiamachor, Takuamari, Rashikbil.	3	60
have been sp	lit into two sepa	ewer, however due to local administrative reasons some FV arate hamletsIFVs. The names/nos of forest villages/statistics verification (Source: PCCF/WB's statement on FDAs dt.	170	3,534

Source: Annual Report 2014-2015



### STATUS OF FOREST CHECK POST (F.C.P.) IN WEST BENGAL as on 31.03.2016

As reported by Divisions, there are 58 numbers of Forest Check Posts existing in West Bengal as on 31.03.2016, out which 13 numbers of Forest Check Posts are presently non-functional.

(Ref: Table No. \_\_\_\_\_)

Division	Name of F.C.P	Location of F.C.P.	Beat	Range	Contact Number	Status of Operation
Darjeeling	GhoomBhan- jang FCP	GhoomBhanjang,Sukhia Pokhri Rd.	GhoomBhan- jang	Darjeeling	8116602242	F
Kurseong	Ghoshpukur FCP	Ghoshpukur NH 31D	FCP Beat	Bagdogra	-	F
	Gosainpur FCP	Gosainpur Asean H.W.	FCP Beat	Bagdogra	-	F
	Jorebunglow FCP	Jorebunglow old Military Road	Jorebunglow	Senchal west	-	F
	Sanada F C.P.	Sanada old Military Road	old Military Road	Senchal west	-	F
	3 <sup>rd</sup> Mile F FCP	3 <sup>rd</sup> Mile Simkuna	Rambi	Senchal East	-	F
Darjeeling WL	Tumling FCP	Tumling GairibusSan- dakphu	Gairibus	Singalila South	-	F
WL	GairibusFCP	Gairibus Sandakphu	Gairibus	Singalila South	-	F
	Maneybanjan FCP	Maneybanjan Sandakphu	Gairibus	Singalila South	-	F
	Gorkey FCP	Gorkey Sandakphu	Gorkey	Singalila North	-	F
	Chamta FCP	Chamta Sukna	Chamta	Sukna	-	NF
Baikuntha Pur	2&1/2 Mile FCP	2&1/2 Mile Sevoke Road,Siliguri	Sarugara HQ	Sarugara	-	F
Daikullula Ful	Gazaldoba FCP	Gazaldoba	Gazaldoba	Targhera	-	F
	Targhera FCP	Targhera	Targhera	Targhera	-	F
Jalpaiguri	Teesta Bridge FCP	NH 31 near Teesta Bridge	-	Teesta Bridge Range	-	F
	Barobisha FCP	Barobisha NH-31	Barobisha	Bholka	-	F
BTR East	Mainabari FCP	Mainabari	Mainabari	North Raydak	-	F
	Jainti FCP	Jaienty	Jaienty HQ	Jaienty	-	F
	Damanpur FCP	Damanpur	Damanpur	East Damanpur		F
BTR West	Rajabhatkhawa FCP	Rajabhatkhawa	West Rajabhat- khawa	Rajabhatkhawa	-	F
CoochBehar	NIL	-	-	-	-	-
	Chilapata FCP	Chilapata Range	Chilapata	Chilapata	-	F
	Kodalbasti FCP	Kodalbasti	Kodalbasti	Kodalbasti	-	F
Jaldapara WL	Hasimara FCP	Hasimara	-para	Nilpara	-	F
	Bhagate Jote FCP	Bhagate Jote	Lankapara	Lankapara	-	F
Gorumara WL		-	-	-	-	ı
Raiganj	NIL	-	-	-	-	-
Malda	NIL	-	-	-	-	-
Bankura	Salbani FCP	Keshiaakole	Salbani	Bankura North	9083254736	F
North	Barjora FCP	Barjora	Barjora	Barjora	9083254752	NF
Bankura South	Ranibandh FCP	Ranibandh	Ranibandh	Ranibandh	03243- 250234	F
Panchet	Joypur FCP	Joypur Bishnupur-Arambagh State HW	Joypur	Joypur	03244- 249007	F
Kangsabati North	Maheshnadi FCP	Maheshnadi	Naturia	Raghunath pur	9932113986	F
1101111	Simulia FCP	Simulia	Purulia-1	Puruliapara	9932353129	F

Division	Name of F.C.P	Location of F.C.P.	Beat	Range	Contact Number	Status of Operation
Kangsabati South	NIL	-	-	-	-	-
Purulia	Joypur Forest FCP	Joypur	Joypur beat	Joypur	-	F
Burdwan	NIL	-	-	-	-	-
Durgapur	NIL	-	-	-	-	-
	Bhadutala FCP	Bhadutala	Bhadutala	Bhadutala	-	F
Midaaaaa	Pirkata FCP	Pirkata	Bhimsole	Pirkata	-	F
Midnapur	Chandrakona FCP	Chandrakona	Andharnayan	Chandrakona	-	F
	Balivasa FCP		Balivasa	MPP-Jhargarm	9733817669	F
Jhargarm	Gopiballavpur FCP	Gopiballavpur	Gopiballavpur	Gopiballavpur	9679306047	F
	Raskundu More FCP	-	Pathrisole	Amlogora	-	F
	Monglapota FCP		Chandabala	Amlogora	-	F
Rupnarayan	Panikotor FCP	Panikotor	Raskundu	Amlagora	-	NF
	Pingboni FCP	Pingboni	Barapatasole	Goaltore	-	NF
	Dhachati FCP	Dhachati	Barapatasole	Goaltore	-	NF
	Kesia FCP	Kesia	Reparghara	Mahalisai	-	NF
	Prembazar Kpg- keshiary Rd. FCP	Prembazar Kpg-keshiary Rd.	Hijli	Hijli	03222- 277226	NF
Vhoroomin	Belda-Contai RdFCP	Belda-Contai Rd.	Belda	Belda	03229- 255258	NF
Kharagpur	Nayagarm- Kharikamathani Rd-FCP	Nayagarm-Kharika- mathani Rd	Nayagarm HQ	Nayagarm	-	F
	Kalaikunda NH-6 FCP	Kalaikunda NH-6	Kalaikunda	Kalaikunda	03222- 232257	F
Purba Midna- pur	Bajkul FCP	Bajkul More – Meechada – Digha Rd.	Bajkul HQ	Bajkul	8373098582	F
Birbhum	Illambazar FCP	Near Ajay River	Illambazar	Bolepur	870003205	F
Nadia Msd	NIL	-	-	-	-	-
24 Parganas North	NIL	-	-	-	-	-
24Parganas(S)	Shikarpur FCP	-	=	=	-	NF
*,	Namkhana FCP	-	=	=	-	F
	Nalgora FCP	-	=	=	_	F
	Kultali FCP	-	=	=	-	F
	Matla FCP	-	_	-	-	F
	Patharpratima FCP	-	-	-	-	F
STR.	Narkeldanga FCP	-	-	-	-	NF
	Rampura FCP	-	-	-	-	NF
	Bagna FCP	=	=	-	-	NF
	Sajnakhali FCP	-	=	-	-	NF
Howrah	NIL	-	-	-	_	-
Forest Utilisa- tion	NIL	-	-	-	-	-

Note: F: Functional NF: Non-Functional



### **OUTTURN OF FOREST PRODUCE FOR FINANCIAL YEAR 2015-16**

As per Divisional report, area felled during F.Y.2015-16 was 6906.63ha and outturn of Timber was 39018.44 m³, outturn of Firewood was 103160.1 m³, of pulpwood was 59235.76 m³. The outturn of poles and post and cogging sleeper was 2463973, 873 and 704419 numbers respectively and it includes the produce of all dimensions and of all species.

Name of Division	Area felled	Outturn of Timber	Outturn of Fire wood	Outturn of Pulp wood	Outturn of Poles	Outturn of Post	Outturn of Cogging Sleepers
	(in Ha)	(in M <sup>3</sup> )	(in M³)	(in M³)	In Nos	In Nos	In Nos
Darjeeling	0.000	63.601	15.204	0.000	0	0	0
Kurseong	13.800	3169.049	12.096	13.800	0	0	0
Darjeeling WL	0.000	0.000	0.000	0.000	0		
Baikunthapur	48.950	8536.821	259.560	48.950	0	0	0
Jalpaiguri	43.690	4736.923	813.000	43.690	0	0	0
BTR East	0.000	758.140	0.000	0.000	0	0	0
BTR West	0.000	1803.724	187.500	0.000	0	0	0
Coochbehar	0.000	720.703	0.000	0.000	0	0	0
Jaldapara WL	11.690	2515.741	593.000	11.690	0	0	0
Gorumara WL	0.000	0.000	0.000	0.000	0	0	0
Raiganj	0.000	1527.324	50.623	0.000	0	0	0
Malda	0.000	0.000	0.000	0.000	0	0	0
Bankura North	975.000	1577.775	12250.360	975.000	290126	0	397521
Bankura South	802.000	1464.650	5869.880	802.000	174184	0	122469
Panchet	850.000	3322.995	10162.418	850.000	196093	8	128860
Kangsabati North	227.000	103.330	4112.650	227.000	789	0	0
Kangsabati South	227.500	283.046	3264.846	227.500	14842	132	0
Purulia	181.000	496.964	3057.322	181.000	18447	0	0
Burdwan	243.000	574.249	8271.630	243.000	809381	733	0
Durgapur	120.000	508.671	3174.060	120.000	5513	0	0
Midnapur	1282.250	1139.512	12236.750	1282.250	406713	0	0
Jhargarm	928.750	264.852	22598.227	928.750	248048	0	0
Rupnarayan	505.000	2700.039	4784.598	505.000	249873	0	55569
Kharagpur	336.000	281.699	8115.080	336.000	32833	0	0
Purba Midnapur	0.000	264.598	903.375	0.000	1167	0	0
Birbhum	111.000	842.810	1887.570	111.000	15672	0	0
Nadia Msd	0.000	328.564	116.000	0.000	292	0	0
24 Parganas(S)	0.000	0.000	0.000	0.000	0		
STR	0.000	0.000	0.000	0.000	0	0	0
24 Parganas (N)	0.000	1032.660	424.350	0.000	0	0	
Howrah	0.000	0.000	0.000	0.000	0	0	0
Total	6906.630	39018.440	103160.099	59235.762	2463973	873	704419

### Note:

- 1. Outturn of Timber, pulpwood & Firewood includes that of all species.
- 2. Outturn of Poles, Posts and Cogging sleepers includes various dimensions and of all species.
- 3. Firewood Stack Volume taken as 0.84 m³ per stack.

# **OUTTURN OF MINOR FOREST PRODUCE FOR THE YEAR 2015-16**

Total	467308.00	59940.00	260910.04	112.50	221.00	150.00	120.62	1550.00	1.50	5616.50	378.54	783 50		1724.00	102.50	30.00	2.00	15.00	10.00	2.00	8.00	3.00	0.50	1.00	5.00	1.00	800.00	1.00	10.00	7687.00	1020.00
BTR West																														7687.00	1020.00
STR		33515.00																													
24 Par- ganas South		26425.00																													
Purba Medini- pur			790.00																												
Kharag- pur										1800.00																					
Rupna- rayan			19682.00																												
Jhar- garm			8350.54	82.50	1.00		120.62		1.50	2442.00	128.54				2.50		2.00						0.50	1.00	5.00	1.00	800.00	1.00			
Medini- pur			425.00	30.00	220.00	150.00		1550.00		1220.00	250.00				100.00	30.00		15.00													
Kang- South										128.00																					
Panchet Kang-South	9682.00		40500.00																												
Banku- ra (South)			8662.50																												
Bankura (North)			182500.00							26.50																					
NTFP	3626.00											783.50	1724.00						10.00	2.00	8.00	3.00							10.00		
Darjeel- ing	454000.00 3626.00																														
Unit	Nos	Kg	Kg	Qntl.	Qntl	Qntl	Qntl	Qntl	Qntl	Qntl	Qntl	Ltr.	Qntl		Qntl	Qntl	Qntl	kg	$\mathbf{K}\mathbf{g}$		$\mathbf{K}\mathbf{g}$	Kg	ÓТL	ÓЛГ	Qntl	Qntl	sou	Qntl	Kg	$\mathbf{M}^3$	$M^3$
NTFP	BAMBOO	HONEY	CASHEW	AMLOKI	BAHERA	MAHUA FLOWER	MAHUA SEED	NATA SEED	NEEM SEED	KENDU LEAVES	SAL SEED	CITRONEL- LA OIL	CITRONEL-	LA GRASS	HARITAKI	KUSUM	KURCHI	PIAL	IOLSI	BLACK PEP- PER	PURNAVA	GANDAL PATA	DHADHKI PHOOL	KUCHILA SEED	GUM	SHYAM- LATA	BEL	KALMEGH	GURMAR	BOULDER	RBM



Table: Value(in Rs. Lakh) of NTFP collection in various forest divisions in West Bengal

honey as 59940.00 kg and Bamboo as 467308.00 Nos constituted the major non timber Forest Produce. The outturn of Boulder and RBM from forest As per Divisional report, the approximate value of NTFP outturn during F.Y.2015-16 was Rs. 1060.771 lakh. The outturn of cashew as 260910.04kg, area was 7687 m<sup>3</sup> and 1020 m<sup>3</sup> respectively.

(Reference

Division	-msA boo	Нопеу	Kendu	Sal	Cashew Seeds	Ваћега	-iraH idet	Kusum	Citro- nella Srass	Citro- nella liO	Mahua	sudaM Seeds	Boul-	ВВМ	Others	IstoT SulsV
Baikunthapur															0.000	0.000
Bankura (North)					1.906										0.000	1.906
Birbhum																0.000
Bnkura South					6.930										0.000	6.930
BTR (E)																0.000
BTR (W)													3.081	0.102	0.000	3.183
Burdwan															0.000	0.000
Coochbehar															0.000	0.000
Darjeeling	4.547														0.000	4.547
Durgapur															0.000	0.000
Gorumara WL															0.000	0.000
Howrah															0.000	0.000
Jaldapara WL															0.000	0.000
Jalpaiguri																0.000
Jhargram			122.100	1.928	835.054	0.015	0.400				3.377	4.256			2.740	969.870
Kangsabati North															0.000	0.000
Kangsabati South															0.000	0.000
Kharagpur															0.000	0.000
Kurseong																0.000
Malda																0.000
Medinipur			0.092	0.039	0.014	0.008	0.002	0.001				0.003			0.164	0.323
Nadia-Murshid- abad															0.000	0.000
NTFP	0.700								5.485	11.361					0.186	17.731
Panchet	1.950														0.000	1.950
Purba-Medinipur					1.617										0.000	1.617

Purulia															0.000	0.000
Raiganj															0.000	0.000
Rupnarayan					19.682										0.000	19.682
Siliguri SF															0.000	0.000
24 Parganas (N)															0.000	0.000
24 Parganas (S)		33.031													0.000	33.031
STR															0.000	0.000
Wildlife (HQ)															0.000	0.000
Total	7.197	33.031	7.197 33.031 122.192 1.967	_	865.204	0.023	0.402	0.001	5.485	11.361	3.377	4.259	3.081	0.102	3.089	865.204 0.023 0.402 0.001 5.485 11.361 3.377 4.259 3.081 0.102 3.089 1060.771



### MANDAYS GENERATED during F.Y. 2015-16 in Forestry Activities

Mandays generated in various Forestry activities during F.Y. 2015-16 was 3417371 and the average wage rate was Rs. 219.04.

(Reference \_\_\_\_\_)

Name of Forest Division	Mandays Generated	Average Wage Rate (in INR)
Darjeeling	31250	224.46
Kurseong	23586	224
Baikunthapur	38500	216
Jalpaiguri	75000	224
NTFP	4030	216
Siliguri S.F	135004	216
Jalpaiguri S.F	30642	220
BTR East	45000	192
BTR West	51360	224
Coochbehar	32700	216
Darjeeling WL	22478	224
Jaldapara WL	48127	224
Gorumara WL	57480	224
Raiganj	121000	216
Malda	16163	224
Bankura North	61672	225.00
Bankura South	338335	219.37
Panchet	127380	216.00
Kangsabati North	162131	220.78
Kangsabati South	41460	224.16
Purulia	700000	225
Burdwan	108900	224
Durgapur	20089	224
Midnapur	80955	224
Jhargarm	131237	224
Rupnarayan	307658	199.12
Kharagpur	66641	224
Purba Midnapur	27420	224
Birbhum	59780	216
Nadia Murshidabad	109	224
Howrah	34204	224
EFD	8101	224
24 Parganas(S)	83042	218.40
24 Parganas(N)	12929	216
STR	153621	224.47
Monitoring North	1642	224
Monitoring South	10713	222
Kalimpong Soil Conservation	19000	200
Kurseong Soil Conservation	45457	216
Jalpaiguri Soil Conservation	52375	208.12
Silviculture South	12793	217
Silviculture North	2060	224
Silviculture Hill	159	224
Working Plan North	12936	224
Working Plan S-I	1150	216
Working Plan S-II	1102	226
Total	3417371	219.04