



ANNUAL ADMINISTRATIVE REPORT 2016-2017

DEPARTMENT OF FORESTS
GOVERNMENT OF WEST BENGAL

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Government of West Bengal
2018

Aranya Bhavan
LA - 10A Block, Sector III
Salt Lake City,
Kolkata 700106
West Bengal

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GOVERNMENT OF WEST BENGAL

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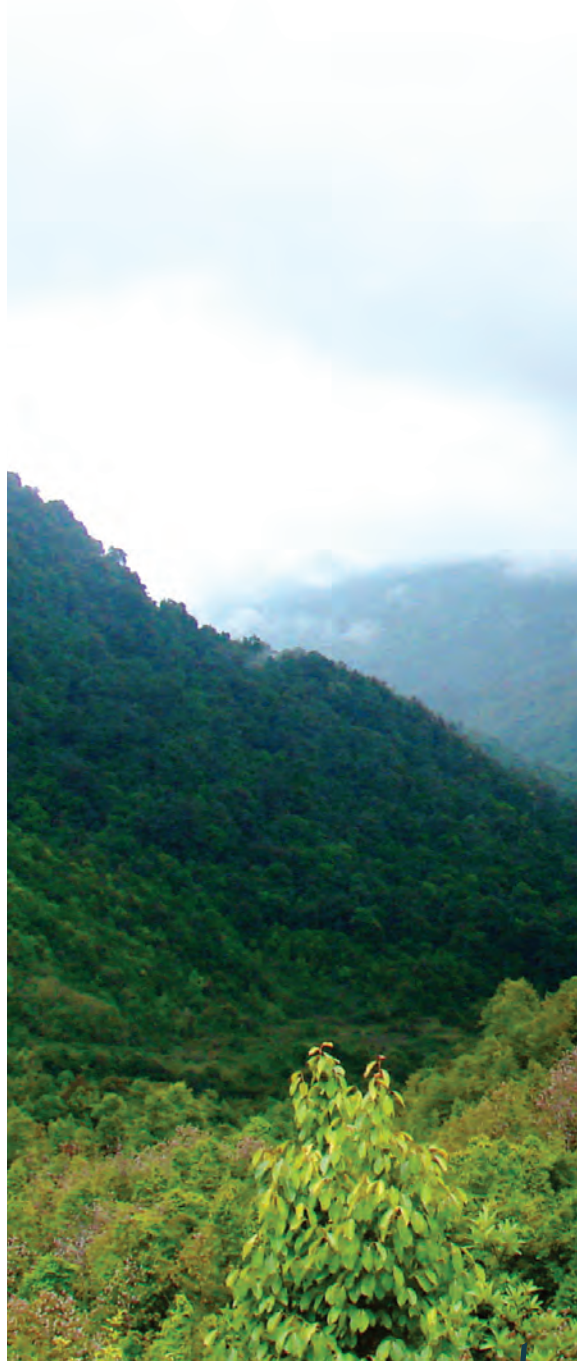


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As the world gears up for action on climate change and sustainable development, West Bengal showed how putting landscapes, forests and people at fore can promote integrated action with better outcomes for human well-being, equity and the environment. 2016-2017 was a highly significant year for the Forest Department with the launch of its new e-Governance strategy and other human welfare forestry schemes. The Honorable Chief Minister herself has initiated afforestation scheme like Sabujshree which has reached the common man and the poorest of the poor. This year saw many new policies and pledges of financial support by Government for efforts to plant more trees and emphasize the special importance of forest incomes to poorest households. Thanks to the commitment of all staff and officers in achieving our goals. The Annual Administrative Report for 2016-2017 is now published to share our views, activities and attract the attention of our readers.

Binay Krishna Barman





Foreword



Chandan Sinha, IAS
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The Forest Department has the mandate not only to protect and conserve the forests and wildlife in the state but to do so in a manner that helps mitigate the forces of climate change. Beyond, and around, the regulatory framework of laws and rules pertaining to forests and wildlife stretches the fabric of developmental issues - with people at the centre of the scheme. For to ensure the sustainability of our society we must ensure that our forest wealth is not only conserved but it is developed and integrated with the needs and imperatives of a developing people. Little wonder, therefore, the Forest Department of West Bengal envisions itself as:

An organization that excels in sustainable management and enhancement of green cover, natural eco- systems, forest resources and biodiversity with a people centric approach.

To realise the Vision of our Department in keeping with the United Nations Sustainable Development Goals we have identified, and are pursuing, six Missions for the period 2016 - 2030:

- Mission I: Conserve, Restore and Enhance the Forests of the State.
- Mission II: Ensure sustainable supply of Forest Produce and Services to meet Industrial and Social needs of the State.
- Mission III: Increase green cover and sequester carbon emissions of State through extensive social & urban Forestry Activities.
- Mission IV: Scientifically manage Protected Areas and Biodiversity.
- Mission V: Build Capacity of personnel for improved Technology based Management through Research, GIS, MIS and Improved infrastructure.
- Mission VI: Sustainable management of forests and bio-diversity in strategic partnership with local communities and other stake holders.

This Annual Administrative Report of the Forest Department for 2016-2017 reflects our commitment to our vision and our missions. Whether it is the expansion of green cover in the State or the mitigation of human-wildlife conflict, the greening of urban spaces or the protection of endangered biodiversity, the capacity building of members of Joint Forest Management Committees or that of Forest Staff, e-auction of forest produce or extension of medicinal plants - our activities are directed to achieving our Vision. We hope that this Annual Administrative Report shall prove to be a rich source of not merely data but also of insights into the activities and achievements of the Forest Department.

Chandan Sinha





Narendra Kumar Pandey, IFS
Principal Chief Conservator of Forests
& Head of Forest Force, West Bengal
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Forest holds the keys to solving some of the world's greatest challenges, such as climate change, food security and sustainable development. Throughout 2016-2017, our staff and officers have continued to work with decision makers and stakeholders across all levels to ensure that forestry is executed by quality and research.

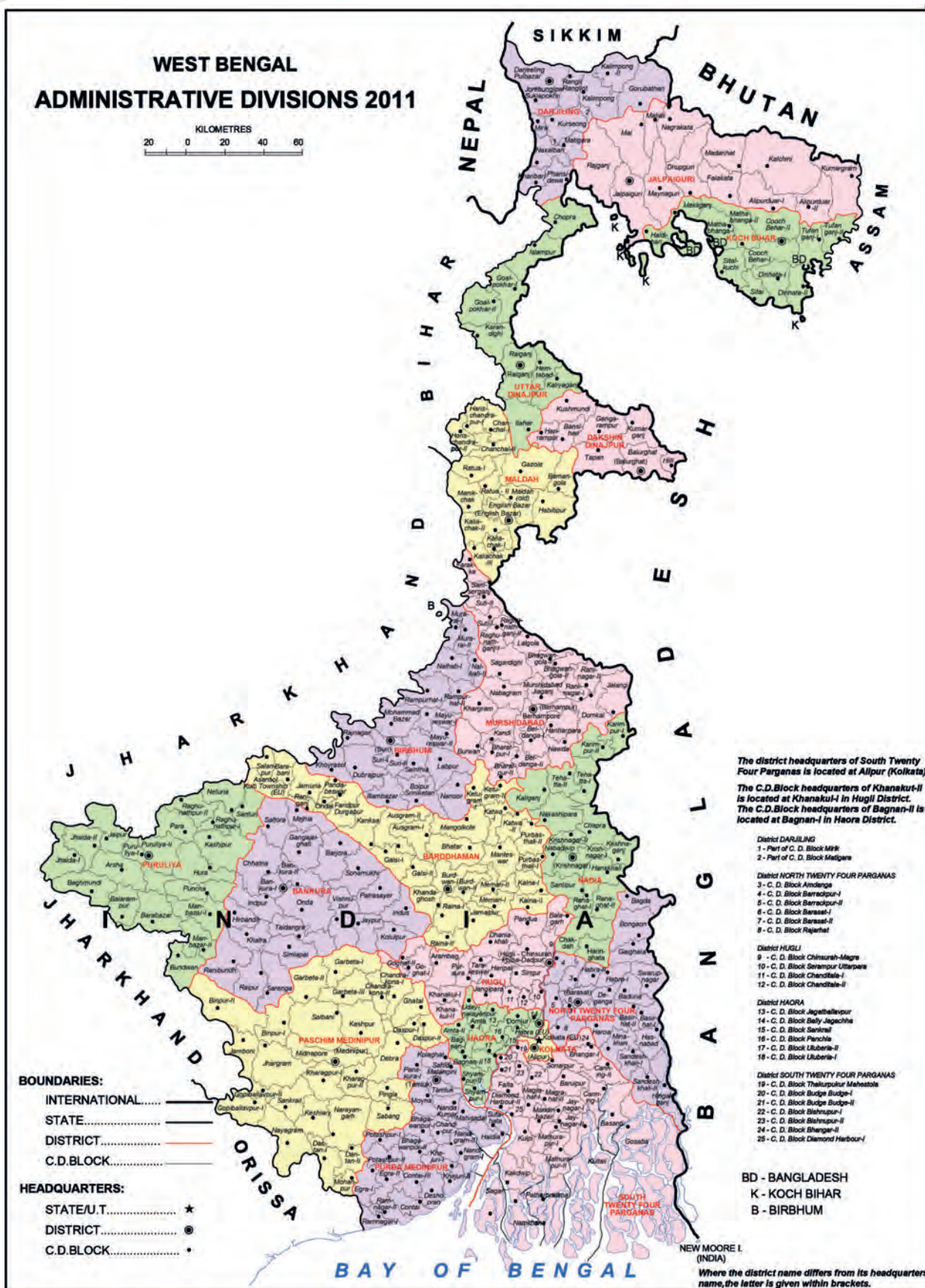
West Bengal has a wide diversity in landscape, people and ecosystem and foresters have worked 24x7 to enrich the bio-diversity. Exiting developments in the field of research, training, wildlife management, agroforestry, social forestry, legal documentation and publicity have taken place in the last 153 years. The forest department is in readiness to share these developments and help provide the evidence base that is required for achieving a sustainable future. The Annual Administrative Report of 2016-2017 showcases forest departments role in empowering decision makers and public for forests in communities across the state of West Bengal and its ability to innovate and respond to new knowledge and challenges. This report is one document for reflecting our achievements and looking forward to what needs to be done next.

Message

Narendra Kumar Pandey







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ASSAM BHAWAN



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Sub-Alpine Forest

INTRODUCTION

1.1 Summary of The Annual Report

West Bengal (Area 88,752 Sq. K.M. Comprising of 23 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 longitudes, 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 and 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 of West Bengal. The 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 gushing the Teesta River.

Apart from the river 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 tow. It flows downward to water the central part as well.

Apart from the Mahananda the other rivers in the central region of the state are the Atrai, the Punarbhaba 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 the Mayurakshi. It is fed by the tributaries such as the Bakreswar, the Kopai, the Dwarka and the Brahmani. The Damodar is also a major river here. Originating from the hills of Bihar, it flows towards the east to join the River Hooghly, which is one of the most important rivers of West Bengal.

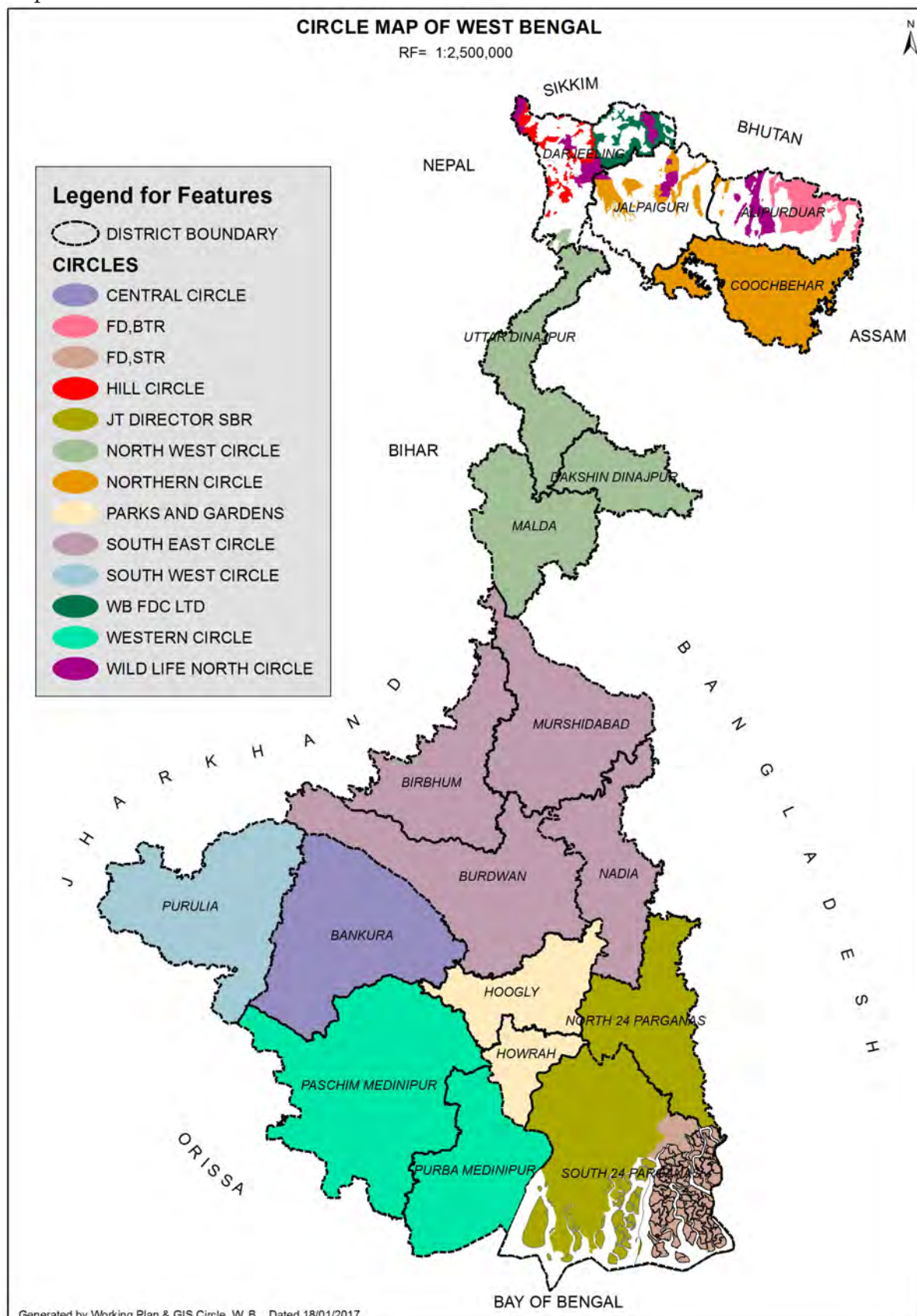
The main channel of the River Ganga in this part of the country is the Bhagirathi. It joins the Padma in Bangladesh. The Ganga drains into the Bay of Bengal forming the famous delta of Indian Sundarbans. Two other very important Rivers in West Bengal are the Subarnarekha and the Rupnarayan.

The state has a diverse climate, varying from moist-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 500mm in northern parts of the State. The temperature also ranges between below zero degree centigrade in the Darjeeling hills during the winters to about 46°C in Purulia during summer.



Northern Tropical Dry-Deciduous Forest

Map- 1



1.2 ORGANIZATION OF FOREST DIRECTORATE AS ON 31.3.2017

| | | APCCF | WING | CIRCLE | DIVISION |
|---------------------------------------|---|--|--|---|---|
| P.C.C.F. (HoFF) W.B. [Pradeep Shukla] | | APCCF, HRD [NV Raja shekar] | CCF, PMC CCF, G.C. CCF, PGLI | [S S Dey] [Dr Kana Talukder] [A V Mishra addl charge] | DCF, Personnel [Dr Sudeep Budhaditya Deb] DCF, Legal [Praseeda Variar V V] |
| | | APCCF, Finance [TVN Rao] | CCF, Finance CCF, Spl. Proj CCF, MIS & E.Gov | [A V Mishra] [S Chanda] [Dr Sangeeta Duvey] | DCF, Finance [Sarajit Mukhopadhyay] DCF, MIS [Minakshi Prasad] |
| | | APCCF, CAMPA & Nodal Officer, FCA [R R P Sing] | | C.F., Land Affairs & FCA [B R Shewa] | |
| | | | CCF, Hqrs. [Rajeev Sharma] | CF, Admn., Pub. & Mktg. [Dr A P Sing] | DCF, Admin. [shailesh Anand] DCF, Publicity [Dr S B Deb addl charge] DFO, Utilization [Utpal Nag] |
| | | | | CF, WP & GIS [Dr Anupama] | DFO, Working Plan (North) [Om Prakash] DFO, Working Plan (South-I) [Ayam Ghosh] DFO, Working Plan (South-II) [Prasanta K Roy] |
| | | | | CF, South [Lipika Ray] | |
| | | | CCF, Central Circle [S P Yadav] | | DFO, Bankura (North) [Pinaki Mitra] DFO, Bankura (South) [D M Pradhan] DFO, Panchet [N R Panda] |
| | | | CCF, Western Circle [Niraj Singhal] | | DFO, Medinipur [Rabindranath Saha] DFO, Purba Medinipur [Swagata Das] DFO, Kharagpur [Arup Mukherjee] DFO, Jhargram [Dr B S Holeyachi] DFO, Rupnarayan [Arnab Sengupta] |
| | | | CCF, South-East [Kalyan Das] | | DFO, Birbhum [V Salimath addl charge] DFO, Burdwan [V Salimath] DFO, Durgapur [M K Mandal] DFO, Nadia-Murshidabad [Rana Dutta] |
| | | | CCF, Cons & Extn. [Raju Das] | CF, Parks & Gardens [Dr S C Das] | DFO, URF [Anjan Guha] DFO, P & G (N) [Koushik Chowdhury] DFO, Howrah [Niranjita Mitra] |
| | | | | CF, North-West [D Mallick] | DFO, Siliguri S.F. [D S Sherpa] DFO, Jalpaiguri S.F. [Kunal Banerjee] DFO, Malda [Kaushik Sarkar] DFO, Raiganj [Diparna Kr Dutta] |
| | | APCCF, North Bengal [M R Baloch addl charge] | CCF, Hill Circle [MR Baloch] | | DFO, Darjeeling [R P Badana] DFO, Kurseong [SSS Sherpa] DFO, NTFP [Kaushik Banerjee] |
| | | | CCF, Hill Circle [MR Baloch] | | DFO, Jalpaiguri [Bidyut Sarkar] DFO, Baikunthapur [P R Pradhan addl charge] DFO, Cooch Behar [Biman K Biswas] |
| | PCCF Wildlife & CWLW [P Vyas] | APCCF, Wildlife [Dr R P Saini] | CCF, Wildlife (North) [N S Murali] | CF, Wildlife (North) [Sumita Ghatak] | DFO, Darjeeling Wildlife [Dharam Deo Rai] DFO, Gorumara Wildlife [Nisha Goswami] DFO, Jaldapara Wildlife [Bhaskar JV] |
| | | | CCF & FD, BTR (Dr Ujjal Ghosh) | | DFD, BTR (E) [Hari Krishna] DFD, BTR (W) [Kalyan Rai] |
| | | | | CF, Wildlife (Hqr) [Subhanker sengupta] | DCF, Wildlife [S Kulandaivel addl charge] |
| | PCCF, RM & D [Debabrata Biswas] | APCCF & Director SBR [Ravikanth Sinha] | CCF & FD, STR [N Mallick] | | DFD, STR [Ajoy Kumar Das] |
| | | | | Jt. Director, SBR [S. Kulandaivel] | DFO, 24-Pgs (South) [Tripti sah] DFO, 24-Pgs (North) [Manik Lal Sarkar] |
| | | APCCF, R& M [Dr J T Mathew] | CCF, Research & Development [Rajesh Kumar] | CF, Research [SK Molley] | DFO, Silviculture (Hill) [Amrita Dutta] DFO, Silviculture (North) [A K Dubey] DFO, Silviculture (South) [Santhosa GR] |
| | | | | CF, Development [Tapas Das] | Dir., WB Forest School [P R Pradhan] Dir., SFTI, Hizli [A. Panda] |
| | | | CCF, Monitoring Evaluation [M R Bhatta] | CF, Monitoring [M C Biswas] | DFO, Monitoring (South) [Sumana Bhattacharya] DFO, Monitoring (Norht) [Samir Gajamer] |
| | | | CCF, Soil Cons. [Pratibha Raj] | CF, Soil Cons. (N) [G P Chhetri] | DFO, Kurseong Soil Cons. [T T Bhutia] DFO, Kalimpong Soil Cons. [N T Bhutia] DFO, Jalpaiguri Soil Cons. [Mrinal Kanti Roy] |
| | PCCF (General) NK Pandey | | | | |

FOREST LAND, FOREST COVER AND VEGETATION

2.1 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.

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,) which includes notified forest area to the tune of 18.96% of total geographical area. Agricultural activities are mostly restricted to the Gangetic plains having fertile cultivable land.

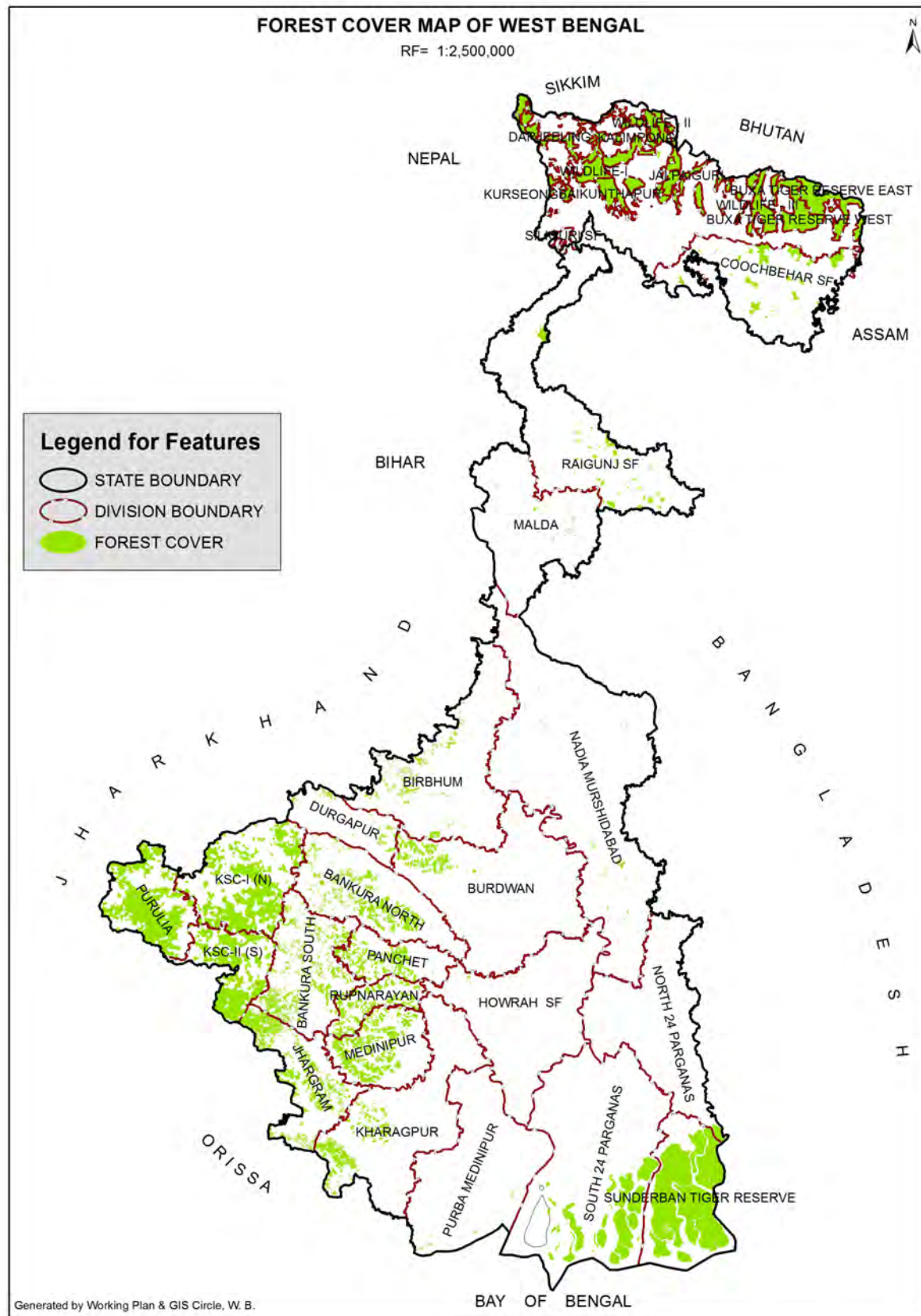
climate

In general, the climate of West Bengal varies from sub-humid to per-humid 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. 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 12T to 15T in the plains. The summer season begins from the month of March and temperature starts rising upto June. May is the hottest month.

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. 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 Aeris Haplaquepts, Typic Fluvaquepts, Typic Haplaquepts, and Typic Ustochrepts. 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.

Map-2



2.1.1 Classification of Recorded Forest Land (Legal status)

Reserved Forest (RF): An area notified under the provisions of India Forest Act (IFA), 1927 having full degree of protection. In Reserved Forests all activities are prohibited unless specifically permitted (Sec. 20 of IFA, 1927).

Protected Forest (PF): 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).

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



Northern Montane Wet Temperate Forest

Map-3

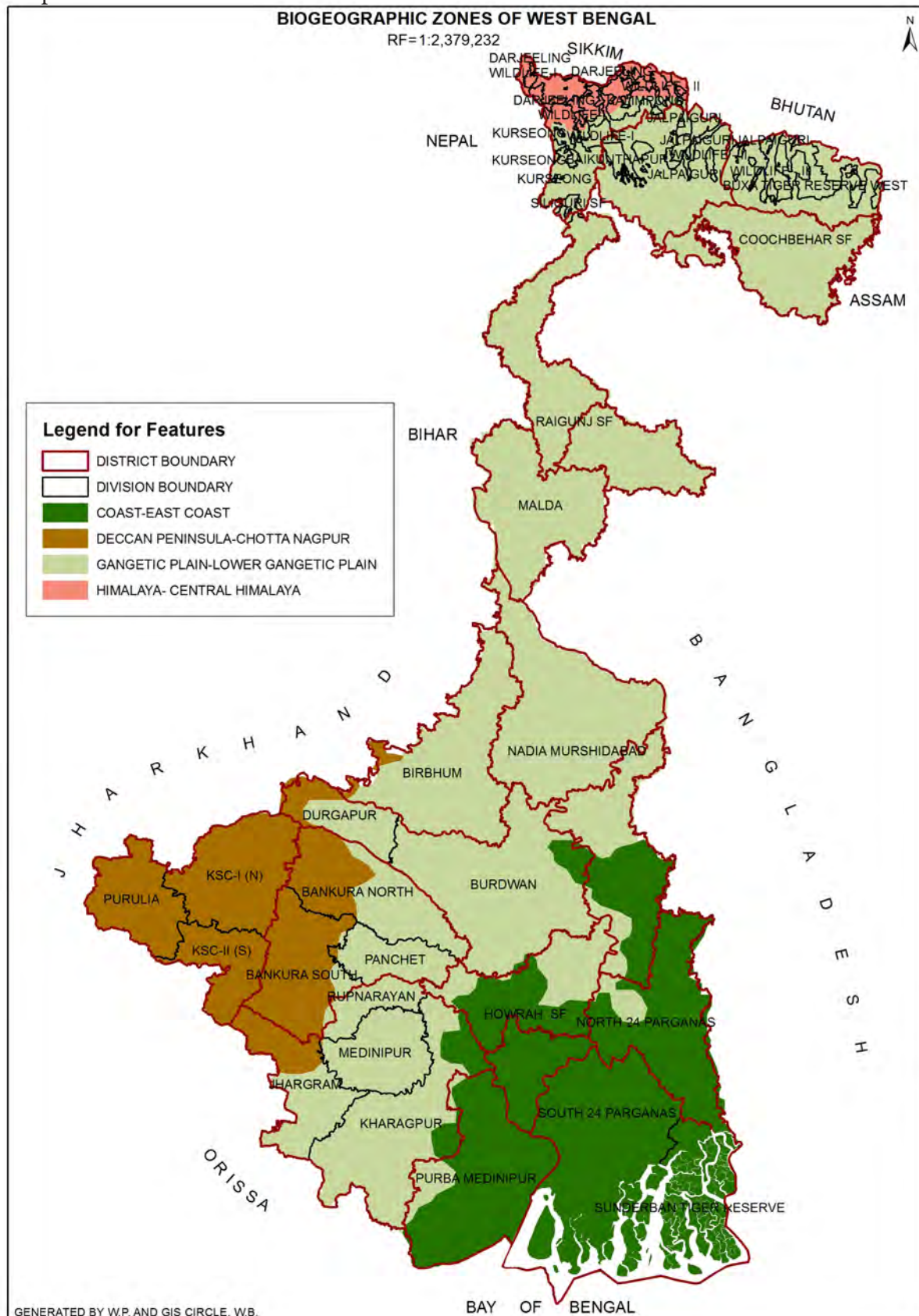


Table 2.1

| WP DIVISION | NAME OF THE DISTRICT | NAME OF THE DIVISION | ANY SPECIFIC AREAS INCLUDED | AREA IN KM2 | | | | | | REMARKS |
|----------------|----------------------------|--|--|--------------------|---------------------|---------------------------------|---------------------------|-----------------|---------------------------------|---|
| | | | | RESERVED FOREST | PROTECTED FOREST | UNCLASSIFIED STATE FOREST | PRIVATE FOREST LAND | AREA (Jan18) | OLD AREA | |
| NORTH | DARJEELING | DARJEELING | | 178.6687 | | 89 | | 267.6687 | 267.6687 | Source: Working Plans and Report of DFO, WP North |
| | | KURSEONG | | 162.1878 | | 1.3399 | | 163.5277 | 163.5277 | |
| | | KALIMPONG | | 372.8766 | | | | 372.8766 | 372.8766 | |
| | | DARJEELING WILDLIFE DIVISION (WL-I) | Senchal WLS (Darjeeling District) | 38.88 | | | | 38.88 | 38.88 | Source: Annual Report 2014-15 WL Wing and confirmation by DFO, Darjeeling WL Division |
| | | | Singalila NP (Darjeeling District) | 78.6 | | | | 78.6 | 78.6 | |
| | | | Mahananda WLS (Darjeeling District) and (Jalpaiguri District) Jorepokhri WLS (Darjeeling District) | 161.17 | | | | 161.17 | 158.04 | |
| | | | | 0.04 | | | | 0.04 | 0.04 | |
| | | TOTAL | | 992.4231 | 0 | 90.3399 | 0 | 1082.763 | 1079.633 | |
| | JALPAIGURI & DARJEELING | GORUMARA WILDLIFE DIVISION (Wild Life-II) | Gorumara NP (Jalpaiguri District) | 79.45 | | | | 79.45 | 79.45 | Source: Annual Report 2014-15 WL Wing |
| | | | Chapramari WLS (Jalpaiguri District) | 9.6 | | | | 9.6 | 9.6 | |
| | | | Neora Valley NP (Darjeeling District) | 159.8917 | | | | 159.8917 | 159.8917 | |
| | | TOTAL | | 248.9417 | 0 | 0 | 0 | 248.9417 | 248.9417 | |
| | ALIPURDUAR | JALDAPARA WILDLIFE DIVISION | | 84.5344 | | 5.6243 | | 90.1587 | 90.1587 | Source: Report of DFO, WP North & Annual Report 2014-15 WL wing |
| | | JALDAPARA NATIONALPARK | | 216.34 | | | | 216.34 | 216.34 | |
| | | | | | | | | 306.4987 | 306.4987 | |
| | | BTR (WEST) DIVISION | | 257.1161 | | 0.3597 | | 257.4758 | 257.4758 | Source: Report of DFO, WP North |
| | | BTR (WEST) NP & WLS | | 109.4773 | | | | 109.4773 | 109.4773 | |
| | | | | | | | | 366.9531 | 366.9531 | |
| | | BTR (EAST) DIVISION | | 111.391 | | 1.5454 | | 112.9364 | 112.9364 | |
| | | BTR (EAST) NP & WLS | | 274.43 | | 0.4012 | | 274.8312 | 274.8312 | |
| | | | | | | | | 387.7676 | 387.7676 | |
| TOTAL | | | 1053.2888 | 0 | 7.9306 | 0 | 1061.2194 | 1061.2194 | | |
| JALPAIGURI | BAIKUNTHAPUR DIVISION | | 66.6324 | 161.9574 | 0.23542 | | 228.8252 | 228.8252 | Source: Report of DFO, WP North | |
| | JALPAIGURI DIVISION | | 275.6818 | 0 | 35.1982 | | 310.88 | 310.88 | | |
| | TOTAL | | 342.3142 | 161.9574 | 35.43362 | 0 | 539.7052 | 539.7052 | | |
| COOCHBEHAR | COOCHBEHAR DIVISION | | 0 | 37.0686 | 4.9524 | 24.5328 | 66.5538 | 66.5538 | Source: Report of DFO, WP North | |
| | TOTAL | | 0 | 37.0686 | 4.9524 | 24.5328 | 66.5538 | 66.5538 | | |
| | | TOTAL A (WORKING PLAN NORTH) | | | 2636.9678 | 199.026 | 138.6562 | 24.5328 | 2999.18312 | 2996.0531 |

| WP DIVISION | NAME OF THE DISTRICT | NAME OF THE DIVISION | ANY SPECIFIC AREAS INCLUDED | AREA IN KM2 | | | | | | REMARKS |
|--|---------------------------------|----------------------|--------------------------------|--------------------|---------------------|---------------------------------|---------------------------|-----------------|--|---|
| | | | | RESERVED FOREST | PROTECTED FOREST | UNCLASSIFIED STATE FOREST | PRIVATE FOREST LAND | AREA (Jan18) | OLD AREA | |
| SOUTH-II | BANKURA | BANKURA (NORTH) | | 22.9982 | 489.532 | 33.4085 | | 545.9387 | 531.02542 | Source: Working Plans and Report of DFO, WP North |
| | | BANKURA (SOUTH) | | 66.11 | 491.50336 | 5.39139 | | 563.00475 | 563.00475 | |
| | | PANCHET | | 8.7845 | 329.3965 | 0.32 | | 338.501 | 338.501 | |
| | | TOTAL | | 97.8927 | 1310.43186 | 39.11989 | 0 | 1447.44445 | 1432.53117 | |
| | PURULIA | PURULIA | | 75.4878 | 251.5623 | 349.8256 | | 676.8757 | 511.7282 | Source: Working Plans and Report of DFO,WP South-II along with details in 2nd Draft Working Plan |
| | | KANGSABATI (NORTH) | | 0 | 249.0272 | 22.0145 | | 271.0417 | 268.8266 | |
| | | KANGSABATI (NORTH) | | 10.2477 | 238.7582 | 36.5871 | | 285.593 | 278.6177 | |
| | | TOTAL | | 85.7355 | 739.3477 | 408.4272 | 0 | 1233.5104 | 1059.1725 | |
| | BURDWAN | BURDWAN | | 24.04353 | 148.0246 | 46.38648 | | 218.45461 | 218.45461 | Source: Working Plans and Report of DFO,WP South-II |
| | | DURGAPUR | | 3.5027 | 31.97495 | 14.15505 | | 49.6327 | 49.6327 | |
| Arambogh Range HOWRAH SOCIAL FORESTRY | | | | 3.37281 | | | 3.37281 | 3.37281 | | |
| TOTAL | | | 27.54623 | 183.37236 | 60.54153 | 0 | 271.46012 | 271.46012 | | |
| BIRBHUM | BIRBHUM | | 19.9076 | 53.90364 | 92.63418 | | 166.44542 | 166.44542 | Source: Working Plans and Report of DFO,WP South-II | |
| | TOTAL | | 19.9076 | 53.90364 | 92.63418 | 0 | 166.44542 | 166.44542 | | |
| | TOTAL B (WORKING PLAN SOUTH-II) | | 231.08203 | 2287.05556 | 600.7228 | 0 | 3118.86039 | 2929.60921 | | |



| WP DIVISION | NAME OF THE DISTRICT | NAME OF THE DIVISION | ANY SPECIFIC AREAS INCLUDED | AREA IN KM ² | | | | | | REMARKS |
|----------------|-------------------------|--------------------------------|--------------------------------|-------------------------|---------------------|---------------------------------|---------------------------|--------------------|-------------|---|
| | | | | RESERVED FOREST | PROTECTED FOREST | UNCLASSIFIED STATE FOREST | PRIVATE FOREST LAND | AREA (March 17) | OLD AREA | |
| SOUTH-1 | PASCHIM MEDINIPUR | MEDINIPUR | | 38.1752 | 444.7202 | 30.685 | | 513.5804 | 513.5804 | Source: Working Plans and Report of DFO, WP South-1 |
| | | RUPNARAYAN | | 0.2851 | 291.0948 | 0.0065 | | 291.3864 | 291.3864 | |
| | | JHARGRAM | | 23.4961 | 523.9462 | 47.5334 | | 594.9757 | 594.9757 | |
| | | KHARAGPUR | | | 297.3497 | 28.0854 | | 325.4351 | 325.4351 | |
| | | TOTAL | | 61.9564 | 1557.1109 | 106.3103 | 0 | 1725.3776 | 1725.3776 | |
| | PURBAMEDINIPUR | PURBAMEDINIPUR | | 0 | 15.75612 | 3.1186 | 0 | 18.87472 | 18.87472 | Source: Working Plans and Report of DFO, WP South-1 |
| | | TOTAL | | 1599.94 | | 2.68 | | 1602.62 | 1571.77 | |
| | SOUTH 24 PARGANAS | 24 PARGANAS (SOUTH) | Chintamonikar Bird WLS | 0.0721 | | | | 0.0721 | 0 | Source: Working Plans and Report of DFO WP South-1 along with details in 3rd Draft Working Plan |
| | | S.T.R. | | 2385 | | | | 2585 | 2585 | |
| | | TOTAL | | 4185.0121 | 0 | 2.68 | 0 | 4187.6921 | 4156.77 | |
| | NORTH 24 PARGANAS | 24 PARGANAS (NORTH) | | 0.948 | | 0.0154 | | 0.9634 | 0.9634 | Source: Working Plans and Report of DFO, WP South-1 |
| | | TOTAL | | 0.948 | 0 | 0.0154 | 0 | 0.9634 | 0.9634 | |
| | NADIA | NADIAMURSHIDABAD | | 5.10402 | 3.173 | 4.05728 | | 12.3343 | 12.3343 | Source: Working Plans and Report of DFO, WP South-1 |
| | | TOTAL | | 0.9011 | 5.6115 | 1.188 | | 7.7006 | 7.7006 | |
| | MURSHIDABAD | MURSHIDABAD | | 6.00512 | 8.7845 | 5.24528 | 0 | 20.0349 | 20.0349 | Source: Working Plans and Report of DFO, WP South-1 |
| | | TOTAL | | 7.73954 | 3.72038 | 5.56053 | 0 | 17.02045 | 17.02045 | |
| | MALDA | MALDA | | 7.73954 | 3.72038 | 5.56053 | 0 | 17.02045 | 17.02045 | Source: Working Plans and Report of DFO, WP South-1 |
| | | TOTAL | | 2.07491 | 1.26382 | 2.68306 | | 6.02379 | 6.02379 | |
| | UTTAR DINAJPUR | RAIGUNJ | | 4.14492 | 2.91546 | 1.21388 | | 8.27426 | 8.27426 | Source: Working Plans and Report of DFO, WP South-1 |
| | | DAKSHIN DINAJPUR | | 6.21983 | 4.17928 | 3.89894 | 0 | 14.29805 | 14.29805 | |
| | | TOTAL | | 4267.88099 | 1589.55118 | 126.82905 | 0 | 5984.26122 | 5953.33912 | |
| | | TOTAL C (WORKING PLAN SOUTH-1) | | | | | | | | |
| | | TOTAL A+B+C | | 7135.9308 | 4075.63 | 866.2084 | 24.53 | 12102.3 | 11879 | 223.3033 |
| | | | | | | | | | | INCREASE IN RF AREA* |

*THE FOREST DEPARTMENT HAS TAKEN UP THE WORK OF UPDATING THE FOREST LAND RECORDS AND AFTER THE FIRST PHASE OF EXERCISE, IT INSPIRES THAT THE TOTAL RECORDED FOREST AREA UNDER THE PERMANENT MANAGEMENT OF FOREST DEPARTMENT IS HIGHER THAN REPORTED EARLIER. SOME OF THE REASONS FOR INCREASE ARE AS FOLLOWS:

1. RECEIPT OF LAND IN LIEU OF THE LAND TRANSFERRED TO DIFFERENT USER AGENCIES GIVEN UNDER FCA
2. SOME AREAS UNDER VARIOUS DIVISIONS WERE NOT RECORDED IN THE OLD WORKING PLANS AND HAVE NOW BEEN REVISED & ADDED BASED ON AVAILABLE LAND RECORDS. THESE LAND RECORDS HAVE ALSO BEEN INCORPORATED IN THE REVISED AND APPROVED WORKING PLANS AS REQUIRED
3. THE LAND RECORDS OF PURULIA DISTRICT HAVE BEEN UPDATED TO SOME EXTENT BASED ON AVAILABLE LAND RECORDS DOCUMENTS. THE WORK IS STILL UNDER PROGRESS. MANY TERRITORIES OF PURULIA DISTRICT WERE PART OF MANBHUM DISTRICT AND WERE TRANSFERRED FROM ERSTWHILE BIHAR STATE IN 1956. THE RECORDED LAND AREA HAS HENCE INCREASED TO SOME EXTENT AND IS ANTICIPATED TO INCREASE FURTHER WITH THE COMPLETION OF LAND RECORDS UPDATION EXERCISE.

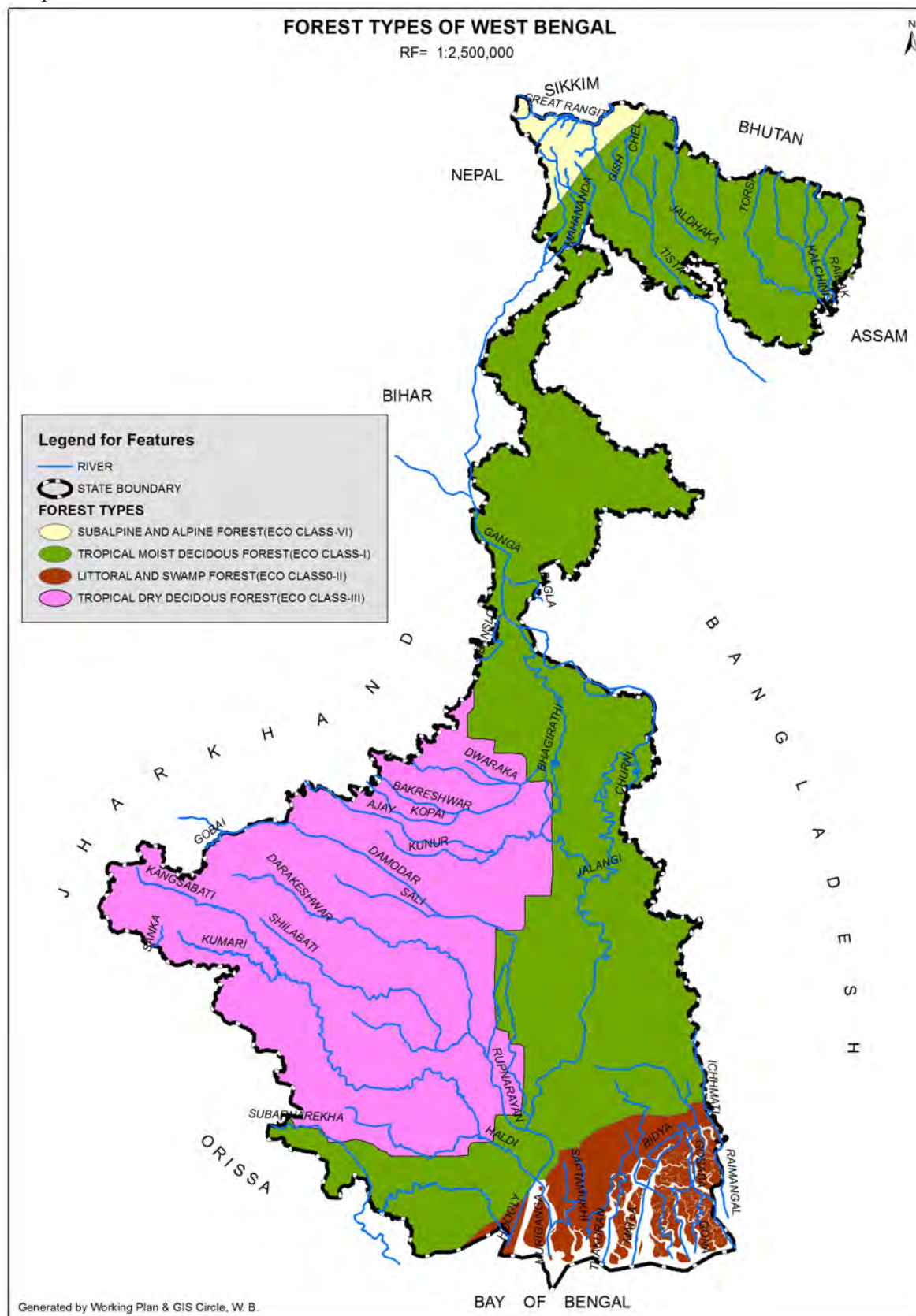
Comparative statement of forest cover as enumerated through GIS & Remote sensing
 (* Source: State Forest Report. 2009-2010, West Bengal and Forest Survey of India 2015)

| Survey Period | % Recorded Forest Land | % Forest & Tree Cover |
|---------------|------------------------|-----------------------|
| 1988 | 13.38 | 14.32 |
| 1991 | 13.38 | 14.97 |
| 1994 | 13.38 | 15.06 |
| 1997 | 13.38 | 15.16 |
| 2000 | 13.38 | 15.30 |
| 2004 | 13.38 | 15.52 |
| 2006 | 13.38 | 15.68 |
| 2007 | 13.38 | 16.67* |
| 2008 | 13.38 | 16.67* |
| 2009 | 13.38 | 16.67* |
| 2011 | 13.38 | 17.27 |
| 2013 | 13.38 | 21.35 |
| 2015 | 13.38 | 21.31 |
| 2016 | 13.38 | 21.31 |

2.2 FOREST COVER AND VEGETATION

- Group 1B : NORTHERN TROPICAL WET EVERGEREEN FORESTS
 Location : Plains of North Bengal upto 150m. altitude.
 Sites : Bagdogra range of Kurseong division, 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-EVERGEREEN FORESTS
 Location : North Bengal
 Site : 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 interspersed with riverian forests of Khair, Sissco, Simul, Toon etc. representing succession from riverian to climax sal. The changes of vegetation that changes with 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 (Sundarbans).
 Area : 4263 sq. Km.
 Species : Goran (Ceriops roxburghiana) Gnewa (Excoecaria agallocha) Sundari (Heritiera minor) Baen (Avicennia officinalis) Dhundal (Carpa obovata)

Map-4



| | | |
|-----------|---|--|
| Group 4D | : | LITTORAL & SWAMP FORESTS – TROPICAL SEASONAL SWAMPS OF Barringtonia |
| Location | : | Malda & Dinajpur (N & S) |
| Area | : | 20 sq. 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 (Soyamuga febrifuga), Dhaw (Anogeissus latifolia). |
| Group 8B | : | NORTHERN SUB-TROPICAL BROAD-LEAVED WET HILL FORESTS |
| Location | : | North Bengal hills 300m-1650m altitude. |
| Sites | : | Sim, Upper Sumbong, Upper Reyong, fOrests block of Majua, Lower Babukhola, Mirik, Paglajhora, Kuh, and Latpanchar. |
| Area | : | 800 sq. Km. |
| Species | : | 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, Kawala etc. Climbers and epiphytes are common here. Choyabans and tree Ferns occur locally. |
| Group 11B | : | NORTHERN MONTANE WET TEMPERATURE FORESTS |
| Location | : | North Bengal hills 1650m-3000M. altitude. |
| Sites | : | Selimbong, Kankibong, Little Rangit, Lopchu, Mahaldiram, Chattakpur, Dhobijhora, Upper Babukhola, Phuguri, Paglajhora, and Lower Bbukhola forests blocks. |
| Area | : | 150 sq. Km. |
| Species | : | Kawla, Lkhar, Pipli, Oaks (buk & phalat), Rani Champ, Abies densa, Tsuga brunoniana, Acerspp. 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 Machilius 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 TEMPERATURE FORESTS |
| Location | : | North Bengal hills 1500m-1800m. |
| Sites | : | Rimbik |
| Area | : | 150 sq. Km. |
| Species | : | 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, Kawala 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, Bunklog, Khairbani, Mana, Sittong Numbong, Setikhola. Shivakhola, Mirik, Pagaljhora, Kuhi and Latpanchar. |
| Group 14C | : | SUB-ALPINE FORESTS |
| Location | : | North Bengal hills 3000m-3700m |
| Sites | : | Sandakapu, Sabarkum, Phalut |
| Area | : | 20 sq. Km. |
| Species | : | Important spp. are Putli, Lekh Kapasi, Lekh Pipli, Kapasi, Arupate, Sindure Katus (Castanopsis spp.), Yew (Taxus bacata), Tsuga brunoniana, Abies densa, Junipers, Birch (Betula utilis), Rhododendrons, Salix, Berberies, Maling bamboo. |



North Indian Moist Deciduous Forest

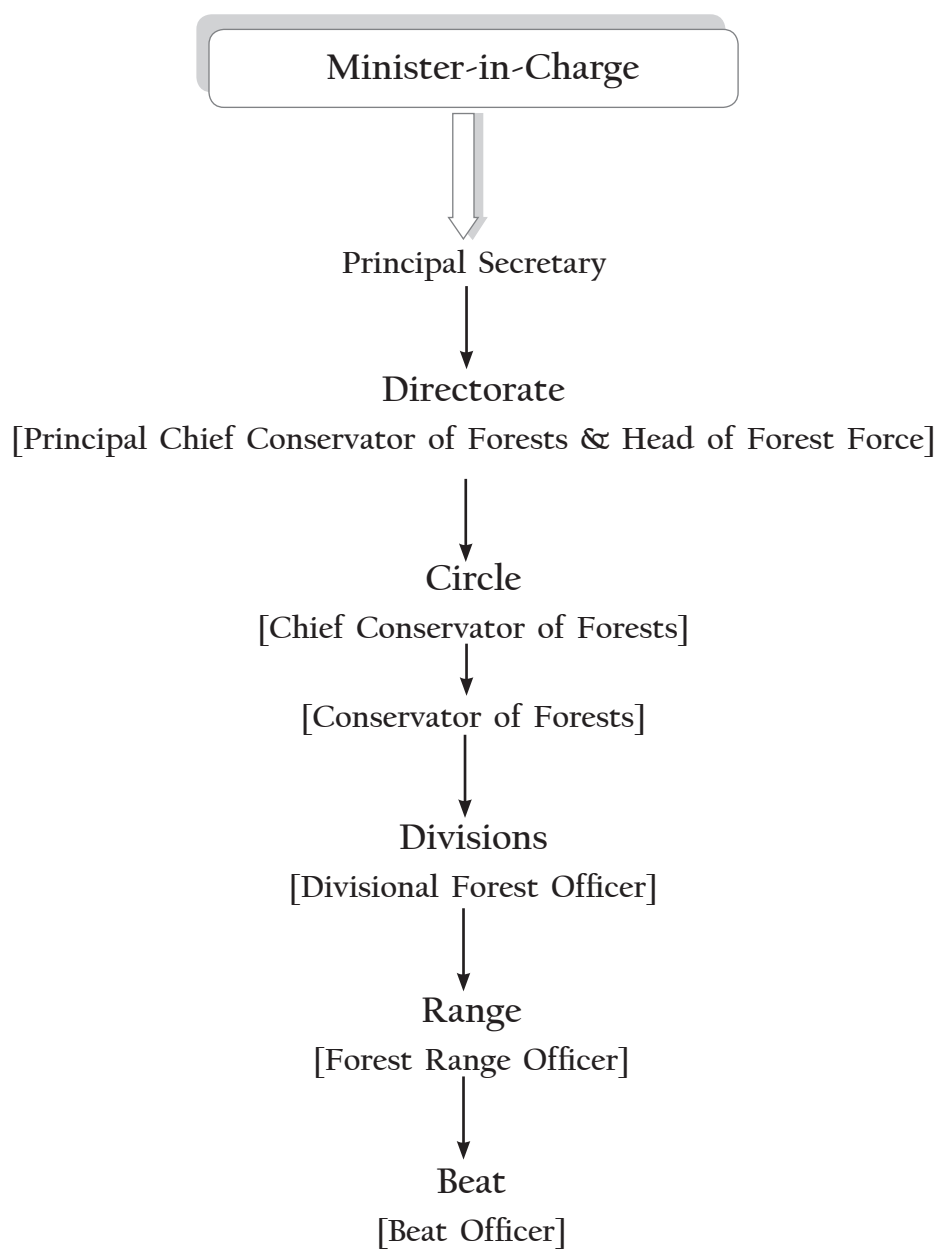
Sub Alpine Forest



FOREST ADMINISTRATION

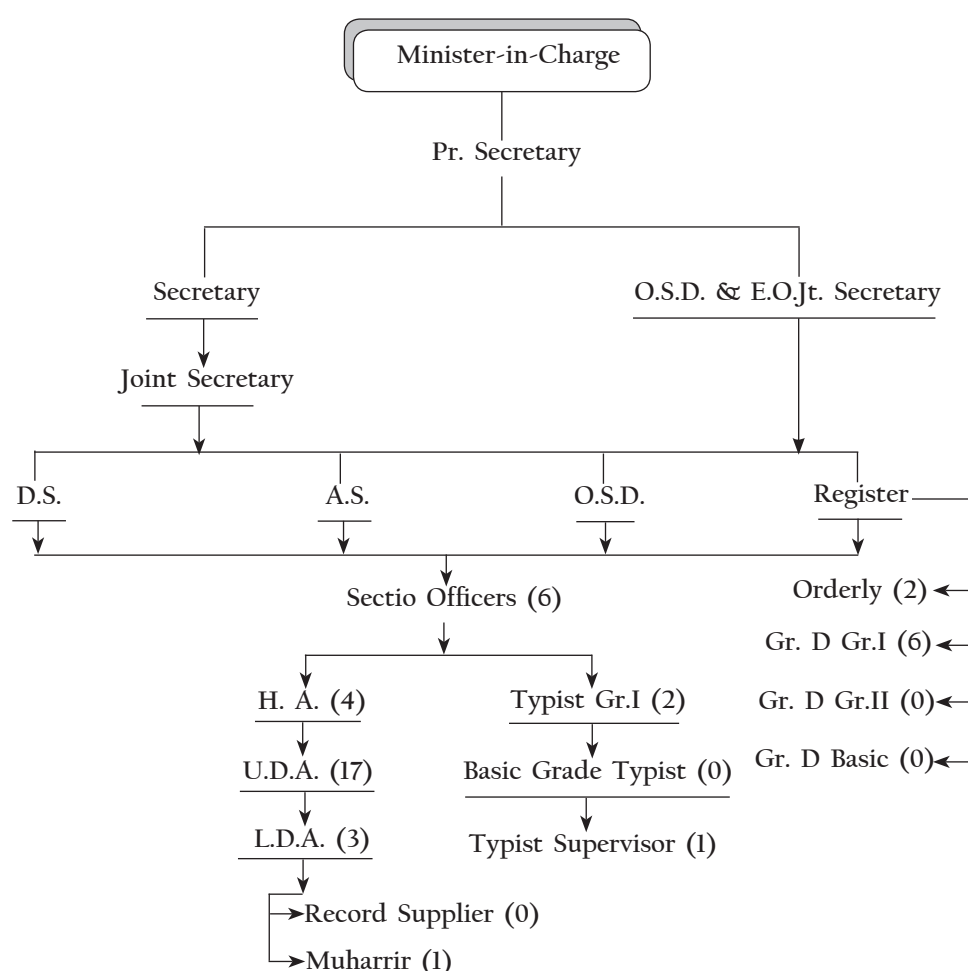
3.1 DEPARTMENT OF FORESTS, WEST BENGAL

ADMINISTRATIVE SET UP OF THE DEPARTMENT OF FORESTS



3.1.1 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.



3.1.2 Function 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 the Secretariat are dealt with by different cells headed by AdII. 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 Services 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 WBPCD 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 protal of Finance Department, Credit Confirmation of Central allotment of fund through Online Credit Confirmation System, Re-appropriation and agumentation 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 afte 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, reimbursment 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 Grievance & Protocol Duty Cell**– Matters Relating to RTI, Public Grievances and Protcol Duty for offical 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.

3.2 Directorate of Forests, WB

3.2.1 CADRE STRENGTH OF IFS & WBFS IN WEST BENGAL As on 31.03,2016

IFS CADRE OF WEST BENGAL

| Sl No | Authorised Structure of the IFS 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 01.01.2017 | No of Post |
|-------|---|------------|---|------------|
| 1 | Senior Duty Post under the State Govt | 78 | Senior Duty Post | 72 |
| 2 | Central Deputation Reserve @ 20% of (1) above | 15 | Central Deputation | 3 |
| 3 | State Deputation Reserve @ 25% of (1) above | 19 | State Deputation | 21 |
| 4 | Training Reserve @ 3.5% of (1) above | 2 | Training Reserve | 13 |
| 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 | 37 |
| 6 | Leave Reserve & Junior Posts Reserve @ 16.5% if item (1) above | 12 | Leave Reserve & Junior Posts | 7 |
| 7 | Post to be filled by Direct Recruitment (1+2+3+4+6-5) | 88 | Posts filled by Direct Recruitment | 79 |
| 8 | Total Authorised Strength | 126 | Total Present Strength | 116 |

WBFS CADRE OF WEST BENGAL

| Authorised & existing cadre strength of the West Bengal Forest Service (As per Govt Order No.1499-For dated 15.05.2000 & 3887-For. dated 10.11.2006) as on 01.01.2017 | | | |
|---|--|------|-----------------|
| Sl.No. | Description | Nos. | Actually Posted |
| 1 | Direct Recruit Officers | 63 | 53 |
| 2 | Promoted Officers | 63 | 61 |
| 3 | Officers in charge of Division /Sr. Duty Post (DFO/DCF) | 23 | 21 |
| 4 | Officers posted as ADFO /Jr. Duty Post | 87 | 61 |
| 5 | Officers on deputation @ 10% of (3+4) | 11 | 11 |
| 6 | Officers undergoing training & Leave Reserve @ 5% of (3+4) | 5 | 21 |
| | Total Authorised Strength: | 126 | 114 |

RECRUITMENTS

1. During May 2016, 4 (four) probationers belonging to Indian Forest Service (IFS) joined the West Bengal cadre after completing their training at the Indira Gandhi National Forest Academy (IGNFA), Dehradun.
2. During 2016-2017 the Department of Forests, Government of West Bengal appointed 19 (nineteen) probationers to the West Bengal Forest Service as selected by the Public Service Commission, West Bengal. Out of the 19, 5 (five) were women. Out of the 19, 10 (ten) belonged to reserved categories. They joined service during December 2016.
3. During 2016-2017 the Department of Forests, Government of West Bengal promoted 6 (six) range officers to the West Bengal Forest Service as recommended by the Public Service Commission, West Bengal. Out of the 6, 2 (two) belonged to reserved categories. They joined service during December 2016.

Obituary

Sri Y T Aden, IFS (WB 1997) passed away during March 2017.

Miscellaneous

1. Recommendations of the 7th Central Pay Commission relating to the IFS as notified by the IFS Pay Rules 2016 were implemented during 2016-2017, and pay of serving IFS officers and retired pensioners and family pensioners were re-fixed accordingly.
2. Cadre review proposal of the IFS West Bengal cadre was submitted to the Forest Department, Government of West Bengal during January 2017.
3. Cadre review proposal of the WBFS cadre earlier submitted to the Forest Department, Government of West Bengal was forwarded to the 6th Pay Commission, Government of West Bengal during September 2016.
4. During 2016-2017 18 (eighteen) IFS officers completed mandatory Mid Career Training (MCT) conducted by the IGNFA, Dehradun.

5. The newly recruited WBFS probationers underwent Induction Training for WBFS officers conducted by the Administrative Training Institute (ATI), Kolkata during December 2016.

3.2.2 Statement showing the sanctioned strengths of officers and staff of the Forest Directorate along with the existing strengths and vacancy positions as on 31.3.2017.

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-------------------------------|-------------------|-------------------|-----------|
| 1. | IFS | 126 | 111 | 15 |
| 2. | WBFS | 126 | 112 | 14 |
| 3. | A.O. | 1 | 1 | 0 |
| 4. | FR | 585 | 331 | 254 |
| 5. | DR/Fr. | 1282 | 605 | 677 |
| 6. | FG | 2454 | 1183 | 1271 |
| 7. | HFG | 231 | 83 | 148 |
| 8. | Head Clerk (Regional) | 65 | 63 | 2 |
| 9. | Head Clerk (Directorate) | 8 | 8 | 0 |
| 10. | Accountant (Reg.) | 8 | 3 | 5 |
| 11. | Accountant (Dte.) | 2 | 2 | 0 |
| 12. | Asst. Statistician | 1 | 0 | 1 |
| 13. | Computing Spr. | 2 | 2 | 0 |
| 14. | Computer | 7 | 0 | 7 |
| 15. | UDC (Reg.) | 327 | 243 | 84 |
| 16. | UDC (Dte.) | 26 | 25 | 1 |
| 17. | Typist (Directorate) | 15 | 8 | 7 |
| 18. | Typist (Regional) | 28 | 5 | 23 |
| 19. | LDC (Regional Cadre) | 350 | 65 | 295 |
| 20. | LDC (Dte) | 26 | 6 | 20 |
| 21. | Statistician | 1 | 0 | 1 |
| 22. | Drivers | 146 | 72 | 74 |
| 23. | Agriculture Extension Officer | 2 | 0 | 2 |
| 24. | Asst. Foreman (Mech.) | 4 | 0 | 4 |
| 25. | Asst. Saw Doctor | 2 | 0 | 2 |
| 26. | Attendant | 1 | 0 | 1 |
| 27. | Asst. Soil Chemist | 1 | 0 | 1 |
| 28. | Band Saw operator | 10 | 1 | 9 |
| 29. | Bearer | 3 | 2 | 1 |
| 30. | Boatman | 102 | 37 | 65 |
| 31. | Boiler Driver | 1 | 0 | 1 |
| 32. | Boiler Fireman | 3 | 0 | 3 |
| 33. | Bungalow Chowkidar | 94 | 72 | 22 |
| 34. | Bengali Translator | 1 | 1 | 0 |
| 35. | Cashaub | 1 | 0 | 1 |
| 36. | Chowkidar | 2 | 1 | 1 |
| 37. | Cleaner/Truck Cleaner | 27 | 16 | 11 |
| 38. | Cook | 4 | 0 | 4 |
| 39. | Cook-cum-Bearer | 2 | 2 | 0 |
| 40. | Crane Operator | 3 | 2 | 1 |
| 41. | Cross-cut-Operator | 6 | 1 | 5 |
| 42. | C.T.Mobile Medical Unit | 1 | 0 | 1 |

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-----------------------------|-------------------|-------------------|-----------|
| 43 | Compounder | 1 | 1 | 0 |
| 44 | Dakwalla | 104 | 44 | 60 |
| 45 | Darwan | 34 | 25 | 9 |
| 46 | Draftsman/Head Draftsman | 35 | 16 | 19 |
| 47 | Driver-cum-Mechanic | 3 | 0 | 3 |
| 48 | Duftary | 13 | 7 | 6 |
| 49 | Duplicating Operator | 1 | 1 | 0 |
| 50 | Electrician | 1 | 1 | 0 |
| 51 | Engine Driver | 9 | 6 | 3 |
| 52 | Electric Workman | 4 | 0 | 4 |
| 53 | ECG Technician | 1 | 0 | 1 |
| 54 | Fitter | 1 | 0 | 1 |
| 55 | Forest Watcher | 13 | 1 | 12 |
| 56 | Forest Worker | 17 | 6 | 11 |
| 57 | GDA (Medical Unit) | 2 | 1 | 1 |
| 58 | Gate Operator/ H.G.O. | 5 | 1 | 4 |
| 59 | Grass Cutter | 36 | 12 | 24 |
| 60 | Game Watcher | 2 | 1 | 1 |
| 61 | Game Guard | 4 | 0 | 4 |
| 62 | Installation Guard | 10 | 0 | 10 |
| 63 | Kiln Supervisor | 1 | 0 | 1 |
| 64 | Laskar | 17 | 8 | 9 |
| 65 | Lathe man | 1 | 0 | 1 |
| 66 | Laboratory Assistant | 3 | 2 | 1 |
| 67 | Laboratory Attendant | 1 | 1 | 0 |
| 68 | Mahut | 25 | 4 | 21 |
| 69 | Majhi | 44 | 21 | 23 |
| 70 | Mali | 193 | 129 | 64 |
| 71 | Medical Officer | 2 | 0 | 2 |
| 72 | Mosalchi | 1 | 0 | 1 |
| 73 | Muharrir Grade-I, Grade-II | 2 | 2 | 0 |
| 74 | Museum Darwan | 1 | 0 | 1 |
| 75 | Night Guard | 11 | 7 | 4 |
| 76 | Night Watchman | 5 | 1 | 4 |
| 77 | Nurse | 2 | 0 | 2 |
| 78 | Oil Man - greaser | 9 | 4 | 5 |
| 79 | Orderly | 534 | 478 | 56 |
| 80 | Peon | 102 | 82 | 20 |
| 81 | Office Supdt. | 1 | 1 | 0 |
| 82 | Pharmacist | 2 | 0 | 2 |
| 83 | Power Saw Operator | 5 | 0 | 5 |
| 84 | Pump Driver | 1 | 0 | 1 |
| 85 | Road Roller Driver | 3 | 0 | 3 |
| 86 | Record Supplier | 2 | 1 | 1 |
| 87 | Renepont Operator | 2 | 0 | 2 |
| 88 | Road Roller Mate | 3 | 0 | 3 |
| 89 | Research Officer | 1 | 0 | 1 |
| 90 | Ropeway Motor Driver | 7 | 0 | 2 |
| 91 | Road Khalasi | 3 | 0 | 3 |
| 92 | Saw Doctor | 1 | 0 | 1 |
| 93 | Serang | 7 | 4 | 3 |
| 94 | Skilled Mazdoor | 10 | 0 | 10 |
| 95 | Station Helper | 5 | 0 | 5 |
| 96 | Personal Assistant | 48 | 46 | 2 |
| 97 | Sub-Station Operator | 2 | 1 | 1 |
| 98 | Karmabandhu (Sweeper) | 52 | 19 | 33 |
| 99 | Sukhani | 5 | 1 | 4 |
| 100 | Tractor Driver | 1 | 0 | 1 |
| 101 | Tractor Mate | 5 | 0 | 5 |
| 102 | Taxidermist | 1 | 0 | 1 |
| 103 | Ticket Seller | 1 | 0 | 1 |
| 104 | Technical Asstt. | 1 | 0 | 1 |
| 105 | Tractor Mount Roller Driver | 1 | 1 | 0 |
| 106 | Unskilled Mazdoor | 46 | 1 | 45 |

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-----------------------|-------------------|-------------------|-----------|
| 107 | Veterinary Officer | 1 | 0 | 1 |
| 108 | Watcher | 1 | 1 | 0 |
| 109 | X-Ray Assistant | 1 | 1 | 0 |
| 110 | Karmasathi(Zamadar } | 2 | 0 | 2 |

PERMANENT DEPUTATION POSTS TO WBFDC

| Sl no. | Name of Posts | Sanction 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 | Inst. Guard | 2 | 0 | 2 |
| 8 | Motor Driver | 1 | 0 | 1 |
| 9 | Power Saw Operator | 1 | 1 | 0 |
| 10 | Skilled Mazdoor | 19 | 3 | 16 |
| 11 | Stn. Helper | 5 | 0 | 5 |
| 12 | Unskilled Mazdoor | 6 | 4 | 2 |

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

PARKS & GARDENS WING

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-----------------------------|-------------------|-------------------|-----------|
| 1 | Garden Supervisor | 22 | 14 | 8 |
| 2 | Head Uddyan Rakshi | 30 | 16 | 14 |
| 3 | Horticulture Officer | 5 | 0 | 5 |
| 4 | Senior Horticulture Officer | 2 | 1 | 1 |
| 5 | Senior Mali | 70 | 56 | 14 |
| 6 | Supdt. Horticulture officer | 1 | 0 | 1 |
| 7 | Uddyan Rakshi | 120 | 69 | 51 |
| 8 | Uddyan Shramik | 280 | 147 | 133 |

LLOYD BOTANIC GARDEN

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-----------------------|-------------------|-------------------|-----------|
| 1 | Black smith | 1 | 0 | 1 |
| 2 | Carpenter | 1 | 1 | 0 |
| 3 | CT | 1 | 0 | 1 |
| 4 | Darwan | 6 | 2 | 4 |
| 5 | Head Mali | 1 | 0 | 1 |
| 6 | Herbarium Cleaner | 4 | 3 | 1 |
| 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 | 0 | 1 |
| 15 | Peon | 1 | 1 | 0 |

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-----------------------|-------------------|-------------------|-----------|
| 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 | 3 | 22 |

SUPERNUMERARY POSTS

| | |
|--------------|------|
| Bana Mazdoor | 245 |
| Bana Shramik | 2111 |

3.2.3 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 | -- |
| Total | 18 | 58 | 474 | 762 |

3.2.4 RECRUITMENT:-

Direct Recruitment:-

Direct recruitment of EXECUTIVE PERSONNEL:-

Appointment of Forest Ranger:

There has been direct recruitment of Executive personnel viz. Forest Ranger. Selection made by the Public Service Commission, West Bengal on the post of FR is 136. Being selected on the basis of results of West Bengal Forest Service & West Bengal Sub-ordinate Forest Service Examination, 2013, 63 candidates have been offered appointment to the post of Forest Ranger during the financial year 2016-17, out of which 57 candidates joined the said post during the period.

Appointment of Deputy Ranger / Forester:

The WBSSC made selection of 131 candidates for recruitment to the post of Deputy Ranger / Forester during the year 2016-17 on the basis of results of DRF examination, 2015 conducted by them, but none of them joined the said post during that period.

3.2.5 APPOINTMENT ON COMPASSIONATE GROUND:-

During the period April, 2016 to March, 2017, 137 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 IN GROUP- C ON COMPASSIONATE GROUND

| Sl No | Designation | No. of candidate selected for appointment (75 Nos.) |
|-------|------------------------|---|
| 1 | Deputy Ranger/Forester | 50 |
| 2 | Forest Guard | 11 |
| 3 | Lower Division Clerk | 14 |

DETAILS OF SELECTION FOR APPOINTMENT IN GROUP- D ON COMPASSIONATE GROUND

| Sl No | Designation | No. of candidates offered appointment (85 Nos.) |
|-------|--------------------|---|
| 1 | Orderly | 50 |
| 2 | Peon | 9 |
| 3 | Mali | 18 |
| 4 | Bungalow Chowkider | 8 |



PCCF (HoFF) WB, Planting Sapling on Martyrs' Day



SCHEMES / PROGRAMMES

4.1 Introduction

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 10th 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-FR/III-M-19/2003 dated 10th June, 2014. Some of the key schemes taken up by the WBSFDA and their performance in the year 2016-17 are given below

4.1.1 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 Yojana' (RKVY), launched by the Central Govt. mainly to incentivize the State to attain 4% annual growth rate in agriculture & allied sectors during the 11th 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.

RKVY Projects approved during the last 3 years :

| (Rs.In Crores) | 2014-15 | 2015-16 | 2016-17 * |
|----------------|---------|---------|-----------|
| DPR Approved | 11.00 | 13.08 | 14.30 |
| Fund Received | 11.00 | 13.08 | 8.46 |

*Out of Rs. 14.30 crores Rs. 8.46 crores received during 2016-17 and allotment made for Rs. 8.00 crores. Out of Rs. 8.46 crores Rs. 1.27 crores was received on 30.03.2017 which was credited to WBSFDA on 03.04.2017.

| (Rs.In Crores) | 2014-15 | 2015-16 | 2016-17 |
|-------------------|---------|---------|---------|
| Plantation Scheme | 3.52 | 1.67 | |
| Soil Conservation | 7.06 | 10.86 | |
| Central Nursery | | | 2.53 |
| Total | 10.58 | 12.53 | 2.53 |

4.1.2 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 2016-17. (Rs. In Lakhs)

| FDA | Arabari | Midnapur (West) | Midnapur | Kharagpur | Rup narayan | Bankura (S) | Bankura (N) | KSC.S | Purulia | Corp. ofc |
|-----|------------|-----------------|----------------|-----------|-------------|-------------|-------------|------------|----------|-----------|
| Exp | 1.06 | Nil | Nil | Nil | Nil | Nil | 3.63 | Nil | Nil | Nil |
| FDA | Jalpaiguri | Baikunthapur | Cooch Behar SF | Burdwan | Jaldapara | WL-I | Garumara | Darjeeling | Kurseong | Birbhum |
| Exp | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |

4.1.3 Ecotourism Projects of the Forest Directorate being monitored by WBSFDA :

Fund received under different tourism projects during 2016-17 are stated below :

| Sl. No. | Project | Fund received from | Circle | Division | Fund Received (Rs. in lakh) |
|---------|--|--------------------|--------------|--------------------|-----------------------------|
| 1. | Renovation of Duarsini ECO-Tourism Centre and repairing of Kuilapal FRH at Bundwan under Purulia District. | DM Purulia | South - West | Kangsabati (South) | 94.13 |

4.1.4 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 www.wbsfda.gov.in. The inventory of accommodation is given below:

| Sl. No. | Name | Location | Divisions | Cottages/Rooms | Receipts during 2016-17 (Rs.) |
|---------|-------------------------------|--------------------------|--------------------|---|-------------------------------|
| 1 | Mouchaki Camp | Samsing | Gorumara Wildlife | 4 Rooms (DB) | 4,26,600.00 |
| 2 | Hornbill Nest | Bichabhangra | Gorumara Wildlife | 4 Cottages (DB) | 86,400.00 |
| 3 | Murti Tents | Murti | Gorumara Wildlife | 4 Cottages (DB) | 2,52,500.00 |
| 4 | Kunjanagar | Kunjanagar | Jaldapara Wildlife | 4 Rooms (DB) | 8,400.00 |
| 5 | South Khairbari Eco Park | South Khairbari | Jaldapara Wildlife | 3 Cottages (DB) | 1,50,700.00 |
| 6 | Mendabari Jungle Camp | Mendabari | Jaldapara Wildlife | 2 Rooms (DB), 1 Dormitory (4beds) | 7,64,250.00 |
| 7 | Garochira Village Eco Tourism | Garochira | Jalpaiguri | 3 Rooms (DB) | 19,800.00 |
| 8 | Neora Camp | Lataguri | Jalpaiguri | 4 Rooms (DB) | 8,96,000.00 |
| 9 | Bandapani Camp | Bandapani | Jalpaiguri | 1 Room (DB) | 9,500.00 |
| 10 | Patlakhawa Cottages | Patlakhawa | Coochbehar | 2 Rooms (DB) | 26,000.00 |
| 11 | Gosanimari Twin | Gosanimari | Coochbehar | 2 Rooms (DB) | 12,750.00 |
| 12 | Manebhanjan Trekkers Hut | Manebhanjan Trekkers Hut | Darjeeling | 2 Rooms (DB) | 4,320.00 |
| 13 | Susunia Eco Tourism Centre | Susunia | Bankura North | 2 Rooms (DB), 2 Cottages (DB), 1 Dormitory (8 Beds) | 4,70,000.30 |

| Sl. No. | Name | Location | Divisions | Cottages/Rooms | Receipts during 2016-17 (Rs.) |
|---------|-----------------------|--------------------------------|-------------------|---|-------------------------------|
| 14 | Beharinath ETC | Beharinath | Bankura North | 4 Rooms (DB) | 2,82,400.00 |
| 15 | Matha Tree House | Matha | Purulia | 1 Room (DB) | 43,000.00 |
| 16 | Gopegarh ETC | Gopegarh (Near Midnapore Town) | Medinipur | 4AC DB Rooms, 1 Dorm.(10 Beds) | 2,16,600.00 |
| 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) | 1,73,300.00 |
| 18 | Kshudiram Bose Park | Khudiram Bose Park | Medinipur | 3 Cottages (DB) | 8,000.00 |
| 19 | BolepurNIC | Bolepur | Birbhum | 3 Rooms Non AC, DB, 3 RoomsAC, DB 1 Dormitory (6 Beds). | 3,81,000.00 |
| 20 | Bethuadahari Cottages | Betuaduari Park | Nadia-Murshidabad | 2 Rooms (DB) | 1,22,500.00 |
| Total | | | | | 43,54,020.30 |

4.1.5 Green India Mission

WBSFDA is the implementing Agency of Green India Mission for the State. During 2015-16 an allocation of Rs. 229.50 lacks was made to the Divisions for entry point activities.

| | | |
|---------------------------------|---|-------------------------------|
| Fund received from GoI | : | Rs. 300.75 lakhs |
| Fund allotted to Divisions | : | Rs. 229.50 lakhs |
| Expenditure till 31st Mar, 2017 | : | Rs. 161.30 lakhs |
| GIM DPR preparation | : | Jadavpur University, RC, NAEB |

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

4.1.6 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. 898.45 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. 971.27 lakhs |

Balance of Rs. 28.73 lakhs will be utilised for Monitoring and Maintenance purpose.

Total expenditure during 2016-17 : Rs. 402.43 lakhs

4.1.7 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.

| Project Name | Fund received | Allotment | Expenditure |
|--|-----------------|------------------|------------------|
| 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. 465 lakhs | Rs. 321.56 lakhs | Rs. 270.76 lakhs |
| For Revisiting MPCAs in West Bengal. | Rs. 31.20 lakhs | Rs. 30.00 lakhs | Nil |

4.1.8 MPLAD Fund

SFDA received Rs. 75.00 lakhs from D M Darjeeling during 2016-17 for development of Sukna Tower and 5 nos. of Small School bus for Forest Students. The distribution & expenditure is given below :

| Division | Allotment (Rs. In lakhs) | Expenditure (Rs. In lakhs) |
|---------------|--------------------------|----------------------------|
| Darjeeling WL | 25.00 | 0.49 |
| DCF/Admin | 50.00 | 50.00 |
| Total | 75.00 | 50.49 |

4.1.9 Planning Dept of Govt of W.B

During the year 2015-16 and 2016-17 WBSFDA has received Rs. 396.20 lakhs towards the expenditure pertaining to Planning Department. During 2016-17 WBSFDA released 207.19 lakhs to SFTI, Hijli but expenditure reported by SFTI, Hijli only Rs. 207.19 lakhs upto March, 2017.

4.1.10 Wild Animal Depredation

During the year 2016-17 WBSFDA has received Rs. 402.00 lakhs from PCCF Wildlife and Chief Wildlife Warden for this following item of works :

1. Death.
2. Injury.
3. Crop damage.
4. Hut damage.
5. Live stock damage.

| Status of Expenditure of compensation for Wild Animal Depredation Status (As on 31.03.2017) | | | | |
|---|-----------------|---------------|---------------|------------------------|
| Rs. In Lakhs | | | | |
| Sl No. | Divisions | Fund Allotted | Fund released | Up-to-date Expenditure |
| 1 | Rupnarayan | 58.00 | 58.00 | 55.4565 |
| 2 | Kharagpur | 60.00 | 60.00 | 58.675 |
| 3 | Medinipur | 66.20 | 66.20 | 61.200 |
| 4 | Jhargram | 5.00 | 5.00 | 2.492 |
| 5 | Bankura (N) | 48.00 | 48.00 | 42.999 |
| 6 | Bankura (S) | 10.00 | 10.00 | 9.9834 |
| 7 | Panchet | 26.00 | 26.00 | 24.208 |
| 8 | Baikunthapur | 8.00 | 8.00 | 7.940 |
| 9 | Jalpaiguri | 16.00 | 16.00 | 15.237 |
| 10 | Kangsabati (N) | 3.38 | 3.38 | 3.196 |
| 11 | Purulia | 24.26 | 24.26 | 21.760 |
| 12 | Darjeeling – WL | 14.00 | 14.00 | 14.000 |
| 13 | Gorumara – WL | 20.00 | 20.00 | 19.785 |
| 14 | Jaldapara – WL | 20.00 | 20.00 | 19.198 |
| 15 | Burdwan | 3.62 | 3.62 | 3.190 |
| 16 | BTR (E) | 2.08 | 2.08 | 2.042 |

| Status of Expenditure of compensation for Wild Animal Depredation Status (As on 31.03.2017) | | | | |
|---|-----------|---------------|---------------|------------------------|
| Rs. In Lakhs | | | | |
| Sl No. | Divisions | Fund Allotted | Fund released | Up-to-date Expenditure |
| 17 | BTR (W) | 7.00 | 7.00 | 6.910 |
| 18 | Kurseong | 10.00 | 10.00 | 9.990 |
| Total | | 401.5420 | 401.5420 | 378.262 |

4.1.II Border Area Development Project (BADP) fund:

During the year 2016-17 Rs. 29.70 lakhs received from Darjeeling treasury towards BADP fund and the same has been allotted to Darjeeling WL.

| EXPENDITURE DETAILS OF PLANTATION HEAD FOR 2016-17 | | | | | | | | | | |
|--|---|------------------------|------------------------|-----------|-------------|-----------|----------------------------|----------|---|-----------|
| Sl. No. | Heads | Budget Provision (Rs.) | Creation including DPN | | Maintenance | | Advance work including DPN | | Total Expenditure against plantation work | |
| | | | Phy. (ha.) | Fin(Rs.) | Phy. (ha.) | Fin(Rs.) | Phy. (ha.) | Fin(Rs.) | Phy.(ha) | Fin(Rs.) |
| 1 | 2406-01-SP-102-025-Forestry Treatment - (FR) -50-O.C. | 350000000 | 3478.3 | 144539500 | 16486.28 | 152484522 | 1696.83 | 20752438 | 21661.41 | 317776460 |
| 2 | 2406-01-SP-789-002-Plantation of Quick Growing Species- (FR) -87-Regeneration | 110000000 | | | 3867.00 | 32594500 | 7216.00 | 66973600 | 11083.00 | 99568100 |
| 3 | 2406-01-SP-796-004-Economic Plantation - (FR) -87-Regeneration | 80000000 | 2393.50 | 78323400 | 703.50 | 1676450 | | | 3097.00 | 79999850 |
| 4 | 2406-02-112-005-Decentralized People's Nurseries [FR]-87-Regeneration | 20000000 | 2309.00 | 9697800 | | | 786.00 | 3301200 | 3095.00 | 12999000 |
| 5 | 2406-02-789-001-Decentralized People's Nurseries [FR]-87-Regeneration | 10000000 | 1090.00 | 4578000 | | | 576.00 | 2419200 | 1666.00 | 6997200 |
| 6 | 2551-60-SP-101-028-Protective Afforestation - (FR) -50-O.C. | 5000000 | | | 321.36 | 3768848 | 81.50 | 1230650 | 402.86 | 4999498 |
| 7 | 2402-00-SP-102-001-Protective Afforestation - (FR) -87-Regeneration | 300000 | | | 43.00 | 137600 | 10.50 | 158550 | 53.50 | 296150 |
| 8 | 2402-00-SP-789-002-Protective Afforestation - (FR) -87-Regeneration | 100000 | | | | | 6.50 | 98150 | 6.50 | 98150 |
| 9 | 2402-00-SP-796-002-Protective Afforestation - (FR) -87-Regeneration | 100000 | | | | | 6.50 | 98150 | 6.50 | 98150 |
| | Total= | 575500000 | 9270.8 | 237138700 | 21421.14 | 190661920 | 10379.83 | 95031938 | 41071.77 | 522832558 |



AFFORESTATION PROGRAMMES

5.1 Afforestation

One of the objectives of National Forest Policy, 1988, is to increase the National Forest cover to 33% of the geographical area. 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 accreted 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.



Table 5.1 EXPENDITURE DETAILS OF PLANTATION HEAD FOR 2016-17

| Sl. No. | Heads | Budget Provision (Rs.) | Creation including DPN | | Maintenance | | Advance work including DPN | | Total Expenditure against plantation work | |
|---------|--|------------------------|------------------------|------------------|-----------------|------------------|----------------------------|-----------------|---|------------------|
| | | | Phy. (ha.) | Fin(Rs.) | Phy. (ha.) | Fin(Rs.) | Phy. (ha.) | Fin(Rs.) | Phy.(ha) | Fin(Rs.) |
| 1 | 2406- 01- SP- 102-025-Forestry Treatment - (FR) -50-O.C. | 350000000 | 3478.3 | 144539500 | 16486.28 | 152484522 | 1696.83 | 20752438 | 21661.41 | 317776460 |
| 2 | 2406- 01- SP- 789-002-Plantation of Quick Growing Species- (FR) -87-Regeneration | 110000000 | | | 3867.00 | 32594500 | 7216.00 | 66973600 | 11083.00 | 99568100 |
| 3 | 2406- 01- SP- 796-004-Economic Plantation - (FR) -87-Regeneration | 80000000 | 2393.50 | 78323400 | 703.50 | 1676450 | | | 3097.00 | 79999850 |
| 4 | 2406-02-112-005-Decentralized People's Nurseries [FR]-87-Regeneration | 20000000 | 2309.00 | 9697800 | | | 786.00 | 3301200 | 3095.00 | 12999000 |
| 5 | 2406-02-789-001-Decentralized People's Nurseries [FR]-87-Regeneration | 10000000 | 1090.00 | 4578000 | | | 576.00 | 2419200 | 1666.00 | 6997200 |
| 6 | 2551- 60- SP- 101-028-Protective Afforestation - (FR) -50-O.C. | 5000000 | | | 321.36 | 3768848 | 81.50 | 1230650 | 402.86 | 4999498 |
| 7 | 2402- 00- SP- 102-001-Protective Afforestation - (FR) -87-Regeneration | 300000 | | | 43.00 | 137600 | 10.50 | 158550 | 53.50 | 296150 |
| 8 | 2402- 00- SP- 789-002-Protective Afforestation - (FR) -87-Regeneration | 100000 | | | | | 6.50 | 98150 | 6.50 | 98150 |
| 9 | 2402- 00- SP- 796-002-Protective Afforestation - (FR) -87-Regeneration | 100000 | | | | | 6.50 | 98150 | 6.50 | 98150 |
| | Total= | 575500000 | 9270.8 | 237138700 | 21421.14 | 190661920 | 10379.83 | 95031938 | 41071.77 | 522832558 |

STATUS OF 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 2016-2017 total revenue earned was Rs. 12622.02 Lakhs. The maximum revenue was generated by the Northern Circle (Rs. 3013.44 Lakhs). The details of Revenue and Expenditure during the year 2016-17 were as follows:-

Table - 6.1 REVENUE FROM MAJOR HEADS

| Heads | Rs.in Lakhs |
|---------------------|-------------|
| Timber & poles | 8779.10 |
| Fire wood& Charcoal | 2156.37 |
| Grass & Other MFP | 39.53 |
| Bamboo | 41.83 |
| Other Receipt | 1390.88 |
| Rent | 33.46 |
| Fine | 167.39 |
| Licence fee | 13.46 |
| Total: | 12622.02 |

Table - 6.2 ACTUAL EXPENDITURE UNDER DIFFERENT HEADS

| Major Head | Rs. in Lakh |
|------------|-------------|
| State Plan | 22059.93 |
| Non Plan | 31567.22 |
| Total: | 53627.15 |

Table - 6.3 Statement showing unit wise Revenue during 2016-17 (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 | 111.37 | 111.37 |
| 2.Publicity | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.90 | 0.90 |
| 3.Utilisation | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 380.28 | 380.49 |
| Total: (HQ:) | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 492.55 | 492.76 |
| 4.Monitoring (S) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 |
| 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 | 0.01 | 0.01 |
| 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 | 0.12 | 0.12 |
| 8.W.Plan (S-II) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.09 |
| 9.W.Plan North | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total (WP&GIS): | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.21 |
| 10.Research Dir | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 |
| 11.Silvi(South) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.06 | 1.06 |
| 12.Silvi(North) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 |
| 13.Silvi (Hill) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.82 | 0.82 |
| Total (Res.) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.04 | 2.04 |
| 14.Devt Dir | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15.WBF School | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 |
| 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 | 0.03 | 0.03 |
| 17. S.W. Dir | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 |
| 18. Purulia | 63.33 | 0.36 | 0.00 | 0.08 | 0.00 | 6.90 | 70.23 |
| 19.Kansabati (N) | 3.30 | 37.46 | 0.00 | 0.00 | 0.00 | 11.48 | 52.24 |
| 20. Kansabati (S) | 44.92 | 26.87 | 0.00 | 0.00 | 0.00 | 8.65 | 80.44 |

| Units | Timber & Pole | Firewood & Charcoal | Grazing | Bamboo | Minor F.P | Others | Total |
|--------------------------|----------------|---------------------|-------------|--------------|--------------|---------------|----------------|
| 21.Extn .Forestry | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 |
| Total (S.W) | 111.55 | 0.36 | 0.00 | 0.08 | 0.00 | 27.09 | 139.98 |
| 22.U.R.F. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.99 | 0.99 |
| 23.P&G (N) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.02 | 2.11 |
| 24.Howrah SF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.64 | 32.64 |
| Total (P&G): | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 35.65 | 35.74 |
| 25.South East Dir. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 26.Burdwan | 48.69 | 130.48 | 0.00 | 0.00 | 0.25 | 9.34 | 188.88 |
| 27.Birbhum | 10.12 | 104.09 | 0.00 | 0.12 | 0.00 | 16.67 | 130.88 |
| 28.Durgapur | 2.68 | 96.64 | 0.00 | 0.00 | 0.00 | 7.89 | 107.21 |
| 29.Nadia-Msd | 37.47 | 0.36 | 0.00 | 0.00 | 19.12 | 36.57 | 93.52 |
| Total (S.E): | 98.96 | 331.57 | 0.00 | 0.12 | 19.37 | 70.47 | 520.49 |
| 30.Western Dir. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31.Jhargram | 386.72 | 21.55 | 0.00 | 0.00 | 0.00 | 45.70 | 453.97 |
| 32.Medinipur | 742.33 | 370.15 | 0.00 | 0.00 | 0.00 | 79.96 | 1192.44 |
| 33.Kharagpur | 94.87 | 97.55 | 0.00 | 0.00 | 0.00 | 53.07 | 245.49 |
| 34.Rupnarayan | 483.01 | 198.09 | 0.00 | 0.00 | 0.00 | 23.82 | 704.92 |
| 35.Purba Midnapur | 12.01 | 11.09 | 0.00 | 0.00 | 0.86 | 21.35 | 44.45 |
| Total (W.C.): | 1718.94 | 698.43 | 0.00 | 0.00 | 0.00 | 223.90 | 2641.27 |
| 36.Central Dir | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 37.Bankura (N) | 63.41 | 1024.18 | 0.00 | 0.00 | 0.00 | 25.13 | 1112.72 |
| 38.Bankura (S) | 591.85 | 4.77 | 0.00 | 0.00 | 0.00 | 38.38 | 635.00 |
| 39.Panchet | 928.78 | 0.00 | 0.00 | 0.00 | 0.00 | 11.06 | 939.84 |
| Total (C.C.): | 1584.04 | 1028.95 | 0.00 | 0.00 | 0.00 | 74.57 | 2687.56 |
| 40.DFD/STR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.66 | 28.66 |
| | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.66 | 28.66 |
| 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 | 115.57 | 115.57 |
| 43.24-Parg (N) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.11 | 11.11 |
| Total (SBR): | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 126.70 | 126.70 |
| 44.WL (Hqr) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 |
| Total (WL HQ): | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 |
| 45.WL(N) Dir | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23 | 0.23 |
| 46.Darjeeling WL (I) | 0.02 | 0.00 | 0.24 | 0.00 | 4.63 | 13.29 | 18.18 |
| 47.Gorumara WL (II) | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 25.19 | 25.51 |
| 48.Jaldapara WL (III) | 538.30 | 29.36 | 0.00 | 0.00 | 0.00 | 94.96 | 662.62 |
| Total:(WL North): | 538.64 | 29.36 | 0.24 | 0.00 | 4.63 | 133.67 | 706.54 |
| 49.B.T.R. Dir | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.04 |
| 50.B.T.R (West) | 276.01 | 0.00 | 0.00 | 0.00 | 0.00 | 31.18 | 307.19 |
| 51.B.T.R (East) | 237.73 | 0.00 | 0.00 | 0.00 | 0.00 | 31.35 | 269.08 |
| Total (BTR): | 513.75 | 0.00 | 0.00 | 0.00 | 0.00 | 62.56 | 576.31 |
| 52. Hill Direction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.62 | 14.62 |
| 53.Darjeeling | 39.68 | 0.84 | 0.00 | 0.00 | 0.00 | 4.38 | 44.90 |
| 54.Kurseong | 1222.62 | 1.64 | 0.00 | 0.00 | 0.00 | 160.98 | 1385.24 |
| 55.NTFP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.68 | 28.68 |
| Total (Hill): | 1262.30 | 2.48 | 0.00 | 0.00 | 0.00 | 208.66 | 1473.44 |
| 56.Northern Dir | 0.00 | 0.00 | 0.00 | 0.00 | 1.94 | 0.12 | 2.06 |
| 57.Jalpaiguri | 1631.28 | 0.01 | 0.00 | 0.00 | 0.00 | 38.79 | 1670.08 |
| 58.Baikunthapur | 1069.01 | 0.00 | 0.00 | 0.00 | 0.00 | 14.95 | 1083.96 |
| 59.Coochbehar | 208.34 | 0.00 | 0.00 | 0.00 | 0.00 | 49.00 | 257.34 |
| Total (NC): | 2908.63 | 0.01 | 0.00 | 0.00 | 1.94 | 102.86 | 3013.44 |
| 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 | 3.34 | 3.34 |
| 62. Malda Divn. | 41.98 | 0.00 | 0.00 | 0.00 | 0.00 | 7.97 | 49.95 |
| 63. Jalpaiguri S.F. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.27 | 1.27 |
| 64. Raiganj Divn. | 8.52 | 0.00 | 0.00 | 41.71 | 0.00 | 15.20 | 56.91 |
| Total (N.W) | | 0.00 | 0.00 | 41.71 | 0.00 | 27.78 | 111.47 |

| Units | Timber & Pole | Firewood & Charcoal | Grazing | Bamboo | Minor F.P | Others | Total |
|---------------------------|----------------|---------------------|-------------|--------------|--------------|----------------|-----------------|
| 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 | 0.50 | 0.50 |
| 67. Kalimpong S.C. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 68. Soil (N), Jalpaiguri | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.56 | 1.56 |
| Total Soil (North) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.06 | 2.06 |
| GRAND TOTAL: | 8779.00 | 2155.13 | 0.33 | 41.83 | 25.94 | 1619.80 | 12622.03 |

Table – 6.4 Statement Showing unit wise actual expenditure during 2016-2017 (Rs.In lakhs)

| Accounting units | State Plan | Non – Plan | Total. |
|----------------------------|----------------|----------------|-----------------|
| Headquarters: | | | |
| General Dir | 7764.31 | 2047.89 | 9812.20 |
| Publicity | 153.98 | 51.07 | 205.05 |
| Utilisation | 0.00 | 258.48 | 258.48 |
| Total: | 7918.29 | 2357.44 | 10275.73 |
| Monitoring Circle | | | |
| Monitoring (S) | 40.70 | 334.99 | 375.69 |
| Monitoring (N) | 9.65 | 105.36 | 115.01 |
| Total: | 50.35 | 440.35 | 490.70 |
| WP & GIS Circle | | | |
| WP & GIS Dir | 1.47 | 62.58 | 64.05 |
| W.Plan (South- I) | 17.83 | 96.36 | 114.19 |
| W. Plan (South- II) | 11.20 | 97.58 | 108.78 |
| Working Plan (N) | 32.80 | 151.46 | 184.26 |
| Total: | 63.30 | 407.98 | 471.28 |
| Research Circle | | | |
| Research Dir | 0.00 | 77.72 | 77.72 |
| Silvi (South) | 87.06 | 264.67 | 351.73 |
| Silvi (North) | 81.78 | 245.74 | 327.52 |
| Silvi (Hill) | 66.97 | 322.56 | 389.53 |
| Total. (Research). | 235.81 | 910.69 | 1146.50 |
| Development Cir. | | | |
| Development Dir | 0.00 | 44.04 | 44.04 |
| WBF School | 13.57 | 165.03 | 178.60 |
| F.T.C | 276.31 | 221.65 | 497.96 |
| Total: (Develp.) | 289.88 | 430.72 | 720.60 |
| South-West Circle | | | |
| S.W. Dir | 0.00 | 64.56 | 64.56 |
| Purulia | 1012.72 | 610.76 | 1623.48 |
| Kansabati (North) | 207.65 | 441.03 | 648.68 |
| Kansabati (South) | 133.83 | 358.35 | 492.18 |
| Extn. Forestry | 119.80 | 337.20 | 457.00 |
| Total: | 1474.00 | 1811.90 | 3285.90 |
| P & G Circle | | | |
| U.R.F. | 531.31 | 1024.93 | 1556.24 |
| P & G (North) | 124.00 | 429.08 | 553.08 |
| Howrah SF | 143.60 | 400.66 | 544.26 |
| Total: | 798.91 | 1854.67 | 2653.58 |
| South- East Circle | | | |
| S.E. Dir | 4.52 | 87.26 | 91.78 |
| Burdwan | 357.96 | 857.29 | 1215.25 |
| Birbhum | 234.08 | 787.32 | 1021.40 |
| Durgapur | 119.58 | 392.26 | 511.84 |

| Accounting units | State Plan | Non - Plan | Total. |
|---------------------------|----------------|----------------|----------------|
| Nadia- Mursidabad | 129.71 | 534.59 | 664.30 |
| Total: | 845.85 | 2658.72 | 3504.57 |
| Western Circle | | | |
| Western Dir. | 0.00 | 76.69 | 76.69 |
| Jhargram | 534.07 | 938.82 | 1472.89 |
| Medinipur | 520.38 | 1135.01 | 1655.39 |
| Kharagpur | 457.42 | 712.37 | 1169.79 |
| Rupnarayan | 414.11 | 617.57 | 1031.68 |
| Purba Midnapur | 263.26 | 377.91 | 641.17 |
| Total: | 2189.24 | 3858.37 | 6047.61 |
| Central Circle | | | |
| Central Dir | 0.00 | 78.64 | 78.64 |
| Bankura (N) | 788.21 | 1294.60 | 2082.81 |
| Bankura (S) | 836.17 | 1022.45 | 1858.62 |
| Panchet | 589.65 | 755.81 | 1345.46 |
| Total: | 2214.03 | 3151.50 | 5365.53 |
| S.T.R: | | | |
| DFD/STR | 894.29 | 872.37 | 1766.66 |
| Total: | 894.29 | 872.37 | 1766.66 |
| S.B.R | | | |
| Jt. Dir/SBR | 17.16 | 151.02 | 168.18 |
| 24 Parg (S) | 656.09 | 835.96 | 1492.05 |
| 24 Parg (N) | 73.57 | 237.83 | 311.40 |
| Total: | 746.82 | 1224.81 | 1971.63 |
| WL (Hqr.) | | | |
| WL (Hqr.) | 323.46 | 460.67 | 784.13 |
| Total: | 323.46 | 460.67 | 784.13 |
| WL (North) Circle | | | |
| WL (North) Dir | 107.39 | 242.35 | 349.74 |
| Darjeeling WL | 342.36 | 850.03 | 1192.39 |
| Gorumara WL | 376.75 | 801.02 | 1177.77 |
| Jaldapara WL | 521.75 | 665.25 | 1187.00 |
| Total: | 1348.25 | 2558.65 | 3906.90 |
| B.T.R: | | | |
| FD/ BTR | 27.57 | 92.71 | 120.28 |
| BTR. (West) | 407.54 | 1037.32 | 1444.86 |
| BTR. (East) | 376.52 | 893.31 | 1269.83 |
| Total: | 811.63 | 2023.34 | 2834.97 |
| Hill Circle | | | |
| Hill Dir | 0.00 | 99.60 | 99.60 |
| Darjeeling | 178.00 | 731.75 | 909.75 |
| Kurseong | 134.23 | 665.37 | 799.60 |
| NTFP | 3.40 | 173.69 | 177.09 |
| Total: | 315.63 | 1670.41 | 1986.04 |
| Northern Circle | | | |
| Northern Dir | 0.00 | 101.90 | 101.90 |
| Jalpaiguri | 166.58 | 1070.15 | 1236.73 |
| Baikunthapur | 117.84 | 953.54 | 1071.38 |
| Coochbehar | 87.34 | 558.15 | 645.49 |
| Total: | 371.76 | 2683.74 | 3055.50 |
| North- West Circle | | | |
| North -West Dir | 0.00 | 85.21 | 85.21 |
| Siliguri SF | 122.31 | 198.45 | 320.76 |
| Malda | 122.25 | 262.22 | 384.47 |

| Accounting units | State Plan | Non - Plan | Total. |
|--------------------------|-----------------|-----------------|-----------------|
| Jalpaiguri SF | 130.90 | 162.48 | 293.38 |
| Raiganj | 304.14 | 389.47 | 693.61 |
| Total: | 679.60 | 1097.83 | 1777.43 |
| SC (North) Circle | | | |
| S.C. (N) Dir | 0.00 | 103.55 | 103.55 |
| Kurseong SC | 322.89 | 341.79 | 664.68 |
| Kalimpong SC | 51.18 | 339.28 | 390.46 |
| Jalpaiguri Soil | 114.77 | 308.40 | 423.17 |
| Total: | 488.84 | 1093.02 | 1581.86 |
| GRAND TOTAL: | 22059.94 | 31567.18 | 53627.12 |

**Table - 6.5 Statement showing scheme- wise Actual Expenditure
STATE PLAN SCHEMES**

| Schemes/ Projects | Rs. In Lakh | | | |
|--|------------------------------|------------------------|--|---|
| | Budget Estimate (2016-17) | Net Grant (2016-17) | Actual Expenditure Up to Mar.'17 | % of Actual Expenditure Spent during the year |
| 2401-Crop Husbandry: | | | | |
| 1. Addl Central Assistance -RKVY [FR] (Central Sh.) | 2000.00 | 509.00 | 509.00 | 100.00 |
| 2. Addl Central Assistance -RKVY [FR] (State Sh.) | 0.00 | 337.00 | 337.00 | 100.00 |
| Total: "2401" | 2000.00 | 846.00 | 846.00 | 100.00 |
| 2402- Soil & Water Conservation: | | | | |
| 1. Protective Affn & Erosion Cont [FR] | 5.00 | 4.92 | 4.92 | 100.00 |
| Total: "2402" | 5.00 | 4.92 | 4.92 | 100.00 |
| 2406- Forestry & Wildlife: | | | | |
| 1. Forest Resources [FR] | 40.00 | 36.00 | 35.79 | 99.42 |
| 2. Communication [FR] | 40.00 | 36.00 | 35.32 | 98.11 |
| 3. Buildings [FR] | 400.00 | 368.00 | 338.55 | 92.00 |
| 4. Forest Protection [FR] | 300.00 | 255.00 | 245.73 | 96.36 |
| 5. Working Plan [FR] | 40.00 | 36.00 | 21.66 | 60.17 |
| 6. Integrated Forest Protection (Sh-Share) (OCASPS) | 70.00 | 88.36 | 71.80 | 81.26 |
| 7. Plantation of QGS Growing Spp [FR] | 1100.00 | 996.44 | 931.95 | 93.53 |
| 8. Economic Plantation [FR] | 800.00 | 800.00 | 784.48 | 98.06 |
| 9. Research & Seed Propagation [FR] | 30.00 | 27.00 | 24.87 | 92.11 |
| 10. Intensification of Management [FR] | 30.00 | 27.00 | 19.18 | 71.04 |
| 11. Consv. Of Natural Res. & Eco.Sys (Sh-Sh.)(OCASPS) | 141.90 | 141.90 | 94.18 | 66.37 |
| 12. Consv. Of Natural Res. & Eco.Sys (Ch-Sh.)(OCASPS) | 500.00 | 305.69 | 244.19 | 79.88 |
| 13. Forestry Treatment [FR] | 3500.00 | 4150.00 | 3719.70 | 89.63 |
| 14. Monitoring & Evaluation [FR] | 70.00 | 63.00 | 48.77 | 77.41 |
| 15. Community Development [FR] | 200.00 | 180.00 | 156.07 | 86.71 |
| 16. Other Allied Works Component [FR] | 200.00 | 180.00 | 160.09 | 88.94 |
| 17. Integrated For.& Bio-divs Convs. (JICA) | 10500.00 | 6500.00 | 6500.00 | 100.00 |
| 18. Timber Opn by Mech Loggig [FR] | 87.00 | 78.30 | 70.20 | 89.66 |
| 19. Economic Rehab of Fringe Popln.[FR] | 200.00 | 180.00 | 172.09 | 95.61 |
| 20. Amenity to For. Staff & Labours [FR] | 30.00 | 80.00 | 19.96 | 24.95 |
| 21. Publicity-cum-Extention [FR] | 200.00 | 182.12 | 159.31 | 87.48 |

| Schemes/ Projects | Rs. In Lakh | | | |
|---|------------------------------|------------------------|--|---|
| | Budget Estimate (2016-17) | Net Grant (2016-17) | Actual Expenditure Up to Mar.'17 | % of Actual Expenditure Spent during the year |
| 22. Nature Covn. Protection & Improvement of WL | 850.00 | 765.00 | 733.82 | 95.92 |
| 23. Control of Poaching [FR] | 200.00 | 180.00 | 153.44 | 85.24 |
| 24. Project Tiger (Sh-Share) OCASPS | 200.00 | 592.68 | 460.01 | 77.62 |
| 25. Project Tiger (Cent-Sh) OCASPS [FR] | 1000.00 | 536.14 | 509.30 | 94.99 |
| 26. Integrated Dev. WL Habitats (St.Sh.) OCASPS [FR] | 250.00 | 211.20 | 207.34 | 98.17 |
| 27. Integrated Dev. WL Habitats (Cent. Sh.) OCASPS [FR] | 1000.00 | 339.11 | 385.04 | 113.54 |
| 28. Dev. Of Medicinal & NTFP Plants [FR] | 30.00 | 27.00 | 21.95 | 81.30 |
| 29. Conservation of Westlands [FR] | 20.00 | 18.00 | 17.90 | 99.44 |
| 30. Dev. Of Eco-Tourism & Nature Edn [FR] | 500.00 | 450.00 | 436.22 | 96.94 |
| 31. Elephant Conservation [FR] | 900.00 | 810.00 | 679.35 | 83.87 |
| 32. Creation & Improvement of P & G [FR] | 400.00 | 360.00 | 359.99 | 100.00 |
| 33. Lloyd Botanic Garden, Darjeeling [FR] | 30.00 | 27.00 | 27.00 | 100.00 |
| 34. Decentralised people's Nursery [FR] | 200.00 | 199.96 | 189.35 | 94.69 |
| Total: "2406" | 24058.90 | 19226.90 | 18034.60 | 93.80 |
| *2851-Village SSI-Pltn | | | | |
| 15. M.Poll & Dev.of Village SSI-Pltn.[FR] | 140.00 | 140.00 | 140.00 | 100.00 |
| Total:"2851" | 140.00 | 140.00 | 140.00 | 100.00 |
| 4702- Jalatirtha | | | | |
| 1. Jalatirtha | 2487.14 | 2838.88 | 1380.32 | 48.62 |
| Total:"4702": | 2487.14 | 2838.88 | 1380.32 | 48.62 |
| * 4202- Forest Produce | | | | |
| 1. Works Saltlake Stdm (Landscaping & Bld.) | 200.00 | 200.00 | 200.00 | 100.00 |
| * 5452 - Tourism Project | | | | |
| 1. Tourism Project | 40.36 | 40.36 | 40.36 | 100.00 |
| Total: "5452" | 40.36 | 40.36 | 40.36 | 100.00 |
| 2551- Hill Areas: | | | | |
| 1. Protective Affn & Erosion Cont [FR] (Gorkha H.C) | 50.00 | 49.99 | 49.59 | 99.20 |
| 2. Nature Consn.Protn. & Improvement of WL [FR] | 5.00 | 4.75 | 4.50 | 94.74 |
| 3. Forestry Treatment [FR] | 3.00 | 2.70 | 2.70 | 100.00 |
| 4. Improvement of Parks & Gardens [FR] | 27.00 | 27.00 | 27.00 | 100.00 |
| 5. Decentralised People Nurseries [FR] | 9.00 | 9.00 | 9.00 | 100.00 |
| Total: "2551" | 94.00 | 93.44 | 92.79 | 99.30 |
| *2505- Other Programmes: | | | | |
| 1. Const. of Structure at Hizli [FR] (SFDA) | 278.20 | 278.20 | 278.20 | 100.00 |
| Total:"2505" | 278.20 | 278.20 | 278.20 | 100.00 |
| 2415- Agrcultural Research: | | | | |
| 1.Forest Research | 50.00 | 45.00 | 44.67 | 99.27 |
| 2. Training of Staff [FR] | 60.00 | 54.00 | 52.09 | 96.46 |
| Total: "2415" | 110.00 | 99.00 | 96.76 | 97.74 |
| 4406- Capital Outlay: | | | | |
| 1. Infrastructural Facilities- RIDF [FR] | 3500.00 | 1245.66 | 946.02 | 75.95 |
| Total: "4406" | 3500.00 | 1245.66 | 946.02 | 75.95 |
| GRAND TOTAL:: | 32913.60 | 25013.36 | 22059.97 | 88.19 |

6.6 : SCHEMES :ACTUAL NON PLAN EXPENDITURE DURING THE YEAR 2016-2017 WITH BUGET ESTIMATE

| Schemes/ Projects | in Lakhs | | | |
|---|------------------------------|-----------------------------|-----------------------------|---|
| | Budget Estimate (2016-17) | Net Grant during 2016-17 | Total Actual Expenditure | % of Expenditure Spent during the year |
| 1.Strengthening Soil Con.Org [FR] | 55.35 | 55.72 | 58.44 | 105.58 |
| 2.Protective Affn Erosion Control [FR] | 400.53 | 407.69 | 304.64 | 76.06 |
| 3.Soil Cons in RVP-Kangsabati [FR] | 214.34 | 217.28 | 162.56 | 75.84 |
| 4. Soil Cons in RVP-Teesta [FR] | 197.83 | 198.34 | 203.71 | 102.97 |
| 5. Soil Cons in Himalayan Region [FR] | 86.03 | 86.42 | 102.61 | 119.27 |
| 6.Flood Cont in FPR- Ganga Basin [FR] | 1.31 | 1.31 | 0.82 | 62.60 |
| 7.Pilot Project for Afforestation [FR] | 6.03 | 6.09 | 2.90 | 48.09 |
| Total : "2402" | 961.42 | 972.85 | 835.68 | 86.92 |
| 1.Direction & Administration | 22446.83 | 23233.66 | 20048.50 | 89.32 |
| 2.Training of Forest Ranger [FR] | 216.55 | 319.60 | 133.95 | 61.86 |
| 3.Training of WBFS Probationers [FR] | 27.63 | 111.32 | 26.37 | 95.44 |
| 4.Surveys [FR] | 11.73 | 11.76 | 24.89 | 212.19 |
| 5. Forest Resources [FR] | 23.75 | 23.75 | 8.33 | 35.07 |
| 4.Forest Consolidation [FR] | 13.61 | 13.61 | 13.05 | 95.89 |
| 5.Communication [FR] | 161.64 | 161.64 | 152.40 | 94.28 |
| 6.Buildings [FR] | 638.02 | 638.02 | 617.68 | 96.81 |
| 7.Conservancy & Regn [FR] | 388.39 | 388.39 | 405.54 | 104.42 |
| 8. Working Plan [FR] | 58.65 | 58.65 | 55.19 | 94.10 |
| 9. Forest Protection [FR] | 512.49 | 512.49 | 495.25 | 96.64 |
| 11.Plantation of Quick Growing Spp [FR] | 14.81 | 14.81 | 13.16 | 88.86 |
| 12. Farm Forestry -cum- Fuelwood Pltn[FR] | 6.78 | 6.78 | 6.78 | 100.00 |
| 12. Mixed Pltn etc.-Rural FW Pltn. [FR] | 7.51 | 7.51 | 7.44 | 99.07 |
| 13.West Bengal Forestry Projects [FR] | 622.32 | 626.38 | 553.38 | 88.92 |
| 14. Area Oriented FW & Fodder Project | 15.39 | 15.39 | 14.78 | 96.04 |
| 15.Social Forestry Project [FR] | 2277.34 | 2318.79 | 2014.57 | 88.46 |
| 16.Timber Operation by Govt Agency[FR] | 711.24 | 711.24 | 661.36 | 92.99 |
| 17.Minor Forest Produce [FR] | 39.98 | 39.98 | 37.56 | 93.95 |
| 18.MFP:Agro Silviculture [FR] | 27.14 | 27.14 | 25.47 | 93.85 |
| 19.MFP:Silvo-Pisciculture [FR] | 30.42 | 31.15 | 23.96 | 78.76 |
| 20.Timber Operation by Mech. Logging[FR] | 101.93 | 101.93 | 90.73 | 89.01 |
| 21.Other Office Expenses [FR] | 624.54 | 624.54 | 680.69 | 108.99 |
| 22.Economic Rehab of Fringe Population [FR] | 85.02 | 85.02 | 74.89 | 88.09 |
| 23.Intensification of management [FR] | 6.69 | 6.69 | 5.74 | 85.80 |

| Schemes/ Projects | ` in Lakhs | | | |
|--|------------------------------|-----------------------------|-----------------------------|---|
| | Budget Estimate (2016-17) | Net Grant during 2016-17 | Total Actual Expenditure | % of Expenditure Spent during the year |
| 24. Amenity to Forest Staff & Labour [FR] | 16.23 | 16.23 | 16.14 | 99.45 |
| 25.WL Unit-Prot & Improve of WL [FR] | 1673.83 | 1706.16 | 1147.96 | 68.58 |
| 26.Nature Cons-Protn & Imp of WL [FR] | 13.17 | 13.17 | 12.02 | 91.27 |
| 27.Sundarbans Tiger Reserve [FR] | 199.51 | 204.67 | 167.30 | 83.86 |
| 28.Buxa Tiger Reserve [FR] | 26.13 | 26.33 | 14.30 | 54.73 |
| 29. Dev. Of National Parks & Sanctuary [FR] | 1.31 | 1.31 | 1.22 | 93.13 |
| 30.Control of Poaching [FR] | 2.42 | 2.42 | 2.52 | 104.13 |
| 31.Singhalila National Park [FR] | 40.92 | 42.04 | 1.85 | 4.52 |
| 32.Neora Valley National Park [FR] | 1.09 | 1.09 | 1.08 | 99.08 |
| 33.Mahananda Wildlife Sanctuary [FR] | 1.37 | 1.37 | 1.37 | 100.00 |
| 34.Senchal Wildlife Sanctuary [FR] | 1.20 | 1.20 | 1.20 | 100.00 |
| 35.Gorumara Wildlife Sanctuary [FR] | 1.20 | 1.20 | 1.20 | 100.00 |
| 36.Parks & Garden Wing [FR] | 1887.55 | 1933.42 | 1667.04 | 88.32 |
| 37.Lloyd Botanic Garden, Darjeeling [FR] | 90.71 | 92.01 | 81.75 | 90.12 |
| 38.Creation & Improvement of P & G [FR] | 20.19 | 20.19 | 19.90 | 98.56 |
| 39.Urban Forestry [FR] | 9.36 | 9.36 | 9.21 | 98.40 |
| 40.Greening of Rural Areas [FR] | 8.01 | 8.01 | 8.01 | 100.00 |
| 41.Wildlife Unit [FR] | 38.56 | 38.56 | 195.06 | 505.86 |
| 42.Reward for Cont of Wild Animals [FR] | 600.00 | 600.00 | 446.17 | 74.36 |
| 43. Management Information System | 8.37 | 8.37 | 8.24 | 98.45 |
| 44. West Bengal Eco-Tourism Board (WDC Ltd.) | 78.75 | 78.75 | 25.99 | 33.00 |
| 45. Compensation for WL Depredation | 607.81 | 607.81 | 599.68 | 98.66 |
| Total: "2406" | 34398.09 | 35503.91 | 30620.87 | 89.02 |
| 1.Econ Rehab of Fringe Population [FR] | 0.50 | 0.50 | 0.49 | 98.00 |
| 2.Prot Afforstn & Erosion Control [FR] | 1.55 | 1.55 | 1.85 | 119.35 |
| 3.West Bengal Forestry Project [FR] | 11.87 | 11.87 | 11.87 | 100.00 |
| 4. Prot. & Improvement of Wildlife [FR] | 2.08 | 2.08 | 2.08 | 100.00 |
| Total: " 2551" | 16.00 | 16.00 | 16.29 | 101.81 |
| 1.Forestry Research [FR] | 32.13 | 32.13 | 36.76 | 114.41 |
| 2. Training of Staff | 58.98 | 58.98 | 57.15 | 96.90 |
| Total: "2415" | 91.11 | 91.11 | 93.91 | 103.07 |
| GRAND TOTAL: NON-PLAN | 35466.62 | 36583.87 | 31566.75 | 89.00 |



Table – 6.7: Actual Expenditure under Major Heads during 2006-2007 to 2016-2017
(in Rs.)

| Major Head | Non Plan (LOC& TRG.) | State Plan (Annual Plan) | Centrally Sponsored (New Scheme) | Non Plan Development | State Plan (Committed) | Centrally Sponsored Scheme Committed | Total |
|----------------|-----------------------|--------------------------|----------------------------------|----------------------|------------------------|--------------------------------------|-----------------------|
| 2006-07 | | | | | | | |
| (N.G.) → | 1,28,41,26,0 | 20,07,85,675 | 12,64,93,31 | 79,11,400 | 3,90,000 | | 1,61,97,06,3 |
| 2402 | 00 | 35,39,999 | 6 | ---- | ---- | ---- | 91 |
| 2406 | 4,56,65,632 | 16,29,84,195 | ----- | 55,91,400 | ---- | ---- | 4,92,05,631 |
| 2551 | 1,16,65,30,8 | 52,99,297 | 12,34,19,760 | ---- | 3,14,940 | ---- | 1,45,85,26,1 |
| 2415 | 09 | 11,74,537 | ----- | ---- | ---- | ---- | 64 |
| 4406 | 4,20,930 | 2,14,40,000 | ----- | ---- | ---- | ---- | 60,35,167 |
| | 14,95,372 | | ----- | | | | 26,69,909 |
| | ----- | | | | | | 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.) → | 1,35,60,62,0 | 35,63,54,900 | 14,05,77,23 | 87,19,600 | 3,90,000 | ---- | 1,86,17,13,1 |
| 2402 | 00 | 43,46,642 | 1 | ---- | ---- | ---- | 31 |
| 2406 | 4,70,37,488 | 16,57,24,063 | 39,67,482 | 86,19,600 | ---- | ---- | 5,53,51,612 |
| 2551 | 1,27,67,07,9 | 9,99,954 | 12,60,14,65 | ---- | 3,14,900 | ---- | 1,57,70,66,02 |
| 2415 | 07 | 16,00,000 | 8 | ---- | ---- | ---- | 28 |
| 4406 | 8,61,919 | 12,62,68,6444 | ----- | ---- | ---- | ---- | 18,61,873 |
| 2401 | 16,71,200 | 2,23,08,248 | ----- | ---- | ---- | ---- | 32,71,200 |
| | ----- | | ----- | | | | 12,62,68,644 |
| | ----- | | ----- | | | | 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.) → | 1,50,32,80,0 | 60,38,16,000 | 16,70,87,00 | 1,10,47,50 | ---- | ---- | 2,28,52,30,5 |
| 2402 | 00 | 41,90,000 | 0 | 0 | ---- | ---- | 00 |
| 2406 | 5,22,68,156 | 27,61,33,000 | 42,39,000 | ---- | ---- | ---- | 6,06,97,156 |
| 2551 | 1,40,41,05,8 | 10,00,000 | 13,83,54,00 | 1,10,34,31 | ---- | ---- | 1,82,96,27,1 |
| 2415 | 608,36,312 | 18,00,000 | 0 | 2 | ---- | ---- | 72 |
| 4406 | 16,62,299 | 23,74,75,000 | ----- | ---- | ---- | ---- | 18,36,312 |
| 2401 | ----- | 5,82,00,000 | ----- | ---- | ---- | ---- | 34,62,299 |
| | ----- | | ----- | ---- | | | 23,74,75,000 |
| | | | ----- | ---- | | | 5,82,00,000 |
| TOTAL | 1,45,88,72,627 | 57,87,98,000 | 14,25,93,000 | 1,10,34,312 | ---- | ---- | 2,19,12,97,939 |
| 2009-10 | | | | | | | |
| (N.G.) → | 2,03,58,21,0 | 73,11,83,000 | 16,73,78,00 | 1,16,19,00 | ---- | ---- | 2,94,60,01,0 |
| 2402 | 00 | 59,92,000 | 0 | 0 | ---- | ---- | 00 |
| 2406 | 7,06,96,626 | 36,90,92,000 | ----- | ---- | ---- | 23,000 | 7,66,88,626 |
| 2551 | 2,07,85,07,6 | 13,99,000 | 15,98,85,00 | 1,10,35,00 | ---- | ---- | 2,61,85,42,6 |
| 2415 | 46 | 37,00,000 | 0 | 0 | ---- | ---- | 46 |
| 4406 | 9,74,065 | 24,83,14,000 | ----- | ---- | ---- | ---- | 23,73,065 |
| 2401 | 18,98,296 | 5,84,41,000 | ----- | ---- | ---- | ---- | 55,98,296 |
| 4216 | ----- | 2,79,59,000 | ----- | ---- | ---- | ---- | 24,83,14,000 |
| | ----- | | 1,48,52,000 | ---- | | | 7,32,93,000 |
| | ----- | | ----- | ---- | | | 2,79,59,000 |
| TOTAL | 215,20,76,633 | 71,48,97,000 | 17,47,37,000 | 1,10,35,000 | ---- | 23,000 | 305,27,68,633 |

| Major Head | Non Plan (LOC& TRG.) | State Plan (Annual Plan) | Centrally Sponsored (New Scheme) | Non Plan Development | State Plan (Committed) | Centrally Sponsored Scheme Committed | Total |
|------------|----------------------|--------------------------|----------------------------------|----------------------|------------------------|--------------------------------------|----------------|
| 2010-11 | | | | | | | |
| (N.G.) → | 221,46,47,00 | 100,94,63,05 | 16,68,76,55 | 1,10,30,00 | ---- | ---- | 340,20,17,05 |
| 2402 | 0 | 00 | 4 | 0 | ---- | ---- | 4 |
| 2406 | 7,48,07,956 | 1,19,98,899 | ---- | 1,09,97,35 | ---- | ---- | 8,68,06,855 |
| 2551 | 224,75,11,02 | 47,18,68,30 | 13,33,21,96 | 2 | ---- | ---- | 286,36,98,63 |
| 2415 | 5 | 1 | 1 | ---- | ---- | ---- | 9 |
| 4406 | 10,16,803 | 59,99,299 | ---- | ---- | ---- | ---- | 70,16,102 |
| 2401 | 19,64,984 | 51,74,442 | ---- | ---- | ---- | ---- | 71,39,726 |
| 4216 | ---- | 37,12,06,57 | ---- | ---- | ---- | ---- | 37,12,06,570 |
| | ---- | 0 | 5,56,91,387 | ---- | ---- | ---- | 16,15,92,941 |
| | ---- | *10,59,01,5 | ---- | ---- | ---- | ---- | 8,20,19,265 |
| | | 54 | | | | | |
| | | *8,20,19,26 | | | | | |
| | | 5 | | | | | |
| TOTAL | 2,32,53,00,768 | 105,41,68,330 | 18,90,13,348 | 10997352 | ---- | ---- | 3,57,94,79,798 |
| 2011-12 → | | | | | | | |
| (N.G.) → | 2507417000 | 948857000 | 120341200 | 8967354 | ---- | ---- | 3585582554 |
| 2402 | 78567570 | 11999600 | ---- | 200000 | ---- | ---- | 90767170 |
| 2406 | 2295063398 | 473912210 | 127316283 | ---- | ---- | ---- | 2896291891 |
| 2551 | 1028884 | 4598300 | ---- | ---- | ---- | ---- | 5627184 |
| 2415 | 1987342 | 5398681 | ---- | ---- | ---- | ---- | 7386023 |
| 4406 | ---- | 158533080 | ---- | ---- | ---- | ---- | 158533080 |
| 2401 | ---- | *59781433 | *52569772 | ---- | ---- | ---- | 112351205 |
| 4216 | ---- | *34758977 | ---- | ---- | ---- | ---- | 34758977 |
| TOTAL: | 2376647194 | 748982281 | 179886055 | 200000 | ---- | ---- | 3305715530 |
| 2012-13 | | | | | | | |
| | | | | | | | |
| 2402 | 5,40,11,689 | 74,74,930 | ---- | ---- | ---- | ---- | 61486619 |
| 2406 | 2,46,64,07,9 | 66,00,24,6 | 9,15,67,74 | ---- | ---- | ---- | 3218000383 |
| 2551 | 58 | 83 | 2 | ---- | ---- | ---- | 5834215 |
| 2415 | 9,42,719 | 48,91,496 | ---- | ---- | ---- | ---- | 9147322 |
| 4406 | 21,47,322 | 70,00,000 | ---- | ---- | ---- | ---- | 2,83,15,455 |
| 2401 | ---- | 2,83,15,45 | ---- | ---- | ---- | ---- | 6,18,31,983 |
| 4216 | ---- | 5 | ---- | ---- | ---- | ---- | ---- |
| | ---- | 6,18,31,98 | ---- | ---- | ---- | ---- | ---- |
| | | 3 | | | | | |
| | | ---- | | | | | |
| TOTAL | 2,52,35,09,688 | 76,95,38,547 | 9,15,67,742 | ---- | ---- | ---- | 3,38,46,15,977 |

(Rs. in Lakhs)

| 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 | 0.00 | 119.17 |
| 4406 | 0.00 | 965.26 | 0.00 | 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 | 0.00 | 1507.73 | 0.00 | 1507.73 |
| 2402 | 728.21 | 66.58 | 0.00 | 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 Heads (2015-2016) | Non- Plan | State Plan (Annual Plan) | Total |
|----------------------------|-----------------|-----------------------------|-----------------|
| (Total: Budget Estimate) | 32836.27 | 25994.35 | 58830.62 |
| 2401 | 0.00 | 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 | 0.00 | 118.00 | 118.00 |
| 2551 | 13.63 | 97.85 | 111.48 |
| 4216 | 0.00 | 632.82 | 632.82 |
| 4406 | 0.00 | 1037.75 | 1037.75 |
| 4702 | 0.00 | 1000.96 | 1000.96 |
| GRAND TOTAL: | 26987.37 | 21579.12 | 48566.49 |

| Major Heads (2016-2017) | Non- Plan | State Plan (Annual Plan) | Total |
|----------------------------|-----------------|-----------------------------|-----------------|
| (Total: Budget Estimate) | 32836.27 | 25994.35 | 58830.62 |
| 2401 | 0.00 | 846.00 | 846.00 |
| 2402 | 835.68 | 4.92 | 840.60 |
| 2406 | 30621.33 | 18034.57 | 48655.90 |
| 2415 | 93.91 | 96.76 | 190.67 |
| 2505 | 0.00 | 278.20 | 278.20 |
| 2551 | 16.29 | 92.79 | 109.08 |
| 2851 | 0.00 | 340.00 | 340.00 |
| 2851 | 0.00 | 340.00 | 340.00 |
| 4702 | 0.00 | 1420.68 | 1420.68 |
| GRAND TOTAL: | 31567.21 | 22059.94 | 53627.15 |





Dog Squad

FOREST PROTECTION

West Bengal is the one of the few states in country where per capita forest is the lowest (0.01 ha.) and density of the population around fragmented forest is the highest. Evidently there is tremendous pressure on forests. Coupled with socio-economic problems of the property, underemployment and unemployment in the forest fringe areas, the major threat to forests come from the illicit collection of the firewood, fodder, and small timber from the forest to 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 organisations of mobile squad 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 extend their support over district and state level to combat organized gangsters in illicit operation to timber.

An extensive network of R.T. have been built up connecting Beats/Rangers 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.

7.1 DATA ON FOREST OFFENCE FOR F.Y. 2016-17

7.1.1 NO OF POR CASES FOR F.Y. 2016-17

During F.Y. 2016-17, total number of offence cases registered was 12071, out of which COR was 7283, UDOR was 4531 and POR was 257 and 7402 no. of trees were reported by the Divisions as illicitly felled.

| Division | Illicit felling | Unauthorised grazing | Wild life offence | Offence in Non-Forest Area | Forest Conservation Act | Total POR Cases Registered |
|------------------|-----------------|----------------------|-------------------|----------------------------|-------------------------|----------------------------|
| Darjeeling | 1 | 0 | 0 | 0 | 0 | 1 |
| Kurseong | 8 | 0 | 4 | 0 | 0 | 12 |
| Darjeeling WL | 17 | 0 | 0 | 0 | 0 | 17 |
| Baikunthapur | 25 | 0 | 15 | 0 | 0 | 40 |
| Jalpaiguri | 30 | 0 | 2 | 0 | 0 | 32 |
| BTR East | 12 | 0 | 15 | 0 | 0 | 27 |
| BTR West | 18 | 0 | 7 | 0 | 0 | 25 |
| CoochBehar | 0 | 0 | 0 | 15 | 0 | 15 |
| Jaldapara WL | 9 | 0 | 13 | 0 | 0 | 22 |
| Gorumara WL | 0 | 0 | 8 | 0 | 0 | 8 |
| Raiganj | 0 | 0 | 2 | 0 | 1 | 3 |
| Malda | 0 | 0 | 1 | 2 | 0 | 3 |
| Bankura North | 0 | 0 | 0 | 0 | 2 | 2 |
| Bankura South | 3 | 0 | 1 | 0 | 0 | 4 |
| Panchet | 0 | 0 | 0 | 0 | 1 | 1 |
| Kangsabati North | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati South | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | 7 | 0 | 0 | 0 | 0 | 7 |
| Burdwan | 0 | 0 | 2 | 0 | 0 | 2 |
| Durgapur | 0 | 0 | 3 | 0 | 0 | 3 |
| Midnapur | 0 | 0 | 0 | 0 | 0 | 0 |
| Jhargam | 0 | 0 | 0 | 0 | 0 | 0 |
| Rupnarayan | 0 | 0 | 1 | 0 | 0 | 1 |

| Division | Illicit felling | Unauthorised grazing | Wild life offence | Offence in Non-Forest Area | Forest Conservation Act | Total POR Cases Registered |
|-----------------|-----------------|----------------------|-------------------|----------------------------|-------------------------|----------------------------|
| Kharagpur | 1 | 0 | 3 | 0 | 0 | 4 |
| Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 |
| Birbhum | 0 | 0 | 0 | 0 | 0 | 0 |
| Nadia Msd | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas(S) | 0 | 0 | 3 | 0 | 0 | 3 |
| Howrah | 0 | 0 | 1 | 0 | 0 | 1 |
| STR | 1 | 0 | 0 | 0 | 0 | 1 |
| Wildlife HQ | 0 | 0 | 20 | 0 | 0 | 20 |
| Siliguri SF | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (N) | 0 | 0 | 3 | 0 | 0 | 3 |
| TOTAL | 132 | 0 | 104 | 17 | 4 | 257 |

7.1.2 NO OF COR CASES FOR F.Y. 2016-17

| Division | Illicit felling | Unauthorised grazing | Wild life offence | Offence in Non-Forest Area | F.C.A | Total COR Cases Registered |
|------------------|-----------------|----------------------|-------------------|----------------------------|-----------|----------------------------|
| Darjeeling | 12 | 0 | 0 | 0 | 0 | 12 |
| Kurseong | 31 | 0 | 0 | 0 | 0 | 31 |
| Darjeeling WL | 3 | 1 | 16 | 0 | 0 | 20 |
| Baikunthapur | 102 | 18 | 0 | 0 | 0 | 120 |
| Jalpaiguri | 0 | 57 | 0 | 0 | 0 | 57 |
| BTR East | 0 | 0 | 0 | 306 | 0 | 306 |
| BTR West | 0 | 25 | 0 | 15 | 22 | 62 |
| Coochbehar | 0 | 0 | 0 | 174 | 0 | 174 |
| Jaldapara WL | 0 | 67 | 0 | 96 | 0 | 163 |
| Gorumara WL | 0 | 109 | 0 | 0 | 0 | 109 |
| Raiganj | 0 | 0 | 0 | 18 | 26 | 44 |
| Malda | 0 | 0 | 0 | 2 | 0 | 2 |
| Bankura North | 253 | 19 | 0 | 0 | 0 | 272 |
| Bankura South | 153 | 0 | 0 | 16 | 0 | 169 |
| Panchet | 54 | 0 | 0 | 0 | 0 | 54 |
| Kangsabati North | 96 | 0 | 0 | 0 | 0 | 96 |
| Kangsabati South | 12 | 0 | 0 | 0 | 0 | 12 |
| Purulia | 128 | 73 | 0 | 0 | 0 | 201 |
| Burdwan | 182 | 0 | 0 | 182 | 0 | 364 |
| Durgapur | 28 | 0 | 0 | 0 | 0 | 28 |
| Midnapur | 109 | 0 | 0 | 0 | 0 | 109 |
| Jhargarm | 179 | 0 | 0 | 0 | 0 | 179 |
| Rupnarayan | 124 | 0 | 0 | 0 | 0 | 124 |
| Kharagpur | 50 | 0 | 0 | 1 | 0 | 51 |
| Purba Midnapur | 48 | 0 | 0 | 116 | 0 | 164 |
| Birbhum | 0 | 27 | 0 | 7 | 0 | 34 |
| Nadia Msd | 4 | 0 | 0 | 40 | 0 | 44 |
| 24 Parganas(S) | 48 | 992 | 0 | 324 | 0 | 1364 |
| Howrah | 0 | 0 | 0 | 0 | 0 | 0 |
| STR | 2872 | 0 | 0 | 0 | 0 | 2872 |
| Wildlife HQ | 0 | 0 | 0 | 0 | 0 | 0 |
| Siliguri SF | 0 | 46 | 0 | 0 | 0 | 46 |
| 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 4488 | 1434 | 16 | 1297 | 48 | 7283 |

7.1.3 NO OF UDOR CASES FOR F.Y. 2016-17

| Division | Illicit felling | Unauthorised grazing | Wild life offence | Offence in Non-Forest Area | F.C.A | Total UDOR Cases Registered |
|------------------|-----------------|----------------------|-------------------|----------------------------|-------|-----------------------------|
| Darjeeling | 1 | 0 | 0 | 0 | 0 | 1 |
| Kurseong | 149 | 0 | 0 | 0 | 0 | 149 |
| Darjeeling WL | 175 | 0 | 0 | 0 | 0 | 175 |
| Baikunthapur | 113 | 0 | 0 | 0 | 0 | 113 |
| Jalpaiguri | 713 | 0 | 0 | 0 | 0 | 713 |
| BTR East | 1053 | 0 | 0 | 0 | 0 | 1053 |
| BTR West | 1099 | 0 | 0 | 0 | 0 | 1099 |
| Coochbehar | 0 | 0 | 0 | 243 | 0 | 243 |
| Jaldapara WL | 154 | 0 | 0 | 216 | 0 | 370 |
| Gorumara WL | 38 | 0 | 0 | 0 | 0 | 38 |
| Raiganj | 13 | 0 | 0 | 0 | 1 | 14 |
| Malda | 6 | 0 | 0 | 6 | 0 | 12 |
| Bankura North | 28 | 0 | 0 | 0 | 0 | 28 |
| Bankura South | 50 | 0 | 0 | 0 | 0 | 50 |
| Panchet | 48 | 0 | 0 | 0 | 0 | 48 |
| Kangsabati North | 25 | 0 | 0 | 0 | 0 | 25 |
| Kangsabati South | 09 | 0 | 0 | 0 | 0 | 9 |
| Purulia | 14 | 0 | 0 | 0 | 0 | 14 |
| Burdwan | 6 | 0 | 0 | 0 | 0 | 6 |
| Durgapur | 2 | 0 | 1 | 0 | 0 | 3 |
| Midnapur | 34 | 0 | 0 | 0 | 0 | 34 |
| Jhargam | 48 | 0 | 0 | 0 | 0 | 48 |
| Rupnarayan | 29 | 0 | 0 | 0 | 0 | 29 |
| Kharagpur | 15 | 0 | 0 | 0 | 0 | 15 |
| Purba Midnapur | 3 | 0 | 10 | 0 | 0 | 13 |
| Birbhum | 19 | 0 | 0 | 0 | 0 | 19 |
| Nadia Msd | 44 | 0 | 0 | 4 | 0 | 48 |
| 24 Parganas(S) | 59 | 0 | 1 | 1 | 0 | 61 |
| Howrah | 0 | 0 | 0 | 0 | 0 | 0 |
| STR | 20 | 0 | 0 | 0 | 0 | 20 |
| Wildlife HQ. | 0 | 0 | 81 | 0 | 0 | 81 |
| Siliguri SF | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 3967 | 0 | 93 | 470 | 1 | 4531 |

Status of offence case registered and number of tree felled illicitly during F.Y. 2016-17

| Division | Total POR Cases Registered | Total COR Cases Registered | Total UDOR Cases Registered | Total Number of Cases Registered | No of trees illicitly felled |
|---------------|----------------------------|----------------------------|-----------------------------|----------------------------------|------------------------------|
| Darjeeling | 1 | 12 | 1 | 14 | 0 |
| Kurseong | 12 | 31 | 149 | 192 | 140 |
| Darjeeling WL | 17 | 20 | 175 | 212 | 204 |
| Baikunthapur | 40 | 120 | 113 | 273 | 46 |
| Jalpaiguri | 32 | 57 | 713 | 802 | 1353 |
| BTR East | 27 | 306 | 1053 | 1386 | 1357 |
| BTR West | 25 | 62 | 1099 | 1186 | 1625 |
| Coochbehar | 15 | 174 | 243 | 432 | 0 |
| Jaldapara WL | 22 | 163 | 370 | 555 | 0 |
| Gorumara WL | 8 | 109 | 38 | 155 | 46 |
| Raiganj | 3 | 44 | 14 | 61 | 25 |
| Malda | 3 | 2 | 12 | 17 | 32 |
| Bankura North | 2 | 272 | 28 | 302 | 317 |
| Bankura South | 4 | 169 | 50 | 223 | 523 |

| Division | Total POR Cases Registered | Total COR Cases Registered | Total UDOR Cases Registered | Total Number of Cases Registered | No of trees illicitly felled |
|------------------|----------------------------|----------------------------|-----------------------------|----------------------------------|------------------------------|
| Panchet | 1 | 54 | 48 | 103 | 150 |
| Kangsabati North | 0 | 96 | 25 | 121 | 12 |
| Kangsabati South | 0 | 12 | 09 | 21 | 0 |
| Purulia | 7 | 201 | 14 | 222 | 0 |
| Burdwan | 2 | 364 | 6 | 372 | 71 |
| Durgapur | 3 | 28 | 3 | 34 | 0 |
| Midnapur | 0 | 109 | 34 | 143 | 167 |
| Jhargarm | 0 | 179 | 48 | 227 | 875 |
| Rupnarayan | 1 | 124 | 29 | 154 | 457 |
| Kharagpur | 4 | 51 | 15 | 70 | 0 |
| Purba Midnapur | 0 | 164 | 13 | 177 | 0 |
| Birbhum | 0 | 34 | 19 | 53 | 0 |
| Nadia Msd | 0 | 44 | 48 | 92 | 0 |
| 24 Parganas(S) | 3 | 1364 | 61 | 1428 | 0 |
| Howrah | 1 | 0 | 0 | 1 | 0 |
| STR | 1 | 2872 | 20 | 2893 | 0 |
| Wildlife HQ. | 20 | 0 | 81 | 101 | 0 |
| Siliguri SF | 0 | 46 | 0 | 46 | 0 |
| 24 Parganas (N) | 3 | 0 | 0 | 3 | 2 |
| Total | 257 | 7283 | 4531 | 12071 | 7402 |

7.1.4 DETAILS OF TIMBER SEIZED AND STOLEN FROM FOREST AREA AND ITS VALUE DURING F.Y. 2016-17

The quantity of timber seized from forest area during F.Y. 2016-17 is 29463.5488 m³ valuing approximately Rs. 85186731.62 and quantity of timber stolen from forest area is 769.289m³ valuing approximately Rs. 18241868.87.

| Divisions | SEIZURE OF TIMBER | | STOLEN TIMBER | |
|------------------|---------------------------------------|--------------------------|---------------------------------------|--------------------------|
| | Volume of Timber (in m ³) | Value of Timber (in INR) | Volume of Timber (in m ³) | Value of Timber (in INR) |
| Darjeeling | 3.262 | 10345.00 | 0 | 0 |
| Kurseong | 178.996 | 2147952.00 | 164.041 | 1968492.00 |
| Darjeeling WL | 215.368 | 3833924.00 | 0 | 0 |
| Baikunthapur | 128.916 | 0 | 20.428 | 0 |
| Jalpaiguri | 757.591 | 26515685.00 | 233.489 | 8172115.00 |
| BTR East | 770.1457 | 21564000.00 | 0 | 0 |
| BTR West | 778.15 | 27230000.00 | 332.52 | 8003685.00 |
| Coochbehar | 0 | 0 | 0 | 0 |
| Jaldapara WL | 760.969 | 0 | 0 | 0 |
| Gorumara WL | 17.806 | 83465.62 | 17.194 | 80596.87 |
| Raiganj | 9.168 | 91680.00 | 1.074 | 10464.00 |
| Malda | 4.736 | 66304.00 | 0 | 0 |
| Bankura North | 16.98 | 254730.00 | 0 | 0 |
| Bankura South | 88.01 | 880090.00 | 0 | 0 |
| Panchet | 38.77 | 581580.00 | 0 | 0 |
| Kangsabati North | 147.490 | 147490.00 | 0 | 0 |

| Divisions | SEIZURE OF TIMBER | | STOLEN TIMBER | |
|------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | Volume of Timber (in m3) | Value of Timber (in INR) | Volume of Timber (in m3) | Value of Timber (in INR) |
| Kangsabati South | 55.517 | 0 | 0 | 0 |
| Purulia | 21.358 | 146700.00 | 0 | 0 |
| Burdwan | 5.975 | 100389.00 | 0 | 0 |
| Durgapur | 6.11 | 0 | 0 | 0 |
| Midnapur | 23.95 | 191600.00 | 0 | 0 |
| Jhargarm | 68.469 | 301264.00 | 0 | 0 |
| Rupnarayan | 35.829 | 537435.00 | 0 | 0 |
| Kharagpur | 0 | 0 | 0.543 | 6516.00 |
| Purba Midnapur | 1.638 | 18798.00 | 0 | 0 |
| Birbhum | 3.927 | 16000.00 | 0 | 0 |
| Nadia Msd | 25234 | 415000.00 | 0 | 0 |
| 24 Parganas(S) | 16.3436 | 52300.00 | 0 | 0 |
| Howrah | 0 | 0 | 0 | 0 |
| STR | 74.0745 | 0 | 0 | 0 |
| 24 Parganas (N) | 0 | 0 | 0 | 0 |
| WL HQ | 0 | 0 | 0 | 0 |
| Siliguri SF | 0 | 0 | 0 | 0 |
| Total | 29463.5488 | 85186731.62 | 769.289 | 18241868.87 |

7.1.5 DETAILS OF ENCOUNTERS WITH OFFENDERS/PUBLIC DURING PROTECTION WORK

As per data provided by Divisions, 26 staffs have been assaulted and 325 persons have been arrested during encounters with offenders/public during protection work. Nine persons have been convicted by the Honourable Court.

| DIVISIONS | No of Staff Assaulted | No of Staff Murdered | No of person Arrested | No of person convicted in Court |
|------------------|--------------------------|-------------------------|--------------------------|------------------------------------|
| Darjeeling | 0 | 0 | 0 | 0 |
| Kurseong | 0 | 0 | 13 | 0 |
| Darjeeling WL | 3 | 0 | 20 | 0 |
| Baikunthapur | 0 | 0 | 52 | 0 |
| Jalpaiguri | 5 | 0 | 36 | 0 |
| BTR East | 0 | 0 | 38 | 0 |
| BTR West | 2 | 0 | 24 | 0 |
| Coochbehar | 0 | 0 | 3 | 0 |
| Jaldapara WL | 0 | 0 | 36 | 0 |
| Gorumara WL | 5 | 0 | 15 | 0 |
| Raiganj | 0 | 0 | 5 | 0 |
| Malda | 0 | 0 | 1 | 0 |
| Bankura North | 1 | 0 | 7 | 0 |
| Bankura South | 0 | 0 | 6 | 0 |
| Panchet | 0 | 0 | 2 | 0 |
| Kangsabati North | 0 | 0 | 0 | 0 |
| Kangsabati South | 0 | 0 | 0 | 0 |
| Purulia | 0 | 0 | 0 | 0 |
| Burdwan | 0 | 0 | 9 | 9 |
| Durgapur | 0 | 0 | 0 | 0 |
| Midnapur | 0 | 0 | 0 | 0 |
| Jhargarm | 0 | 0 | 0 | 0 |
| Rupnarayan | 10 | 0 | 0 | 0 |
| Kharagpur | 0 | 0 | 8 | 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 |

| DIVISIONS | No of Staff Assaulted | No of Staff Murdered | No of person Arrested | No of person convicted in Court |
|-----------------|-----------------------|----------------------|-----------------------|---------------------------------|
| Howrah | 0 | 0 | 2 | 0 |
| STR | 0 | 0 | 7 | 0 |
| WL HQ | 0 | 0 | 37 | 0 |
| 24 Parganas (N) | 0 | 0 | 4 | 0 |
| Siliguri SF | 0 | 0 | 0 | 0 |
| Total | 26 | 0 | 325 | 9 |

7.1.6 DETAILS OF VEHICLES SEIZED AND CONFISCATED FOR CARRYING ILLEGAL FOREST PRODUCE

A total of 1503 number of vehicles including HMV, LMV, Boat and hand drawn vehicle was seized and 1480 numbers of vehicles was confiscated for carrying illegal forest produce during the F.Y.2016-17.

| Name of Divisions | HMV | | LMV | | Hand van ,Thela etc | | BOAT | | OTHER | |
|-------------------|--------|-------------|--------|-------------|---------------------|-------------|--------|-------------|-------------|-------------|
| | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated | Seized (m3) | Confiscated |
| Darjeeling | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kurseong | 1 | 5 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| Darjeeling WL | 0 | 0 | 0 | 0 | 102 | 0 | 0 | 0 | 0 | 0 |
| Baikunthapur | 15 | 0 | 0 | 0 | 13 | 0 | 0 | 6 | 0 | 0 |
| Jalpaiguri | 1 | 1 | 7 | 28 | 149 | 3 | 0 | 0 | 1 | 0 |
| BTR East | 3 | 0 | 7 | 0 | 0 | 516 | 0 | 0 | 1 | |
| BTR West | 0 | 0 | 14 | 0 | 806 | 806 | 0 | 0 | 84 | 84 |
| Coochbehar | 13 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 |
| Jaldapara WL | 16 | 7 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gorumara WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17.806 | 0 |
| Raiganj | 0 | 0 | 1 | 6 | 1 | 0 | 0 | 0 | 0 | 0 |
| Malda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura North | 1 | 0 | 6 | 0 | 100 | 100 | 0 | 0 | 0 | 0 |
| Bankura South | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Panchet | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati North | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati South | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | 3 | 2 | 0 | 0 | 1 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jhargarm | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rupnarayan | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kharagpur | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Birbhum | 1 | 0 | 6 | 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 | 6 | 0 | | |
| Howrah | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Name of Divisions | HMV | | LMV | | Hand van ,Thela etc | | BOAT | | OTHER | |
|-------------------|--------|-------------|--------|-------------|---------------------------|-------------|--------|-------------|-------------|-------------|
| | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated | Seized (m3) | Confiscated |
| 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| STR | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 60 | 0 |
| WL HQ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 80 | 16 | 58 | 39 | 1276 | 1425 | 29 | 0 | 60 | 0 |

Note: Total Vehicles seized 1503 & Total Vehicles confiscated 1480.

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

A total volume of 678.2266 m3 timber valuing approximately Rs. 4600984.00 was seized from the vehicles and 247.078m3 valuing Rs. 1602970.00 was confiscated. A total volume of 183.533 m3 firewood valuing approximately Rs. 109939.00 was seized from vehicles and 150.036 m3 valuing Rs. 74689.00 was confiscated.

| Divisions | TIMBER | | | | FIRE WOOD | | | |
|------------------|----------------|---------------------|-----------------------|----------------------------|----------------|---------------------|-----------------------|----------------------------|
| | Seized (in m3) | Confiscated (in m3) | Seized Value (in INR) | Confiscated Value (in INR) | Seized (in m3) | Confiscated (in m3) | Seized value (in INR) | Confiscated Value (in INR) |
| Darjeeling | 3.262 | 0 | 39144.00 | 0 | 0 | 0 | 0 | 0 |
| Kurseong | 1.300 | 5.093 | 19500.00 | 76395.00 | 0 | 0 | 0 | 0 |
| Darjeeling WL | 86.096 | 0 | 1658986.00 | | 0 | 0 | 0 | 0 |
| Baikunthapur | 72.180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jalpaiguri | 57.517 | 35.672 | 0 | 0 | 0 | 0 | 0 | 0 |
| BTR East | 35.35 | 0 | 866270.00 | 0 | 0 | 0 | 0 | 0 |
| BTR West | 11.579 | 11.579 | 405265.00 | 405265.00 | 119 | 119 | 14280.00 | 14280.00 |
| Cooch Behar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jaldapara WL | 15.296 | 14.774 | 734208.00 | 700272.00 | 0 | 0 | 0 | 0 |
| Gorumara WL | 17.806 | 0 | 75000.00 | 0 | 0 | 0 | 0 | 0 |
| Raiganj | 1.707 | 3.847 | 35847.00 | 150000.00 | 0 | 0 | 0 | 0 |
| Malda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura North | 166.98 | 166.98 | 269730.00 | 269730.00 | 9 | 9 | 18000 | 18000 |
| Bankura South | 15.54 | 3.19 | 155400.00 | 30187.00 | 10.5 | 0 | 26250 | 0 |
| Panchet | 38.772 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati North | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati South | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | 21.357 | 5.4 | 146700.00 | 41000.00 | 11.780 | 11.780 | 31000 | 26000 |
| Burdwan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Durgapur | 6.11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Midnapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jhargam | 30.095 | 0 | 132418 | 0 | 0.200 | 0 | 2000.00 | 0 |
| Rupnarayan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kharagpur | 0.543 | 0.543 | 6516.00 | 6516.00 | 10.253 | 10.256 | 16409.00 | 16409.00 |
| Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Divisions | TIMBER | | | | FIRE WOOD | | | |
|-----------------|-------------------|------------------------|--------------------------|-------------------------------|-------------------|------------------------|--------------------------|-------------------------|
| | Seized (in m3) | Confiscated (in m3) | Seized Value (in INR) | Conf. istd. Value (in INR) | Seized (in m3) | Conf. istd. (in m3) | Seized value (in INR) | Conf. Value (in INR) |
| Birbhum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nadia Msd | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas(S) | 16.3436 | 0 | 56000.00 | 0 | 22.80 | 0 | 2000.00 | 0 |
| Howrah | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| STR | 80.393 | 0 | 0 | 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 | 678.2266 | 247.078 | 4600984 | 1602970 | 183.533 | 150.036 | 109939 | 74689 |

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

Total Number of cases pending at various Courts as on 01/04/2016 was 3342, No. of new cases registered during 2016-17 was 309 and No. of cases disposed by the Honourable Courts during 2016-17 was 61. The Balance cases pending as on 31/03/2017 is 3590 out of which 3245 number of cases is pending in the Courts of CJM/ACJM, 137 number of cases is pending in the Court of District /Sessions Judge and 51 number of Cases is pending in the Honourable High Court and 2 number of cases was being tried before the Honourable Supreme Court.

| Divisions | No of cases pending as on 01/04/2016 | No of new cases during 2016-17 | Total no of cases | No of cases disposed during 2016-17 | Balance cases pending as on 31/03/2017 |
|------------------|--------------------------------------|--------------------------------|-------------------|-------------------------------------|--|
| Darjeeling | 54 | 1 | 55 | 0 | 55 |
| Kurseong | 147 | 14 | 161 | 0 | 161 |
| Darjeeling WL | 146 | 15 | 161 | 0 | 161 |
| Baikunthapur | 434 | 23 | 457 | 0 | 457 |
| Jalpaiguri | 572 | 32 | 604 | 7 | 597 |
| BTR East | 188 | 27 | 215 | 3 | 212 |
| BTR West | 461 | 69 | 530 | 41 | 489 |
| Coochbehar | 38 | 1 | 39 | 0 | 39 |
| Jaldapara WL | 191 | 22 | 213 | 0 | 213 |
| Gorumara WL | 74 | 0 | 74 | 0 | 74 |
| Raiganj | 53 | 2 | 55 | 0 | 55 |
| Malda | 3 | 3 | 6 | 1 | 5 |
| Bankura North | 38 | 2 | 40 | 0 | 40 |
| Bankura South | 249 | 24 | 273 | 6 | 267 |
| Panchet | 30 | 2 | 32 | 2 | 30 |
| Kangsabati North | 0 | 0 | 0 | 0 | 0 |
| Kangsabati South | 0 | 0 | 0 | 0 | 0 |
| Purulia | 25 | 16 | 41 | 0 | 41 |
| Burdwan | 38 | 2 | 40 | 0 | 40 |
| Durgapur | 3 | 3 | 6 | 0 | 6 |
| Midnapur | 48 | 1 | 49 | 1 | 48 |
| Jhargam | 13 | 7 | 20 | 0 | 20 |
| Rupnarayan | 7 | 1 | 8 | 0 | 8 |
| Kharagpur | 16 | 9 | 25 | 0 | 25 |
| Purba Midnapur | 34 | 0 | 34 | 0 | 34 |
| Birbhum | 21 | 1 | 22 | 0 | 22 |
| Nadia Msd | 8 | 3 | 11 | 0 | 11 |
| 24 Parganas(S) | 60 | 3 | 63 | 0 | 63 |
| Howrah | 10 | 1 | 11 | 0 | 11 |
| STR | 204 | 2 | 206 | 0 | 206 |
| Wildlife HQ | 154 | 20 | 174 | 0 | 174 |
| 24Parganas(N) | 23 | 3 | 26 | 0 | 26 |
| Total | 3342 | 309 | 3651 | 61 | 3590 |

STATUS OF CASES PENDING AT VARIOUS HONOURABLE COURTS
AS ON 31/03/2017

| Divisions | No of cases | CJM Court/ ACJM | District/Sessions Court | High Court | Supreme Court. |
|------------------|-------------|-----------------|-------------------------|------------|----------------|
| Darjeeling | 55 | 0 | 55 | 0 | 0 |
| Kurseong | 161 | 161 | 0 | 0 | 0 |
| Darjeeling WL | 161 | 161 | 0 | 0 | 0 |
| Baikunthapur | 457 | 454 | 1 | 2 | 0 |
| Jalpaiguri | 597 | 597 | 0 | 0 | 0 |
| BTR East | 212 | 212 | 0 | 0 | 0 |
| BTR West | 489 | 488 | 1 | 0 | 0 |
| Coochbehar | 39 | 39 | 0 | 0 | 0 |
| Jaldapara WL | 213 | 213 | 0 | 0 | 0 |
| Gorumara WL* | 74 | 74 | 0 | 0 | 0 |
| Raiganj | 55 | 51 | 2 | 2 | 0 |
| Malda | 5 | 5 | 0 | 0 | 0 |
| Bankura North | 40 | 0 | 40 | 0 | 0 |
| Bankura South | 267 | 248 | 14 | 5 | 0 |
| Panchet | 30 | 6 | 21 | 2 | 1 |
| Kangsabati North | 0 | 0 | 0 | 0 | 0 |
| Kangsabati South | 0 | 0 | 0 | 0 | 0 |
| Purulia | 41 | 41 | 0 | 0 | 0 |
| Burdwan | 40 | 38 | 1 | 0 | 1 |
| Durgapur | 6 | 6 | 0 | 0 | 0 |
| Midnapur | 48 | 25 | 18 | 5 | 0 |
| Jhargarm | 20 | 14 | 4 | 2 | 0 |
| Rupnarayan | 8 | 8 | 0 | 0 | 0 |
| Kharagpur | 25 | 22 | 1 | 2 | 0 |
| Purba Midnapur | 34 | 8 | 0 | 26 | 0 |
| Birbhum | 22 | 8 | 14 | 0 | 0 |
| Nadia Msd | 11 | 11 | 0 | 0 | 0 |
| 24 Parganas(S) | 63 | 63 | 0 | 0 | 0 |
| Howrah | 11 | 6 | 5 | 0 | 0 |
| STR | 206 | 204 | 0 | 2 | 0 |
| Wildlife HQ | 174 | 171 | 0 | 3 | 0 |
| 24 Parganas(N) | 26 | 26 | 0 | 0 | 0 |
| Total | 3590 | 3360 | 177 | 51 | 2 |

N.B. * IFA 24 nos. (initiated before 2016-17), WLP 43 nos. (initiated before 2015-16) + 7nos. in 2016-17



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

[illegible]

| Division | No of raid | Plywood and Veneer industries | | | | Saw Mill | | | | Private Timber Depot & other wood base industry | | | |
|----------------|------------|-------------------------------|-------------|------------------------|-------------|--------------------------|-------------|--------------------------|-------------|---|-------------|--------------------------|-------------|
| | | Quantity of Wood (in m3) | | Value of Wood (in Rs.) | | Quantity of Wood (in m3) | | Quantity of Wood (in m3) | | Quantity of Wood (in m3) | | Quantity of Wood (in m3) | |
| | | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated | Seized | Confiscated |
| 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 |
| Jhargam | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Birbhum | 8 | 0 | 0 | 0 | 0 | 14.939 | 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 | 672 | 247.607 | 0 | 0 | 0 | 19.959 | 2350 | 12950.0 | 12950.0 | 69 | 0 | 800 | 0 |

7.1.10 Status of Forest & Wildlife Mobile Patrolling Party & Mobile Squads in West Bengal as on 31.03.2017

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 | - |
| Baikunthapur | MPP-1 Range | Siliguri | - |
| | MPP-2 Range | Belacoba | - |
| | MPP-3Range | Odlabari | - |
| | Belacoba Elephant Squad | Belacoba | - |
| Jalpaiguri | Jalpaiguri MPP Range | Hakimpara, Jalpaiguri | 03561-230118, 9851001588 |
| BTR East | Mobile (East)Range | Kamakshyaguri | - |
| BTR West | MPP Damanpur | Damanpur | - |
| | MPP Pana | Pana | - |
| CoochBehar | Talliguri | Talliguri | - |
| Jaldapara WL | Madarihat WL Squad | Madarihat | - |
| Gorumara WL | W L Squad II | Malbazar | - |
| | W L Squad III | Bannaguri | - |
| | Khunia W L Squad | Khunia | - |
| | RamsiMPP Range | Ramshi | - |
| Raiganj | Raiganj Mobile Squad | Raiganj | 8670912026 |
| Malda | MPP Malda | Malda HQ Range | 9749310762 |
| Bankura North | MPP Sonamukhi | Sonamukhi | 9083254717 |
| | MPP Beliatore | Beliatore | 9083254747 |
| Bankura South | MPP Pirrorgari | Pirrorgari R.O. | - |
| Panchet | MPP- Bishnupur range | Bishnupur | - |
| | MPP- Bankadaha Range | Bankadaha | - |
| | Quick Response Team | Panchyhet Division | - |
| Kangsabati North | NIL | - | - |
| Kangsabati South | NIL | - | - |
| Purulia | Jhalda MPP | Jhalda RO Complex | - |
| Extension Forestry Div. | NIL | - | - |
| Burdwan | Raghunathpur MPP | Ijjatganj PS. Kanksa | - |
| Durgapur | NIL | - | - |
| Midnapur | MPP Range | Midnapur | - |
| Jhargarm | MPP Jhargarm | Jhargarm | 8001846844 |
| | MPP Belpahari | Belpahari | 9732122179 |
| Rupnarayan | Mahalisai- I | Mahalisai | 9732729688 |
| Kharagpur | MPP Range-1 | Panchkahania | - |
| Purba Midnapur | NIL | - | - |
| Birbhum | NIL | - | - |
| Nadia Murshidabad | NIL | - | - |
| STR | Sandak Khali Floating Camp | - | - |
| | PirkhaliFloting Camp | - | - |
| | TetultalaFloting Camp | - | - |
| | ChilmariFloting Camp | - | - |
| | KakmariFloting Camp | - | - |
| | Chayan MPP | - | - |
| | Rampura MPP | - | - |
| | Bonraj MPP | - | - |
| 24 Parganas North | | | |
| | NIL | - | - |
| Howrah | NIL | - | - |
| Forest Utilisation | NIL | - | - |

| Name of Division | Name of MPP/MS | Location | Contact Number |
|--------------------|----------------------------|----------------------|----------------|
| 24 Parganas(South) | Dhanchi Beat, | Ramganga Range | - |
| | Patharpratima Camp, | | - |
| | Chulkati Camp | | - |
| | MahestalaBeat , | Diamond Harbor Range | - |
| | Nainan Beat | | - |
| | Nalgora Beat | | - |
| | Kultali Beat | Raidhagi Range | - |
| | Bonnie Camp | | - |
| | Kankramari Camp | | - |
| | Sagar Beat | Namkhana Range | - |
| | Saptamukhi Beat | | - |
| | Patibunia Beat | | - |
| | Uttar Bakkhali Beat | Bakkhali Range | - |
| | Dakshin Bakkhali Beat | | - |
| | Jambudwip Camp | | - |
| | Jharkhali Beat | Matla Range | - |
| | Lothian Old Camp | | - |
| | Lothian New Camp | | - |
| | Chandanpiri Beat | Bhagabatpur Range | - |
| | CKBS ,Narendrapur | | - |
| | Piali Beat | | - |
| | Mathurapur Beat | Baruipur Range | - |
| | Head Quarter Beat | | - |
| STR | Sandak Khali Floating Camp | - | - |
| | PirkhaliFloting Camp | - | - |
| | TetultalaFloting Camp | - | - |
| | ChilmariFloting Camp | - | - |
| | KakmariFloting Camp | - | - |
| | Chayan MPP | - | - |
| | Rampura MPP | - | - |
| | Bonraj MPP | - | - |
| 24 Parganas North | NIL | - | - |
| Howrah | NIL | - | - |
| Utilisation | NIL | - | - |

7.1.11 INCIDENTS OF FOREST FIRE DURING THE YEAR 2015-16

The Divisions have reported a total of 312 forest fire incidents in the various forests of the State West Bengal, the maximum incidence being reported from BTR West and Baikunthapur Division. About 223054.41 ha. forest area has been affected by fire.

| DIVISION | NUMBER OF INCIDENTS | Forest Area affected by fire (in ha) |
|--------------------|---------------------|--------------------------------------|
| Darjeeling | 10 | 4117.76 |
| Kurseong | 1 | 523.28 |
| Kalimpong | 0 | 0 |
| BTR (East) | 0 | 0 |
| BTR (West) | 66 | 36389.17 |
| Baikunthapur | 66 | 23983.8 |
| Gorumara Wildlife | 9 | 5878.79 |
| Jaldapara Wildlife | 4 | 0 |
| Siliguri (SF) | 0 | 0 |
| Nadia- Murshidabad | 3 | 0 |
| Bankura (North) | 15 | 14393.65 |

| | | |
|-----------------|------------|------------------|
| Bankura (South) | 35 | 31916.74 |
| Panchet | 23 | 14568.5 |
| Burdwan | 5 | 6522.32 |
| Medinipur | 32 | 31177.29 |
| Kharagpur | 14 | 13822.92 |
| Jhargram | 18 | 0 |
| Rupnarayan | 4 | 4432.77 |
| Purba Medinipur | 1 | 0 |
| KSC (North) | 0 | 0 |
| KSC (South) | 0 | 0 |
| Purulia | 6 | 35327.42 |
| Total | 312 | 223054.41 |

7.1.12 Status of Forest Land under Encroachment as on 31.03.2017

As per report received from the Divisions, no forest land was encroached and 187.6 ha encroached forest area was evicted during F.Y. 2016-17. As on 31.03.2017, the total forest land encroached in West Bengal stands at 10133.809 ha.

| Forest Division | New Encroachment during F.Y. 2016-17 (in ha) | Encroachment evicted during F.Y. 2016-17 (in ha) | Total area under encroachment as on 31/03/2017 (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 | 198.384 |
| Jalpaiguri | 0.00 | 0.00 | 160.926 |
| 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 | 681.12 |
| Jaldapara WL | 0.00 | 0.00 | 0.00 |
| Raiganj | 0.00 | 0.00 | 4.00 |
| Malda | 0.00 | 0.00 | 262.00 |
| Bankura North | 0.00 | 33.60 | 841.49 |
| Bankura South | 0.00 | 90.00 | 1481.26 |
| Panchet | 0.00 | 60.00 | 809.22 |
| Kangsabati North | 0.00 | 0.00 | 505.82 |
| Kangsabati South | 0.00 | 0.00 | 254 |
| Purulia | 0.00 | 0.00 | 7.142 |
| Burdwan | 0.00 | 0.00 | 409.67 |
| Durgapur | 0.00 | 0.00 | 0.00 |
| Midnapur | 0.00 | 0.00 | 1182.60 |
| Jhargarm | 0.00 | 1.00 | 1544.42 |
| Rupnarayan | 0.00 | 3.00 | 1075.25 |
| Kharagpur | 0.00 | 0.00 | 366.106 |

| Forest Division | New Encroachment during F.Y. 2016-17 (in ha) | Encroachment evicted during F.Y. 2016-17 (in ha) | Total area under encroachment as on 31/03/2017 (in ha) |
|-----------------|--|--|--|
| Purba Midnapur | 0.00 | 0.00 | 2.10 |
| Birbhum | 0.00 | 0.00 | 55.841 |
| Nadia Msd | 0.00 | 0.00 | 4.00 |
| 24 Parganas(S) | 0.00 | 0.00 | 100.00 |
| STR | 0.00 | 0.00 | 0.00 |
| 24 Parganas (N) | 0.00 | 0.00 | 0.00 |
| Howrah | 0.00 | 0.00 | 34.39 |
| Total | 0.0 | 187.6 | 10133.809 |





Modern Nursery

CAMPA

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

Introduction:

Prior to the enactment of the Forest (Conservation) Act, 1980 the recorded forest lands were vulnerable to diversion for different non-forestry activities viz. creation of human settlements, agriculture, construction of dams, bridges, roads and other developmental 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 2425.8203 ha. of forest land, has been diverted for different non-forestry purposes till March 2017 (Table 1).

Table - 8.1: 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 | Net Diversion |
|-----------|-----------------------------|------------------------|---------------------|---------------|
| 1981-1982 | 29.7720 | 0.2000 | 0.0000 | 29.5720 |
| 1982-1983 | 87.1900 | 0.0000 | 0.0000 | 87.1900 |
| 1983-1984 | 15.3250 | 2.44 | 0.0000 | 12.8850 |
| 1984-1985 | 13.3091 | 0.0000 | 0.0000 | 13.3091 |
| 1985-1986 | 306.0000 | 0.0000 | 0.0000 | 306.0000 |
| 1986-1987 | 23.7657 | 0.0178 | 0.0000 | 23.7479 |
| 1987-1988 | 16.7020 | 0.0000 | 0.0000 | 16.7020 |
| 1988-1989 | 18.9250 | 0.0000 | 0.0000 | 18.9250 |
| 1989-1990 | 94.4800 | 0.0300 | 0.0000 | 94.4500 |
| 1990-1991 | 19.3572 | 0.6270 | 0.0000 | 18.7302 |
| 1991-1992 | 47.5003 | 0.0823 | 0.0000 | 47.4180 |
| 1992-1993 | 78.1065 | 67.0665 | 0.0000 | 11.0400 |
| 1993-1994 | 232.0000 | 0.0000 | 0.0000 | 232.0000 |
| 1994-1995 | 45.0000 | 0.0000 | 0.0000 | 45.0000 |
| 1995-1996 | 93.9600 | 0.0000 | 0.0000 | 93.9600 |
| 1996-1997 | 1.6459 | 0.0000 | 0.0000 | 1.6459 |
| 1997-1998 | 6.7978 | 0.0000 | 0.0000 | 6.7978 |
| 1998-1999 | 21.6900 | 1.8200 | 0.0000 | 19.8700 |
| 1999-2000 | 3.0200 | 0.0000 | 0.0000 | 3.0200 |
| 2000-2001 | 0.9970 | 0.0000 | 0.0700 | 0.9270 |
| 2001-2002 | 285.9000 | 0.0000 | 0.0000 | 285.9000 |

| Year | Area approved for diversion | Diversion Not executed | Temporary Diversion | Net Diversion |
|--------------|-----------------------------|------------------------|---------------------|------------------|
| 2002-2003 | 10.0700 | 0.0000 | 0.0000 | 10.0700 |
| 2003-2004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2004-2005 | 320.6220 | 18.1320 | 119.0000 | 183.4900 |
| 2005-2006 | 357.7672 | 0.1172 | 0.0000 | 357.6500 |
| 2006-2007 | 115.3580 | 0.0000 | 0.0000 | 115.3580 |
| 2007-2008 | 37.9535 | 0.0000 | 0.6000 | 37.3535 |
| 2008-2009 | 0.0750 | 0.0000 | 0.0000 | 0.0750 |
| 2009-2010 | 70.4841 | 0.0000 | 0.0000 | 70.4841 |
| 2010-2011 | 174.6918 | 0.1730 | 0.0000 | 174.5188 |
| 2011-2012 | 46.5794 | 14.5300 | 0.0000 | 32.0494 |
| 2012-2013 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 2013-2014 | 58.7828 | 51.9022 | 0.0000 | 6.8806 |
| 2014-2015 | 11.0310 | 2.7000 | 0.0000 | 8.3310 |
| 2015-2016 | 10.5900 | 0.0000 | 0.0000 | 10.5900 |
| 2016-2017 | 49.8800 | 0.0000 | 0.0000 | 49.8800 |
| Total | 2705.3283 | 159.8380 | 119.6700 | 2425.8203 |

2. Compensatory Afforestation Plantation.

During 2016-17, 52.88 ha. Of backlog Compensatory Afforestation plantations was created. Over 67.64 ha. of old Compensatory Afforestation Plantations was maintained and advance work of over 50.09 ha. was carried out in various divisions. An amount of over Rs.27.84 Lakhs was released to various forest divisions from the balance fund lying with West Bengal CAMPA.

3. Final approval of Forest diversion proposals:

During 2016-17, the following diversion proposals / renewal of Mining Lease were accorded final approval by Govt. of India / State Government.

- Diversion of 1.92 ha. of forest land in favour of 764, BRTF for wilding of Algarah Bypass from existing district road to National Highway Double Lane (NHDL) (0.00 km to 3.20 km.) under Kalimpong Forest Division. Final approval was granted u/s 2 of the Forest (Conservation) Act. 1980 vide CF(Central), MoEF and CC, ERO, Govt. of India, Bhubaneswar letter no. 5-WBB077/2014-BHUdt. 26.09.2016.
- Diversion of 47.4932 ha. (24.5438 ha. in Darjeeling (T) Div. + 13.2342 ha. in Darjeeling Forest Div. + 9.7152 ha. in Kurseong Forest Div.) of forest land in favour of Teesta Valley Power Transmission Ltd. for construction of 400 KV Transmission Line. Final approval was granted u/s 2 of the Forest (Conservation) Act. 1980 vide CF(Central), MoEF and CC, ERO, Govt. of India, Bhubaneswar letter no. 5-WBA060/2013-BHU dt. 04.01.2017.
- Diversion of 0.47 acres of forest land in favour of West Bengal Khadi and Village Industries Board, Bankura for construction of "Skill Up-gradation Training Centre" at SusuniaPahar under Bankura (N) Forest Div. Final approval was granted u/s 2 of the Forest (Conservation) Act. 1980 vide Secretary, Department of Forest, West Bengal letter no. 1070-For/O/L/10T-04/2017.
- Renewal of 90.30 ha. of forest land for Coal Mining in favour of Eastern Coalfields Ltd. for Jhanjra Project, under Durgapur Forest Div. Approval was granted u/s 2 of the Forest (Conservation) Act. 1980 vide Asst. I.G. of Forests (FC), MoEF&CC, Govt. of India File No. 8-68/1992-FC dt. 16.08.2016.

4. No of approved forest diversion cases:

Since 1980, over 118 diversion proposals has been approved by the State and Central Governments and over 2425.8203 ha. of forest land has been diverted under ten categories.

Table - 8.2: Statement showing the position of cases approved for diversion of Forest Land under Forest (Conservation) Act, 1980 till March, 2017.

| Sl No. | Purpose of Diversion | Nos. |
|---------------|---------------------------------------|------|
| 1 | Irrigation Project | 5 |
| 2 | Hydel Project | 5 |
| 3 | Mining Project | 6 |
| 4 | Construction of Road | 16 |
| 5 | Laying of Railway Line | 2 |
| 6 | Laying of Transmission Line/Pipe Line | 35 |
| 7 | Thermal Project | 2 |
| 8 | Drinking Water Project | 4 |
| 9 | Defence Project | 3 |
| 10 | Others | 40 |
| Total (Nos) : | | 118 |





Elephant Census Exercise

WORKING PLANS AND GIS

9.1 Status of Working Plan

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.

9.1.1 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

9.1.2 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, wildlife 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.

9.1.3 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.

9.1.4 Report on Felling during 2016-17 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 2015-16 and proposed felling during 2017-18 are as detailed below:

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

In South Bengal:-

1. **Sal Coppice Working Circle** - The area under Sal Coppice Working Circle is approximately 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 as per Working Plans was 4462.48 Ha. However during the year 2015-16 an area of 3311.25 Ha. was felled. The target for felling in 2017-18 is provisionally 3771 Ha.
2. **Development Working Circle** - The area under Development Working Circle is approximately 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 as per Working Plans was 3694 Ha. However during the year 2015-16 an area of 2373.50 Ha was felled. The target for felling in 2017-18 is provisionally 2326 Ha.

In North Bengal:-

1. **Sal Working Circle** - The area under Sal Working Circle is approximately 20,485.2 Ha. This Working Circle is in operation in Jalpaiguri, Coochbehar and Alipurduar Districts in West Bengal. The annual felling target as per Working Plans was 82.96 Ha. However during the year 2015-16 an area of 66.33 Ha was felled. The target for felling in 2017-18 is provisionally 49.31 Ha.
2. **Miscellaneous Species Working Circle** - The area under Miscellaneous Species Working Circle is approximately 15,547.97 Ha. This Working Circle is in operation in Jalpaiguri, Coochbehar and Alipurduar Districts in West Bengal. The annual felling target as per Working Plans was 54.78 Ha. However, during the year 2015-16 an area of 38.00 Ha was felled. The target for felling in 2017-18 is provisionally 54.99 Ha.
3. **Broad Leaved Endemic Species Development Working Circle** - The area under Broad Leaved Endemic Species Development Working Circle is approximately 16,560.52 Ha. This Working Circle is in operation in Darjeeling and Kalimpong districts in West Bengal. The annual felling target as per Working Plans was 53.79 Ha. However during the year 2015-16 an area of 31.51 Ha was felled. The target for felling in 2017-18 is provisionally 53.39 Ha.

9.1.5 Regeneration Operations During 2015-16 - Felling achieved during 2015-16 against a target of 8352.56 Ha was 5820.84 Ha. This was the regeneration target during 2015-16. An area of 5820.84 Ha was regenerated against the targeted 5820.84 Ha.

9.1.6 Thinning Operations during 2015-16 - Out of a targeted thinning area of 2767.67 Ha. In 2015-16 an area of 1366.00 Ha was thinned under various thinning schedules. The shortfall in thinning operations during 2015-16 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 in South Bengal. The target of thinning area under 2017-18 is 4431.65 Ha under various thinning schedules all over the State.

9.1.7 Timber Yield during 2015-16 - The total timber yield from felled coupes against CFC under different Working Circles during 2015-16 was 12106.166 m³. The total thinning outturn was 1366.00 Ha. The total removal from salvage /CD operations was 7755.805 m³ while a total of 1190.54 m³ was seized on account of raids conducted to stop illicit theft of timber. A total 3534 stack 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 1893160 (No.) and Cogging Sleeper 8, 02,346 (No.) Fire Wood was 99,911.452 M3 and pulpwood was 42,781.97 M3 from the South Bengal Forests.

Table 9.1 Status of Working Plan in West Bengal as in 2016

| S. No | District | Forest Division | Working Plan in Progress | Working Plan Period | Sanction Order No | Status | Actions Planned / Work in Progress |
|-------|-------------------|---------------------------|--------------------------|---------------------------|--|---|---|
| 1 | Darjeeling | Darjeeling Sub Division | 12th | 1997-98 to 2017-18 | 13-FCWP/WB-DAG, dt. 15.12.97 | Approved | Preparations being taken for Revision in 2017-18 |
| | | Kalimpong Sub Division | 9th | 1997-98 to 2017-18 | 13-FCWP/WB-KLG, dt. 21.11.97 | Approved | |
| | | Kurseong Sub Division | 6th | 1997-98 to 2017-18 | 13-FCWP/WB-KURSEONG, dt. 12.12.97 | Approved | |
| 2 | | Jalpaiguri | 9th | 2007-08 to 2016-17 | 13-FCWP/WB-JP, dt.14.03.2008 | Approved | Work in Progress for Revision in the field in Working Plan (North)Division |
| | | Baikunthpur | 4th | 2010-11 to 2019-20 | 9 (31)2/2000-FCE, dt. 23rd February, 2012 | Approved | |
| 3 | 24 Parganas South | 24 Parganas, South | 2nd | 1997-98 to 2007-08 | 13-FCWP/WB-PRGN, DT 8.10.97 | Communicated to Regional Office Vide No. 1793(4)/IW-13/97/24 PARGANAS 2016 Dt 07.09.2016 | |
| 4 | 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 3rd 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. |
| 5 | Paschim Medinipur | Midnapore | 3rd | 2014-2015 to 2023 to 2024 | 13-FCWP/WB-MDPR (W), Dt. 14.08.2014 | Approved | |
| | | Kharagpur SF | | | | | |
| | | Rupnarayan (P&S) | | | | | |
| | | Jhargram | | | | | |
| 6 | Bankura | Bankura (N) | 2nd | 2013-14 to 2022-23 | 13-FCWP/WB-BANK , DT 12.07.2013 | Approved | |
| | | Bankura (S) | | | | | |
| | | Panchet Soil Conservation | | | | | |

| S. No | District | Forest Division | Working Plan in Progress | Working Plan Period | Sanction Order No | Status | Actions Planned / Work in Progress |
|-------|------------------------------------|--|--------------------------|---------------------|--|---|--|
| 7 | Purulia | Purulia | 1st | 1997-98 to 2016-17 | 13-FCWP/WB-Purulia/Bankura, Dt. 17.09.2008 | Extended up to 2014 vide GOI Letter No 13-FCWP-WB-BANK dated 25.09.2013 | Details of latest data on Forest Land could not be provided by the respective Territorial Divisions as per the relevant Notifications. Information awaited. Some meetings held regarding the same. Work in progress. Works and CFC cannot be proposed for the forthcoming year unless the Working Plan is approved by the Regional Office now. All the Territorial Divisions have been informed regarding the same and requested to prioritize the finalization of the land details. |
| | | Kangsabati SC-I | | | | | |
| | | Kangsabati SC-II | | | | | |
| 8 | Birbhum | Birbhum | 2nd | 2013-14 to 2022-23 | 13-FCWP/WB-BVM, DT 12.07.2013 | Approved | |
| 9 | Burdwan | Burdwan | 2nd | 2010-11 to 2019-20 | 13/FCWP/WB-BDN Dt 10.06.2011 | Approved | |
| | | Durgapur SF | | | | | |
| 10 | Howrah (Included in WP of Burdwan) | Arambagh Range of Howrah SF | 2nd | 2010-11 to 2019-20 | 13/FCWP/WB-BDN Dt 10.06.2011 | Approved | |
| 11 | Nadia & Murshidabad | Nadia Murshidabad | 2nd | 2013-14 to 2022-23 | 9(31)9/2012-FCE dated 22.07.13 | Approved | |
| 12 | Malda | Malda | 1st | 2010-11 to 2019-20 | 9(33)3/2003-FCE dt. 26.5.2011 | Approved | |
| 13 | Uttar and Dakshin Dinajpur | Raiganj | 1st | 2012-13 to 2021-22 | 9(31)8/2011-FCE dated 22.07.13 | Approved | |
| 14 | Coochbehar | Coochbehar SF | 1st | 2014-15 to 2023-24 | 9(31)12/2014-FCE dated 28.10.16 | Approved | |
| | | Total Approved by GOI | | | | 14 | |
| | | Under Consideration/ Sent to GOI for Approval (Finalization) | | | | 1 | |
| | | Revision/Under Preparation (in progress) | | | | 2 | |

Table 9.2 Summary of ATR of 2016-17

| A) Summary of Last Year Felling (2015-16) | | | | | | |
|--|--------------|--------------------------|----------------------|--------------------------|--------------------------------|---------------|
| Operations prescribed in the Working Plan/Working Scheme | | Timber Operation 2015-16 | Regeneration (in Ha) | | Regeneration achieved 2016-17 | Reasons Cited |
| | | Physical Target (in Ha) | Achievement (in Ha) | Shortfall if any (in Ha) | Target (Felled coupes 2015-16) | |
| Sal Working Circle North Bengal | North Bengal | 82.96 | 66.33 | 16.63 | 66.33 | |
| Sal Coppice Working Circle North Bengal | North Bengal | 0.00 | 0.00 | 0.00 | 0.00 | |
| | S Bengal-I | 2359.00 | 1935.25 | 423.75 | 1935.25 | |
| | S Bengal-II | 2103.48 | 1376.00 | 727.48 | 1376.00 | |
| | Total | 4462.48 | 3311.25 | 1151.23 | 3311.25 | |
| Development Working Circle North Bengal | North Bengal | 0.00 | 0.00 | 0.00 | 0.00 | |
| | S Bengal-I | 1061.25 | 878.75 | 182.50 | 878.75 | |
| | S Bengal-II | 2632.25 | 1495.00 | 1137.25 | 1495.00 | |
| | Total | 3694 | 2373.75 | 1319.75 | 2373.75 | |
| Miscellaneous Species Working Circle | North Bengal | 54.78 | 38.00 | 16.78 | 38.00 | |
| Conifer & Misc Species Dev Working Circle | North Bengal | 2.55 | 0.00 | 2.55 | 0.00 | |
| Broad Leave Endemic Spec Dev Working Circle | North Bengal | 53.79 | 31.51 | 22.28 | 31.51 | |
| Eco Tourism & Eco Dev Working Circle | North Bengal | 2.00 | 0.00 | 2.00 | 0.00 | |
| Grand Total | | 8352.56 | 5820.84 | 2531.22 | 5820.84 | |

"Area could not be worked at different places due to following reasons :
 1. Less stock
 2. Marking not completed.
 3. Area in certain parts inaccessible and in un-operative condition.
 4. Funds not allotted/ not available.
 5. Insurgency problem or local disturbances
 Some excess felling to the tune of 48Ha in South Bengal I was seen under the Rupnarayan Division, but the same was regenerated (878.5-48-830.5 Ha. Also the excess Target and achievement is shown in Form a where details are included and the same has not exceeded the State's overall target")

Table 9.3 Summary of Last Year Thinning (2015-16 ATR) NORTH BENGAL

| Operations prescribed in the Working Plan/Working Scheme | Thinning Type | Thinning Operation 2015-16 | | | Shortfall if Any (Ha) | Reasons cited |
|--|---------------|----------------------------|---------------------|--|-----------------------|--|
| | | Physical Target (in Ha) | Achievement (in Ha) | | | |
| Sal Working Circle | 5th | 13.10 | - | | 13.10 | "Area could not be worked at different places due to following reasons : 1. Less stock 2. Marking not completed. 3. Area in certain parts inaccessible and in un-operative condition. 4. Funds not allotted/ not available. 5. Insurgency problem or local disturbances |
| | 10th | 63.00 | - | | 63.00 | |
| | 15th | 25.40 | - | | 25.40 | |
| | 25th | 8.09 | - | | 8.09 | |
| | 35th | 133.97 | - | | 133.97 | |
| Sal Coppice Working Circle | 7th | 252.32 | - | | 252.32 | |
| | 5th | 12.11 | - | | 12.11 | |
| | 10th | 40.00 | - | | 40.00 | |
| | 15th | 10.00 | - | | 10.00 | |
| | 25th | 45.99 | - | | 45.99 | |
| Miscellaneous Species Working Circle | 35th | 90.83 | - | | 90.83 | |
| | 20th | 43.90 | - | | 43.90 | |
| | 30th | 30.50 | - | | 30.50 | |
| | 40th | 15.20 | - | | 15.20 | |
| | 20th | 151.50 | - | | 151.50 | |
| Conifer & Misc Species Dev Working Circle | 30th | 98.40 | - | | 98.40 | |
| | 50th | 76.88 | - | | 76.88 | |
| | 20th | 120.60 | - | | 120.60 | |
| | 30th | 12.80 | - | | 12.80 | |
| | 50th | 21.53 | - | | 21.53 | |
| Broad Leave Endemic Spec Dev Working Circle | 5th | 0.00 | - | | 0.00 | |
| | 7th | 0.00 | - | | 0.00 | |
| | 10th | 15.55 | - | | 15.55 | |
| | 15th | 0.00 | - | | 0.00 | |
| | 25th | 0.00 | - | | 0.00 | |
| Eco Tourism & Eco Dev Working Circle | 35th | 0.00 | - | | 0.00 | |
| | 5th | 25.21 | - | | 25.21 | |
| | 7th | 252.32 | - | | 252.32 | |
| | 10th | 118.55 | - | | 118.55 | |
| | 15th | 35.40 | - | | 35.40 | |
| Riverain working circle | 20th | 316.00 | - | | 316.00 | |
| | 25th | 54.08 | - | | 54.08 | |
| | 30th | 141.70 | - | | 141.70 | |
| | 35th | 224.80 | - | | 224.80 | |
| | 40th | 15.20 | - | | 15.20 | |
| TOTAL FOR NORTH BENGAL | 50th | 98.41 | - | | 98.41 | |
| | | 1281.67 | - | | 1281.67 | |
| Total | | | | | | |

Table 9.4 Summary of Last Year Thinning (2016-17 ATR) SOUTH BENGAL

| Operations prescribed in the Working Plan/Working Scheme | Division | Thinning Operation 2015-16 | | | | Shortfall if Any (Ha) | Reasons Cited |
|--|-------------|----------------------------|-------------------------|---------------------|--------|---------------------------------------|---------------|
| | | Thinning Type | Physical Target (in Ha) | Achievement (in Ha) | | | |
| Sal Coppice Working Circle | WP South-I | 7/4 th yr/RDF | 1070.00 | 950.00 | 120.00 | Shortfall due to paucity of funds etc | |
| Sal Coppice Working Circle | WP South-II | 7/4 th yr/RDF | 416.00 | 416.00 | 0.00 | | |
| | | | | | | | |
| TOTAL FOR SOUTH BENGAL | | | 1486.00 | 1366.00 | 120.00 | | |

B)(iii) Summary of Last Year Thinning (2016-17 ATR) STATE TOTAL

| | | Thinning Operation 2015-16 | | | |
|--|---------------|----------------------------|---------------------|-----------------------|--|
| Operations prescribed in the Working Plan/Working Scheme | Thinning Type | Physical Target (in Ha) | Achievement (in Ha) | Shortfall if Any (Ha) | Reasons Cited |
| Total for State | 4th yr/RDF | 1486.00 | 1366.00 | 120.00 | "Area could not be worked at different places due to following reasons : 1. Less stock 2. Marking not completed. 3. Area in certain parts inaccessible and in un-operative condition. 4. Funds not allotted/ not available. 5. Insurgency problem or local disturbances |
| | 5th | 25.21 | 0.00 | 25.21 | |
| | 7th | 252.32 | 0.00 | 252.32 | |
| | 10th | 118.55 | 0.00 | 118.55 | |
| | 15th | 35.40 | 0.00 | 35.40 | |
| | 20th | 316.00 | 0.00 | 316.00 | |
| | 25th | 54.08 | 0.00 | 54.08 | |
| | 30th | 141.70 | 0.00 | 141.70 | |
| | 35th | 224.80 | 0.00 | 224.80 | |
| | 40th | 15.20 | 0.00 | 15.20 | |
| GRAND TOTAL FOR STATE | 50th | 98.41 | 0.00 | 98.41 | |
| | | 1486.00 | 1366.00 | 120.00 | |

Table 9.5 Summary of Proposed Felling & Regeneration for the year (2017-18) STATE TOTAL

| Operations prescribed in the Working Plan/Working Scheme | Felling Target (2017-18) in ha | Regeneration (in Ha) | | | Remarks |
|--|--------------------------------|---|---|----------------------|---------------------------|
| | | Target (Felled Coupes in 2016-17) in ha | Cost per Hectare for regeneration Rs/ha | Funds Required in Rs | |
| Sal Working Circle | North Bengal | 49.31 | 72,200 | 5973828 | |
| Sal Coppice Working Circle | North Bengal | 0 | 0 | 0 | Coppice regeneration only |
| | S Bengal-I | 2394.5 | 0 | 0 | |
| | S Bengal-II | 1376.5 | 0 | 0 | |
| | Total | 3771 | 0 | 0 | |
| Development Working Circle | North Bengal | 0 | 0 | 0 | |
| | S Bengal-I | 1010 | 62,000 | 65100000 | |
| | S Bengal-II | 1316 | 62,000 | 102920000 | |
| | Total | 2326 | 62,000 | 168020000 | |
| Miscellaneous Species Working Circle | North Bengal | 54.99 | 31,600 | 1797724 | |
| Conifer & Misc Species Dev Working Circle | North Bengal | 5.05 | 28,085 | 70212.5 | |
| Broad Leave Endemic Spec Dev Working Circle | North Bengal | 53.39 | 28,085 | 1556189.85 | |
| Eco Tourism & Eco Dev Working Circle | North Bengal | 1.6 | 22,300 | 44600 | |
| GRAND TOTAL | | 6,261.34 | 244,270.00 | 177,462,554.35 | |

Table 9.6 Summary of Proposed Thinning (2017-18) ATR STATE TOTAL

| Operations prescribed in the Working Plan/Working Scheme | Thinning Operation 2017-18 | |
|--|-----------------------------------|---------------------------------------|
| | Thinning Type | Thinning Type Physical Target (in Ha) |
| Sal Working Circle | 5 th | 0.00 |
| | 10 th | 38.44 |
| | 15 th | 0.00 |
| | 25 th | 79.75 |
| | 35 th | 44.00 |
| Sal Coppice Working Circle | 7 th | 174.11 |
| Miscellaneous Species Working Circle | 5 th | 19.70 |
| | 10 th | 38.50 |
| | 15 th | 0.00 |
| | 25 th | 21.50 |
| | 35 th | 88.22 |
| Conifer & Miscellaneous Species Development Working Circle | 20 th | 59.50 |
| | 30 th | 10.00 |
| | 40 th | 54.50 |
| Broad Leaved Endemic Species Development Working Circle | 20 th | 177.17 |
| | 30 th | 142.00 |
| | 50 th | 114.70 |
| Eco Tourism & Eco Development Working Circle | 20 th | 110.02 |
| | 30 th | 22.80 |
| | 50 th | 25.04 |
| Riverain | 5 th | 115.9 |
| | 10 th | 106.55 |
| | 25 th | 95.00 |
| | 35 th | 0.00 |
| Grand Total | 5 th | 135.60 |
| | 7 th | 174.11 |
| | 10 th | 183.49 |
| | 15 th | 0.00 |
| | 20 th | 346.69 |
| | 25 th | 196.25 |
| | 30 th | 174.80 |
| | 35 th | 132.22 |
| | 40 th | 54.50 |
| | 50 th | 139.74 |
| | Total for North Bengal | 1537.40 |
| Thinning for South Bengal | | |
| WB South-I | 2 nd / 7 th | 1714.25 |
| WB South-II | 4 th / 7 th | 1180.00 |
| | Total for South Bengal | 2894.25 |
| TOTAL FOR STATE or STATE ABSTRACT | | 4431.65 |

Table 9.7 Report on Yield during 2015-16 for North Bengal

| Division | CFC Felling Couple Yield in M ³ | | | FW (Stack) | | | Illicit Felling Timber in M ³ | | | FW (Stack) | | | CD Operation in M ³ | | | FW (Stack) |
|--------------|--|-----------|---------|------------|---------|---------|--|------|-------|------------|----------|---------|--------------------------------|------|-------|------------|
| | Sal | Teak | Misc. | Sal | Teak | Misc. | Sal | Teak | Misc. | Sal | Teak | Misc. | Sal | Teak | Misc. | |
| Baikunthapur | 2,900.091 | 2530.674 | - | 1680 | 20,395 | 5,492 | 1,212 | - | - | 3146.448 | - | - | - | - | - | - |
| JaldaparaWLS | 64.751 | - | - | - | 109,147 | 309,703 | 130,824 | - | - | 74,502 | 120,407 | 36,958 | - | - | - | - |
| Jalpaiguri | 2442.166 | 282,508 | - | 813 | - | 359,938 | 31,142 | - | - | 1682.79 | 1268.59 | - | - | - | - | - |
| Darjeeling | - | - | - | - | - | - | 2,718 | - | - | - | - | 59.3 | - | - | - | 181 |
| Kurseong | 6,077 | 2376.229 | 18,585 | - | 102,405 | 25,713 | 31,222 | - | - | 239,628 | 665,036 | 360,146 | - | - | - | - |
| Kalimpong | 935,764 | 402,076 | 147,245 | 760 | 27,234 | 20,806 | 12,589 | - | - | 20 | 82 | - | - | - | - | 100 |
| Total | 6284.098 | 5656.238 | 165.83 | 3253 | 259,181 | 721,652 | 209,707 | - | - | 5163,368 | 2136,033 | 456,404 | - | - | - | 281 |
| | | 12106.166 | | 3253 | | 1190.54 | | | | | 7755.805 | | | | | 281 |



Table 9.8 Report on Yield in 2015-16 for South Bengal

| Division | Area in Ha | | Sal Pole in Nos. | | | | Pltn.Pole in Nos. | | Total Pole in no. | Cogging Sleeper in No. | | Total | Firewood in M ³ | | Total | Pulpwood in MT | | | | Total M ³ |
|------------------------------|------------|--------|------------------|----------|--------|--|-------------------|--------|-------------------|------------------------|--------|------------|----------------------------|----------|-----------|----------------|-----------|-----------|---------|----------------------|
| | Sal | Pltn. | <40 cm | 41-60 cm | >61 cm | | <40 cm | >40 cm | | 4 ft | 5 ft | | Sal | Pltn. | | Sal | Euc | Acacia | Minjiri | |
| Jhargram | 612.25 | 116.5 | 108066 | 106682 | 3092 | | 6938 | 23270 | 248,048.00 | - | - | | 20982.822 | 2137.192 | 23120.014 | 0 | 62.84 | 0 | 0 | 62.84 |
| Rupnarayan | 347 | 158 | 77445 | 49107 | 11856 | | 31486 | 37483 | 207,377.00 | 28749 | 26820 | 55,569.00 | 4599.269 | 185.329 | 4784.598 | 114.186 | 402.366 | 81.364 | 0 | 597.916 |
| Medinipur | 807 | 441 | 200740 | 237631 | 0 | | 131800 | 74894 | 645,065.00 | 2188 | 1332 | 3,520.00 | 17904.445 | 1984.347 | 19888.792 | 0 | 741.487 | | 0 | 741.487 |
| Khargpur | 140 | 93 | 0 | 6659 | 973 | | 2711 | 7201 | 17,544.00 | 0 | 0 | - | 7084.911 | 907.912 | 7992.823 | 0 | 987.432 | | 0 | 987.432 |
| Total South I | 1906.25 | 808.5 | 386251 | 400079 | 15921 | | 172935 | 142848 | 1118034 | 30937 | 28152 | 59089 | 50571.447 | 5214.78 | 55786.227 | 114.186 | 2194.125 | 81.364 | 0 | 2389.675 |
| | | | | | | | | | | | | | | | | | | | | |
| Division | Area in Ha | | Sal Pole in Nos. | | | | Pltn.Pole in Nos. | | Total Pole in no. | Cogging Sleeper in No. | | Total | Firewood in M ³ | | Total | Pulpwood in MT | | | | Total M ³ |
| | Sal | Pltn. | <40 cm | 41-60 cm | >61 cm | | <40 cm | >40 cm | | 4 ft | 5 ft | | Sal | Pltn. | | Sal | Euc | Acacia | Minjiri | |
| Bankura (North) | 62.4 | 351 | 53690 | 180261 | 31102 | | 42157 | 55508 | 362,718.00 | 33517 | 497550 | 531,067.00 | 17232.32 | 2026.53 | 19,258.85 | 716.89 | 4328.75 | 4440.08 | 0 | 9,485.72 |
| Bankura (South) | 338 | 387 | 28101 | 62853 | 10611 | | 20449 | 39133 | 161,147.00 | 112 | 83218 | 83,330.00 | 3673.198 | 2137.124 | 5,830.32 | 0 | 3437.646 | 5952.631 | 0 | 9,390.28 |
| Panchet | 290 | 485 | 37921 | 77311 | 16981 | | 13679 | 50209 | 196,101.00 | 9646 | 119214 | 128,860.00 | 7520.853 | 2467.913 | 9,988.77 | 89.068 | 8667.388 | 11131.855 | 0 | 19,888.31 |
| Burdwan | 75 | 90 | 5977 | 12320 | 1745 | | 14955 | 14650 | 49,647.00 | 0 | 0 | - | 2364.434 | 3511.798 | 5,876.23 | 0 | 26.748 | 44.717 | 0 | 71.47 |
| Durgapur | 0 | 120 | 0 | 0 | 0 | | 2488 | 3025 | 5,513.00 | 0 | 0 | - | 0 | 3171.055 | 3,171.06 | 0 | 148.37 | 1400.502 | 7.65 | 1,556.52 |
| Birbhum | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | - | 0 | 0 | - | 0 | 0 | - | 0 | 0 | 0 | 0 | - |
| Total South II | 1327 | 1433 | 125689 | 332745 | 60439 | | 93728 | 162525 | 773126 | 43275 | 699982 | 743237 | 30790.805 | 13334.42 | 44125.225 | 805.958 | 16608.902 | 22969.785 | 7.65 | 40392.295 |
| Grand Total for South Bengal | 3233.25 | 2241.5 | 511940 | 732824 | 76360 | | 266663 | 305373 | 1893160 | 74212 | 728134 | 802346 | 81362.252 | 18549.2 | 99911.452 | 920.144 | 18803.027 | 23051.149 | 7.65 | 42781.97 |

| Report on Yield in 2015-16 for South Bengal | | | | | | | | | | | | | | | |
|---|--------------------------|-----|--------|--------------|-------|--------------------------|-----------|-----------|--------|-----------|----------|--------------------------------|---------|----------|----------------------|
| Division | Billet in M ³ | | | Post in Nos. | | Timber in M ³ | | | | | Total | Short Timber in M ³ | | | Total M ³ |
| | Sal | Euc | Acacia | Sal | Pltn. | Sal | Euc | Acacia | Misc. | Sal | | Euc | Acacia | | |
| Jhargram | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 138.778 | 93.928 | 32.151 | 264.857 | |
| Rupnarayan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1038.086 | 432.346 | 112.763 | 1583.195 | |
| Medinipur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 908.304 | 870.228 | | 1778.532 | |
| Khargpur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28.35 | 174.939 | | 203.289 | |
| Total South I | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2113.518 | 2194.125 | 81.364 | 3829.873 | |
| | | | | | | | | | | | | | | 2389.675 | |
| Division | Billet in M ³ | | | Post in Nos. | | Timber in M ³ | | | | | Total | Short Timber in M ³ | | | Total M ³ |
| | Sal | Euc | Acacia | Sal | Pltn. | Sal | Euc | Acacia | Misc. | Sal | | Euc | Acacia | | |
| Bankura (North) | 0 | 0 | 0 | 201 | 0 | 749.18 | 498.23 | 548.11 | 68.215 | 1,863.73 | 0 | 0 | 0 | 0 | |
| Bankura (South) | 0 | 0 | 59.076 | 0 | 0 | 628.276 | 299.983 | 318.870 | 0 | 1,247.129 | 0 | 0 | 0 | 0 | |
| Panchet | 0 | 0 | 0 | 0 | 8 | 918.939 | 1,198.365 | 1,204.588 | 0 | 3,321.892 | 0 | 0 | 0 | 0 | |
| Burdwan | 0 | 0 | 0 | 0 | 1428 | 147.738 | 126.373 | 232.001 | 0 | 506.112 | 0 | 0 | 0 | 0 | |
| Durgapur | 0 | 0 | 0 | 0 | 0 | - | 179.009 | 304.180 | 0 | 483.189 | 0 | 0 | 0 | 0 | |
| Birbhum | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | - | 0 | 0 | 0 | 0 | |
| Total South II | 0 | 0 | 59.076 | 201 | 1436 | 2,444.133 | 2,301.96 | 2607.749 | | 7,422.052 | 0 | 0 | 0 | 0 | |
| Grand Total for South Bengal | 0 | 0 | 59.076 | 201 | 1436 | 2444.133 | 2301.96 | 2607.749 | 68.215 | 7,422.052 | 2113.518 | 1571.441 | 144.914 | 3829.873 | |

Table 9.9 Felling Report From Working Plan (North) Division
Felling Report 2015-16 of North Bengal

| Division | Sal Working Circle | | | | | Miscellaneous Species Working Circle | | | | | C & MSD Working Circle | | | | |
|---------------|--------------------|-------------|------------|-------------------------------|-----------------------|--------------------------------------|-------------|------------|-------------------------------|-----------------------|------------------------|-------------|------------|-------------------------------|-----------------------|
| | Physical target | Achievement | Short fall | Regeneration in Ha. | | Physical target | Achievement | Short fall | Regeneration in Ha. | | Physical target | Achievement | Short fall | Regeneration in Ha. | |
| | | | | Total (Felled Coupes 2015-16) | Achievement (2016-17) | | | | Total (Felled Coupes 2015-16) | Achievement (2016-17) | | | | Total (Felled Coupes 2015-16) | Achievement (2016-17) |
| Bakunthapur | 27.28 | 20.65 | 6.63 | 20.65 | 20.65 | 28.3 | 28.3 | 0 | 28.3 | 28.3 | - | - | - | - | - |
| Jaldapara WLS | 21.69 | 11.69 | 10 | 11.69 | 11.69 | 16.78 | 0 | 16.78 | 0 | 0 | - | - | - | - | - |
| Jalpaiguri | 33.99 | 33.99 | 0 | 33.99 | 33.99 | 9.7 | 9.7 | 0 | 9.7 | 9.7 | - | - | - | - | - |
| BTR (W) | | | | | | | | | | | | | | | |
| BTR(E) | | | | | | | | | | | | | | | |
| Kalimpong | - | - | - | - | - | - | - | - | - | - | 2.55 | 0 | 2.55 | 0 | - |
| Grand Total | 82.96 | 66.33 | 16.63 | 66.33 | 66.33 | 54.78 | 38 | 16.78 | 38 | 38 | 2.55 | 0 | 2.55 | 0 | 0 |

| | B L E S D Working Circle | | | | | ECO Tourism & Eco Dev Working Circle | | | | |
|-------------|--------------------------|-------------|------------|-------------------------------|-----------------------|--------------------------------------|-------------|------------|-------------------------------|-----------------------|
| | Physical target | Achievement | Short fall | Regeneration in Ha. | | Physical target | Achievement | Short fall | Regeneration in Ha. | |
| | | | | Total (Felled Coupes 2015-16) | Achievement (2016-17) | | | | Total (Felled Coupes 2015-16) | Achievement (2016-17) |
| Darjeeling | - | - | - | - | - | 2 | - | 2 | 2 | - |
| Kurseong | 36.08 | 13.8 | 22.28 | 13.8 | 13.8 | - | - | - | - | - |
| Kalimpong | 17.71 | 17.71 | 0 | 17.71 | 17.71 | - | - | - | - | - |
| Grand Total | 53.79 | 31.51 | 22.28 | 31.51 | 31.51 | 2 | 0 | 2 | 2 | 0 |

Table 9.10 Felling report from working plan (South I & II) Division

| Felling Report of 2015-16 South Bengal | | | | | | | | | | | |
|--|----------------------------|-------------|------------|--|----------------------------|-------------|--|--|--|--|--|
| Division | Sal Coppice Working Circle | | | | Development Working Circle | | | | | | |
| | Physical target | Achievement | Short fall | Regeneration in Ha. Total (Felled Coupes 2015-16) | Achievement | Short fall | Regeneration in Ha. Total (Felled Coupes 2015-16) | | | | |
| Jhargram | 950 | 612.25 | 337.75 | 612.25 | 310 | 116.5 | 193.5 | 116.5 | | | |
| Rupnarayan | 340 | 347 | -7 | 347 | 110 | 158 | -48 | 158 | | | |
| Medinipur | 896 | 807 | 89 | 807 | 478.25 | 441.25 | 37 | 441.25 | | | |
| Khargpur | 173 | 169 | 4 | 169 | 163 | 163 | 0 | 163 | | | |
| Total for South I | 2359 | 1935.25 | 423.75 | 1935.25 | 1061.25 | 878.75 | 182.5 | 878.75 | | | |
| Division | Sal Coppice Working Circle | | | | Development Working Circle | | | | | | |
| | Physical target | Achievement | Short fall | Regeneration in Ha. Total (Felled Coupes 2015-16) | Physical target | Achievement | Short fall | Regeneration in Ha. Total (Felled Coupes 2015-16) | | | |
| Bankura(North) | 643 | 624 | 19 | 624 | 340.5 | 351 | -10.5 | 351 | | | |
| Bankura(South) | 551 | 338 | 213 | 338 | 509 | 387 | 122 | 387 | | | |
| Panchet | 340 | 290 | 50 | 290 | 535 | 485 | 50 | 485 | | | |
| Purulia | 80 | 0 | 80 | 0 | 148 | 0 | 148 | 0 | | | |
| Kangsabati (North) | 0 | 0 | 0 | 0 | 315 | 0 | 315 | 0 | | | |
| Kangsabati (South) | 155 | 0 | 155 | 0 | 345 | 0 | 345 | 0 | | | |
| Burdwan | 165 | 75 | 90 | 75 | 142 | 90 | 52 | 90 | | | |
| Durgapur | 20 | 0 | 20 | 0 | 120 | 120 | 0 | 120 | | | |
| Birbhum | 149.48 | 49 | 100.48 | 49 | 177.75 | 62 | 115.75 | 62 | | | |
| Total for South II | 2,103.48 | 1,376.00 | 727.48 | 1376 | 2632.25 | 1495 | 1137.25 | 1495 | | | |
| Grand Total for South | 4,462.48 | 3,311.25 | 1,151.23 | 3,311.25 | 3,693.50 | 2,373.75 | 1,319.75 | 2,373.75 | | | |

Table 9.II Thinning Report From Working Plan (North) Division

| Thinning Report of 2015-16 North Bengal | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------|-----------------|-------------|-----------|------------------|-------------|-----------|-----------------|----------------|-----------|-----------------|-------------|-------------|-----------------|-------------|-----------|-------------------------------|-------------|-----------|---|---|--|
| Division | Sal Working Circle | | | | Miscellaneous WC | | | | Sal Coppice WC | | | | Riverian WC | | | | ECO Tourism & Eco Development | | | | Remarks | |
| | Type of Thinning | Physical Target | Achievement | Shortfall | Physical target | Achievement | Shortfall | Physical Target | Achievement | Shortfall | Physical Target | Achievement | Shortfall | Physical Target | Achievement | Shortfall | Physical Target | Achievement | Shortfall | | | |
| Baikunthapur | 5th | 13.1 | 0 | 13.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | Area not worked due to less stock | |
| | 7th | 0 | 0 | 0 | 0 | 0 | 0 | 252.32 | 0 | 252.32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| | 10th | 28 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 15.55 | 0 | 15.55 | 0 | 0 | 15.55 | 0 | - | - | - | | |
| | 15th | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| | 25th | 8.09 | 0 | 8.09 | 39.92 | 0 | 39.92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| | 35th | 9.36 | 0 | 9.36 | 46.33 | 0 | 46.33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| Jaldapara WLS | 5th | 0 | 0 | 0 | 12.11 | 0 | 12.11 | - | - | - | - | - | - | - | - | - | - | - | - | - | Area not worked due to less stock and local disturbances | |
| | 10th | 35 | 0 | 35 | 40 | 0 | 40 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 15th | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 25th | 0 | 0 | 0 | 6.07 | 0 | 6.07 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 35th | 15 | 0 | 15 | 25.5 | 0 | 25.5 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Jalpaiguri | 5th | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | Area not worked due to less stock and marking not completed | |
| | 10th | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 15th | 25.4 | 0 | 25.4 | 10 | 0 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 25th | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | 35th | 109.61 | 0 | 109.61 | 19 | 0 | 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 5th | 13.1 | 0 | 13.1 | 12.11 | 0 | 12.11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| | 7th | 0 | 0 | 0 | 0 | 0 | 0 | 252.32 | 0 | 252.32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| | 10th | 63 | 0 | 63 | 40 | 0 | 40 | 0 | 0 | 0 | 15.55 | 0 | 15.55 | 0 | 0 | 15.55 | 0 | - | - | - | | |
| | 15th | 25.4 | 0 | 25.4 | 10 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| | 25th | 8.09 | 0.00 | 8.09 | 45.99 | 0.00 | 45.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | | |
| | 35th | 133.97 | 0 | 133.97 | 90.83 | 0 | 90.83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | |
| | 243.56 | 0.00 | 243.56 | 198.93 | 0.00 | 198.93 | 252.32 | 0.00 | 252.32 | 15.55 | 0.00 | 15.55 | 0.00 | 0.00 | 0.00 | 15.55 | 0.00 | - | - | - | | |

Table 9.12 Thinning Report From Working Plan (North) Division

| Thinning Report of 2015-16 North Bengal | | | | | | | | | | | | | | | | | | | | |
|---|--------------------|-----------------|-------------|-----------|------------------|-------------|-----------|-----------------|----------------|-----------|-----------------|-------------|-------------|-----------------|-------------|-----------|--|--|--|---------|
| Division | Sal Working Circle | | | | Miscellaneous WC | | | | Sal Coppice WC | | | | Riverian WC | | | | ECO Tourism & Eco Development | | | Remarks |
| | Type of Thinning | Physical Target | Achievement | Shortfall | Physical target | Achievement | Shortfall | Physical Target | Achievement | Shortfall | Physical Target | Achievement | Shortfall | Physical Target | Achievement | Shortfall | | | | |
| Baikunthapur | 20th | - | - | - | - | - | - | - | - | - | 100.6 | 0 | 100.6 | - | - | - | Area inaccessible and the operative C cost very high | | | |
| | 30th | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 | - | - | - | | | | |
| | 50th | - | - | - | - | - | - | - | - | - | 21.53 | 0 | 21.53 | - | - | - | | | | |
| Kurseong | 20th | - | - | - | - | - | - | 131 | 0 | 131 | 20 | 0 | 20 | - | - | - | Area inaccessible and the operative cost very high | | | |
| | 30th | - | - | - | - | - | - | 98.4 | 0 | 98.4 | 12.8 | 0 | 12.8 | - | - | - | | | | |
| | 50th | - | - | - | - | - | - | 60.3 | 0 | 60.3 | 0 | 0 | 0 | - | - | - | | | | |
| Jalpaiguri | 20th | - | - | - | 43.9 | 0 | 43.9 | 20.5 | 0 | 20.5 | - | - | - | - | - | - | | | | |
| | 30th | - | - | - | 30.5 | 0 | 30.5 | 0 | 0 | 0 | - | - | - | - | - | - | | | | |
| | 40th | - | - | - | 15.2 | 0 | 15.2 | 0 | 0 | 0 | - | - | - | - | - | - | | | | |
| | 50th | - | - | - | 0 | 0 | 0 | 16.58 | 0 | 16.58 | - | - | - | - | - | - | | | | |
| Grand Total | 20th | - | - | - | 43.9 | 0 | 43.9 | 151.5 | 0 | 151.5 | 120.6 | 0 | 120.6 | - | - | - | | | | |
| | 30th | - | - | - | 30.5 | 0 | 30.5 | 98.4 | 0 | 98.4 | 12.8 | 0 | 12.8 | - | - | - | | | | |
| | 40th | - | - | - | 15.2 | 0 | 15.2 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | | | | |
| | 50th | - | - | - | 0 | 0 | 0 | 76.88 | 0 | 76.88 | 21.53 | 0 | 21.53 | - | - | - | | | | |
| | - | - | - | - | 89.6 | 0 | 89.6 | 326.78 | 0 | 326.78 | 154.93 | 0 | 154.93 | - | - | - | | | | |

Table 9.13 Thinning Report From Working Plan (South I & II) Divisions

| Thinning Report Of 2014-15 South Bengal | | | | |
|---|---|----------------------------|---------------------|--------------------|
| Division | Type of Thinning | Sal Coppice Working Circle | | |
| | | Physical Target (in Ha.) | Achievment (in Ha.) | Shortfall (in Ha.) |
| Jhargram | 7/4 th yr/RDF | 130 | 20 | 110 |
| Rupnarayan | 7/4 th yr/RDF | 510 | 500 | 10 |
| Medinipur | 7/4 th yr/RDF | 430 | 430 | 0 |
| Kharagpur | 7/4 th yr/RDF | 0 | 0 | 0 |
| Total for South I | | 520 | 80 | 440 |
| Division | Type of Thinning (Whether 4 th year or 7 th year) | Sal Coppice Working Circle | | |
| | | Physical Target (in Ha.) | Achievment (in Ha.) | Shortfall (in Ha.) |
| Bankura(North) | 4 th year | Nil | Nil | Nil |
| | 7 th year | Nil | Nil | Nil |
| Bankura(South) | 4 th year | 231 | 231 | 0 |
| | 7 th year | 120 | 120 | 0 |
| Panchet | 4 th year | 20 | 20 | 0 |
| | 7 th year | 45 | 45 | 0 |
| Purulia | 4 th year | Nil | Nil | Nil |
| | 7 th year | Nil | Nil | Nil |
| Kangsabati (North) | 4 th year | Nil | Nil | Nil |
| | 7 th year | Nil | Nil | Nil |
| Kangsabati (South) | 4 th year | Nil | Nil | Nil |
| | 7 th year | Nil | Nil | Nil |
| Burdwan | 4 th year | Nil | Nil | Nil |
| | 7 th year | Nil | Nil | Nil |
| Durgapur | 4 th year | Nil | Nil | Nil |
| | 7 th year | Nil | Nil | Nil |
| Birbhum | 4 th year | Nil | Nil | Nil |
| | 7 th year | Nil | Nil | Nil |
| Total for South II | | 0 | 0 | 0 |
| Grand Total for South Bengal | | 520 | 80 | 440 |



Table 9.14 Proposed Felling Report From Working Plan (North) Division

| Division | Sal Working Circle | | | | | | Development Working Circle | | | | | | C & MSD Working Circle | | | | | |
|---------------|----------------------------|-----------------------------------|-------------------------------|---------------|----------------------------|-----------------------------------|-------------------------------|---------------|----------------------------|-----------------------------------|-------------------------------|---------------|----------------------------|-----------------------------------|-------------------------------|---------------|----------------------------|-----------------------------------|
| | Regeneration in Ha. | | | | | | Regeneration in Ha. | | | | | | Regeneration in Ha. | | | | | |
| | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) |
| Baikunthapur | 27.83 | 27.32 | 72,200.00 | 1972504 | 28.88 | 27.3 | 31,600.00 | 862680 | - | - | - | - | - | - | - | - | - | - |
| Jaldapara WLS | 21.48 | 21.83 | 72,200.00 | 1576126 | 16.42 | 17 | 31,600.00 | 537200 | - | - | - | - | - | - | - | - | - | - |
| Jalpaiguri | 0 | 33.59 | 72,200.00 | 2425198 | 0 | 12.59 | 31,600.00 | 397844 | - | - | - | - | - | - | - | - | - | - |
| Cooch Behar | 0 | 0 | - | - | 9.69 | 0 | - | 0 | - | - | - | - | - | - | - | - | - | - |
| Kalimpong | 0 | 0 | - | - | 0 | 0 | - | - | 5.05 | 2.5 | 28,085.00 | 70212.5 | 5.05 | 2.5 | 28,085.00 | 70212.5 | 5.05 | 2.5 |
| Grand Total | 49.31 | 82.74 | 72,200.00 | 5973828 | 54.99 | 56.89 | 31600 | 1797724 | 5.05 | 2.5 | 28,085.00 | 70212.5 | 5.05 | 2.5 | 28,085.00 | 70212.5 | 5.05 | 2.5 |

| B L E S D Working Circle | | | | | | ECO Tourism & Eco Dev Working Circle | | | | | |
|--------------------------|----------------------------|-----------------------------------|-------------------------------|---------------|----------------------------|--------------------------------------|-------------------------------|---------------|----------------------------|-----------------------------------|-------------------------------|
| Regeneration in Ha. | | | | | | Regeneration in Ha. | | | | | |
| Division | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration |
| Darjeeling | - | - | - | - | 1.6 | 2 | 22,300.00 | 44600 | - | - | - |
| Kurseong | 36.73 | 38.49 | 28,085.00 | 1080991.65 | - | - | - | - | - | - | - |
| Kalimpong | 16.66 | 16.92 | 28,085.00 | 475198.2 | - | - | - | - | - | - | - |
| Grand Total | 53.39 | 55.41 | 28,085.00 | 1556189.85 | 1.6 | 2 | 22,300.00 | 44600 | - | - | - |

Table 9.15 Proposed Felling Report From Working Plan (South I & II) Division

| Proposed Felling for 2017-18 South Bengal | | | | | | | | | |
|---|----------------------------|-----------------------------------|--|---------------|----------------------------|-----------------------------------|-------------------------------|-------------------|--|
| Division | Sal Coppice Working Circle | | | | Development Working Circle | | | | |
| | Regeneration in Ha. | | | | Regeneration in Ha. | | | | |
| | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | |
| Jhargram | 828 | 841 | Coppice Regeneration, therefore not Applicable | | 265 | 124 | 62,000 | 7,688,000 | |
| Rupnarayan | 520 | 520 | | | 500 | 500 | 62,000 | 31,000,000 | |
| Medinipur | 655 | 726 | | | 245 | 341 | 62,000 | 21,142,000 | |
| Khargpur | 391.5 | 205 | | | 0 | 85 | 62,000 | 5,270,000 | |
| Total for South I | 2394.5 | 2292 | | | 1010 | 1050 | 62,000 | 65,100,000 | |

| Division | Sal Coppice Working Circle | | | | Development Working Circle | | | | |
|-------------------------------------|----------------------------|-----------------------------------|--|---------------|----------------------------|-----------------------------------|-------------------------------|-----------------------|--|
| | Regeneration in Ha. | | | | Regeneration in Ha. | | | | |
| | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | Felling Target (2017-2018) | Target (Felling Coupes 2016-2017) | Cost per Ha. for regeneration | Fund required | |
| Bankura(North) | 577 | 630 | Coppice Regeneration, therefore not Applicable | | 45 | 288 | 62,000 | 17,856,000 | |
| Bankura(South) | 333 | 335 | | | 432 | 316 | 62,000 | 19,592,000 | |
| Panchet | 381.5 | 413 | | | 413 | 578 | 62,000 | 35,836,000 | |
| Purulia | 0 | 0 | | | 0 | 0 | 62,000 | 0 | |
| Kangsabati (North) | 0 | 0 | | | 0 | 0 | 62,000 | 0 | |
| Kangsabati (South) | 0 | 0 | | | 0 | 0 | 62,000 | 0 | |
| Burdwan | 40 | 50 | | | 160 | 210 | 62,000 | 13,020,000 | |
| Durgapur | 20 | 0 | | | 110 | 115 | 62,000 | 7,130,000 | |
| Birbhum | 25 | 20 | | | 156 | 153 | 62,000 | 9,486,000 | |
| Total for South II | 1,376.50 | 1,448.00 | | | 1,316.00 | 1,660.00 | 62,000 | 102,920,000.00 | |
| Grand total for South Bengal | 2,204.50 | 2,289.00 | | | 2,326.00 | 2,710.00 | | 168,020,000.00 | |

Table 9.16 Proposed Thinning Report From Working Plan (North) Division

| Year-2015-16 | | Proposed Thinning Report for 2017-18 for North Bengal | | | | | | | |
|---------------|------------------|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------------|
| Division | Type of Thinning | Sal WC | Misc WC | Spp. | Riverain | Sal Coppice | C & MSD WC | BLES D WC | ECO Touris & Eco Development WC |
| | | Physical Target (Ha) | Physical Target (Ha) | Physical Target (Ha) | Physical Target (Ha) | Physical Target (Ha) | Physical Target (Ha) | Physical Target (Ha) | Physical Target (Ha) |
| Baikunthapur | 7th | | | | | 174.11 | | | |
| | 10th | 34.40 | | | 30.62 | | | | |
| | 25th | 54.52 | 6.50 | | | | | | |
| | 35th | | 60.89 | | | | | | |
| Jaldapara WLS | 5th | | | | | | | | |
| | 10th | 4.04 | 10.00 | | | | | | |
| | 25th | 25.23 | 15.00 | | | | | | |
| | 35th | 44.00 | 27.33 | | | | | | |
| Jalpaiguri | 5th | | | | | | | | |
| | 15th | | | | | | | | |
| | 35th | | | | | | | | |
| | 5th | | 19.70 | | 115.90 | | | | |
| Cooch Behar | 10th | | 28.5 | | 75.93 | | | | |
| | 25th | | | | 95.00 | | | | |
| | 35th | | | | | | | | |
| | 20th | | | | | | | | 65.02 |
| Darjeeling | 30th | | | | | | | | 10.00 |
| | 40th | | | | | | | | |
| | 50th | | | | | | | | 25.04 |
| | 20th | | | | | | | 110.00 | 45.00 |
| Kurseong | 30th | | | | | | | 66.00 | 12.80 |
| | 40th | | | | | | | | |
| | 50th | | | | | | | 63.53 | |
| | 20th | | | | | | 59.50 | 67.17 | |
| Kalimpong | 30th | | | | | | 10.00 | 76.00 | |
| | 40th | | | | | | 54.50 | | |
| | 50th | | | | | | | 51.17 | |
| | 5th | | 19.70 | | 115.90 | | | | |
| Total | 7th | | | | | 174.11 | | | |
| | 10th | 38.44 | 38.50 | | 106.55 | | | | |
| | 15th | | | | | | | | |
| | 20th | | | | | | 59.50 | 177.17 | 110.02 |
| | 25th | 79.75 | 21.50 | | 95.00 | | | | |
| | 30th | | | | | | 10.00 | 142.00 | 22.80 |
| | 35th | 44.00 | 88.22 | | | | | | |
| | 40th | | | | | | 54.50 | | |
| | 50th | | | | | | | 114.70 | 25.04 |
| | Total | 162.19 | 167.92 | | 317.45 | 174.11 | 124.00 | 433.87 | 157.86 |

Table 9.17 Proposed Thinning Report From Working Plan (South I & II) Divisions

| Proposed Thinning Report for 2017-18 for South Bengal | | | |
|---|---|----------------------------|----------------------------|
| Division | Type of Thinning | Sal Coppice Working Circle | Development Working Circle |
| | | Physical Target (in Ha.) | Physical Target (in Ha.) |
| Jhargram | 2 nd yr / 7 th yr/RDF | 740.25 | 0 |
| Rupnarayan | 2 nd yr / 7 th yr/RDF | 607 | 0 |
| Medinipur | 2 nd yr / 7 th yr/RDF | 287 | 0 |
| Kharagpur | 2 nd yr / 7 th yr/RDF | 80 | 0 |
| Total for South I | | 1714.25 | 0 |
| Division | Type of Thinning (Whether 4 th year or 7 th year) | Sal Coppice Working Circle | Development Working Circle |
| | | Physical Target (in Ha.) | Physical Target (in Ha.) |
| Bankura(North) | 4 th year | 505 | Nil |
| | 7 th year | 325 | Nil |
| Bankura(South) | 4 th year | 0 | Nil |
| | 7 th year | 180 | Nil |
| Panchet | 4 th year | 130 | Nil |
| | 7 th year | 20 | Nil |
| Purulia | 4 th year | 0 | Nil |
| | 7 th year | 0 | Nil |
| Kangsabati (North) | 4 th year | 0 | Nil |
| | 7 th year | 0 | Nil |
| Kangsabati (South) | 4 th year | 0 | Nil |
| | 7 th year | 0 | Nil |
| Burdwan | 4 th year | 0 | Nil |
| | 7 th year | 0 | Nil |
| Durgapur | 4 th year | 0 | Nil |
| | 7 th year | 0 | Nil |
| Birbhum | 4 th year | 20 | Nil |
| | 7 th year | 0 | Nil |
| Total for South II | | 1180 | 0 |
| Grand Total for South Bengal | | 2894.25 | 0 |



Wildlife Day celebration by school students



Airavat at elephant driving operation



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 socio-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 JFM resolution.

10.1 JFMCs in West Bengal as on 31/03/2017

A total of 4261 numbers of JFMCs having total membership of 497214 with approximate ratio of male: female membership at 9:1 has been reported to be registered in West Bengal covering 527877.65 ha forest area being protected by them. The SC & ST constitute 55.59 % of members in the JFMCs.

| Division | No of JFMC | Area Protected (in Ha) | Members | | | | | |
|---------------|------------|------------------------|---------|--------|-------|-------|-------|--------|
| | | | Male | Female | Total | SC | ST | Others |
| Darjeeling | 77 | 14890.648 | 4223 | 486 | 4709 | 200 | 2086 | 2423 |
| Kurseong | 46 | 13094.61 | 1158 | 1643 | 2801 | 930 | 1002 | 869 |
| Darjeeling WL | 0 | 0 | 0 | 0 | 0 | 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 | 4320 | 665 | 4985 | 825 | 2876 | 1284 |
| Coochbehar | 25 | 3903.67 | 2932 | 209 | 3141 | 1497 | 517 | 491 |
| Jaldapara WL | 27 | 7475.73 | 4360 | 180 | 4540 | 727 | 2483 | 1330 |
| Gorumara WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Raiganj | 21 | 1162.60 | 1727 | 74 | 1801 | 864 | 412 | 525 |
| Malda | 5 | 289.521 | 432 | 89 | 511 | 311 | 191 | 9 |
| Bankura North | 543 | 43567.94 | 50845 | 2094 | 52939 | 19947 | 7917 | 25075 |
| Bankura South | 642 | 45211 | 56181 | 4637 | 60818 | 14683 | 18614 | 27521 |
| Panchet | 231 | 28336.27 | 27710 | 1593 | 29343 | 11120 | 4336 | 13457 |

| Division | No of JMFC | Area Protected (in Ha) | Members | | | | | |
|------------------|------------|------------------------|---------|--------|--------|--------|--------|--------|
| | | | Male | Female | Total | SC | ST | Others |
| Kangsabati North | 246 | 17501.96 | 24019 | 885 | 24904 | 5748 | 8100 | 11056 |
| Kangsabati South | 305 | 25446 | 29561 | 569 | 30130 | 4293 | 10899 | 14938 |
| Purulia | 225 | 30845.22 | 20812 | 898 | 21710 | 7035 | 5913 | 8762 |
| Burdwan | 67 | 355.93 | 17158 | 3142 | 20300 | 7756 | 5559 | 6958 |
| Durgapur | 23 | 2436.439 | 3781 | 3836 | 7617 | 2544 | 1329 | 3744 |
| Midnapur | 364 | 44785.54 | 48102 | 2822 | 50924 | 10137 | 9191 | 31596 |
| Jhargam | 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 | 8925 | 14631 |
| Purba Midnapur | 19 | 1887.48 | 4760 | 1097 | 5857 | 1256 | 50 | 4551 |
| Birbhum | 198 | 9008.23 | 16869 | 352 | 17211 | 6095 | 5586 | 5540 |
| Nadia Msd | 11 | 916.332 | 957 | 44 | 1001 | 221 | 254 | 526 |
| 24 Parganas (S) | 40 | 42534 | 10801 | 10718 | 21519 | 11830 | 514 | 9175 |
| STR | 26 | 25194 | 4698 | 4400 | 9048 | 8736 | 326 | 0 |
| 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Howrah | 4 | 234.32 | 788 | 0 | 788 | 332 | 108 | 348 |
| Total | 4261 | 527877.65 | 450602 | 46669 | 497214 | 150725 | 125698 | 219695 |

10.2 Eco-Development Committees in West Bengal

A total of 115 numbers of EDCs having total membership of 26264 with approximate ratio of male: female membership at 3:1 has been reported to be registered in West Bengal covering 81672.52 ha forest within protected area being protected by them. The SC & ST constitute 64.78% of members in the EDCs.

(As on 31.03.2017)

| Name of Forest Division | Name of Protected Area | No. of EDC | Area Protected (in Ha) | No. of Members | | | | | |
|-------------------------|-------------------------|------------|------------------------|----------------|--------|-------|------|------|--------|
| | | | | Male | Female | Total | SC | ST | Others |
| Darjeeling Wildlife | Mahananda WLS | 15 | 12406.55 | 2693 | 2118 | 4911 | 1305 | 1022 | 2514 |
| | Senchal WLS | 15 | 4114.81 | 1587 | 1211 | 2798 | 101 | 1496 | 1200 |
| | Singalila N.P. | 1 | 350 | 63 | 72 | 135 | 0 | 59 | 76 |
| Gorumara Wildlife | Neora Valley N.P. | 7 | 5756.58 | 3916 | 1380 | 5296 | 1834 | 2206 | 1256 |
| | Gorumara N.P. | 10 | 6239.97 | 1936 | 345 | 2281 | 727 | 714 | 840 |
| | Chapramari WLS | 2 | 1429.73 | 101 | 7 | 108 | 15 | 53 | 40 |
| Buxa Tiger Reserve (E) | Buxa Tiger Reserve | 14 | 23534.97 | 1454 | 173 | 1627 | 223 | 612 | 792 |
| Buxa Tiger Reserve (W) | | 7 | 10809.17 | 263 | 181 | 444 | 126 | 318 | 0 |
| Jaldapara Wildlife I | Jaldapara WLS | 35 | 16514.09 | 7169 | 832 | 8001 | 3354 | 2258 | 2389 |
| Raiganj | Kulik WLS | 3 | 130 | 193 | 21 | 214 | 172 | 30 | 12 |
| Birbhum | Ballavpur WLS | 4 | 226.28 | 276 | 34 | 310 | 9 | 196 | 105 |
| Nadia -Murshidabad | Bethuadahari WLS | 1 | 66.67 | 96 | 6 | 102 | 55 | 29 | 18 |
| Sunderban Tiger Reserve | Sunderban Tiger Reserve | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas North | Bibhuti Bhushan WLS | 1 | 93.70 | 35 | 2 | 37 | 24 | 5 | 8 |
| TOTAL | | 115 | 81672.52 | 19782 | 6382 | 26264 | 7945 | 8998 | 9250 |

10.3 Status of Self Help Group as on 31/03/2017 (Excluding Women SHG)

As per report received from Divisions, total number of 3698 SHGs is present in all these Division out of which 2263 numbers of are exclusively women SHG.

| District | Division | No of SHG | Members | | | No of JFMC/EDC in SHG | Corpus Fund Generated (in INR) |
|------------------------|------------------|-------------|-------------|-------------|--------------|-----------------------|--------------------------------|
| | | | Male | Female | Total | | |
| Darjeeling | Darjeeling | 18 | 86 | 102 | 188 | 64 | 141146.00 |
| Darjeeling | Kurseong | 0 | 0 | 0 | 0 | 0 | 0 |
| Darjeeling | Darjeeling WL | 18 | 60 | 64 | 124 | 9 | 777054.00 |
| Jalpaiguri | Baikunthapur | 63 | 79 | 604 | 683 | 49 | 721000.00 |
| Jalpaiguri | Jalpaiguri | 0 | 0 | 0 | 0 | 0 | 0 |
| Jalpaiguri | Gorumara WL | 14 | 0 | 167 | 167 | 9 | 0 |
| Alipurduar | BTR East | 0 | 0 | 0 | 0 | 0 | 0 |
| Alipurduar | BTR West | 187 | 1445 | 246 | 1691 | 33 | 0 |
| Coochbehar | Cooch Behar | 0 | 0 | 0 | 0 | 0 | 0 |
| Coochbehar | Jaldapara WL | 148 | 444 | 1332 | 1776 | 12 | 0 |
| Uttar&Dakshin Dinajpur | Raiganj | 0 | 0 | 0 | 0 | 0 | 0 |
| Malda | Malda | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura | Bankura North | 3 | 20 | 10 | 30 | 3 | 152650.00 |
| Bankura | Bankura South | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura | Panchet | 77 | 610 | 18 | 628 | 36 | 0 |
| Purulia | Kangsabati North | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | Kangsabati South | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | Purulia | 113 | 413 | 1085 | 1498 | 108 | 0 |
| Burdwan | Burdwan | 0 | 0 | 0 | 0 | 0 | 0 |
| Burdwan | Durgapur | 2 | 5 | 132 | 137 | 2 | 0 |
| Paschim Mednipur | Midnapur | 197 | 1741 | 291 | 2032 | 41 | 0 |
| Paschim Mednipur | Jhargarm | 172 | 1637 | 204 | 1841 | 64 | 0 |
| Paschim Mednipur | Rupnarayan | 245 | 632 | 1925 | 2557 | 112 | 1245390.00 |
| Paschim Mednipur | Kharagpur | 87 | 0 | 261 | 261 | 87 | 0 |
| Purba mednipur | Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 |
| Birbhum | Birbhum | 91 | 574 | 510 | 1084 | 0 | 0 |
| Nadia & MSD | Nadia Msd | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (S) | 24 Parganas(S) | 0 | 0 | 0 | 0 | 0 | 0 |
| Howrah | Howrah | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (S) | STR | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 parganas (N) | 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 1435 | 7746 | 6951 | 14697 | 629 | 3037240 |

10.4 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 |
| Darjeeling | Kurseong | 12 | 36 | 7 | 0 |
| Darjeeling | Darjeeling WL | 8 | 91 | 6 | 303554.00 |
| Jalpaiguri | Baikunthapur | 56 | 604 | 49 | 0.00 |
| Jalpaiguri | Jalpaiguri | 23 | 271 | 6 | 0 |
| Jalpaiguri | Gorumara WL | 14 | 167 | 10 | 0 |
| Alipurduar | BTR East | 252 | 2299 | 0 | 0 |
| Alipurduar | BTR West | 0 | 0 | 0 | 0 |
| Coochbehar | Coochbehar | 0 | 0 | 0 | 0 |
| Coochbehar | Jaldapara WL | 112 | 1232 | 12 | 0 |
| Uttar&Dakshin | | | | | |
| Dinajpur | Raiganj | 0 | 0 | 0 | 0 |
| Malda | Malda | 0 | 0 | 0 | 0 |
| Bankura | Bankura North | 57 | 570 | 40 | 621250.00 |
| Bankura | Bankura South | 40 | 320 | 20 | 79796.00 |
| Bankura | Panchet | 891 | 10370 | 101 | 7000000.00 |
| Purulia | Kangsabati North | 0 | 0 | 0 | 0 |
| Purulia | Kangsabati South | 0 | 0 | 0 | 0 |
| Purulia | Purulia | 80 | 1085 | | 0 |
| Burdwan | Burdwan | 0 | 0 | 0 | 0 |
| Burdwan | Durgapur | 60 | 502 | 0 | 0 |
| Paschim Mednipur | Midnapur | 3 | 291 | 3 | 0 |
| Paschim Mednipur | Jhargarm | 66 | 660 | 35 | 0 |
| Paschim Mednipur | Rupnarayan | 119 | 1222 | 70 | 1212639.00 |
| Paschim Mednipur | Kharagpur | 87 | 609 | 87 | 0 |
| Purba mednipur | Purba Midnapur | 0 | 0 | 0 | 0 |
| Birbhum | Birbhum | 5 | 1456 | 288 | 0 |
| Nadia & MSD | Nadia Msd | 0 | 0 | 0 | 0 |
| 24 Parganas (S) | 24 Parganas(S) | 234 | 2808 | 6 | 0 |
| 24 Parganas (S) | STR | 143 | 1430 | 26 | 0 |
| 24 Parganas (N) | 24 Parganas (N) | 0 | 0 | 0 | 0 |
| Howrah | Howrah | 0 | 0 | 0 | 0 |
| TOTAL | | 2263 | 26033 | 515 | 9217239 |



NON TIMBER FOREST PRODUCE (NTFP)

11.1 New Product Launched:

Herbal Abir (both Red & Green colour) in collaboration with the Parks & Gardens (North) Division was launched in 2016-17 prior to the Holy Festival. The main ingredient for Red Abir was Marigold Flower and that of Green Abir was Bael Leaves.

11.2 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.) |
|---------|----------------------------|-----------------------|
| 2016-17 | 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 2016-17 Rs. 46.85 lakh NTFP Products were sold including Rs. 45,367/- sold through online marketing.

● Selling of NTFP Items:

- Siliguri
- Jalpaiguri &
- 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, WBFDC and the DFOs of West Bengal.

Sabujshree Tableau



FOREST PUBLICITY

Publicity division was created during 1996 by Forest Department, Government of West Bengal with a aim to create general awareness about forests of this State. Though this Division has total sanctioned strength of 20 but existing strength is 14 (6 staffs 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 publicized the various Act/achievement /activities of Forest Department. The Division has played important role for celebration of Ban Mahatsav 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 2016-17.

| Sl. No. | Description of Work | Physical | Financial |
|---------|---|---|-----------|
| 1. | Publication of Banabithi, Leaflet, poster, Flex Banner, sun guard, brochure, and its distribution to various division during Ban Mahotsav and Banya Pran Dibas. | 2000-Banabithi | 576400 |
| 2. | Publication of Annual Report 2016-2017. | 700 | 120000 |
| 3. | Hoarding for Banmahotsav2016 through I&CA. | 15(fifteen) Nos. at Kolkata 2(two) nos. of hoarding of each district | 67600 |
| 4. | Advertising of message of Forest Department in different Newspaper, Magazine , | | 70000 |
| 5. | Printing of pamphlet(6 Types)various activities, 3 folded back to back size 34 cm X 23 cm on 170 GSM art paper , 5000 No. for each type | | 90000 |



In 2016 State Level programme on Ban Mahotsav was organized at Eco park Tourism Park on 14th July 2016. District level Ban Mahotsav 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 subdivisions viz. Siliguri, Canning & Jhargram .

During Ban Mahotsav 2016 seedlings were distributed at free of cost in district and 10% rebate was given to public on various NTFP product & ornamental plants throughout West Bengal.

Slogan for Ban Mahatsav 2017 was approved by the Hon'ble Chief Minister

Likewise Banya Pran Dibas 2016 was celebrated at Midnapur on 3rd January-2017 for awareness generation regarding wildlife conservation.

In 2016 during the month of January & February-2017 'Bon Bandhob Utsav was organized in the district of Burdwan, Purulia, Birbhum, Bankura, Paschim & Purba Midnapur and many other places. This division supplied publicity material for the same as instructed time to time.



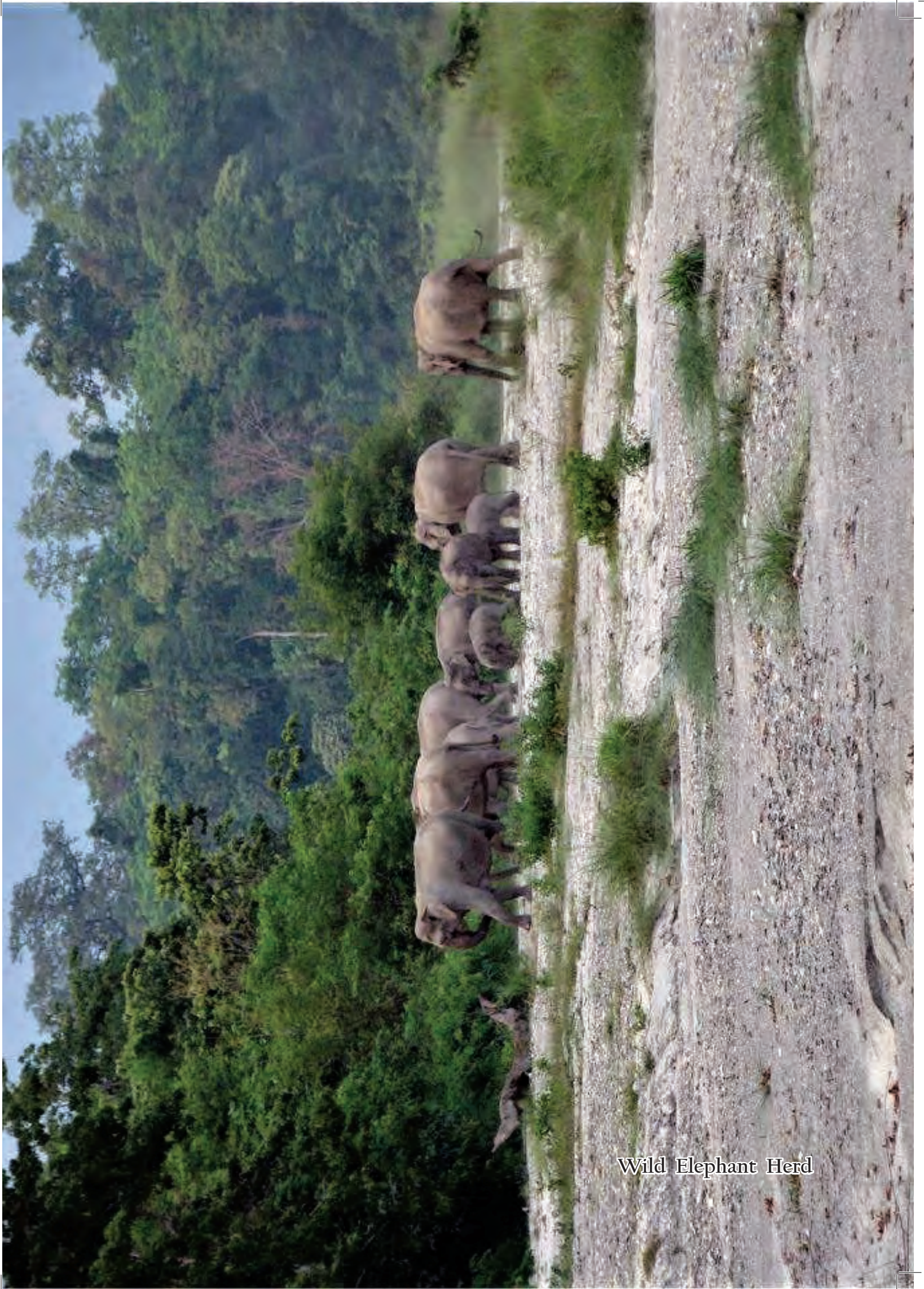
Apart from this, the Publicity Division also plays pivotal role in publication of following publicity material after finalization of the draft and its distribution:-

Meanwhile in the month of December-2016 Forest Department Govt. of West Bengal launched a new project named 'Sabujshree'. Publicity Division was entrusted with the duty of making wide publicity of the project. Same was done through both audio media campaign and publishing of books, leaflet, certificate. All such publicity materials were supplied to different divisions in the field.

- | | | |
|----------------------|---|---------------------|
| 1. Sabujshree Book | - | 500 copies |
| 2. Leaflet (Folder) | - | 11 Lakh |
| 3. Certificate | - | 09 Lakh 10 Thousand |
| 4. JFMC Poster | - | 50000 Nos. |
| 5. Register | - | 1400 Nos. |
| 6. Sabujshree Poster | - | 40000 Nos. |

During Republic Day celebration programme 26th June, 2017 this division was directed to organise 'Walk Past' on behalf of entire department. Same was carried out successfully and Walk Past presented by this Division bagged 3rd prize in the programme.





Wild Elephant Herd



Rhinos in Jaldapara National Park

WILDLIFE WING

WILDLIFE MANAGEMENT & CONSERVATION

West Bengal has 4706 sq.km. of forests under protected area 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 1502.8146 sq.km. in sixteen 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. Sundarban 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, 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 overall 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.

13.1 Status of Management Plan / Tiger Conservation Plan (TCP) as on 31.03.2017

| 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 approved 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 |
| Chintamani Kar Wildlife Sanctuary | 2015-16 to 2024-25 | Management Plan Operational |
| West Sundarban Wildlife Sanctuary | 2016-17 to 2025-26 | Under Consideration for approval |

13.2 STATUS OF PROTECTED AREAS OF WEST BENGAL

| Protected Area / Tiger Reserve / Elephant Reserve | 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. Chintamani 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 |
| 15. West Sundarban W.L.S. | 556.45 | 1828-For dt. 11.9.13 | 8B | South-24 Parganas |
| 16. Pakhi Bitan (Bird Sanctuary) | 14.09 | 2157-FR/O/L/6M-04/2015 dated 11.08.2016 | 7B | Jalpaiguri |
| Total | 15028146 | | | |
| Tiger Reserves: | | | | |
| 1. Buxa Tiger Reserve | | | 7B | Alipurduar |
| Core Area | 3905813 | 3051-For dt. 06.08.09 | | |
| Buffer Area | 3702886 | 3050-For dt. 06.08.09 | | |
| Total | 7608699 | | | |
| 2. Sundarban Tiger Reserve | | | 8B | South-24 Parganas & North-24 Parganas |
| Core Area | 169962 | | | |
| Buffer Area | 88527 | 6028-For dt. 18.12.07 | | |
| Total | 258489 | 615-For dt. 17.02.09 | | |

| | | | | |
|--|-----------|--|----|--|
| * The total area includes NP and Sanctuary areas already mentioned. | | | | |
| 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 Pgns. North-24 Pgns. |
| Total | 9630 | | | |
| Elephant Reserves : | | | | |
| Eastern Duars ER | | 3293-For dt. 28.8.2002 | 7B | Jalpaiguri & Alipurduar |
| Core | 484.00 | | | |
| Buffer | 493.51 | | | |
| Total | 977.51 | | | |
| Mayurjharna ER | 414.00 | 3040- For.dt. 24.10.2002 | 6B | Paschim Medinipur, Bankura and Purulia |
| Total | 1391.51 | | | |

| Conservation Reserves | Area in Sq. Km. | Notification No. & Date | Bio-geographic Zone | District |
|-----------------------|-----------------|-------------------------|---------------------|-------------------|
| Deul | 10.50 | 1555-For.dt.19.05.2017 | 7B | Burdwan |
| Hijli | 15.50 | 1555-For.dt.19.05.2017 | 6B | Paschim Medinipur |
| Tekonia | 5.87 | 1555-For.dt.19.05.2017 | 7B | Coochbehar |
| Mukutmonipur | 43.70 | 1555-For.dt.19.05.2017 | 6B | Bankura |
| Garpanchkot | 1340.34 | 1555-For.dt.19.05.2017 | 6B | Purulia |
| Total | 1415.91 | | | |

13.3 Wildlife Census

Tiger

All India Tiger Estimation Report, 2014

| 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- |

Rhinoceros

| Year | Jaldapara WL Divn | Gorumara WL Divn | Total |
|------|-------------------|---------------------------------|-------|
| 2006 | 108 | 27 | 135 |
| 2008 | | 31 | |
| 2009 | 125 | | |
| 2011 | 149 | 35 * | 184 |
| 2012 | | 43 * | |
| 2013 | 186 | | |
| 2014 | | 50* | |
| 2015 | 204 | 49 + 2 (Darjeeling WL Division) | 255 |

*(Gorumara, Chapramari & adjoining areas of Gorumara N.P. & Chapramari WLS

| Rhino Population (as per 2015 Census) | | | | | |
|---|------|--------|------------------|------|-------|
| 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 WLD | Buxa TR | Jaldapara WLD | Mahananda WLS | Other areas | Total |
|------|--------------|----------------|---------------|---------------|-------------|-------|
| 2004 | 43 | Not done | 28 | 26 | 67 | 164 |
| 2012 | Not done | 105 (BTR-West) | Not done | Not done | Not done | 105+ |

Gaur

| Year | Total Number |
|---------|---|
| 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. |
| 2017 | The 7th All India Synchronized Elephant Census was conducted in March and May 2017. The reports will be published by the Government of India. |

Crocodile (Salt Water Crocodile) Exercised in STR & 24-Parganas (South) Division

| Year | Indirect sighting | Direct sighting | | | Total |
|------|-------------------|-----------------|----------|-----------|-------|
| | | Adult | Juvenile | Hatchling | |
| 2012 | 99 | 69 | 61 | 10 | 140 |

13.4 Man-Animal Conflict issues

a) Persons Killed /Injured by Wild Animals during 2016-17

| Sl. No. | Name of Animals | No. of Persons Killed | No. of Persons injured |
|---------|----------------------|-----------------------|------------------------|
| (1) | (2) | (3) | (4) |
| 1 | Elephant | 84 | 57 |
| 2 | Tiger | 12 | 1 |
| 3 | Leopard | 1 | 29 |
| 4 | Rhinoceros | | |
| 5 | Gaur (Indian Bison) | 2 | 12 |
| 6 | Himalayan Black Bear | | 1 |
| 7 | Sloth Bear | | 1 |
| 8 | Wild Boar | | 1 |
| 9 | Barking Deer | | 2 |
| Total | | 99 | 104 |

b) Ex-Gratia Payment for Compensation

| Division | Per son kill ed (No.) | Per son inju red (No.) | Comp paid for human life & injury (Rs) | Live stock killed/ injury (No.) | Comp paid for livestock killed (Rs.) | Hut damage (No.) | Comp paid for hut damage (Rs.) | Crop damage (Ha.) | Comp paid for crop damage (Rs.) | Total Comp (Rs.) |
|-------------------|-----------------------|------------------------|--|---------------------------------|--------------------------------------|------------------|--------------------------------|-------------------|---------------------------------|------------------|
| Darjeeling WL | 5 | 4 | 616767 | 0 | 0 | 136 | 413000 | 133.97 | 2002578 | 3032345 |
| Gorumara WL | 11 | 102 | 1915532 | 11 | 11000 | 108 | 405500 | 40.46 | 430000 | 2762032 |
| Jaldapara WL | 9 | 15 | 2141863 | 0 | 0 | 284 | 880355 | 166.39 | 1541506 | 4563724 |
| Buxa TR (W) | 6 | 11 | 1125000 | 68 | 68000 | 339 | 678000 | 148 | 2800500 | 4671500 |
| Buxa TR (E) | 1 | 2 | 0 | 37 | 32750 | 71 | 184000 | 98.39 | 1226250 | 1443000 |
| Jalpaiguri | 6 | 3 | 573284 | 0 | 10300 | 127 | 722000 | 31.51 | 472780 | 1778364 |
| Kurseong | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Baikunthapur | 4 | 2 | 500000 | 38 | 68400 | 342 | 1321500 | 169.47 | 1271000 | 3160900 |
| Coochbehar | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rupnarayan | 4 | 0 | 1510000 | | 103160 | 60 | 213000 | 712.206 | 10683090 | 12509250 |
| Kharagpur | 2 | 3 | 274629 | 1 | 2000 | 344 | 1040550 | 491.29 | 7256950 | 8574129 |
| Jhargram | 6 | 3 | 1752400 | 0 | 0 | 142 | 489689 | 75.14 | 1038730 | 3280819 |
| Bankura (N) | 7 | 6 | 1833648 | 0 | 0 | 956 | 2967880 | 828.77 | 12249935 | 17051463 |
| Bankura (S) | 4 | 2 | 1000000.00 | 0 | 0 | 12 | 40000 | 43.17 | 647487 | 1687487 |
| Burdwan | 0 | 2 | 82202 | 0 | 0 | 4 | 24000 | 92.62 | 1389050 | 1495252 |
| Purulia | 3 | 0 | 750000 | 0 | 0 | 68 | 372000 | 479.3 | 7190407 | 8312407 |
| Panchet | 2 | 2 | 461757 | 0 | 0 | 45 | 135000 | 296.59 | 4448998 | 5045755 |
| Birbhum | 2 | 2 | 0 | 0 | 0 | 2 | 16000 | 1.4 | 21252 | 37252 |
| 24-Parganas (S) | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sundarban TR | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medinipur | 5 | 2 | 1074284 | 0 | 0 | 238 | 1123841 | 970.22 | 14541380 | 16739505 |
| Purba Medinipur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Durgapur | 2 | 0 | 250000 | 0 | 0 | 0 | 0 | 1.62 | 54000 | 304000 |
| Darjeeling | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati (N) | 0 | 0 | 0 | 0 | 0 | 36 | 185640 | 7.95 | 134040 | 319680 |
| Kangsabati (S) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Howrah | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Malda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Raiganj | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24-Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kalimpong | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nadia-Murshidabad | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 102 | 189 | 15861366 | 157 | 295610 | 3314 | 11211955 | 4788.466 | 69399933 | 96768864 |

Death of Wild Animals during 2016-17 in West Bengal

| Name of Animals | Natural Death | Accident | Poaching | Retaliatory Killing | Declared Rogue & eliminated | Total |
|-----------------------|---------------|----------|----------|---------------------|-----------------------------|-------|
| Wild Elephant | 34 | 11 | 1 | 5 | 2 | 53 |
| Tiger | 1 | - | - | - | - | 1 |
| Leopard | 13 | 5 | - | - | - | 18 |
| Rhinoceros | 8 | - | - | - | - | 8 |
| Gaur | 44 | 4 | 1 | - | - | 49 |
| Barking Deer | 10 | 6 | - | - | - | 16 |
| Sambar | 1 | - | - | - | - | 1 |
| Spotted Deer | 21 | 2 | - | - | - | 23 |
| Hyena | - | 1 | - | - | - | 1 |
| Wild Boar | 5 | - | - | - | - | 5 |
| Crocodile | 4 | - | - | - | - | 4 |
| Leopard Cat | - | 2 | - | - | - | 2 |
| Jungle Cat | 2 | - | - | - | - | 2 |
| Civet | 2 | 1 | - | - | - | 3 |
| Python | 4 | 1 | - | - | - | 5 |
| Dolphin | 2 | 1 | - | - | - | 3 |
| Swamp Deer | 8 | - | - | - | - | 8 |
| Marbled Cat | 1 | - | - | - | - | 1 |
| Fishing Cat | 6 | - | 1 | - | - | 7 |
| Nilgai | 3 | - | - | - | - | 3 |
| Hog Deer | - | 1 | - | - | - | 1 |
| Chinese Ferret Badger | - | 1 | - | - | - | 1 |
| Total | 169 | 36 | 3 | 5 | 2 | 215 |

Seizure of Wildlife & Wildlife Articles reported during the year 2016-17

| Sl.No. | Seized items | Qty. |
|--------|---|------------|
| 1 | Tiger skin | 1 No. |
| 2 | Elephant tusk | 11 Nos. |
| 3 | Elephant bone | 7 pc. |
| 4 | Rhino horn | 4 Nos. |
| 5 | Rhinoceros urine | 1 Bottle |
| 6 | Leopard skin | 5 Nos. |
| 7 | Leopard (carcass) | 1 No. |
| 8 | Himalayan Black Bear Gall Bladder | 1 No. |
| 9 | Black Bear skull | 1 No. |
| 10 | Gaur (Carcass) | 1 No. |
| 11 | Indian Birds | 3800 Nos. |
| 12 | Snake | 31 Nos. |
| 13 | Snake venom | 8 Jars |
| 14 | Gecko | 93 Nos. |
| 15 | Fishing Cat (Carcass) | 2 Nos. |
| 16 | Turtle / Tortoise | 5959 Nos. |
| 17 | Spotted Deer (Carcass) | 1 No. |
| 18 | Barking Deer meat | 400 gm. |
| 19 | Barking Deer Horn | 1 No. |
| 20 | Deer skin | 1 No. |
| 21 | Spotted Deer memento with original horn | 1 No. |
| 22 | Langur (Carcass) | 1 No. |
| 23 | Monitor Lizard | 4 Nos. |
| 24 | Mongoose | 1 No. |
| 25 | Egret feather | 14 bundles |

| Sl.No. | Seized items | Qty. |
|--------|---------------|---------|
| 26 | Gaja Mukta | 10 Nos. |
| 27 | Rhesus Monkey | 2 Nos. |
| 28 | Shark | 6 Nos. |

Wildlife Offence under Wildlife (Protection) Act, 1972 during 2016-17

| Division | POR | COR | UDOR | Person arrested |
|------------------------------|-----|------|------|-----------------|
| Darjeeling Wildlife Division | 0 | 20 | 175 | 0 |
| Gorumara Wildlife Division | 8 | 109 | 38 | 15 |
| Jaldapara Wildlife Division | 20 | 55 | 78 | 36 |
| Buxa Tiger Reserve (East) | 16 | 0 | 0 | 25 |
| Buxa Tiger Reserve (West) | 7 | 0 | 0 | 13 |
| Baikunthapur Division | 19 | 0 | 0 | 15 |
| Jalpaiguri Division | 2 | 0 | 0 | 4 |
| Coochbehar Division | 1 | 0 | 0 | 1 |
| Malda Division | 3 | 0 | 0 | 8 |
| Raiganj Division | 2 | 0 | 0 | 4 |
| Nadia-Murshidabad Division | 3 | 0 | 0 | 3 |
| Durgapur Division | 3 | 0 | 1 | 4 |
| Burdwan Division | 2 | 0 | 0 | 9 |
| Purba Medinipur Division | 0 | 0 | 10 | 0 |
| Kharagpur Division | 3 | 50 | 0 | 4 |
| Rupnarayan Division | 1 | 0 | 0 | 2 |
| Bankura (South) Division | 1 | 0 | 0 | 3 |
| Howrah Division | 1 | 0 | 0 | 2 |
| 24 Parganas (North) Division | 3 | 0 | 1 | 3 |
| 24 Parganas (South) Division | 3 | 1364 | 59 | 7 |
| Sundarban Tiger Reserve | 0 | 2872 | 20 | 7 |
| Wildlife (Headquarters) | 21 | 0 | 81 | 37 |
| Total | 119 | 4470 | 463 | 202 |

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

| Sl. No. | Name | Division / District | Status | CZA's letter no. |
|---------|--|-----------------------------|--|---|
| 1. | Padmaja Naidu Himalayan Zoological Park | Darjeeling Division | Recognized as a 'Medium Zoo' upto 20.01.2019 | F. No. 19-20/92-CZA(325) (Vol. IX)/367/2016, dt. 03.03.2016 |
| 2. | North Bengal Wild Animal Park, Siliguri | Jalpaiguri | Relocation of Kunjanagar Eco-Park, Jalpaiguri to North Bengal Wild Animal Park, Siliguri approved by the CZA vide F.No.22-64/2004-CZA(461) (AK)/7287, dt. 10.06.2015 | For.Deptt., Govt. of WB's Letter No. 2372-For/O/N/11-M-71/2013 dt. 21.11.14 |
| 3. | South Khairbari Leopard Safari & Rehabilitation Centre, Coochbehar | Jaldapara Wildlife Division | Recognized as 'Mini Zoo' upto 30.09.2015. This has been ordered to be physically closed vide letter F.No. 22-64/2004-CZA(461)(M)/4625 dt. 09.04.14. of CZA. This to be maintained as South Khairbari Rescue Centre only. | F.No. 22-63/2004-CZA(462) (M)/3635 dt.26.09.2013 |

| Sl. No. | Name | Division / District | Status | CZA's letter no. |
|---------|---|-------------------------------|---|---|
| 4. | Bochamari Gharial Rescue Centre and Deer Park/ Rasik Beel | Cooch be har Division | Recognized as 'Mini Zoo', upto 20.01.2018. (The Satellite Facility at Kholta of Rasik Beel Mini Zoo has been ordered to be physically closed vide letter F.No. 22-64/2004-CZA(461)(M)/4625 dt. 09.04.14.) | F.No.22-88/2004-CZA (499)(A) /414/2016, dt.10.03.2016 |
| 5. | Animal Rescue Centre, Surulia | Kang sabati (North) Division | Recognized as 'Mini Zoo' upto 05.05.2018 | F.No.22-71/2004-CZA(457) (NS)/902/ dt.15.06.2016. |
| 6. | Adina Deer Park, Adina, Malda | Malda Division | Recognized as 'Mini Zoo' upto 05.05.2018. | F.No.22-49/2004-CZA (489)(NS) /911/2016, dt.20.06.2016. |
| 7. | Bardhaman Zoological Park, Bardhaman (formerly known as Ramnabagan Deer Park) | Burd wan Division | Recognized as 'Small Category Zoo' upto 05.05.2017. (Name changed to Bardhaman Zoological Park vide W.B. Govt. Notification No. 1153-For/O/11M-11/2015 dt. 03.06.15) | F.No. 23-67/2004-CZA(473)(Vol.I) (Pt.)NS/963 /2016, dt.22.06.2016. |
| 8. | Garchumuk Deer Park | Howrah Division | Recognized as 'Mini Zoo' upto 05.05.2017 | F.No. 23-3/97-CZA (382) (Vol.I)(BKG) /740/2017, dt. 05.04.2017 |
| 10. | Alipore Zoological Garden, Kolkata | Kol kata | Recognized as 'Large Category Zoo' upto 30.11.2018. | F.No.19-45/92-CZA (328) (Vol.III) (Pt.)(NS)/8024, dt.18.11.2015. |
| 11. | Marble Palace Zoo (Private) | Kol kata | Recognized as 'Mini Zoo' upto 05.05.2017. | 19-81/93-CZA(316) (PKR)/355/2017 dated 22.02.2017. |
| 12. | Junglemahal Zoological Park, Jhargram (Formerly known as Jhargram Deer Park & Mini Zoo) | Jhar gram 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; Evaluation order F.No. 19-204/93-CZA (321)/Vol.II(PKR) /344/2017 dated 20.02.2017 |
| 13. | Nature Park, Taratola Road, Kolkata (Private) | Kol kata | Under Order of Translocation to "Harinalaya" at New Town, Kolkata | F.No.22-81/2004-CZA(498) (Vol.I(NS)) /7547 dt. 06.08.2015 |
| 14. | Sundarban Wild Animals Park, Jharkhali (Jharkhali Satellite Zoo) | 24-Parg anas (South) Division | Relocation of Kumari Kangsabati Deer Park, Bankura to Sundarban Wild Animals Park, Jharkhali approved by the CZA | F.No.19-224/93-CZA(322) (NS)/7298 dt. 17.06.2015 |
| 15. | Wild Animal Transit facility, Saltlake, Kolkata | Kol kata | Transit facility of wild animals | F.No. 22-52/2004-CZA (490)(M), dt.16.05.2008 & this office No. 1457/WL/ 2W-266/08 dtd. 09.05.08 |

* 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.

13.6 Animal Rescued in West Bengal during the year 2016-17

| Sl. No. | Species | No. | Sl. No. | Species | No. |
|---------|-------------------|------|---------|---------------|-------|
| 1 | Bird | 2895 | 16 | Ferret Badger | 15 |
| 2 | Snake | 1891 | 17 | Elephant | 7 |
| 3 | Turtle & Tortoise | 9283 | 18 | Leopard | 43 |
| 4 | Monitor Lizard | 58 | 19 | Gaur | 13 |
| 5 | Jackal | 53 | 20 | Nilgai | 4 |
| 6 | Monkey | 194 | 21 | Sambar | 1 |
| 7 | Langur | 260 | 22 | Barking Deer | 31 |
| 8 | Jungle Cat | 41 | 23 | Spotted Deer | 3 |
| 9 | Fishing Cat | 16 | 24 | Hog Deer | 4 |
| 10 | Leopard Cat | 3 | 25 | Crocodile | 6 |
| 11 | Civet | 460 | 26 | Dolphin | 1 |
| 12 | Porcupine | 2 | 27 | Squirrel | 4 |
| 13 | Pangolin | 2 | 28 | Mongoose | 5 |
| 14 | Gecko | 151 | 29 | Bengal Fox | 6 |
| 15 | Slow Loris | 1 | | Total | 15453 |

13.7 Wildlife Conservation Awards, 2016

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 2016 celebrated on 3rd January 2017 at Medinipur town.

- A. Category : "Protection and Rescue of Wildlife"
Awarded to : Sri Sanjay Dutta FR, Range Officer, Belacoba Range and his Team
- B. Category : "Wildlife Conflict Management"
Awarded to : 1. Dr Basavaraj S Holeyachi, IFS, DFO and Staff of Sukna Wildlife Squad
2. Sri Subrata Pal Chowdhury, Technical Assistant, Wildlife Wing and his team
- C. Category : "Conservation Awareness"
Awarded to : 1. Sri Krishna Bahadur Chhetri
2. Sri Pusha Oraon
3. Sri Manbahadur Lama
4. Sri Filmen Oraon
5. Sri Biren Ekka
All are Members of the Titi Eco-Development Committee, Nilpara Range, Jaldapara Wildlife Division.





Modern Nursery raising sal seedling

FORESTRY RESEARCH

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 Siliguri and Silviculture (South) Division with its headquarter at Midnapore.

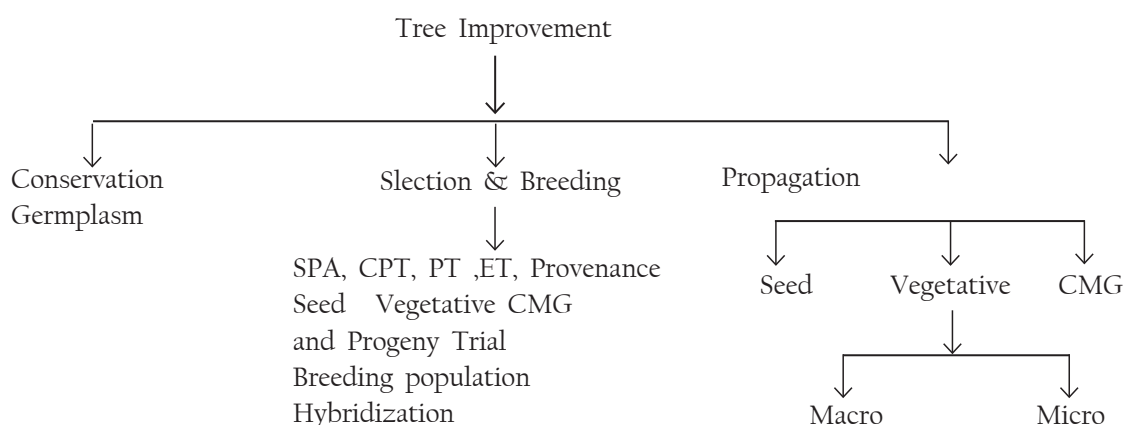
Major mandate of the Research Circle is as follows:

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



14.1 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 & 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, Quercus lamellosa 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 2016-17 is given in table below :

SEED STAND

| Division Wise Area | | | Maintained during 2016-17 | Created during 2016-17 |
|--------------------|--------------------|--------------------|---------------------------|------------------------|
| Silviculture Hills | Silviculture North | Silviculture South | 220.76 Ha. | Nil |
| 170.76 Ha. | 220.60 Ha. | 37.17 Ha. | | |

PLUS TREES

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

B. Plus Trees created during 2016-17 :

| CREATION OF PLUS TREES Silviculture (Hills) Division | | | | | | | | | |
|--|--------------------------------|-------------|---|-------------------------------|-------|---------|------------------|-------------|-------------|
| 1. | <i>Pterocarpus marsupium</i> | PANC/ PM/I | 1 | Darjeeling Wild Life Division | Sukna | Koklong | Panchanai | 26°48'15.9" | 88°22'01.7" |
| 2. | <i>Phoebe attenuata</i> | PANC/ PN/II | 1 | | -do- | -do- | -do- | 26°48'14.1" | 88°22'0.6" |
| 1 | <i>Mangifera sylvatica</i> | | 1 | Darjeeling Wild Life Division | Sukna | Punding | Upper Champasari | 26°48'15.9" | 88°22'01.7" |
| 2 | <i>Mangifera sylvatica</i> | | 1 | | Sukna | Gulma | Lower Champasari | 26°48'52.9" | 88°24'44.2" |
| 3 | <i>Mangifera sylvatica</i> | | 1 | | Sukna | Gulma | Chuklung | 26°49'24.9" | 88°25'37.8" |
| 4 | <i>Mangifera sylvatica</i> | | 1 | | Sukna | Koklong | Panchanai | 26°48'07.2" | 88°22'06.3" |
| 5 | <i>Cinnamomum cecidodaphne</i> | | 1 | | Sukna | Koklong | Panchanai | 26°48'25.5" | 88°24'54.7" |
| 6 | <i>Pterocarpus marsupium</i> | | 1 | | Sukna | Koklong | Panchanai | 26°48'17.0" | 88°21'59.4" |

CREATION OF PLUS TREES Silviculture (North) Division - NIL

CREATION OF PLUS TREES Silviculture (South) Division - NIL

C. EXPERIMENTAL PLANTATION UNDERTAKEN DURING 2016-17

- Plantations : For assured supply of genetically improved seeds the Divisions under this circle undertake plantations of RET (Rare, Endangered & Threatened) as well as maintenance of Seedling Seed Orchard both in North & South Bengal.
- Clonal / Progeny Orchards & Provenance Trials
- Setting up of Block Plantations along with regular plantations for long term testing of improved seeds / clones.

14.2 Experimental trials taken up during 2016-17 :

| Sl. No. | Name of Experimental Trial | Species | Objective | Area | Location | Remarks |
|-------------------------------|----------------------------|--|--|------|--|------------|
| Silviculture (South) Division | | | | | | |
| 1 | Mud Flat Plantations | Mangrove species like- Heritiera fomes (Sundari), Avicennia alba (Baen), Xylocarpus granatum (Dhundul), Aegiceras corniculatum (Khalsi), Acanthus ilicifolius (Hargoza) Bruguiera gymnorhiza (Kankra) etc. | For reclamation of Sea-shore mud flat area | 2.0 | Dakshin Kadua under Digha Research Station | State Plan |

| | | | | | | |
|-------------------------------|-----------------------------------|---|---|------------|--------------------------------|------------|
| 2 | Seedling Seed Orchard (SSO) Pltn. | P. santalinus, S. oleosa, T.chebula, P.marsupium, D.Latifolia etc | To create a Seed Production Area with seedlings raised from seeds of identified plus trees for getting quality seeds. | 5.0 | Jhar gram, Nunu ngeria | State Plan |
| 3 | CMA | Eucalyptus | Production of Eucalyptus ramets over 10,000 nos. Spacing 1mt. X 1mt. | 1.0 | At Mouza – Chan dmura, Arabari | State Plan |
| 4 | Root trainers experiment | Various RET Species | For suitable size of root trainers over 16,000 nos. In different sizes of Hycopot like – 60cc, 100cc, 160cc, 300cc, 500cc, 800cc. | 16000 nos. | At Mouza – Chan dmura, Arabari | State Plan |
| Silviculture (North) Division | | | | | | |
| 5 | Seedling Seed Orchard | Jarul, Pacasaj, Sidha, Gante, Setisal, Benteak, Arjun, Kawla, Lohakat, Dudhe Lali, Kainjal. | To create a Seed Production Area with seedlings raised from seeds of identified plus trees for getting quality seeds. | 4.0 | Kharia bandar-1 | State Plan |

14.3 CERTIFIED SEEDS & QPMs SUPPLIED DURING 2016-17

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

Certified Seeds – Silviculture (North) Division . 1159.175 Kg

Certified Seeds – Silviculture (South) Division.

| QPM | Quantity supplied | Remarks |
|---|-------------------|--|
| Certified Seeds | 2500 Kgs | |
| Quality Planting Materials | 2,62,000 nos. | |
| Production of Eucalyptus ramets, Creation & Maintenance | 70,000 Nos. | At – Arabari Modern Nursery, under Arabari Research Range, WBFBC Project (JICA Scheme) funded by WBFDC Ltd. & Seedling already supplied to Bankura (South) Crop. Division. |
| Production of Akashmoni Seedling (QPM) Creation & Maintenance | 1,50,000 Nos. | |

14.4 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 | Silviculture (Hills) | 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 | | 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 | Silviculture (North) | Rajabhat khawa | 0.50 lakh |
| 9. | Salugarah Modern Nursery | | Salugarah | 0.20 lakh |
| 10. | Lataguri Modern Nursery (recently upgraded under RIDF scheme) | | Lataguri | 2.00 lakh |
| | Trials on modern nursery practices | Silviculture (South) | Nil | Nil |

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 % |
|-------------------------------|--------------------------------|--------------|--------------|-------------------------------------|---------------|
| Silviculture (Hills) Division | | | | | |
| 1. | <i>Cinnamomum cecidodaphne</i> | 50 | | Seed are soaked in water for 24 hrs | 30 |
| 2. | <i>Polyyalthia simiarum</i> | 20 | | Seed are soaked in water for 24 hrs | 15 |
| 3. | <i>Pterocarpus marsupium</i> | 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 :: Burn Rice Husk : Cow dung | T11 :: Vermiculite : Forest Soil | T12 :: Burn Rice Husk : Forest Soil |
| T13 :: Vermi Compose | T14 :: Wood dust : Vermicompost | T15 :: Sand : Vermicompost |
| T16 :: Vermiculite : Compost | T17 :: Burn Rice husk : Compost | T18 :: Cow dung |
| T19 :: Wood dust : Cow dung | T20 :: Sand : Cow dung | |

| SILVICULTURE (SOUTH) DIVISION | | | | | | | |
|-------------------------------|---|-----------|---|---------------------------------|------|---------------------------------|------|
| Sl. No. | Species | Treatment | Remarks | Growth Measurement As on Aug-15 | | Growth Measurement As on Mar-16 | |
| | | | | Ht. | Dia. | Dia | Dia |
| 1 | <i>Shorea robusta</i> | T1 | No special treatment was given, seedlings were raised in 150 cc root trainers | 19.2 | 4.1 | 34.20 | 4.53 |
| 2 | <i>Pterocarpus marsupium</i> (Pea Sal) | T6 | | 10.2 | 2.8 | 14.2 | 3.58 |
| 3. | <i>Oogeinia oogeinensis</i> (Panjan) | T4 | | 12.2 | 4.0 | 18.6 | 4.78 |
| 4. | <i>Holdina cordifolia</i> (Haldu) | T6 | | 13.8 | 4.6 | 20.6 | 9.3 |
| 5. | <i>Buchanania lanzan</i> (Pial) | T3 | | 6.4 | 2.2 | 9.0 | 2.44 |
| 6. | <i>Terminalia belerica</i> | T10 | | 11.8 | 4.2 | 14.75 | 3.97 |
| 7. | <i>Madhuca latifolia</i> (Mohul) | T17 | | 11.0 | 3.8 | 13.22 | 6.99 |
| 8. | <i>Lagerstroemia parviflora</i> (Sidha) | T2 | | 11.8 | 2.2 | 19.5 | 3.08 |
| 9. | <i>Terminalia chebula</i> (Haritoki) | T7 | | 15.0 | 3.4 | 9.33 | 2.0 |
| 10 | <i>Terminalia arjuna</i> (Arjun) | T10 | | 11.0 | 4.4 | 34.75 | 8.79 |
| 11. | <i>Schleichera oleosa</i> (Kusum) | T6 | | 16.4 | 3.6 | 18.25 | 5.3 |
| 12. | <i>Syzygium operculatum</i> (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 |

| SILVICULTURE (HILLS) DIVISION | | | | | | | |
|-------------------------------|--------------------------|-----------|-----------------------------|---------------------------------|------|---------------------------------|-----|
| Sl. No. | Species | Treatment | Remarks | Growth Measurement As on Aug-15 | | Growth Measurement As on Mar-16 | |
| | | | | Ht. | Dia. | Dia | Dia |
| 1. | <i>Taxus wallichiana</i> | T2 | Sown in the Sterilized Sand | 2.50 | 0.1 | 15.65 | 0.3 |

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

i. Container :150cc :300cc :1000cc :1400cc

ii. Trial :

T-1 - Sand + good earth :1:2
T-2 - Sand +good earth + varmi compost :1:1:2
T-3 - Good earth + varmi compost :1:1:2
T-4 - Sand + good earth + cow-dung :1:1:2
T-5 - Good earth + leaf mould + cow dung :1:1:2

| Silviculture (North) Division | | | | | |
|-------------------------------|-----------------------------|----------------|-----------|--------------------------------------|---------------------------------------|
| Sl. No. | Species | Container Size | Treatment | Root Growth Measurement As on May-16 | Root Growth Measurement As on. Mar-17 |
| | | | | Ht. | Hit |
| 1 | <i>Shorea robusta</i> (Sal) | 150cc | T1 | 4.00cm | 13.40cm |
| | | | T2 | 4.20cm | 12.00cm |
| | | | T3 | 4.50 cm | 16.30 cm |
| | | | T4 | 4.80 cm | 13.40 cm |
| | | | T5 | 4.00 cm | 14.10 cm |
| 2 | <i>Shorea robusta</i> (Sal) | 300 cc | T1 | 4.20 cm | 13.00 cm |
| | | | T2 | 4.00 cm | 14.10 cm |
| | | | T3 | 4.00 cm | 12.90 cm |
| | | | T4 | 4.00 cm | 12.40 cm |
| | | | T5 | 4.60cm | 19.70cm |
| 3 | <i>Shorea robusta</i> (Sal) | 1000 cc | T1 | 5.00cm | 16.20cm |
| | | | T2 | 5.50 cm | 26.60 cm |
| | | | T3 | 6.00 cm | 31.90 cm |
| | | | T4 | 4.50 cm | 30.70 cm |
| | | | T5 | 4.70 cm | 33.70 cm |
| 4 | <i>Shorea robusta</i> (Sal) | 1400 cc | T1 | 4.20 cm | 20.60 cm |
| | | | T2 | 4.50 cm | 22.20 cm |
| | | | T3 | 5.00 cm | 20.00 cm |
| | | | T4 | 5.20 cm | 22.60 cm |
| | | | T5 | 4.80 cm | 22.70 cm |

14.5 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 2016-17 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 | | | | | | | |
| WB/Silvi/PP-2 | 2.0 Ha. | H.F. | 1969 | Jhargram | Banspahari | Kakrajhore | Kakrajhore |
| WB/Silvi/PP-3 | 10.0 Ha. | H.F. | 1973 | Jhargram | Banspahari | Banspahari | Kakrajhore |

| | | | | | | | |
|--------------------------------------|----------|------------|------|-------------|-------------|-------------|-----------------------|
| WB/Silvi/PP-1 | 12.58 Ha | H.F. | 1977 | Bankura (S) | Ranibandh | Sutan | SutanBarapacha |
| Silviculture (North) Division | | | | | | | |
| WB/JP/LT-2 | 8.40 | H.F | 1933 | Jalpaiguri | Lataguri | Lataguri | Lower Tondur -1 |
| WB/JP/3 | 7.6 | H.F | 1933 | Gorumara WL | S. Gorumara | Gorumara | Gorumara |
| WB/24/NDR | 20 | H.F | 1957 | BTR(E) | Rydak | Mainabari | Bhutanghat -2 |
| Silviculture (Hills) Division | | | | | | | |
| 26 | 04 | Plantation | 1959 | Kurseong | Bamanpokhri | Bamanpokhri | Bamanpokhri |
| 16 | 5.8 | HF | 1932 | Darjeeling | Takdah | Takdah | Lopchu -2 |
| 28 | 12 | HF | 1965 | Kalimpong | | | Bokhim-5 & Pampling-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 2016-17 maintenance & floral inventory works were undertaken in different LSPs as given below :

L.S.P. Silviculture (North) Division - NIL

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 2016-17.

| S.P. No. | Area in Acre | Plantation/ H.F. | Year of formation | Division | Range | Beat | Block/ Compartment |
|--------------------------------------|--------------|------------------|-------------------|-------------|---------------|-----------|--------------------|
| Silviculture (South) Division | | | | | | | |
| 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-11 | 2.64 Ha. | - | - | Bankura (N) | Gangajalghati | Mejia | Mejia |
| Silviculture (North) Division | | | | | | | |
| Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| Silviculture (Hills) Division | | | | | | | |
| Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |

List of Arboretum

| Name of Arboretum | 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 | Nodia-Murshidabad | Mahatpur | Krishnagar | 1.25 | | Misc. Spp. |
| Chakhatisol | | Chakhatisol | | 0.40 | | Misc. Spp. |
| Silviculture (Hills) Division | | | | | | |
| Arboretum Part - I at Panchanai | Darjeeling Wildlife | Panchanai | Kurseong Research Range | 3.00 | 1942 | <i>Acrocarpus fraxinifolia</i> , <i>Amoora wallichii</i> , <i>Bombax ceiba</i> , <i>Castanopsis spp.</i> , <i>Lagerstroemia flosreginae</i> , <i>Swietenia macrophylla</i> , <i>Tectona grandis</i> , <i>Terminalia tomentosa</i> , <i>Xylia dolabriformis</i> |
| Arboretum Part - II at Kyanuka | Darjeeling Wildlife | Kyanuka | Kurseong Research Range | 3.00 | 1942 | <i>Agathis robusta</i> , <i>Albizia procera</i> , <i>Amoora rohituka</i> , <i>Cinnamomum camphora</i> , <i>Cinnamomum cecidodaphne</i> , <i>Lagerstroemia hypoleuca</i> , <i>Sterculia villosa</i> |

| | | | | | | |
|-------------------------------|---------------------|------------|-------------------------------|---------|------|--|
| Conifer Arboretum | Darjeeling Wildlife | Sonada - 4 | Hill Research Range - II | 2.00 | -- | <i>Pinus wallichiana, Pinus patula, Pinus taeda, Pinus massoniana, Pinus thunbergii, Abies spectabilis, Taxus wallichiana.</i> |
| Silviculture (North) Division | | | | | | |
| Khutimari Arboretum | Jalpaiguri Division | SMG-7 | Moraghat | | | |
| Beat- Khutimari. | 0.62 Ha. | 1929 | Misc. Species. Total- 40 Spp. | | | |
| WRVK Arboretum | BTR(W) | SRVK-10 | WRVK Beat- WRVK | 1.5 Ha. | 1994 | Misc. Species. Total- 34 Spp. |

14.6 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 (Ginkgo biloba and Metasequoia glyptostroboides), 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 representing 175 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 2016-17 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 MPCAs were added. A fund of Rs. 10.00 lakhs was provided during 2016-17 from RKVY scheme which was utilized for landslide restoration works.

14.7 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 Amlachati having 854 species of medicinal plants collected from different parts of the state.

| Name of Herbal Garden / Demonstration Plot | Division | Location | Range | Area / No. of beds/ species | Year of creation | Major species | |
|--|-----------------|--------------------|--------------------------------|------------------------------|------------------|---|--|
| | | | | | | RET | Regular |
| Amlachati Ex-Situ site | Jhargram | Amlachati | Lodhasuli | 2.0 Ha/ 468 Nos./704 Nos. | 2001 | <i>Gymnemasylvestre, Tinosporacordifolia, Tylophora indica, Clerodendrum indicum, Rauvolfia serpentina, Dicliptera pleuroides etc.</i> | Centella asiatica, Bacopa monnaria, Echinops, Wedelia chinensis etc. , |
| Digha Herbal Garden | Purba Medinipur | Khadalgobra | Contai | 0.095 Ha/ 70 Nos. / 146 Nos. | 2004 | | |
| Sonada | Darj. WL | Sonada | | | | <i>Rauvolfia serpentina, Asparagus recemosus, Tylophora indica, Gymnemasylvestre, Morinda citrifolia, Dioscorea prezeri, Hemidesmus indicus, Gloriosa superba, Tinosporacordifolia, Curcuma amada</i> | |
| Takdah | Darjeeling | Takdah | | | | | |
| Sukna | Darj. WL | Sukna | | | | | |
| Lava | Kpg | Lava | | | | | |
| Bhuttabari | WBFD | Bhuttabari | | | | | |
| LBG | Silvi (H) | LBG | | | | | |
| Salugarah | BKP | Shorea Nature Park | Salugarah Lab Range | 220 beds | 03-04 | | Regular |
| Rajabhatkhawa | 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 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.

Given below in tabular form is the details of 7 new MPCAs :-

| Project for Creation of 7 New MPCAs (CONS/WB-01/2014) | | | | | | | |
|---|--|---|---|--|--|--|---|
| Name of MPCAs | Panchanoi | Phalut | Rachela | Bichabhanga-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 |
| 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 Altitude 2931 M | 27°11'50.4" N 88°03'33.8" E Altitude 2931 | 26°43'32.8" N 88°46'49.6" E Altitude 165 M | 26°41'06" N 89°33'18" E Altitude 158 M | 26°43'32.8" N 88°46'49.6" E Altitude 165 M | 23°23'45.3" N 86°58'59" E Altitude 235M |
| Project Period | 2013-14 to 2016-17 | | | | | | |
| 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 (Hills) | | | Silviculture (North) | | Silviculture (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 |

14.8 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 plants as well as in medicinal tree plantation. 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 at Paschim Medinipore & Bankura District involving 3 Circles & 8 Divisions i.e. Western Circle : Medinipore, Jhargram, Kharagpur & Rupnarayan Divisions. Central Circle : Bankura (North), Bankura (South) and Panchet Division. Research Circle : Silviculture (South) Division.

14.9 Project calendar :

| Sl. No. | Year | Jhar gram | Khar agpur | Rupna rayan | Medini pore | Bankura (N) | Bankura (S) | Bisnupur | Kangsabati (S) | Kangsabati (N) | Total |
|--|--------------------|-----------|------------|-------------|-------------|-------------|-------------|-----------|----------------|----------------|------------|
| Mixed Pltn. of Trees having MFP Valus. | | | | | | | | | | | |
| 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 |

| Regeneration of Perennial Herbs and Shrubs of Medicinal value (intercropping in new Plantation) | | | | | | | | | | | |
|---|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| 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 |

| Regeneration of Perennial Herbs and Shrubs of Medicinal valueHerbs&Shurbs (intercropping in Old Plantation) | | | | | | | | | | | |
|---|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| 1. | Year II (2016-17) | 15 | 15 | 15 | 15 | -- | -- | -- | -- | -- | 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 |

14.10 Achievement 2016-17

A. Tree Species Plantations with intercropping :- 2016-17

| Sl. No | Name of the Division | Name of the Range | Name of the Beat | Mouza | Area in Ha. |
|--------------------|----------------------|-------------------|------------------|---------------------------|-------------|
| 1 | Kharagpur | Nayagram | Nayagram | Dhansola / Khanamuri | 10 |
| 2 | | Chandabila | Patina | Khasjungle -6 | 05 |
| Sub Total in Ha. | | | | | 15 Ha. |
| 3 | Medinipur | Arabari | Dakshinsole | Kadalowa, J.L. No. 433 | 06 |
| 4 | | Godapeasal | Anandapur | Ahammadpur | 04 |
| 5 | | Medinipur | Baghasole | Khasjungle, J.L. No. 424 | 10 |
| 6 | | Pirakata | Bhimsole | Salboni, J.L. No. 90 | 10 |
| 7 | | Pirakata | Ranja | Ranja, J.L. No. 44 | 10 |
| Sub Total in Ha. | | | | | 40 Ha. |
| 8 | Jhargram | Manikpara | Ram Rama | Bhauta Khas, J.L. No. 667 | 06 |
| 9 | | Manikpara | Balivasa | Lalitasole, J.L. No. 563 | 14 |
| 10 | | | Kusumghati | Rajabasa, J.L. No. 651 | 06 |
| 11 | | | Kusumghati | Keshiakotra, J.L. No. 561 | 04 |
| 12 | | Lodhasuli | Lodhasuli | Ranidihi, J.L. No. 941 | 10 |
| Sub Total in Ha. | | | | | 40 Ha. |
| 13 | Rupnarayan | Amlagora | Raskundu | Dhanghori, J.L. No. 59 | 05 |
| 14 | | Hoomgarh | Baromesia | Bariboth, J.L. No. 233 | 10 |
| 15 | | Mahalisai | Mahalisai-I/II | Tilaboni, J.L. No. 95 | 05 |
| 16 | | Goaltore | Baro Patasole | Bakisole, J.L. No. 73 | 10 |
| Sub Total in Ha. | | | | | 30 Ha. |
| Grand Total in Ha. | | | | | 125 Ha. |

B. 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 | Khasjungle, J.L. No. 76 | 10.00 |
| 2 | | Chandabila | Chandabila | Kuldiha, J.L. No. 24 | 5.00 |
| 3 | Medinipur | Medinipur | Baghasole | Khasjungle, J.L. No. 424 | 15.00 |
| 4 | Jhargram | Manikpara | Kusumghati | Amdiha, J.L. No. 568 | 15.00 |
| 5 | Rupnarayan | Amlagora | Raskundu | Dhanghori, J.L. No. 59 | 5.00 |
| 6 | | Amlagora | Raskundu | Dhalma, J.L. No. 759 | 5.00 |
| 7 | | Garhbeta | Bhadika | Kuilibandh, J.L. No. 551 | 5.00 |
| 8 | Bankura (S) | Simlapal | Simlapal | Jagannathpur, J.L. No. 140 | 25.00 |
| 9 | Bankura (N) | Radhanagar | Bhora | Bhora, J.L. No. 60 | 20.00 |

| Sl. No | Name of the Division | Name of the Range | Name of the Beat | Mouza | Area in Ha. |
|--------|----------------------|-------------------|------------------|-----------------------------|-------------|
| 10 | Panchet | Bishnupur | Bishnupur-II | Chakbagmari, J.L.No. 267 | 10.00 |
| 11 | | | | Bakinala, J.L. No. 287 | 10.00 |
| 12 | | | | Ramanchaupuan, J.L. No. 264 | 5.00 |
| 13 | Kangsaboti (N) | Raghunathpur | Raghunathpur-I | Daikere | 5.00 |
| 14 | | Para | Para | Karika Bandh | 5.00 |
| 15 | | Hura | Hura | Karika Bandh | 10.00 |
| 16 | Kangsaboti (S) | Manbazar-I | Sindurpur | Kumardi | 10.00 |
| 17 | | | | Marugara | 10.00 |
| | Total in Ha. | | | | 170.00 |

14.11 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 N₂, total N₂, available P₂O₅, available K₂O and C/N ratio. During 2016-17, 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 2016-17 |
|----------------------|-----------------------------|--|
| Silviculture (South) | Soil Testing Lab. Midnapore | Nil |
| Silviculture (North) | Soil Testing Lab. Salugarah | 217 |
| | | |

PHOTOGRAPHS





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



Phyto-diversity study at SusuniaMPCA Ex-situ site at Amlachati-Jhargram



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



Sal Copeice in south bengal

MONITORING OF PLNTATIONS

15.1 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 conservations and recording of status of Survival, Height and BHG (only for 5th year plantation) in 1st year, 3rd year and 5th 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 lenders, implementing 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

(S) Division with headquarters at Kolkata covers the area 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.

15.2 Methodologies: -

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. 3rd year (2013) Plantation -- Survival % & Height of seedling.
3. 5th year (2011) Plantation. -- Survival %, Height & Breast Height Girth.

For the purpose of execution of survey & monitoring works the Statistical random sampling technique was adopted.

For 1st year survey & monitoring, in a 10 ha plot at 7.5% sampling intensity three sample plots of 50mx50m are taken through RBD in the form of Standard Random sampling where required. 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 were calculated. In case of 3rd year & 5th year survey & monitoring, in a 10 ha plot at 5% sampling intensity two sample plots of 50m X 50m are taken through RBD in the form of Standard Random sampling where required.

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 number 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.

Category wise Survival % of plantations:

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 |
|----------------------|-------------------|----------------|-----------------|-------------|
| 1 st year | WSP : 90% & above | WSP : 89 – 75% | WSP : 74 – 50 % | WSP : < 50% |
| 3 rd year | WSP : 75% & above | WSP : 74 – 60% | WSP : 59 – 40 % | WSP : < 40% |
| 5 th year | WSP : 50% & above | WSP : 49 – 40% | WSP : 39 – 30 % | WSP : < 30% |

15.3 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.

Photographs: -



Plantations under State Plan (2015-16) monitored by Monitoring (North) Division.



Plantations under State Plan (2015-16) monitored by Monitoring (South) Division.

Table 15.1 Division –wise Performance (under various schemes) for 2013 Creation
3rd Year Monitoring by Monitoring South Division

| Division/ Scheme | QGS | | 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) | W SP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | |
| MID | 497.50 | 99 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 97 | 0 | 0 | 647.50 | 99 |
| KNG(S) | 250 | 98 | 20 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 270 | 98 |
| PRL | 225 | 98 | 30 | 97 | 0 | 0 | 0 | 0 | 20 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 275 | 98 |
| RPN | 325 | 99 | 90 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 84 | 0 | 0 | 465 | 98 |
| JHR | 645 | 98 | 50 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 80 | 0 | 0 | 705 | 98 |
| PNCT | 600 | 97 | 80 | 99 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 680 | 97 |
| BIR | 211 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 | 97 |
| 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 | 99 | 55 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 64 | 0 | 0 | 490 | 92 |
| 24PGS(S) | 0 | 0 | 0 | 0 | 100 | 93 | 220 | 89 | 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 | 99 | 0 | 0 | 85.65 | 85 | 0 | 0 | 0 | 0 | 260.34 | 86 |
| HWVH | 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 |

Table 15.2 Division –wise Performance (under various schemes) for 2011 Creation
5th Year Monitoring by Monitoring South Division

| Division/ Scheme | QGS | | 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) | W SP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | |
| MID | 95 | 93 | 100 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 69 | 0 | 0 | 245 | 92 |
| KNG(S) | 300 | 67 | 20 | 38 | 0 | 0 | 0 | 0 | 20 | 96 | 0 | 0 | 20 | 45 | 0 | 0 | 360 | 66 |
| PRL | 150 | 68 | 40 | 53 | 0 | 0 | 0 | 0 | 20 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 210 | 67 |
| RPN | 450 | 94 | 70 | 99 | 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 | 86 | 70 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 83 | 510 | 87 |
| BIR | 211 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 | 86 |
| KNG(N) | 210 | 70 | 40 | 67 | 0 | 0 | 0 | 0 | 20 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 270 | 70 |
| BNK(S) | 150 | 89 | 60 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 460 | 89 |
| 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 | 67 | 94 |
| KGP | 200 | 60 | 50 | 84 | 30 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 32 | 0 | 0 | 330 | 59 |
| 24PGS(S) | 0 | 0 | 0 | 0 | 90 | 61 | 265 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 355 | 55 |
| BDN | 156 | 86 | 15 | 85 | 25 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 | 85 |
| PMID | 0 | 0 | 0 | 0 | 60 | 30 | 80 | 64 | 0 | 0 | 150 | 61 | 10 | 32 | 0 | 0 | 300 | 55 |
| HWVH | 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 | 690 | 0 | 425 | 0 | 345 | 0 | 60 | 0 | 150 | 0 | 180 | 0 | 40 | 0 | 5048 | 81 |

Table 15.3 Division –wise Performance (under various schemes) for 2015 Creation 1st
Year Monitoring by Monitoring South Division

| Division/ Scheme | QGS | | FT-Sal | | Strip Pltn. | | CMM | | 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 | | | |
| MID | 450 | 96.48 | 50 | 98.86 | 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 | 285 | |
| PRL | 210 | 91.42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 85.16 | 0 | 270 | |
| RPN | 435 | 98.82 | 90 | 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 | 700 | |
| BIR | 132 | 92.12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 | |
| KNG(N) | 319 | 95.76 | 56 | 94.63 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 86.75 | 0 | 435 | |
| BNK(S) | 850 | 90.56 | 120 | 89.66 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 70.72 | 0 | 1090 | |
| DGP | 50 | 90 | 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 | 88.86 | 0 | 217 | |
| N-M | 15 | 93.33 | 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 | 423 | |
| 24PGS(S) | 0 | 0 | 0 | 0 | 0 | 0 | 390 | 86.1 | 0 | 0 | 0 | 0 | 0 | 390 | |
| BDN | 85 | 89.38 | 10 | 94 | 120 | 85.87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215 | |
| PMID | 0 | 0 | 0 | 0 | 60 | 95.70 | 60 | 87 | 90 | 98.67 | 0 | 0 | 0 | 210 | |
| HWH | 0 | 0 | 0 | 0 | 60 | 90.48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | |
| EFD, PRL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total | 4153.44 | 0 | 436 | 0 | 345 | 0 | 450 | 0 | 90 | 0 | 709 | 0 | 20 | 6203.44 | 92.14 |

Table 15.4 Area Statement for Monitoring South Division
Schemes & Year wise Plantations created and Monitored

| Scheme of Plantation | 1 st Year (2015) | | 3 rd Year (2013) | | 5 th Year (2011) | | Grand Total of three Years | |
|----------------------|-----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|----------------------------|-----------|
| | Total Area (Ha) | Monitored | Total Area (Ha) | Monitored | Total Area (Ha) | Monitored | Total Area (Ha) | Monitored |
| Bamboo | 709 | 709 | 120 | 120 | 180 | 180 | 1009 | 1009 |
| CMM | 450 | 450 | 341.26 | 341.26 | 345 | 345 | 1136.26 | 1136.26 |
| CSB | 90 | 90 | 85.65 | 85.65 | 150 | 150 | 325.65 | 325.65 |
| FT-Sal | 436 | 436 | 645 | 645 | 760 | 690 | 1841 | 1841 |
| Medicinal | 20 | 20 | 0 | 0 | 40 | 40 | 60 | 60 |
| Prot. Aff | 0 | 0 | 20 | 20 | 60 | 60 | 80 | 80 |
| QGS | 4153.44 | 4153.44 | 5425.50 | 5425.50 | 3158 | 3158 | 12736.94 | 12736.94 |
| Strip Pltn. | 345 | 345 | 512 | 498.42 | 425 | 425 | 1314 | 1268.42 |
| Total | 6203.44 | 6203.44 | 7203.92 | 7135.83 | 7268.90 | 5048 | 18419.27 | 18419.27 |

Table 15.5 Area Statement for Monitoring North Division
Schemes & Year wise Plantations created and Monitored

| Scheme of Plantation | 1 st Year (2015) | | 3 rd Year (2013) | | 5 th Year (2011) | | Grand Total of three Years | |
|----------------------|-----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|----------------------------|-----------|
| | Total Area (Ha) | Monitored | Total Area (Ha) | 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 | 707.76 |
| Pro. Aff | 0 | 0 | 84 | 50 | 45 | 15 | 129 | 707.76 |
| Strip | 350 | 330 | 186 | 185.05 | 185 | 185 | 721 | 700.05 |
| Eco. Cons | 0 | 0 | 0 | 0 | 75 | 66 | 75 | 66 |
| RUDF | 0 | 0 | 0 | 0 | 37 | 30 | 37 | 30 |
| RVP | 0 | 0 | 0 | 0 | 360 | 360 | 360 | 360 |
| PAEC | 38 | 25 | 80 | 80 | 0 | 0 | 118 | 105 |
| WBSFDA | 30 | 30 | 0 | 0 | 0 | 0 | 30 | 30 |
| Bamboo | 83 | 80 | 0 | 0 | 0 | 0 | 83 | 80 |
| RKVY | 193 | 193 | 0 | 0 | 0 | 0 | 193 | 193 |
| RKVY (Bamboo) | 50 | 50 | 0 | 0 | 0 | 0 | 50 | 50 |
| Total | 1598 | 1523.28 | 1379 | 1273.54 | 1828.42 | 1685.42 | 4805.42 | 4482.24 |

Table 15.6 Division -wise Performance (under various schemes) for 2011 Creation
5th Year Monitoring by Monitoring North Division

| Division/ Scheme | CSS | | Eco. Misc | | Eco. Sal | | Pro. Aff | | Strip | | Eco. Cons. | | RIDF | | RVP | WSP | Total Area (Ha) | Division wise WSP. |
|---------------------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|------|--------------|-------|--------|------|-----------------------|--------------------------|
| | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | | | | |
| WL-I | 50.00 | 60.40 | 50.00 | 49.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100.00 | 52.80 |
| WL-II | 20.00 | 17.00 | 20.00 | 37.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40.00 | 30.67 |
| WL-III | 30.00 | 64.50 | 50.00 | 23.30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80.00 | 38.75 |
| BTR(E) | 25.00 | 40.36 | 35.00 | 37.00 | 35.00 | 18.00 | 0 | 0 | 0 | 0 | 0 | 0 | 30.00 | 37.00 | 0 | 0 | 125.00 | 32.35 |
| BTR (W) | 0 | 0 | 50.00 | 8.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50.00 | 8.70 |
| MLD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30.00 | 35.50 | 0 | 0 | 0 | 0 | 0 | 0 | 30.00 | 35.50 |
| RGJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10.00 | 32.00 | 0 | 0 | 0 | 0 | 0 | 0 | 10.00 | 32.00 |
| SLG SF | 0 | 0 | 20.00 | 60.96 | 0 | 0 | 0 | 0 | 100.0 | 22.20 | 0 | 0 | 0 | 0 | 0 | 0 | 120.00 | 30.81 |
| JPG SF | 0 | 0 | 5.00 | 70.80 | 0 | 0 | 0 | 0 | 20.00 | 77.30 | 0 | 0 | 0 | 0 | 0 | 0 | 25.00 | 76.00 |
| BKP | 0 | 0 | 13.57 | 33.70 | 16.00 | 30.90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29.57 | 32.18 |
| COB | 18.00 | 23.40 | 60.00 | 75.30 | 0 | 0 | 0 | 0 | 20.00 | 72.10 | 0 | 0 | 0 | 0 | 0 | 0 | 98.00 | 65.11 |
| JPG | 10.00 | 17.00 | 72.14 | 51.85 | 73.00 | 27.79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155.14 | 37.81 |
| SC (N) | 0 | 0 | 100.00 | 33.03 | 20.00 | 31.15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120.00 | 32.72 |
| KGN SC | 0 | 0 | 80.00 | 43.80 | 0 | 0 | 15.00 | 31.00 | 0 | 0 | 66.00 | 55.6 | 0 | 0 | 360.00 | 68.0 | 521.00 | 60.60 |
| DRJ | 0 | 0 | 50.00 | 81.60 | 2.50 | 25.40 | 0 | 0 | 5.00 | 87.00 | 0 | 0 | 0 | 0 | 0 | 0 | 57.50 | 79.63 |
| KGN | 0 | 0 | 50.00 | 34.78 | 74.21 | 21.68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124.21 | 26.95 |
| Total | 153 | 0 | 655.71 | 0 | 220.71 | 0 | 15.00 | 0 | 185 | 0 | 66 | 0 | 30 | 0 | 360 | 0 | 1685.42 | 45.70 |

Table 15.7 Division –wise Performance (under various schemes) for 2013 Creation
3rd Year Monitoring by Monitoring North Division

| Division/ Scheme | CSS | | Eco. Misc | | Eco. Sal | | Pro. Aff | | Strip | | PAEC | | Total Area (Ha) | Division wise WSP. |
|------------------|-----------|----------|---------------|----------|--------------|----------|-----------|----------|---------------|----------|-----------|----------|-----------------|--------------------|
| | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | Area (Ha) | WSP | | |
| 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 | 5 | 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 | 90 | 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 | 80 | 0 | 1273.54 | 64.36 |

Table 15.8 Division -wise Performance (under various schemes) for 2015 Creation
1st Year Monitoring by Monitoring North Division

| Division/ Scheme | WBSFDA | | Eco. Misc | | Eco. Sal | | PAEC | | Strip | | Bamboo | | RKVY | | RKVY (Bamboo) | | Total Area (Ha) | 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 | | |
| WL-I | 0 | 0 | 25 | 90.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 90.5 |
| WL-II | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 70 |
| WL-III | 0 | 0 | 49.23 | 77.79 | 29.30 | 45.28 | 0 | 0 | 0 | 0 | 80 | 81 | 0 | 0 | 0 | 0 | 158.5 | 73.41 |
| BTR(E) | 0 | 0 | 80 | 84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 84 |
| BTR (W) | 0 | 0 | 80 | 83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 | 83 |
| MILD | 0 | 0 | 1 | 95 | 0 | 0 | 0 | 0 | 30 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 92 |
| RGJ | 0 | 0 | 60 | 92.25 | 0 | 0 | 0 | 0 | 160 | 92.25 | 0 | 0 | 60 | 92 | 50 | 91 | 330 | 91.5 |
| SLG SF | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 96.2 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 96.2 |
| JPG SF | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 94.25 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 94.25 |
| BKP | 0 | 0 | 23.35 | 83 | 23.86 | 63.10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47.21 | 72.94 |
| COB | 0 | 0 | 25 | 90 | 0 | 0 | 0 | 0 | 40 | 85.43 | 0 | 0 | 7 | 91 | 0 | 0 | 72 | 87.55 |
| JPG | 30 | 57 | 70 | 67 | 70.09 | 45.32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 170.69 | 56.10 |
| JPG SC | 0 | 0 | 140.68 | 83.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 89.50 | 0 | 0 | 190.68 | 85.07 |
| KPG (SC) | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 97 |
| KGN SC | 0 | 0 | 40 | 91.25 | 0 | 0 | 15 | 95 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 92.27 |
| DRJ | 0 | 0 | 50 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 90 | 0 | 0 | 86 | 92 |
| KGN | 0 | 0 | 25 | 88.6 | 22.2 | 62.70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47.2 | 76.42 |
| Total | 30 | | 669.26 | | 145.45 | | 25 | | 330 | | 80 | | 193 | | 50 | | 1523.28 | 82.54 |



State Forest Training Institute, Hizli

DEVELOPMENT CIRCLE

16.1 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.

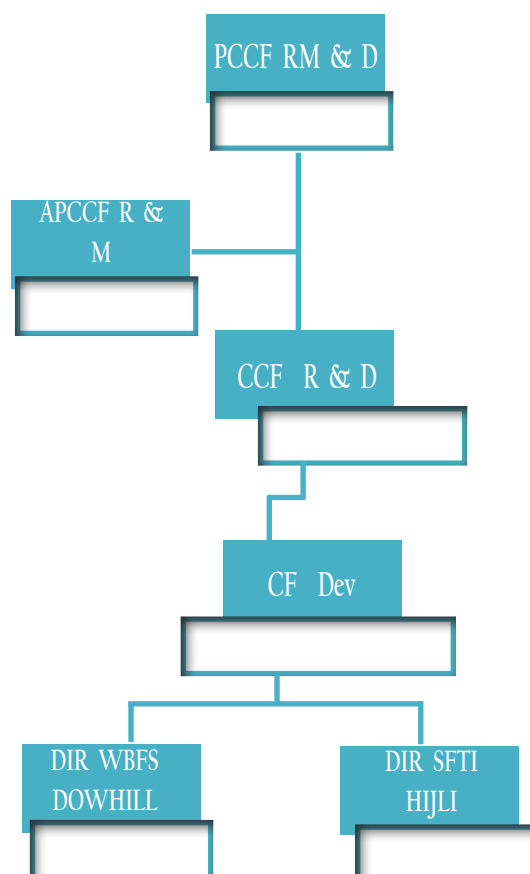


16.2 Training Centres

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 Rajabhatkhowa (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-Paschim Pathri, JL-186 with an extent on forest land of 11.74 ha funded by Japan International Cooperation Agency (JICA).The new 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).

16.3 Administrative structure of Development Circle





Trainees in SFTI, Hijli



Inauguration of DR/Fr Training Session

16.4 Contacts

| SL.No. | Office | Phone | Extn. | Fax | e-mail | Address |
|--------|-----------------------|-------------|-------|-------------|------------------------|--|
| 1 | PCCF RM&D | 03322250053 | 208 | 03322341856 | pecfrmdwb@gmail.com | Office of the Principal Chief Conservator of Forests, Research, Monitoring & Development, New KIT Building, 3rd Floor, P-16, India Exchange Place Extn. Kolkata 700073 |
| | | 03322350043 | | | | |
| 2 | APCCF R&M | 03322250053 | 209 | 03322341854 | pecfrmdwb@gmail.com | Office of the Principal Chief Conservator of Forests, Research, Monitoring & Development, New KIT Building, 3rd Floor, P-16, India Exchange Place Extn. Kolkata 700073 |
| | | 03322341854 | | | | |
| 3 | CCF R&D | 03322250053 | 230 | 03322341856 | ccfres.fdl.vb@gov.in | Office of the Principal Chief Conservator of Forests, Research, Monitoring & Development, New KIT Building, 3rd Floor, P-16 India Exchange Place Extn. Kolkata 700073 |
| | | 03322250025 | | | | |
| 4 | CF DEVELOPMENT | 03323353261 | 208 | 03323353261 | wbfcfd@gmail.com | Office of the Conservator of Forests Development Circle, LA-10A, Salt Lake City, Sector III, Aranya Bhavan, 2nd Floor, Room No. 208, Kolkata 700098 |
| | | 03323357751 | | | | |
| 5 | DIRECTOR SFTI HIJLI | 0222220077 | | 0222220077 | dirsftihijli@gmail.com | Office of the Director, State Forest Training Institute, Hijli, P.O.- Hijli Co-operative, Kharagpur, 721306 Dist. Paschim Medinipur |
| 6 | DIRECTOR WBFS DOWHILL | 03542332198 | | 03542332198 | dirwbfschool@gmail.com | Office of the Director, West Bengal Forest School, P.O.-Dowhill, Dist. Darjeeling, 734204 |

DETAILS OF TRAININGS HELD DURING 2016-2017

Table 16.1 West Bengal Forest School Dowhill & FTC Rajabhatkhawa

| SLNo | Name of Course | Duration | | Category | Venue | Period | No. of participant |
|------|---------------------------------------|------------|------------|-----------|------------------|----------|--------------------|
| 1 | 2 | 3 | To | 4 | 5 | 6 | 7 |
| | | From | | | | | |
| 1 | 104th batch DR/Fr. Regular Course | 01-06-2015 | 02-12-2015 | DR/Fr. | WBFS Dowhill | 6 months | 18 |
| 2 | 57th batch FG Regular Course | 01-07-2015 | 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. | WBFS Dowhill | 1 day | 36 |
| 5 | Community Development | 03-11-2015 | 03-11-2015 | WBFC etc. | WBFS Dowhill | 1 day | 25 |
| 6 | Short Course on Forest & Wildlife Law | 14-12-2015 | 19-12-2015 | FG | WBFS Dowhill | 1 week | 18 |
| 7 | GIS Training | 22-12-2015 | 23-12-2015 | FG | FTCRajabhatkhawa | 2 days | 30 |

Table 16.2 State Forest Training Institute, Hijli

| SLNo | Name of Course | Duration | | Category | Venue | Period | No. of participant |
|------|---|----------|----------|-------------------|-------------|--------|--------------------|
| 1 | 2 | 3 | To | 4 | 5 | 6 | 7 |
| | | From | | | | | |
| 1 | Training for GIS usage and Photograph tagging and storage | 06-10-15 | 06-10-15 | Field Staff | SFTI, Hijli | 1 day | 37 |
| 2 | Community Development under WBFCP PROJECT | 09-10-15 | 09-10-15 | Field Staff | SFTI, Hijli | 1 day | 28 |
| 3 | Four days refresher Course | 17-11-15 | 20-11-15 | Ministerial Staff | SFTI, Hijli | 4 days | 29 |
| 4 | Four days refresher Course | 24-11-15 | 27-11-15 | Ministerial Staff | SFTI, Hijli | 4 days | 22 |
| 5 | Four days refresher Course | 15-12-15 | 18-12-15 | Field Staff | SFTI, Hijli | 4 days | 40 |
| 6 | Four days refresher Course | 19-01-16 | 22-01-16 | Field Staff | SFTI, Hijli | 4 days | 25 |
| 7 | Four days refresher Course | 02-03-16 | 05-03-16 | Field Staff | SFTI, Hijli | 4 days | 16 |

Table 16.5 ONGOING TRAININGS DURING 2017

| Sl.No | Name of Course | Duration | | Category | Venue | Period | No. of participant |
|-------|-----------------------------------|------------|--------------------|----------|---|----------|--------------------|
| 1 | 2 | 3 | | 4 | 5 | 6 | 7 |
| | | From | To | | | | |
| 1 | 107th batch DR/Fr. Regular Course | 02-03-2017 | Oct'2017 | DR/Fr. | WBFSDownhill, now shifted to SFTI Hijli | 6 months | 22 |
| 2 | 108th batch DR/Fr. Regular Course | 01-06-2017 | Nov'2017 | DR/Fr. | SFTI Hijli | 6 months | 51 |
| 3 | Short Term Course | 01-04-2017 | | DR/Fr | FTC Rajabhatkhawa | 1 months | 26 |
| 4 | 59th batch FG Regular Course | 03-04-2017 | Till September '17 | FG | SFTI Hijli | 6 months | 52 |
| 5 | Short Term Course | 22-05-2017 | | FG | FTC Rajabhatkhawa | 1 months | 30 |
| 6 | Short Term Course | 01-07-2017 | | DR/Fr | FTC Rajabhatkhawa | 1 months | 30 |
| 7 | Short Term Course | 21-08-2017 | | FG | FTC Rajabhatkhawa | 1 months | 30 |



Table 16.6
Training Calendar of 2016-17 under Development Circle

| Sl No | Activities | Venue/ Institute | Apr,16 | May,16 | June,16 | July,16 | Aug,16 | Sept,16 | Oct,16 | Nov,16 | Dec,16 | Jan,17 | Feb,17 | Mar,17 |
|-------|--|---------------------|--------|--------|---------|---------|--------|---------|--------|--------|--------|--------|--------|--------|
| 1 | 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 | | | | | | | | | 10 F | | | |
| 3 | 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 | | | | | | |
| 5 | Two weeks general refresher course with special emphasis on application of modern techniques in GPS, Nursery and Computer application for frontline staff. | WBFS Dowhill | | | | | | | | | | | 2w FLS | |
| 6 | Two weeks general refresher course with special emphasis on application of modern techniques in GPS, Nursery and Computer application for frontline staff. | WBFS Dowhill | | | | | | | | 2w FLS | | | | |
| 7 | Two days workshop on Yoga and spiritualism for frontline staff | WBFS Dowhill | | | | | | | | | | | 2 days | |
| 8 | Two days workshop on Forest and Wildlife Laws for frontline staff | WBFS Dowhill | | | | | | | | | | | 2 days | |
| 9 | Special Refresher Course(1 month) for Forest Guards (Promoted). | Rajabhatkhawa | | | | | | | 1w 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 Frontline staff. | Sukna | | | | | 1w FLS | | | | | | | |
| 15 | Three days workshop on FRA for frontline staff and other Target Group | Sukna | | | | | 3 days | | | | | | | |

| Sl No | Activities | Venue/ Institute | Apr,16 | May,16 | June,16 | July,16 | Aug,16 | Sept,16 | Oct,16 | Nov,16 | Dec,16 | Jan,17 | Feb,17 | Mar,17 |
|-------|--|---------------------|--------|--------|---------|---------|--------|---------|--------|--------|--------|--------|--------|--------|
| 16 | Two days workshop on Yoga and spiritualism for frontline staff | Sukna | | | | | | | | | | | 2 days | |
| 17 | Three days workshop on FRA for frontline staff and other Target Group | Madarihat | | | | | 3 days | | | | | | | |
| 18 | Two days workshop on Yoga and spiritualism for frontline staff | Madarihat | | | | | | | | | | | 2 days | |
| 19 | Two days workshop on Forest and Wildlife Laws for frontline staff | Madarihat | | | | | | | | | | 2 days | | |
| 20 | Regular Training(6 months) for Dy Ranger/Forester 106th batch. | SFTI, Hizli | | | | 6m F | 6m F | 6m F | 6m F | 6m F | 6m F | | | |
| 21 | Regular Training (6 months) for Forest Guard 58th batch | SFTI, Hizli | | | | | | 6m PG | 6m FG | 6m HSC | 6m PG | 6m FG | 6m FG | |
| 22 | One week refresher course on Forest Protection for grassroot level staff. | SFTI, Hizli | | | | | | | | 1w FLS | | | | |
| 23 | Three days workshop on FRA for frontline staff and other Target Group | SFTI, Hizli | | | | | | 3 days | | | | | | |
| 24 | Three days workshop on Capacity building in Forestry Sector for Officials other than Forest Officials. | SFTI, Hizli | | | | | | 3 days | | | | | | |
| 25 | Two weeks general refresher course with special emphasis on Forestry and Wildlife Management for frontline Staff | SFTI, Hizli | | | | | | | | | | | 2w FLS | |
| 26 | Two weeks general refresher course with special emphasis on Forestry and Wildlife Management for frontline Staff | SFTI, Hizli | | | | | | | | | | | 2w FLS | |
| 27 | One week Arms Training for frontline staff. | SFTI, Hizli | | | | | | | | | | 1w FLS | | |
| 28 | Two days workshop on Yoga and spiritualism for frontline staff | SFTI, Hizli | | | | | | | | | | | 2 days | |
| 29 | Two days workshop on Forest and Wildlife Laws for frontline staff | SFTI, Hizli | | | | | | | | | | | 2 days | |
| 30 | Three days workshop on FRA for frontline staff and other Target Group | Bankura | | | | | | 3 days | | | | | | |
| 31 | Three days workshop on FRA for frontline staff and other Target Group | Aranya Bhavan | | | | | | 3 days | | | | | | |

Table 16.7 Training Calendar of 2017-18 under Development Circle

| Sl No | Activities | Venue/Institute | Apr.17 | May.17 | June.17 | July.17 | Aug.17 | Sept.17 | Oct.17 | Nov.17 | Dec.17 | Jan.18 | Feb.18 | Mar. 18 |
|-------|---|-----------------|--------|--------|---------|---------|--------|---------|--------|--------|--------|--------|--------|---------|
| 1 | Regular Training(6 months) for Forest Guard 59th batch | SFTI, Hizli | 6m FG | 6m FG | 6m FG | 6m FG | 6m FG | 6m FG | | | | | | |
| 2 | Regular Training(6 months) for Deputy Ranger/Forester 108th batch | SFTI, Hizli | | | | | | | | | | | | |
| 3 | Regular Training(6 months) for Deputy Ranger/Forester 107th batch | WBFS Dowhill | | 6m F | 6m F | 6m F | 6m F | 6m F | 6m F | | | | | |
| 4 | Special Refresher Course (1 month) for Forest Guard (Promoted). | Rajabhatkhawa | | 6m FG | | | | | | | | | | |
| 5 | Special Refresher Course (1 month) for Deputy Ranger/Forester (Promoted). | Rajabhatkhawa | | | | 6m FG | | | | | | | | |
| 6 | Special Refresher Course (1 month) for Forest Guard (Promoted). | Rajabhatkhawa | | | | | 6m FG | | | | | | | |
| 7 | Two days workshop on Yoga and spiritualism for frontline staff (4 Nos) | WBFS Dowhill | | | | | | | | 2d FLS | | | | |
| 8 | Two days workshop on Forest and Wildlife Laws for frontline staff (4 Nos) | WBFS Dowhill | | | | | | | | 2D FLS | | | | |
| 9 | One week refresher course on Forest Protection for grass root level staff. | Rajabhatkhawa | | | | | | | | | | 1W FLS | | |
| 10 | One week refresher course on Forest Protection for grass root level staff. | SFTI, Hizli | | | | | | | | | | 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(4 Nos) | Rajabhatkhawa | | | | | | | | | | | 1W FLS | |
| 13 | Three days workshop on FRA for frontline staff and other Target Group | Sukna | | | | | | | | | | | 3 days | |
| 14 | Three days workshop on FRA for frontline staff and other Target Group | SFTI, Hizli | | | | | | | | | | | 3 days | |



Rock Check Dam for soil and moisture conservation

SOIL CONSERVATION

17.1 Introduction :

The five districts of North Bengal namely Darjeeling, Kalimpong Jalpaiguri , Alipurduar and Cooch Behar are drained by almost 20 rivers and other enumerable rivulets. The catchment area spreads over around 12,726 Km² of which only 3,068 Km² is under forest cover. These rivers flow through three geographical zones, namely the Hilly Region, the Piedmont Zone and the Active Plains. Except for river The Tista, all the other main rivers originating from the hilly region have steep to very steep fall and consequently high power of erosivity.

The area being a part of new fold mountain is geologically unstable. The annual rainfall in the region is one of the highest and varies from 3,500 mm to 5,000 mm annually. The geological instability and high intensity of rainfall, porous sandy loam soil and steep slopes associated with different anthropogenic activities, are factors that accelerate erosion and land degradation affecting the lives of people and property, both public and private almost every year. Soil and moisture conservation by regular treatment through different kind of intervention both structural and vegetative, therefore, is of utmost importance for restoration.

17.2 HISTORY, LOCATION & JURISDICTION OF CIRCLE

The Soil Conservation (North) Circle, West Bengal was 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, Kolkata to exclusively supervise the soil conservation work undertaken by the underlying soil conservation divisions of North Bengal. The Divisions under the circle with their geographical jurisdiction, headquarters, overlapping of jurisdiction over territorial forest area are summarized as in Table-A below :

Table-A:

| Division | Geographical Jurisdiction | Overlapping Forest Jurisdiction | Head quarter |
|------------------------------|---|---|--------------|
| Kurseong Soil Conservation | Darjeeling & Kurseong Sub-Division, | Darjeeling, Wildlife-I, Kurseong | Kurseong |
| Kalimpong Soil Conservation | Kalimpong Sub-division | Kalimpong Division | Kalimpong |
| Jalpaiguri Soil Conservation | Dist: Jalpaiguri, Cooch Behar, Alipurduar | Northern Circle, Cooch Behar Division, Buxa Tiger Reserve | Jalpaiguri |

Major Mandates of the Circle are :

1. Soil & Moisture Conservation through creation and Maintenance of Plantation.
2. Treatment of Landslide & landslide prone areas by way of construction of Engineering & Bio- Engineering Structures.
3. Implementation of Integrated Watershed Management Programme funded by Central and State Government in the ratio of 90: 10.
4. Conservation & Management of Bio-Diversity Parks.

17.2.1 BIOLOGICAL MEASURES :

- a. **Plantation Afforestation** :: Afforestation is more effective for stabilizing shallow sheet slides with deep lying slide surfaces. It is generally accepted that forest growth helps to dry out the surface layers, and that the ramification of root system assists the consolidation process. Since tree draws water from the surface beds, the most suitable species for planting on sliding slopes are those that have the highest consumption of water and the highest transpiration rates. Planting pits of size 45cm x 45cm x 45cm and spacing of 2.5 mt x 2.5mt is adopted while taking up plantation works.

Creation of 2016 Plantations undertaken during the year 2016-17

| Scheme | Kurseong SC Divn. | Kalimpong SC Divn. | Jalpaiguri SC Divn. | Total |
|--|-------------------|--------------------|---------------------|--------|
| 2406-01-SP-102-025-Forestry Treatment- 50 Other Charges | 15 Ha | 10 Ha | 45 | 70 Ha |
| 2406-F&WL-01-F-796-TASP-SP&AP-004-S&FF-Economic Plantation-87 Regeneration | - | - | 50 | 25 Ha |
| Total : | 15 Ha | 10 Ha | 95 Ha | 125 Ha |

Advance Work of 2018 plantation done during 2017-18

| Scheme | Kurseong S.C. Divn | Kalimpong S.C. Divn | Jalpaiguri SC Divn. | Total |
|--|-----------------------|------------------------|------------------------|---------------|
| 2406-F&WL-01-F-SP & AP-789 SCP-002- Misc. Plantation-Quick Growing Species (FR)-87 Regeneration | - | - | 20 Ha | 20 Ha |
| 2551-HA-00-60-O.H.A.-101-SP-025-PA&EC-87 Regeneration | 25 Ha | 26.5 Ha | 30 | 81.5 Ha |
| 2402-S&WC-00-102-SC-SP(AP&11thPlan)-002-PAEC-on landslide slip stream bank in forest area-87-Regn. | 55 Ha | 95 Ha | - | 150 Ha |
| 2402-S&WC-00-102-SP-AP (11th Plan)001-PAEC - 87-Regn | - | 17 Ha | - | 17 Ha. |
| 2402-S&WC-00-102-SP-AP 796-TASP-002-PAEC - 87-Regn | 6.25 Ha | - | - | 6.5 Ha |
| Total : | 31.5 Ha | 43.5 Ha | 50 Ha | 125 Ha |

Maintenance of Plantation undertaken during 2016-17

| Scheme | Y-1 (2015-16) (in Ha.) | Y-2 (2014-15) (in Ha.) | Y-3 (2013-14) (in Ha.) | Y-4(2012-13) (in Ha.) |
|--|------------------------------|------------------------------|------------------------------|-----------------------|
| 2406-F&WL-01F-102-Plantation SPAP & 12th Plan-025-Forestry Treatment-50 O.C.- Plantation Creation | 100 | | | |
| 2406-F&WL-01-Forestry-SPAP & 12th Plan-796-TASP-004-Social & Farm Forestry-Economic Plantation-87 Regeneration-Plantation Creation | 100 | | 260 | |
| 2551-HA-00-060-OHA-SPAP & 12th Plan-028-PAEC on landslide Slip Stream Bank in Forest Area (FR)-50 O.C. Plantation Creation | 10 | | 100 | 100 |
| 2402-S&WC-00-102-SC-SPAP (12th Plan)-001-PAEC on Erosion Control Stream Bank in Forest Area(FR)-87Regn.- Plantation Creation | | 80 | | |
| 2402-00-796-TASP-001-PAEC on Erosion Control on landslide slip stream Bank in Forest Area-87 Regn.- Plantation Creation | | 70 | | |
| 2406-F&WL-01F-SPAP & 12th Plan-796-TASP-004-Social & Farm Forestry Economic Plantation (FR)-87 Regeneration- Plantation Creation | | 210 | | 80 |
| 2402 S&WC-00-789-SCP-002-PAEC on landslide slip stream Bank-87 regn. - Plantation Creation | | | | 150 |
| 2406-F&WL-01F-789-SCP-001-Economic Plantation-87 Regeneration- Plantation Creation | | | | 180 |
| Total Creation: | 110 | 360 | 360 | 510 |

- i) **Bamboo Rhizoms Plantation** :: Bamboo Rhizoms of local variety are collected with ball of earth and transplanted at a spacing of 5m x 5m.
- ii) **Screw Pine (Tarika) Pltn** :: The plantable sized seedlings of Pandanus fructaceans (Screw Pine/ Tarika) are transplanted in between bamboo rhizomes in alternate spacing.
- iii) **Terrace Planting** :: Terrace planting is done by potted seedlings of soil binding species over palisade at a spacing of 2.5mtr. including digging pits, etc. the major species being Alnus nepalensis (Utis), Salix babylonica (Weeping Willow), Erythrina arborescens (Phaledo) , Arundo donax (Narkat), etc.

17.2.2. ENGINEERING MEASURES

Landslide and landslide prone areas are managed through :

1. Modification of slope Geometry
2. Proper drainage
3. Retaining Structures

4. Bio-engineering structures

- a. **Sausage Walls** :: Sausage Walls are used as restraining structures. Sausage walls are made by forming sausages of steel wire netting of 8 Standard Wire Gauge with 10 cm square or hexagonal holes. The sausages are filled with hard local boulders/ stones, and the wire net is wrapped at the top. This process is carried out on the site where the sausage walls are to be installed. It has been found that Sausage wall can withstand a greater amount of deformation than stone masonry, without cracking. This also allows free passage of water.
- b. **CRM Walls** :: Coarse Rubble masonry is constructed by joining local hard dressed stones with cement sand mortar (1:6) as per P.W.D. Specification and purpose.
- c. **Catch Water Drain** :: The control of surface runoff is the most important factor in stabilizing slopes. Surface runoff causes erosion and its percolation through ground increases pore water pressure within the slope material, both contributing to instability of hill slide slopes. Surface drainage is controlled by maximizing the runoff from unstable areas and constructing drains. There are several type of drains for collecting and diverting surface runoff e.g. a) Catchwater Drains b) Roadside Drains and c) Cross drains.
- d. **Hand Packed Wall** :: Hand packed walls are constructed by local hard stones after making necessary foundation and filling backside of the wall with stones to prevent the gully formation on the course of jhoras.
- e. **Jhora Training Works** :: In hilly tracts jhora & rivulets looking dead in summer become torrential during moonsoon. Water flowing at high velocity in steeply descending channels causes lot of damage of banks through scouring and erosion. To prevent this, Jhora Training structures are made that involve making permeable gabion Drop & Guide Structures. Guide Walls are provided along the bank in descending steps. Slope in the bed of the Jhora is broken by providing gabion drops across it. Top of the following drop is levelled with the bottom of the preceding one. Proper hydraulic assessment is necessary for correct design and is done before work.

17.2.3 BIO-ENGINEERING MEASURES :

Landslide areas can be managed using Bio- Engineering measures :-

1. Bio- engineering measures live plant or plant parts to control soil erosion and mass movement of land in order to fulfill engineering functions.
2. It is undoubtedly the most important factor in ameliorating effect of severe ecological disturbance such as landslide.
3. It establishes soil stability and reduce erosion through increasing shear strength.

Species selection for Bio-engineering Measures

1. Good foliage and root system.
2. Ability to grow on harsh conditions.
3. Common on locality.
4. Easy to Propagate.
5. Social & Economic Use.

Belly benching (Palisade) :: The palisades are made by piling bamboo posts 2mtr. Long (1mtr. below and 1mtr. above ground level) at 1 Mtr. apart, fixing horizontal bamboo bars with the posts by wire and nails, filling the backside with available earth and boulders to make bench/terrace.

17.3 Physical Performance

Abstract details of Structural works raised by Circle during 2016-17 under State Plan

| Sl. No. | Nature of Works | Kurseong S.C. | | Kalimpong S.C. | | Jalpaiguri S.C. | | Circle Total | |
|---------|---------------------|---------------|----------|----------------|---------|-----------------|---------|--------------|-----------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| 1 | Catch Water Drain | 1487.28 | 1636000 | 3235.73 | 6154806 | | | 4723.01 | 7790805.5 |
| 2 | Gully Plugging | 635 | 1397000 | 670 | 1474000 | 300 | 666000 | 1605 | 3537000 |
| 3 | River Training Work | 123 | 516600 | 100 | 420000 | | | 223 | 936600 |
| 4 | Bamboo Pallisade | 3892.94 | 2788706 | 1216.31 | 900000 | | | 5109.25 | 3688706 |
| 5 | Boulder Sausages | 5023.59 | 13950367 | | | 663.5 | 2919400 | 5687.09 | 16869767 |
| 6 | Irrigation Channel | | | | | 2500 | 2212500 | 2500 | 2212500 |

| Sl. No. | Nature of Works | Kurseong S.C. | | Kalimpong S.C. | | Jalpaiguri S.C. | | Circle Total | |
|--------------------------|------------------|---------------|---------|----------------|-----|-----------------|-----|--------------|-----------|
| | | Phy | Fin | Phy | Fin | Phy | Fin | Phy | Fin |
| 7 | Hand Packed Wall | 983.02 | 2525702 | | | | | 983.02 | 2525701.5 |
| GRAND T-O-T-A-L 37561080 | | | | | | | | | |

17.4 PROJECT FUNDED BY EXTERNAL AGENCIES

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 production 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), which comes under Prandha Mantri Kisi Sinchayee Yojna (PMKSY) at present.

Main objective of watershed development programme:

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

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 Governments on a 90: 10 ratio.



17.5 IWMP

| Integrated Watershed Management Programme (IWMP) | | | | | | | | | | |
|--|-----------------|--------------------------------------|---------------------|----------------------------------|---------|----------|----------|----------|-----------|----------|
| Sl. No. | Division | Watershed Name | Total Fund Received | Expenditure till 31st March 2017 | | | | | | Balance |
| | | | | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Total | |
| 1 | Jalpaiguri S.C. | Holong [IWMP-2/11-12] | 149.963 | 4.153 | 69.181 | 19.682 | 8.776 | 15.701 | 117.49 | 32.46791 |
| 2 | | Gadadhar-II [IWMP-3/11-12] | 147.038 | 21.974 | 53.671 | 15.557 | 8.749 | 12.539 | 112.48 | 34.55703 |
| 3 | | Buribasra [IWMP-4/11-12] | 142.93 | 12.844 | 63.853 | 14.615 | 7.954 | 13.606 | 112.87 | 32.37744 |
| 4 | | Mantadari-I [IWMP-7/11-12] | 146.83 | 21.766 | 55.514 | 14.714 | 7.772 | 17.113 | 116.88 | 29.94810 |
| 5 | | Moraghat-I [IWMP-8/11-12] | 150.405 | 17.881 | 54.580 | 21.172 | 9.560 | 36.530 | 139.72 | 10.68324 |
| 6 | | Chapramari-I [IWMP-5/11-12] | 144.27 | 12.664 | 62.755 | 13.950 | 7.404 | 22.724 | 119.49 | 24.77673 |
| 7 | | Patlakhawa- Putimari- [IWMP-5/11-12] | 124.998 | 5.64 | 29.440 | 38.62 | 6.917 | 9.060 | 89.660 | 35.33913 |
| 9 | | Latpanchor [IWMP-5] | 121.90 | 0.83 | 32.265 | 4.640 | 38.85 | 9.99 | 90.580 | 31.31394 |
| 10 | | Sittong [IWMP-6] | 128.85 | 0.755 | 35.218 | 9.69 | 14.79 | 24.061 | 84.5285 | 44.32141 |
| 11 | | Ghoom Pahar [IWMP-10] | 62.885 | 0.00 | 0.00 | 0.24 | 11.69657 | 19.60943 | 31.546 | 31.339 |
| 12 | | Tashiding | 172.67961 | 20.00 | 17.3385 | 54.87583 | 28.3719 | 40.0682 | 162.65578 | 10.02383 |



Irrigation Dam -3
across Patinala canal under IWMP
(Moraghat Watershed), at Mela Basti
under Jalpaiguri Soil Conservation
Division



(NREGS) :
Murti river bank protection work
at North Indong block (Lower
Tista Catchment Range) under
Jalpaiguri Soil Conservation
Division



Gully Plugging works at Tankyjhora,
Mahaldiram-III under RKVY Scheme
over 45 m³ 2016-17 Kurseong Soil
Conservation Division



River Training work at Kali
Khola riverbed at Kalijhora Block- 100
m³ under RKVY During 2016-17 under
Kurseong Soil Conservation Division

17.6 ARBORETUM AND BIODIVERSITY PARK

By definition an Arboretum is a place where many kinds of trees and shrubs are grown for exhibition or study'-David B. Guralnik, editor, Webster's New World Dictionary, 2nd college edition (Toronto, 1970), page 71) The word is Latin in origin and is derived from the root word arbor, which means tree. Biodiversity Garden is "a place where native or indigenous trees are reared". The trees that have proven their adaptability over a considerable period in a particular locality may be taken as native.

THE MAIN OBJECTIVES OF THIS PARK / ARBORATUM ARE :

1. Symbolizing the techniques of ex-situ conservation of local flora.
2. To serve as a gene pool for the endangered, vulnerable, rare & indigenous floral diversity of North Bengal.
3. Future seed stand for propagation.
4. Awareness and Educational excursions for students from schools and colleges.
5. Development of tourism and employment generation for local people.
6. Soil and Moisture conservation demonstration for public awareness.
7. Research and Study purpose for medicinal plants, orchids, shrubs, tree species etc.

With the above objective to resort to ex-situ conservation of local flora (mainly trees, shrubs medicinal plants, orchids & RET species) and also to generate awareness among the people, three Biodiversity plots at Ghoom Bhanjang under Kurseong S.C. Division, Delo under Kalimpong S.C. Division & Rasikbill under Jalpaiguri S.C. Division and one Arboratum at Khunia under Jalpaiguri S.C. Division was created by the Soil Conservation Circle.

Ghoom Bhanjang Biodiversity Park : This Park with an area of 7 hectare was created in the year 1994 at Ghoombhanjang by Kurseong Soil Conservation Division and was planted with species having altitudinal distribution ranging from 1500 mtr. to 3600 mtr. In the Biodiversity park, there are a total of 80 species of plants in the Shrubbery comprising 60 genera and 42 families. The Arboratum comprises of 96 species with 69 genera and 42 families as well as 41 wild orchids, 25 hybrid varieties of orchids comprises 25 genera and 1 family. There are 98 medicinal plant species comprising of 60 genera and 30 families in the Medicinal Garden. The fund allotted during the year 2016-17 was utilised for the purpose of maintenance of the Park.

Delo Bio-Diversity, Kalimpong : The Park has 98 tree species, 42 Shrub species, 9 Herb species, 3 Climber species and 8 Bamboo species at present. There has been an attempt to show the evolution series by creating different chambers with species viz. Algae-Bryophytes-Pteridophytes-Gymnosperms- Angiosperms. During 2016-17, 4 species of Australian varieties orchids were added to the Orchidium i.e. Platinum bird, D.series, Cook bridge (Supreme) & Cook bridge (AM/ RHS).

Rasikbill Biodiversity Park : The Park is located at Rasikbill under Rydak Catchment Range of Jalpaiguri S.C. Division over an area of 1 hectare and was established during 2006. The Park has 78 species of trees with 62 genera & 35 families .

Khunia Arboratum : The Arboratum is located at Khunia under Diana Catchment Range of Jalpaiguri S.C. Division over an area of 1.25 hectare and was established during 1995. The Arboratum has 167 species of trees with 133 genera & 62 families .



Handpacked Wall & FootPath at Bio-Diversity Park at Ghomm Bhanjyan under Kurseong Soil Conservation Division



Khunia Arboratum under Jalpaiguri Soil Conservation Division

17.7 SABUJSHREE :

West Bengal has created another milestone by introducing a scheme in which a sapling will be named after a new born girl child. The State Government has decided to plant a sapling with the birth of every girl child in the State.

The Forest department has already talked to the chief medical officers of health in the districts for the smooth implementation of the project. Saplings would be given to the family of a new born girl child during their release from the hospitals. The baby's parents would be urged to name the sapling on the name of the newly born girl. Initially, the saplings would be distributed to girl child but later they would also be given to the mothers of a boy child as well. An awareness campaign has also been undertaken by the forest department officials at block level.

Benefits of the scheme During 2016-17 Kalimpong Soil Conservation distributed the saplings to the parent of newly born baby as per the table below :

| Work Component | Target | | | Achievement | | |
|-----------------------|--|-----------|--------------------------|------------------------------|-----------|--------------------------|
| | Physical (No. of Children born) | Financial | Beneficiary (in Nos.) | (No. of Children born) | Financial | Beneficiary (in Nos.) |
| Kalimpong Block-I | 642 | 1,22,726 | 642 | 320 | 107726 | 320 |
| Cost of Seedling | | | | | 46,112 | |
| Cost of Fertilizer | | | | | 61,614 | |
| Cost of Poly sachette | | | | | | |
| Transportation | | | | | | |
| Training | | | | | | |
| Publicity | | | | | | |
| Kalimpong Block-II | 339 | 1,20,725 | 339 | 306 | 105775 | 306 |
| Cost of Seedling | | | | | 44,436 | |
| Cost of Fertilizer | | | | | 61,339 | |
| Cost of Poly sachette | | | | | | |
| Transportation | | | | | | |
| Training | | | | | | |
| Publicity | | | | | | |
| Gorubathan Block | 490 | 1,18,529 | 490 | 207 | 103529 | 207 |
| Cost of Seedling | | | | | 42,797 | |
| Cost of Fertilizer | | | | | 60,732 | |
| Cost of Poly sachette | | | | | | |
| Transportation | | | | | | |
| Training | | | | | | |
| Publicity | | | | | | |
| | | 3,61,980 | | | 3,17,030 | |

| Range | Beat | Nursery | Seedling raised (2016-17) | Balance after distribution |
|-------|--------|------------|------------------------------|-------------------------------|
| Relli | Dungra | Dalapchand | 3461 | 2077 |
| Ghish | Bokhim | Bokhim | 3254 | 1868 |
| Chel | Fagu | Gorubathan | 2799 | 1622 |



WEST BENGAL FOREST DEVELOPMENT CORPORATION LTD

18.1 Objectives:

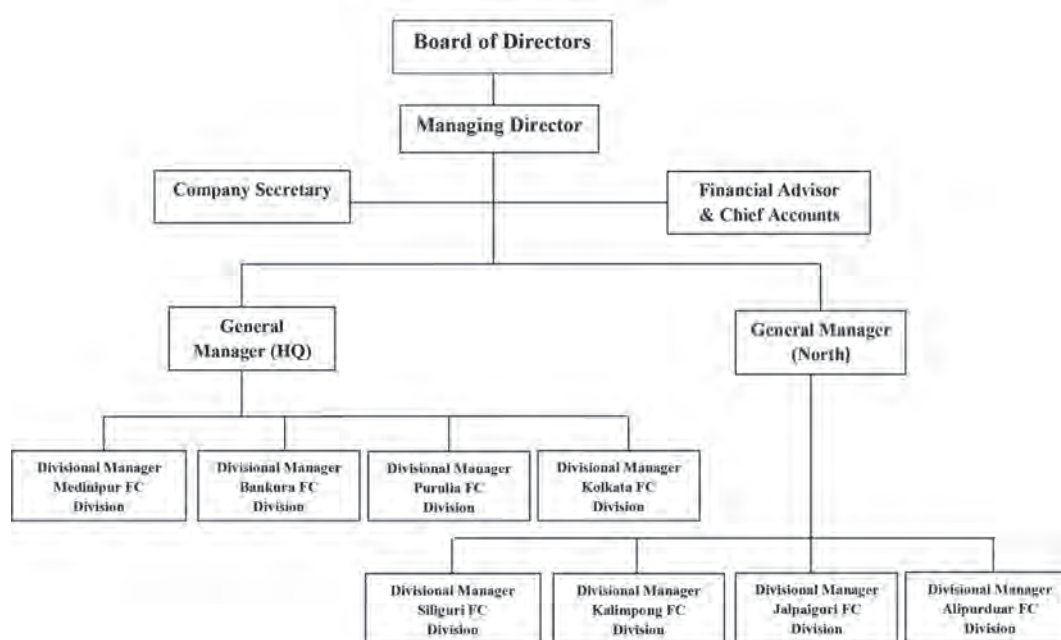
West Bengal Forest Development Corporation Limited (WBFDCCL) came into existence in 1974. The Corporation was incorporated on 19th July, 1974 under the Companies Act, 1956.

Broad 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.

18.2 Organization Structure: The WBFDCCL 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.

Organization Chart



18.3 Board of Directors:

During the year 2016-17 the Board of Directors of WBFDCCL was re-constituted with the following directors

1. Sh.Udayan Guha – Chairman & Hon'ble MLA
2. Sh. Chandan Sinha, IAS, Principal Secretary, Department of Forest
3. Sh.Srikanata Mahata- Hon'ble MLA
4. Smt Mitali Roy – Hon'ble MLA
5. Sh.Dulal Murmu- Hon'ble MLA
6. Sh.Mohan Sharma- Jila Sabhadhipati, Alipur Duar

7. Sh. Joachim Baxla-Ex MP
8. Sh. Pradeep Shukla- PCCF (HOFF), The Govt of West Bengal
9. Dr.Tejinder Singh –Additional PCCF (Central)
10. The Special Secretary Department of Finance, The Govt of West Bengal
11. Sh. Subrat Dhaundyal,IFS –Managing Director

18.4 Major Activities:

i) Territorial Functions

The Total management of Kalimpong Division has been given on lease to WBFDCCL since 2.11.1974, which is the largest territorial Division in North Bengal. The ambit of WBFDCCL 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 WBFDCCL 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 WBFDCCL 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. WBFDCCL 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.1229.15 Lakhs (UNAUDITED) during 2016-17.

iii) Harvesting and Sale of Timber in South Bengal

At present WBFDCCL 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 2016-17 total revenue earned from the said activity was Rs 1923.55 Lakhs (UNAUDITED). West Bengal Forest Development Corporation Ltd. has started e-auction of forest produce during 2016-17.

iv) Eco- tourism:

WBFDCCL 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 2016-17 stood at Rs 399.83 Lakhs (UNAUDITED)

v) Joinery & Carpentry Products:

WBFDCCL 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. 565.17 lakh (UNAUDITED) for the year 2016-17.

vi) Saw Mills & Sale of Sawn Timber:

WBFDCCL 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. WBFDCCL also sells sawn timber through authorized dealers located in different parts of the state. The gross revenue earned through sales of sawn timber during 2016-17 was Rs. 33.90 Lakh (UNAUDITED).



ARANYA BIKASH (WBFD Ltd.)

vii) Honey Operation:

The Corporation procures honey through the members of Joint 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 2016-17 was Rs.45.55 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 18.47 Lakhs(UNAUDITED). for the year 2016-17.

ix) Greening of Waste Lands in South West Bengal:

West Bengal Forest Development Corporation Ltd (WBFDC) 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.

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 2016-17 has been Rs.28.47 Lakhs (UNAUDITED).

E) Schedule of meeting held:

During 2016-17, five Board Meetings were held on 22nd June 2016, 9th September 2016, 23rd September 2016, 29th December 2016 and 30th March 2017.

The 42nd Annual General Meeting was held on 29th December 2016.

F) Financial Result :

The summary of working result of the Corporation for the year 2016-17 as compared to the earlier year was as follows :

| | | Current Year 2016-17 | Previous Year 2015-16 |
|------|--|----------------------|-----------------------|
| | REVENUE FROM OPERATION | | |
| | Sale of Goods | 1657.48 | 1429.45 |
| | Other Operating Income | 3591.29 | 3746.08 |
| I | TOTAL REVENUE FROM OPERATION | 5248.77 | 5175.53 |
| II | OTHER INCOME | 1203.86 | 4436.37 |
| III | TOTAL REVENUE (I+II) | 6452.63 | 9611.90 |
| IV | TOTAL EXPENSES | 5187.60 | 4940.35 |
| V | PROFIT BEFORE EXTRAORDINARY ITEMS AND TAX (III-IV) | 1265.03 | 4671.55 |
| VI | PROFIT BEFORE TAX | 1265.03 | 4671.55 |
| VII | TAX | 470.00 | 1688.99 |
| VIII | PROFIT FOR THE YEAR | 795.03 | 2982.56 |

WEST BENGAL PULPWOOD DEVELOPMENT CORPORATION LTD.

19.1 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.

19.2 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 (1 of 1956) and provided by the Articles of Association of the Company for the time being.

19.3 BOARD OF DIRECTORS :

- (i) Shri Hiten Burman, Chairman
- (ii) Shri Debasish Goswami, Director,
- (iii) Shri Narendra Kumar Pandey, IFS, Managing Director.
- (iv) Shri Subrat Dhaundyal, IFS, Director
- (v) Shri Debal Ray, IFS, Director
- (vi) Shri Niraj Singhal, IFS, Director

19.4 MAJOR ACTIVITY :

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, lease transfer 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.

During 2016-17 plantation harvested 58.15 hectares and plantation raised 32 hectares.

19.5 SCHEDULE OF BOARD MEETING HELD :

Board Meeting held during 2016-2017 - Board of Directors meeting of 2016-17 was held on 24.06.2016, 28.09.2016, 16.12.2016, & 20.02.2017.

19.6 FINANCIAL RESULT :

(As per Unaudited Balance Sheet)

| | | |
|-----------------------|---|---------------|
| Total Revenue | : | 10,218,525.00 |
| Less : Total Expenses | : | 10,863,672.00 |
| Loss during 2016-17 | : | 6,45,147 .00 |
| Less : Tax | : | NIL |
| Loss during 2016-17. | : | 6,45,147. 00 |



Tall Tree Nursery (New Town)

WEST BENGAL WASTELAND DEVELOPMENT CORPORATION LTD.

20.1 Introduction

The West Bengal Wasteland Development Corporation Ltd. (A Govt. of West Bengal undertaking) has been incorporated in 1989. The main objectives of incorporation of this company would be 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.

- (2) To expeditiously develop wasteland by raising plantation.
- (3) To plant, re-plant, afforest and re-afforest in such wasteland.
- (4) 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. In addition to number of objectives relating to improvement of environmental scenario.
- (5) 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.

20.2 Board of Directors

The company is run by a Board of Directors.

- | | | |
|----------------------------------|-----|--------------------|
| 1. Dr. Kalyan Rudra | ... | 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. |
| 6. Shri SubratDhaundyal, IFS | ... | Director. |
| 7. Shri Pradeep Vyas, IFS | ... | Director. |
| 8. Shri Raju Das, IFS | ... | Managing Director. |

20.3 Major Activities:

The following activities have been carried out during the year 2016-17:-

(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, No.2581-For, dated 14.12.2012 & No.880-For, dated 28.04.2005 declared MD, West Bengal Wasteland Development Corporation Ltd. as nodal agency for felling and disposal of trees along National Highways/State Highways and any other Govt. roads on State 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 Dakshin Dinajpur districts.
- (iii) Raised compulsory plantation against harvesting over an area of 172 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 2016-17 WBWDC Ltd. raised 82 ha. plantation on the Over Burdened Dump areas of the worked out collieries and 8 km. of roadside plantation with landscaping and beautification in addition to maintenance of all plantations raised during last four years.



(C) Damodar Valley Corporation:

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 and Mejhia Thermal Power Station (MTPS), at Durgapur under the DVC organisation have been entrusted with this Corporation and the creation and maintenance works are continued during 2016-17 with full satisfaction of the DVC authorities.



(D) WB HIDCO & NKDA:-

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. The maintenance works of all roadside plantations and landscaping works done from the fund of WB HIDCO have been maintained from fund of New Town Kolkata Development Authority.



(E) Urban Development & Municipal Affairs Department, Govt. of West Bengal:-

West Bengal Wasteland Development Corporation Ltd. has taken up creation of landscaping & beautification works underneath Maa Flyover from Parama Island to Park Circus Crossing funded by Urban Development & Municipal Affairs Department, Govt. of West Bengal during 2016-17.

Similarly landscaping and beautification works and plantation have been taken up from Chingraghata to Dhalai Bridge on E.M. Bypass out of fund provided by KMDA during 2016-17.

(F) HRBC :-

Landscaping and beautification works from A.J.C. Bose Road connector towards Santragachi across Vidyasagar Setu has been taken up out of the fund provided by Howrah River Bridge Corporation during the year 2016-17.

(G) Naba Diganta Industrial Township Authority:-

NabaDiganta Industrial Township Authority entrusted WBWDC Ltd. for landscaping and beautification works at Chingraghta to HIDCO Bhawan and ED Channel Site of Salt Lake Bypass Road at NabaDiganta Industrial Township Authority under NDITA. Works have been completed by WBWDC Ltd. during 2016-17.

(H) Department of Sports, Govt. of West Bengal :-

The landscaping and beautification works of Vivekananda Yuba Bharati Krirangan in connection with ensuing FIFA Under-17 World Cup Football was entrusted to WBWDC Ltd. and part of the work has been completed during 2016-17.



(I) Coal India Ltd. :-

Landscaping and beautification works in the residential complex of Coal India Ltd. at Action Area-1, New Town, Rajarhat has been taken up and completed during 2016-17.

(J) Technical Education, Training & Skill Development Department, Govt. of W.B. :-

Technical Education, Training & Skill Development Department, Govt. of West Bengal had entrusted landscaping and beautification works of their office premises at Karigari Bhawan, New Town, Rajarhat. Works have been taken up and completed during 2016-17.

(K) Calcutta Leather Complex, Bantala :-

The greening of Calcutta Leather Complex at Bantala was entrusted to WBWDC Ltd. by Micro, Small & Medium Enterprises & Textile Department. Works have been completed during 2016-17.

(L) IT Parks of WEBEL:

During 2016-17 eight number of IT Parks in Phase-II have been maintained in different locations namely, Durgapur, Barjora, Purulia, Bolpur, Kharagpur, Asansol, Siliguri and Rajarhat, created during 2015-16. New Parks at Sonarpur and Taratala have been created during the year.



(M) Parks & Gardens of Govt. of West Bengal:

Regular maintenance of parks and gardens in all districts of West Bengal are placed with the WBWBDC Ltd. by Govt. of West Bengal vide G.O.No. 697-FOR/FR/IIM-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.

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

During the year 2016-17, maintenance of the landscaping and beautification works in the Cargo Campus funded by Land Port Authority of India have been completed satisfactorily.



(O) Integrated development of wasteland and associated activities for sustainable livelihood in Jungal Mahal under Garbeta-2 Block in Paschim Medinipur District:

Paschimanchal Unnayan Affairs Department, Govt. of West Bengal has handed over an area of 55.00 ha. of wasteland for integrated development for the sustainable livelihood of 640 families of two villages. Balance works (above 40%) of Community development Projects have been implemented during 2016-17. Phase-2 of the project is awaiting approval of Paschimanchal Unnayan Affairs Department.



(P) 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. Creation of plantations during 2016-17 have been completed. Necessary joint inspections by representative of DFO, Forest Utilisation Division, Railway Authority & WBWDC Ltd. have been carried out.

(Q) 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 2016-17.



Modern Nursery

WEST BENGAL FOREST & BIODIVERSITY CONSERVATION PROJECT

21.1 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.

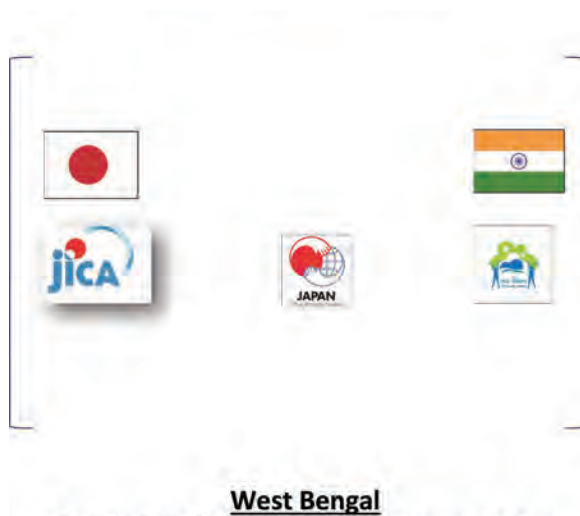
The objectives of the Society are:

- 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 socio-economic development of West Bengal.
- 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.
- To adapt an integrated approach for forest and biodiversity conservation.
- To adapt an integrated approach to implement the objectives noted at a, b & c above.
- 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.

21.2 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.



21.3 Structure and Commitment of the Society

The membership of the said Society consists of—

- i) All members of Governing Body of the Society.
- ii) All officers of Indian Forest Service in the rank of Addl. PCCF under the State Government.
- iii) All Invitee members who will be inducted by the Governing Body of the Society.

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

| <u>Sl. No.</u> | <u>Name</u> | <u>Designation</u> |
|----------------|---|--------------------|
| (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 | Member |
| (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 | Member |
| (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 |

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 above. The Governing Body (GB) headed by the Addl. Chief Secretary to the Govt. of West Bengal, will monitor the financial and physical targets & to review the work of PMU and provide necessary assistance and direction from time to time.

The overall administration of the Society shall vest in the Governing Body and the Governing Body shall have all the necessary powers for that purpose, including the powers necessary or proper for the achievement and the furtherance of the objectives specified. The Governing Body (GB) headed by the Addl. Chief Secretary to the Govt. of West Bengal, will monitor the financial and physical targets & to review the work of PMU and provide necessary assistance and direction from time to time.

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.

21.4 The Project

The objective of the West Bengal Forest and Biodiversity Conservation Project is to improve forest ecosystem, conserve biodiversity and improve livelihood means by undertaking afforestation, regeneration, wildlife management and income generation activities through Joint Forest Management approach, including institutional capacity development, thereby contributing to environmental conservation and harmonized socio-economic development of West Bengal.

The Loan Agreement was signed on 29th March 2012 between JICA and the Government of India. The Executing Agency on behalf of GOI is West Bengal Forest Department (WBFD), through the West Bengal Forest and Biodiversity Conservation Society.

The total project cost is Rs. 406 Crores. Eligible (Reimbursable) Portion of the project is Rs. 344.40 Crores and the Non-eligible (Non-reimbursable) Portion of the project is Rs. 61.70 Crores.

The Project is of 8 years duration, starting from 2012-13 to 2019-20 in consideration of capacities of stakeholders and time required to conduct activities in sustainable manners. After the Mid Term Review of the Project, JICA has agreed in principle for extension of the Project activities beyond 1 year from 2020 if so required.

The project is divided into 3 phases; Preparatory Phase - 2 years (2012-13 to 2013-14), Implementation Phase - 4 Years (2014-15 to 2017-18) & Consolidation (Closing) Phase - 2 Years (2018-19 to 2019-20).

The Project would be implemented all over the State of West Bengal.

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

- Afforestation (Total 21,770ha)
- Biodiversity Conservation
- Community Development
- Institutional Capacity Development

All project activities at the village level will be undertaken in Joint Forest Management (JFM) mode. The 600 targeted FPCs/EDCs are to be selected in batches, based on the stipulated criteria. Services of local NGOs shall be sought to catalyze inputs of civil society for long term sustainability of the project activities.

Establishment of PMU, DMUs and FMUs after Mid Term Review

The mid-term review of West Bengal Forests and Biodiversity Conservation Project was carried out from 3rd to 4th February, 2016 at PMU office, followed up by wrap up meeting in JICA office New Delhi on 15th February, 2016. The final recommendations, duly considering the modification in the project, as suggested by the project authorities and JICA mission was submitted to JICA India on 16th February, 2016. It was informed that in principle NO OBJECTION to all the modifications proposed have been received from JICA. The proposals as accepted in principle by JICA was placed before GB for

- i. Extending its concurrence and
- ii. Allowing implementation of the time bound activities envisaged in the modifications so that the programs do not suffer backlog

The mid-term proposals have placed before GB are concurred herewith. It has also been proposed that the Chief Project Director may be empowered to make minor adjustment within the components without any additional financial implication. For example, minor adjustments among afforestation models may be allowed to be decided by Chief Project Director within the budget/component so that physical target of afforestation can be achieved. Similarly, Chief Project Director may be authorized to make minor corrections/ adjustments in the distribution of FPCs and EDCs before the microplans are finalized so that community development activities can be taken up in those FPCs/EDCs on a priority basis.

36 DMUs have been established till date. 34 DMUs are participating in the Project activities at present.

The State Government vide its resolution no. 2143-For/G/6M-38/12 dated 10.08.2016 had decided to close Buxa Tiger Reserve (East), Buxa Tiger Reserve (West), Mahananda Wildlife Sanctuary portion of Wildlife-I DMU and areas under the FPCs of Malda DMU. So the changes effected in the list of FMU during 2016-17 will be as follows.

| Sl.No. | Name of Circle | Name of DMU | No. of FMUs |
|--------|-------------------|----------------------------|-------------|
| 1 | Western | Kharagpur | 7 |
| 2 | Western | Medinipur | 9 |
| 3 | Western | Rupnarayan | 5 |
| 4 | Western | Jhargram | 4 |
| 5 | Central | Bankura North | 10 |
| 6 | Central | Bankura South | 12 |
| 7 | Central | Panchet | 5 |
| 8 | South-West | Purulia | 6 |
| 9 | South-West | Kangsabati North | 4 |
| 10 | South-West | Kangsabati South | 4 |
| 11 | South-West | Purulia Extension Forestry | 3 |
| 12 | South-East | Burdwan | 5 |
| 13 | South-East | Birbhum | 6 |
| 14 | South-East | Durgapur | 2 |
| 15 | South-East | Nadia-Murshidabad | 7 |
| 16 | Hill | Darjeeling | 1 |
| 17 | Hill | Kurseong | 5 |
| 18 | Northern | Baikunthapur | 6 |
| 19 | Northern | Coochbehar | 6 |
| 20 | Northern | Jalpaiguri | 7 |
| 21 | Wildlife (North) | Wildlife-I | 5 |
| 22 | Wildlife (North) | Wildlife-II | 7 |
| 23 | Wildlife (North) | Wildlife-III | 9 |
| 24 | North-West | Malda | 5 |
| 25 | North-West | Raiganj | 6 |
| 26 | North-West | Jalpaiguri Social Forestry | 6 |
| 27 | North-West | Siliguri Social Forestry | 5 |
| 28 | Parks and Gardens | Howrah Social Forestry | 4 |
| 29 | Research | Silviculture Hills | 1 |
| 30 | Research | Silviculture North | 0 |
| 31 | Research | Silviculture South | 2 |
| 32 | Wildlife HQ | Wildlife HQ | 0 |
| 33 | Monitoring | Monitoring South | 5 |
| 34 | Monitoring | Monitoring North | 5 |
| Total | 174 | | |

Similarly changes effected in the list of FPCs/EDCs after MTR during 2016-17 are narrated below:

| List of Selected FPC/EDC after MTR | | | | | |
|------------------------------------|----------------|----------------|-----------------------|--------------------------------|------------------------------------|
| FPC | | | | | |
| Sl. No. | Name of Circle | Name of DMU | As approved in 7th GB | Revision as proposed after MTR | 1st Revision as proposed after MTR |
| 1 | Western | Midnapur | 56 | 62 | 62 |
| 2 | Western | Kharagpur | 21 | 24 | 26 |
| 3 | Western | Rupnarayan | 45 | 50 | 52 |
| 4 | Western | Jhargram | 35 | 37 | 33 |
| | Total Circle | | 157 | 173 | 173 |
| 5 | Central | Bankura (N) | 55 | 59 | 59 |
| 6 | Central | Bankura (S) | 45 | 51 | 51 |
| 7 | Central | Panchet | 45 | 50 | 50 |
| | Total Circle | 145 | 160 | 160 | |
| 8 | South-West | Kangsabati (N) | 31 | 33 | 33 |
| 9 | South-West | Kangsabati (S) | 34 | 36 | 34 |
| 10 | South-West | Purulia | 35 | 37 | 37 |
| | Total Circle | | 100 | 106 | 104 |
| 11 | South-East | Birbhum | 12 | 12 | 14 |
| 12 | South-East | Burdwan | 31 | 31 | 31 |
| 13 | South-East | Durgapur | 10 | 10 | 10 |
| | Total Circle | | 53 | 53 | 55 |
| 14 | North-West | Malda | 3 | 0 | 0 |
| | Total Circle | | 3 | 0 | 0 |
| 15 | Northern | Baikunthapur | 18 | 23 | 23 |
| 16 | Northern | Coochbehar | 3 | 3 | 3 |
| 17 | Northern | Jalpaiguri | 20 | 25 | 25 |
| | Total Circle | | 41 | 51 | 51 |
| 18 | Hill | Darjeeling | 3 | 3 | 3 |
| 19 | Hill | Kurseong | 16 | 16 | 16 |
| | Total Circle | | 19 | 19 | 19 |
| 20 | Wildlife (N) | Wild Life III | 14 | 14 | 14 |
| | Total Circle | | 14 | 14 | 14 |
| | Grand Total | | 532 | 576 | 576 |
| | | | | | |
| EDC | | | | | |
| | | | | | |
| Sl. No. | Name of Circle | Name of DMU | As approved in 7th GB | Revision as proposed after MTR | 1st Revision as proposed after MTR |
| 1 | Wildlife (N) | Wild Life I | 11 | 6 | 6 |
| 2 | Wildlife (N) | Wild Life II | 7 | 7 | 7 |
| 3 | Wildlife (N) | Wild Life III | 11 | 11 | 11 |
| | Total Circle | | 29 | 24 | 24 |
| | Grand Total | | 29 | 24 | 24 |

Consolidation of Legal System for Institutionalization of Society and PMU

The Regulations and Byelaws of the Society have been duly framed.

The Operational Manual for the West Bengal Forest and Biodiversity Conservation Society has been prepared and approved by the Governing Body (GB) of the Society in its meeting held on 25.03.2013. Delegation of Financial Powers has also been approved by Governing Body of the Society.

Accounting Procedure for the Society has also been prepared and communicated to the DMUs.

Deployment of Staff

The details of the staff working at the PMU and the mode of their engagement is tabulated below:

| Sl. No. | Position | Mode of Engagement |
|---------|--|--------------------------------------|
| 1. | Chief Project Director | On Deputation |
| 2. | Project Director, Finance | On Deputation |
| 3. | Project Director, Monitoring & Evaluation | On Deputation |
| 4. | Addl. Project Director, Implementation | On Deputation |
| 5. | Addl. Project Director, Planning & Research | On Deputation |
| 6. | Addl. Project Director, Co-ordination | Contractual Retired personnel |
| 7. | Joint Project Director, Co-ordination | Contractual Retired personnel |
| 8. | Accounts Officer | Contractual Retired personnel |
| 9. | Forest Ranger | Contractual Retired personnel |
| 10. | Accountant cum Cashier (2 nos.) | Contractual through Service Provider |
| 11. | Computer Operator cum Office Assistant (4 nos) | Contractual through Service Provider |
| 12. | Office Attendant (3 nos.) | Contractual through Service Provider |
| 13. | Security Personnel (2 nos.) | Contractual through Service Provider |

The Governing Body, in its meeting held on 25.03.2013 has approved recruitment of personnel by the Society through Service Provider under the provision "Support Staff of PMU and DMU".

The status of the deployment of contractual staff in different DMUs, Circle office & PCCF office upto 31.03.2017 is as follows:

| Activities | Particulars | Unit | Achievements 2012-13 | Achievements 2013-14 | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) |
|---|---------------|------|-------------------------|-------------------------|-------------------------|-------------------------|---|--|
| | | | Physical | Physical | Physical | Physical | Physical | Physical |
| Deployment of "Support Staff" to PMU and DMU | At PMU | no. | - | 1 | 10 | - | 1 | 12 |
| | Circle Office | - | - | - | 5 | 5 | 10 | |
| | At DMUs | no. | - | 3 | 50 | 10 | 5 | 68 |

Preparation of Manuals

Following Manuals/Guidelines have been prepared upto 31.3.2016.

Published in 2014-15

1. Standard Management Manual/ Guidelines for PMU-Operation Manual
2. Manual of Accounting Procedure for PMU
3. Manual of Accounting Procedure for DMUs
4. Manual of Accounting Procedure for FMUs and FPCs/EDCs
5. Guidelines for Preparation of Micro-plan
6. Guidelines for Preparation of Forest Dwellers Development Plan
7. Nursery Techniques- Establishment of Infrastructure
8. Nursery Techniques- Production of QPM
9. Guidelines for Tree Plantation Outside Forest Areas
10. GPS Usage Guideline

Published in 2015-16

11. Nursery Manual in Bengali
12. GPS Handbook
13. TPOFA Booklet

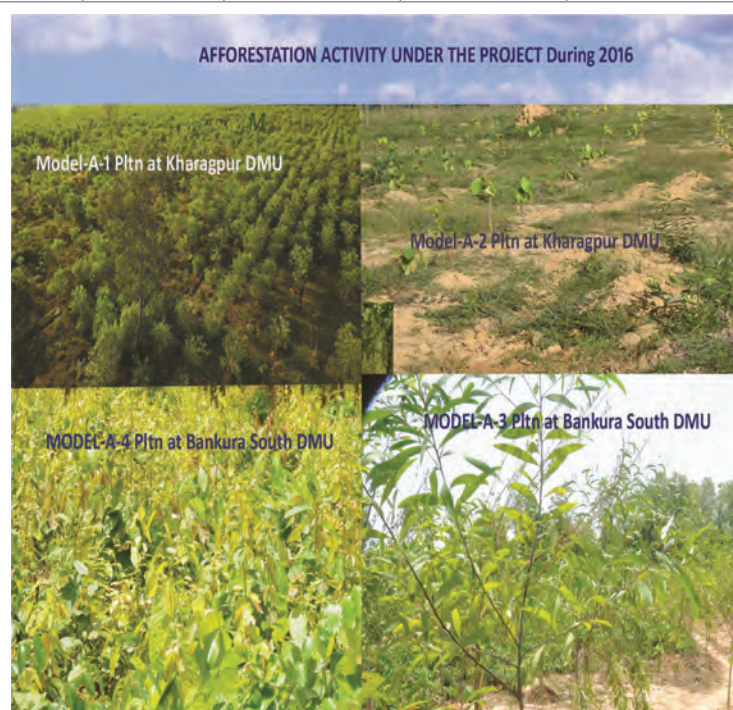
Published in 2016-17

14. Nursery Manual in English Language
15. Compost Preparation in Bengali Language
16. Compost Preparation in English Language
17. Compost Preparation in Nepali Language
18. Achievement at a Glance in English Language
19. Swanirbhar Dal Gathan O Parichalana in Bengali Language
20. Guide Book on IGA (Income Generation Activities) in Bengali Language
21. Manual on Community Development in English Language
22. GPS Hand Book in English Language
23. Manual on FPC Boundary Demarcation in English Language
24. Manual on Online Plantation Journal in English Language
25. Guide Line of TPOFA (Tree Plantation Outside the Forest Area) in English Language.

21.5 Afforestation

During 2016-17 Creation of plantations have been undertaken over an area of 5636 ha under different models as shown below.

| Activities | Particulars | Unit | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) |
|---------------|-------------|------|-------------------------|-------------------------|---|---|
| | | | Physical | Physical | Physical | Physical |
| Afforestation | A1 | ha. | 141.50 | 166.00 | 143.00 | 450.50 |
| | A2 | ha. | 176.00 | 406.00 | 365.00 | 947.00 |
| | A3 | ha. | 257.00 | 1,643.00 | 1,891.00 | 3,791.00 |
| | A4 | ha. | 1,129.00 | 2,923.00 | 2,300.00 | 6,352.00 |
| | A5 | ha. | 30.00 | 160.00 | 362.00 | 552.00 |
| | A6 | ha. | 20.00 | 110.00 | 135.00 | 265.00 |
| | B1 | ha. | 119.15 | 310.50 | 409.00 | 838.65 |
| | B2 | ha. | 45.28 | 19.00 | 31.00 | 95.28 |
| | Total | ha. | 1,917.93 | 5,737.50 | 5,636.00 | 13,291.43 |



Production of Quality Planting Material

In the year 2016-17, 2.25 units of New Central Nurseries & 2.75 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 24.75 units of New Central Nurseries and for expansion of 15.25 units of existing Nurseries have been already established.



Central Nurseries under 1. Kharagpur DMU, 2. Burdwan DMU, 3. Bankura North DMU, 4. Bankura South DMU- (2016-17) clock wise from top left

| Activities | Particulars | Unit | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) |
|-----------------|-------------|-------|----------------------|----------------------|--|-------------------------------------|
| | | | Physical | Physical | Physical | Physical |
| Central Nursery | New | units | 15.75 | 6.75 | 2.25 | 24.75 |
| | Expansion | units | 6.50 | 6.00 | 2.75 | 15.25 |

21.6 Preparation of Micro-plans

Out of 600 Nos. FPCs/EDCs, 486 Microplans are ready at hand and can be used for the purpose of Community Development works. Rest of the Microplans are under process and scrutiny at the level of DMU.



21.7 Boundary Demarcation

Boundaries of the Forest areas, jointly managed under Forest Protection Committees along with the Directorate of Forests, have been demarcated with the help of GPS under MIS-GIS component of the project activities and the boundary demarcation work of the jointly managed forest area is complete in respect of 423 Forest Protection Committees upto 31.03.2017.

| Submission of GPX Files (Boundary Demarcation) As On 31.03.2017 | | | | | |
|--|--------------------|----------------|------------|-------------------------|-------------------|
| Sl. No. | Name of Circle | Name of DMU | No. of FPC | Submission of GPX Files | Pending GPX Files |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Western | Midnapur | 62 | 54 | 8 |
| Microplan Preparation at Biratdih Degeria FPC under Jhargram DMU | | | | | |
| 4 | Western | Jhargram | 33 | 27 | 6 |
| | Total Circle | | 173 | 159 | 14 |
| 5 | Central | Bankura (N) | 59 | 59 | 0 |
| 6 | Central | Bankura (S) | 51 | 51 | 0 |
| 7 | Central | Panchet | 50 | 50 | 0 |
| | Total Circle | | 160 | 160 | 0 |
| 8 | South-West | Kangsabati (N) | 33 | 33 | 0 |
| 9 | South-West | Kangsabati (S) | 34 | 0 | 34 |
| 10 | South-West | Purulia | 37 | 31 | 6 |
| | Total Circle | | 104 | 70 | 34 |
| 11 | South-East | Birbhum | 14 | 0 | 14 |
| 12 | South-East | Burdwan | 31 | 31 | 0 |
| 13 | South-East | Durgapur | 10 | 0 | 10 |
| | Total Circle | | 55 | 31 | 24 |
| 14 | Northern | Baikunthapur | 23 | 0 | 23 |
| 15 | Northern | Coochbehar | 3 | 0 | 3 |
| 16 | Northern | Jalpaiguri | 25 | 0 | 25 |
| | Total Circle | | 51 | 0 | 51 |
| 17 | Hill | Darjeeling | 3 | 3 | 0 |
| 18 | Hill | Kurseong | 16 | 0 | 16 |
| | Total Circle | | 19 | 3 | 16 |
| 19 | Wildlife (N) | Wild Life III | 14 | 0 | 14 |
| 20 | Wildlife (N) | Wild Life I | 6 | 6 | 0 |
| 21 | Wildlife (N) | Wild Life II | 7 | 0 | 7 |
| 22 | Wildlife (N) | Wild Life III | 11 | 0 | 11 |
| | Total Circle | | 38 | 6 | 32 |
| | Grand Total Circle | | 600 | 423 | 177 |

21.8 Biodiversity Conservation Component

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

SACON will carry out studies on Ecology of Elephants in South-West Bengal.

ARANYAK 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, Wildlife-III DMU was assigned to raise Grassland Fodder Plantation over 60 ha, while 40 ha of Grassland Fodder was allocated to Wildlife-II DMU. Wildlife-II DMU was also asked to raise Fodder Tree Plantation by working out Malling Bamboo areas over 5 ha during 2015-16.

Biodiversity Research

Present status of Biodiversity Research on the following topics are mentioned hereunder, as stood on 31.03.2017.

| Sl. No. | Item of Works | Name of the Organization assigned to | Study Period | Remarks |
|---------|-------------------------------------|--|--------------|--|
| 1 | Ecology of Leopard in North Bengal | Aaranyak, 13 Tayab Ali Bye Lane, Bishnu Rabha Path, Beltola, Tini Ali, Guwahati, 781028. | 2 years | Agreement Signed on 23.03.2017 |
| 2 | Ecology of Gaur in North Bengal | Aaranyak, 13 Tayab Ali Bye Lane, Bishnu Rabha Path, Beltola, Tini Ali, Guwahati, 781028. | 3 years | Inception report accepted. Draft 1st quarterly report submitted. |
| 3 | Ecology of Tiger in North Bengal | Aaranyak, 13 Tayab Ali Bye Lane, Bishnu Rabha Path, Beltola, Tini Ali, Guwahati, 781028. | 2 years | Agreement signed on 23.03.2017 |
| 4 | Ecology of Elephant in North Bengal | Aaranyak, 13 Tayab Ali Bye Lane, Bishnu Rabha Path, Beltola, Tini Ali, Guwahati, 781028. | 2 years | Inception report accepted. Report of 1st quarterly and half yearly due |

| Sl. No. | Item of Works | Name of the Organization assigned to | Study Period | Remarks |
|---------|---|--|--------------|---|
| 5. | Impact of Habitat Management in National Park and Sanctuaries | Nature Environment and Wildlife Society 10, Chowringhee Terrace, Kolkata-700020 | 3 years | Agreement Signed on 27.02.2017 |
| 6. | Ecology of Elephant in South Bengal | Salim Ali Centre for Ornithology and Natural History, Anaikatty, Coimbatore-641108 | 3 years | Reports of 1st qtr. Half-Yearly report submitted. |

21.9 Construction of Departmental Buildings

During 2016-17, Civil Construction of New Buildings, viz. 2nos. of RO's Quarter cum Office at Dalgaon of Jalpaiguri DMU and at Lava of Wildlife-II DMU has been completed in all respect.

| Activities | Particulars | Unit | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) | |
|---|---------------|------|----------------------|----------------------|--|-------------------------------------|---|
| | | | Physical | Physical | Physical | Physical | Remarks |
| Construction of Building at AE-391 | | no. | - | 1 | - | 1 | Construction work completed |
| Other buildings quarters | Group D | no. | 6 | 8 | 15 | Target 15 nos. | |
| quarters | Group C | no. | 8 | 2 | 10 | Target 10 nos. | |
| | ROs quarters/ | | | | | | |
| Range office | no. | 1 | 2 | 2 | 5 | Target 5 nos. | |
| Expansion of existing Administrative Building | | no. | - | - | 2 | 2 | Civil works relating to vertical extension of Aranya Bhawan, Salt Lake, Kolkata in two floors are almost complete by 2016-17. |

Civil works relating to vertical extension of Aranya Bhawan, Salt Lake, Kolkata in two floors are almost complete by 2016-17. Now tendering process for installation of 3 elevators have been completed and work orders to selected contractors have been issued.

New administrative building at Dabgram:

Grant of permission for the construction of a G+3 storeyed administrative building on R.S. Plot No. 91,86,148,767,418,419,991,990, Sheet No. 13, Project area Shantinagar Housing Complex, Mouza-Dabgram (Urban) in SDJA Project area under Rajganj P.S. of Jalpaiguri District has been obtained from Siliguri-Jalpaiguri Development Authority, Siliguri vide its no. 0130/SJDA dated 06.04.2017.

Though necessary building plan was submitted to Siliguri Municipal Corporation for obtaining necessary sanction, which is yet to be obtained.

21.10 Institutional capacity development

Trainings

| Activities | Particulars | Unit | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) | |
|-------------------------------|--|---------------------|----------------------|----------------------|--|-------------------------------------|---|
| | | | Physical | Physical | Physical | Physical | Remarks |
| Trainings & Capacity building | Micro-plan preparation | no. | 33 | 1 | - | 57 | no. of Trainings |
| | | no. of Participants | 854 | 24 | - | 1,297 | Frontline staff |
| | | No. of Participants | 14,300 | 6,000 | - | 30,300 | FPC members |
| | Usage of GPS | no. | 27 | 9 | 14 | 54 | no. of Trainings |
| | | No. of Participants | 582 | 54 | 103 | 839 | Frontline staff |
| | Accounting Procedure | nos. | 31 | 11 | 28 | 70 | No. of Trainings |
| | | no. of Participants | 247 | 51 | 320 | 618 | Head of DMUS, Head of FMUs & Support Staff |
| | Tree Plantation Outside Forest Area (TPOFA) | nos. | 14 | 60 | - | 74 | No. of Trainings |
| | | No. of Participants | 443 | 230 | - | 673 | Frontline staff & Beneficiaries |
| | Nursery Techniques | nos. | 4 | 4 | 3 | 11 | nos. |
| | | no. of Participants | 113 | 104 | 134 | 351 | Head of DMUS, Head of FMUs & Frontline Staff |
| | Package 2 for Middle and Junior officers in Indian Institutes Short term training (10-15 days) | no. of Participants | | 80 | 23 | 103 | IIFM (14nos.), IISWC (32nos.), KFRI (15nos.), IIRS (14 nos.) IGNEA (6 nos.). ATI (23) |
| | Package 3 for Jr. officers, FR and Front Line Staff (inhouse or indian institutes) | no. of Participants | | 45 | 23 | 68 | School of Oceanography, Jadavpur University |
| | Frontline Staff and FPC/ EDC/ SHG Microfinance & Accounting | no. of Participants | - | - | 190 | 190 | BRAIPRD, Kalyani |
| | Study Tours | nos. | - | 2 | 3 | 7 | |
| | | no. of Participants | - | 35 | 32 | 97 | Officers & frontline staff |
| | MIS | nos. | - | 7 | - | 7 | |
| | | no. of Participants | - | 128 | - | 128 | Officers & frontline staff |
| | Community evlopment | nos. | | 2 | 2 | 4 | |
| | | no. of Participants | | 80 | 52 | 132 | Officers & frontline staff |

Procurements

| Activities | Particulars | Unit | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) |
|-------------|----------------------------------|------|----------------------|----------------------|--|-------------------------------------|
| | | | Physical | Physical | Physical | Physical |
| Procurement | Vehicles-Mahindra Scorpio | nos. | 10 | - | 14 | 24 |
| | Vehicles-Maruti Suzuki Ertiga | nos. | 2 | - | - | 2 |
| | Vehicles-Tata LPT 407 EX 2-34 | nos. | - | - | 1 | 1 |
| | Hero Super Splendor motor-cycles | nos. | 100 | - | 63 | 163 |
| | Equipment-GPS | nos. | 90 | 87 | - | 267 |
| | Equipment-Camera | nos. | 90 | 54 | - | 144 |
| | Equipment-Computers | nos. | 43 | 2 | 9 | 67 |
| | Equipment-Printers | nos. | 43 | 1 | 2 | 53 |
| | Tally Software | nos. | 12 | - | - | 37 |

Consultancy Services

The Project Management Consultants started working for the Project from 2013-14. In the year 2016-17, the PMC undertook the following activities when the members got mobilized as per the work schedule of the Project.

| Sl. No. | Position | Name | Assigned Man-Month | Man Month Utilised upto 2014-15 | Man Month Utilised in 15-16 | Man Month Utilised in 16-17 | Activities |
|---------|--|--|--------------------|---------------------------------|-----------------------------|-----------------------------|--|
| 1 | Team Leader & Afforestation Specialist | Johannes P. Van kooijk | 26.00 | 9.26 | 3.27 | | Discuss review and complete draft nursery manual, discuss and respond to priority areas as recognized by PMU, field visit of areas for review and detect possible problems for improvements on out planting, water conservation work direct seedlings in South, Plains and Hills of the state etc. |
| 2 | Biodiversity Conservation Expert | S. Faizi | 16.00 | 4.77 | 4.10 | 2.50 | Preparing implementing and monitoring output of Research Activities on Biodiversity Conservation etc., implementing project interventions etc. |
| 3 | Community Development. & SHG Supporting Expert | Manoj Kumar Pattanaik & Girish Ch. Bharadwaj | 32.00 | 5.26 | 1.97 | 4.04 | Orientation of Field level stake holders in developing business plans and facilitation of implementation of microfinance activities etc. |
| 4 | Tree Plantation Outside Forest Expert | Visvarup Chakravarti | 20.00 | 6.69 | 0.77 | - | Creation of greeneries outside the state government forests with the help of peoples participation |
| 5 | Capacity Building Expert | Raktima Mukhopadhyay & Sri Ranjan Mahapatra & Ajay Rai | 24.00 | 3.37 | 4.16 | 4.23 | Assist in planning and organizing international training programmes as well as annual training programmes for PMU/DMU/JFMC/EDC/SHGs etc. |
| 6 | M & E Expert | Sanjay Verma & Dr. Joseph Varghese Viruthiyel | 24.00 | 1.00 | 2.74 | 1.53 | To assist PMU in designing, reviewing and devising a list of project performance indicators for monitoring and evaluation and developing methodologies for evaluation of each indicators etc. |
| 7 | GIS & MIS Expert | Shalabh Prakash Bharadwaj & Dr. Nupoor Prasad | 21.00 | 5.50 | 4.03 | 2.52 | Spatial data generation, GIS database generation, purchase of H/W and S/W and advanced training in Geo-database building under GIS system etc. |

WORKSHOP ON MIS APPLICATIONON 2nd December,2016 in Pradhan Nagar,Siliguri

A workshop on MIS application was held on 2nd December,2016 to review the updated informationon West Bengal Forest and Biodiversity Conservation Project on the following schedules as shown

1. MIS application on digitization of FPC Boundary Demarcation
2. MIS application on Accounts and Budget
3. MIS application on plantation journal
4. MIS application on Geo-tagging of photographs on various project activities

Sri R.N.saha, IFS, DFO Medinipur and Sri A.Guha,DFO Kharagpur Division attended the workshop as resource persons on digitization of FPC boundary demarcation and geo tagging of photographs.

The heads of DMUS and circle in charges associated with WBFBC Project in North Bengal attended the workshop. It was resolved in the meeting that online monitoring reporting system through web enabled MIS(GPS based and Account based) had already been started from FY 2014.Plantation journals for all plantations are to be uploaded on MIS covering all JFMCs functioning at present. All plantations should be geo referred. From April 1, 2016 the MIS system would be ready for live monitoring. The Head DMUs were requested to inform PMU the current status.

21.II Mid Term Review proposals of West Bengal Forest and Biodiversity Conservation Project

Mid Term review Of West Bengal Forest and Biodiversity Conservation Project was carried out from 3rd to 4th February, 2016 at the PMU office, Kolkata followed up by wrap up meeting in JICA office in New Delhi on the 15th February, 2016. The First recommendation, duly considering the modifications in the project, as suggested by the project authorities and JICA missions was submitted to JICA, India on 16th February, 2016. The midterm review proposals of West Bengal Forest and Biodiversity Conservation Project are presented component wise. All the modifications have been proposed to be adjusted both physically and financially within the major components. It was proposed that the Chief project Director may be empowered to make minor adjustments within the components without any additional financial implication. For example, minor adjustments among afforestation models may be allowed to be decided by the Chief Project Director within budget components that the physical target of afforestation can be achieved. Similarly, the Chief Project Director may be authorized to make minor corrections/adjustments in the distributions of FPCs & EDCs before the micro plans are finalized, so that community development activities can be taken up in those FPCs/EDCs on a priority basis. Minor adjustments in Capacity Building component may also be allowed to be decided by the CPD within Budget Component to make local adjustments.

1. Afforestation

| Model | Physical as per MOD(ha) | Physical as per proposed in MTR(ha) | Difference |
|-------|-------------------------|-------------------------------------|------------|
| A1 | 450 | 450 | - |
| A2 | 3430 | 2500 | -930 |
| A3 | 6000 | 7300 | +1300 |
| A4 | 7500 | 8430 | +930 |
| A5 | 1050 | 1190 | +140 |
| A6 | 540 | 400 | -140 |
| B1 | 1400 | 1400 | - |
| B2 | 1400 | 100 | -1300 |
| TOTAL | 21770 | 21770 | nil |

2. Community Development

| MOD | RECOMMENDED |
|--------------------|--------------------|
| 550 FPCs & 50 EDCs | 576 FPCs & 24 EDCs |

3. Biodiversity Conservation

| Activities for Habitat Improvement | Physical as per MOD(ha) | Physical as proposed in MTR(ha) | Difference |
|---|-------------------------|---------------------------------|------------|
| Grassland Creation in the Plains | 200 | 260 | +60 |
| Bamboo under planting in Mahananda | 60 | 0 | -60 |
| Fodder tree Plantation after removal of Malling bamboo in hills | 75 | 75 | 0 |
| Total | 335 | 335 | 0 |

However, in view of DEA, Ministry of Finance, Government of India office memorandum no. F.13/1/2012-Japan. III Dated March 22, 2016 conveying its concurrence for the proposed changes and the Ministry of Environment, Forests and Climate Change, Government of India, office memorandum no. F.No.12-1-4/2006-EAP/Pt II Dated March 4, 2016, conveying its agreement to the changes proposed in the Mid-term Review (Both Submitted by you vide letter no 2 under reference). and Department of Forests, Government of West Bengal letter no. 1073-For/FR/O/6M-32/2014 Dated April 27, 2016, conveying its "NO OBJECTION to the modifications proposed, JICA conveyed its formal NO OBJECTION vide its no JICA(JD)27-141 dated May 16, 2016.

Further, JICA also asked PMU to take necessary action at its end in respect of the proposed empowerment of the Chief Project Director to make minor adjustments among afforestation models, minor adjustments between various major components and adjustments due to change in policy level decision in Government vide its no. JICA (JD) 27-141 dated May 16, 2016.

21.12 National Workshop

The West Bengal Forest and Biodiversity Conservation Project has organized the 9th National Workshop of JICA from 11th to 13th January, 2017 at Kolkata and Sundarbans which was attended by State Heads, Senior Forest Officers of different states working in the project, Principal Chief Development Specialist, JICA, the Director NKI Pvt. Ltd. and Senior Directors and Country Officers of JICA and the Departmental Officers.

Thematic issues like GIS, REDD++ and sustainable forest management with people's participation and modernization of management took the major part of the discussion and recommendations accrued from this workshop was also part of the major agendas.

JICA suggested that thrust areas and recommendations of the 8th Workshop should be discussed and the new recommendations emerging from the 9th workshop should be actionable points on the recommendations of the previous workshop held in Sikkim in February 2016. With this, continuity of the recommendations shall be maintained and the annual workshops would attain a meaningful conclusion. Having these principles laid out, the suggestions received and incorporated from the participants of the 8th Annual National Workshop of JICA in Gangtok, SIKKIM on each thrust areas were further discussed and finalized.

The four themes emerging out of 8th Annual Workshop in Sikkim were taken up for discussion and actionable points were suggested.

Theme I... Sustainable Forest and Biodiversity Management
Theme II... Livelihood Security
Theme III... Institutional Strengthening and Capacity Building
Theme IV... Technology based Monitoring

Recommendations no.1

Policy Synergization of National Resource Management Practices is essential. State Level Advisory Committee under the chairmanship of the Chief Secretary should be formed in each project for reviewing the progress of convergence, which should meet every six months.

Recommendations no.2

Social audit and Financial audit should be taken up at village level.

Recommendations no.3

Sense of belongingness of the community

Recommendations no.4

Incentivisation of the community and recognizing the marginalized is essential.

Recommendations no.5

There is no need to develop indicators of sustainable Forest management.

Actionable Points suggested at 9th Workshop

Ecosystem based management should be taken into account to ensure sustainable use of traditional services/practices to the overall forest resource management.

Objectively verifiable indicators to be developed at the start of the project and also the methodology to assess the same at mid term and end term of the project.

Utilisation of Grants

The Society received Grants-in Aid of Rs. 1.3525 crores in 2012-13, Rs. 55.08 crores during the year 2013-14, Rs. 91.41 crores in 15-16 and Rs. 65.00 Crores during the year 2016-17 respectively.

During the FY 2016-17, Rs. 47.2859 crores (Including Non grant fund of 0.8031 Crores) was utilized for implementation of the Project Activities.

Re-imbursement claim settled upto 31.03.2017 is Rs. 88.9170 crores (cumulative since the beginning of the project).



9th JICA Annual National Workshop held at Kolkata &
Sundarbans on 11th-12th January, 2017

Table 21.1

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

| Items | Particulars | Unit | Achievements 2012-13 (in lacs) | Achievements 2013-14(in lacs) | Achievements 2014-15(in lacs) | Achievements 2015-16 (in lacs) | Achievements 2016-17 (in lacs) | Total achievement (Upto 31.03.17) (in lacs) |
|--------------------------|-------------------|--------------|--------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---|
| | | | Financial | Financial | Financial | Financial | Financial | Financial |
| Utilisation of Grants | Reimbursable | Rs. Lakhs | - | 198.87 | 1,702.96 | 3874.90 | 4046.47 | 9823.20 |
| | Non-reimbursable | Rs. Lakhs | - | 56.63 | 295.50 | 463.80 | 601.81 | 1417.74 |
| | Total Utilisation | | | | | | | |
| | Rs. Lakhs | | 255.50 | 1,998.46 | 4338.70 | 4648.28 | 11240.94 | |
| | Non-Grant Fund | Rs. Lakhs | - | - | 121.79 | 78.84 | 80.31 | 280.94 |
| | Grand Total | Rs. Lakhs | - | 255.50 | 2,120.25 | 4417.54 | 4728.59 | 11521.88 |
| Re-imbursements | Reimbursable | Rs. Lakhs | - | 176.90 | 1,320.37 | 3,335.70 | 3777.79 | 8610.76 |
| | Non-Grant Fund | Rs. Lakhs | - | - | 121.79 | 78.84 | 80.31 | 280.94 |
| | Total | Rs. Lakhs | - | 176.90 | 1,442.16 | 3,414.54 | 3858.10 | 8891.70 |

Table 21.2

| Progressive Statement of Achievements | | | | | | | | | |
|--|-------------|------|-------------------------|-------------------------|-------------------------|-------------------------|---|--|---|
| Activities | Particulars | Unit | Achievements 2012-13 | Achievements 2013-14 | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) | |
| | | | Physical | Physical | Physical | Physical | Physical | Physical | Remarks |
| Establishment of PMU & Institutionalisation of Society | | | | | | | | | |
| Establishment of PMU | | no. | - | - | 1 | - | - | 1 | |
| Establishment of DMUs | | no. | - | 32 | 4 | - | - | 36 | Vide G.O. No. 2623-For/ G/6M-38/12 dated 23.12.2012, State Government has decided to create 32 DMUs in the office of the Divisional Forest Officers, to enable functioning as Divisional Units of the Society. BTR E & BTR W are not participating in the Project activities |

| Progressive Statement of Achievements | | | | | | | | | |
|---|---------------------|-------|-------------------------|-------------------------|-------------------------|-------------------------|---|--|---|
| Activities | Particulars | Unit | Achievements 2012-13 | Achievements 2013-14 | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) | |
| | | | Physical | Physical | Physical | Physical | Physical | Physical | Remarks |
| Establishment of FMUs | | no. | - | 67 | 79 | 27 | 5 | 178 | On the strength of the said G.O. 178 FMUs have been constituted by the DMUs with the approval of the PMU. |
| Posting of Officers on Deputation to the Society of PMU | | no. | - | - | 5 | - | - | 5 | |
| Deployment of "Support Staff" to PMU and DMU | At PMU | no. | - | 1 | 10 | - | 1 | 12 | |
| | Circle Office | | - | - | - | 5 | 5 | 10 | Five Computer Operators are deployed in the Circle Offices of Western, Central, South-East, South-West & North-West. And 2 System Support Personnel at Aranya Bhawan. |
| | At DMUs | no. | - | 3 | 50 | 10 | 5 | 68 | |
| Preparation of Manuals | Manuals/Guidelines. | no. | - | 6 | 10 | 3 | 8 | 27 | |
| Afforestation | | | | | | | | | |
| Afforestation | A1 | ha. | - | - | 141.50 | 166.00 | 143.00 | 450.50 | |
| | A2 | ha. | - | - | 176.00 | 406.00 | 365.00 | 947.00 | |
| | A3 | ha. | - | - | 257.00 | 1,643.00 | 1,891.00 | 3,791.00 | |
| | A4 | ha. | - | - | 1,129.00 | 2,923.00 | 2,300.00 | 6,352.00 | A4 in progress in field |
| | A5 | ha. | - | - | 30.00 | 160.00 | 362.00 | 552.00 | |
| | A6 | ha. | - | - | 20.00 | 110.00 | 135.00 | 265.00 | |
| | B1 | ha. | - | - | 119.15 | 310.50 | 409.00 | 838.65 | |
| | B2 | ha. | - | - | 45.28 | 19.00 | 31.00 | 95.28 | |
| | Total | ha. | - | - | 1,917.93 | 5,737.50 | 5,636.00 | 13,291.43 | |
| Central Nursery | New | units | - | - | 15.75 | 6.75 | 2.25 | 24.75 | |
| | Expansion | units | - | - | 6.50 | 6.00 | 2.75 | 15.25 | |
| Preparation of Micro-plans | | no. | - | - | 185 | 345 | - | 530 | |

| Progressive Statement of Achievements | | | | | | | | | |
|---|--|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|---|--|---|
| Activities | Particulars | Unit | Achievements 2012-13 | Achievements 2013-14 | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) | Remarks |
| Baseline Survey | Survey of Forest Resources | no. | - | - | - | - | - | - | FSI is taken up the work |
| | Socio-economic Survey | no. | - | - | - | - | - | - | Issued to NABCON on 13.01.2016 and work going on |
| Construction of Building at AE-391 | | no. | - | - | - | 1 | - | 1 | Construction work completed |
| Other buildings | Group D quarters | no. | - | 1 | 6 | 8 | - | 15 | Target 15 nos. |
| | Group C quarters | no. | - | - | 8 | 2 | - | 10 | Target 10 nos. |
| | ROs quarters/Range office | no. | - | - | 1 | 2 | 2 | 5 | Target 5 nos. |
| Expansion of existing Administrative Building | | no. | - | - | - | - | 2 | 2 | 2 floors part |
| Trainings & Capacity building | Micro-plan preparation | no. | - | 23 | 33 | 1 | - | 57 | No. of Trainings |
| | | no. of Participants | - | 419 | 854 | 24 | - | 1,297 | Frontline staff |
| | | no. of Participants | - | 10,000 | 14,300 | 6,000 | - | 30,300 | FPC members |
| | Usage of GPS | no. | - | 4 | 27 | 9 | 14 | 54 | No. of Trainings |
| | | no. of Participants | - | 100 | 582 | 54 | 103 | 839 | Frontline staff |
| | Accounting Procedure | nos. | - | - | 31 | 11 | 28 | 70 | No. of Trainings |
| | | no. of Participants | - | - | 247 | 51 | 320 | 618 | Head of DMUS, Head of FMUs & Support Staff |
| | Tree Plantation Outside Forest Area (TPOFA) | nos. | - | - | 14 | 60 | - | 74 | No. of Trainings |
| | | no. of Participants | - | - | 443 | 230 | - | 673 | Frontline staff & Beneficiaries |
| | Nursery Techniques | nos. | - | - | 4 | 4 | 3 | 11 | nos. |
| | | no. of Participants | - | - | 113 | 104 | 134 | 351 | Head of DMUS, Head of FMUs & Frontline Staff |
| | Package 2 for Middle and Junior officers in Indian Institutes Short term training (10-15 days) | no. of Participants | - | - | - | 80 | 23 | 103 | IIFM (14 nos.), IISWC (32 nos.), KFRI (15 nos.), IIRS (14 nos.) IGNTA (6 nos.) ATI (23) |
| | Package 3 for Jr. officers, FR and Front Line Staff (inhouse or Indian Institutes) | no. of Participants | - | - | - | 45 | 23 | 68 | School of Oceanography, Jadavpur University |
| | Frontline Staff and FPC/EDC/SHG Microfinance & | no. of Participants | - | - | - | - | 190 | 190 | BRAIPRD, Kalyani |
| | Accounting | | | | | | | | |

| Progressive Statement of Achievements | | | | | | | | | |
|--|--|---------------------|----------------------|----------------------|----------------------|----------------------|--|-------------------------------------|--|
| Activities | Particulars | Unit | Achievements 2012-13 | Achievements 2013-14 | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) | |
| | | | Physical | Physical | Physical | Physical | Physical | Physical | Remarks |
| | Study Tours | nos. | - | 2 | - | 2 | 3 | 7 | |
| | | no. of Participants | - | 30 | - | 35 | 32 | 97 | Officers & frontline staff |
| | MIS | nos. | - | - | - | 7 | - | 7 | |
| | | no. of Participants | - | - | - | 128 | - | 128 | Officers & frontline staff |
| | Community Development | nos. | | | | 2 | 2 | 4 | |
| | | no. of Participants | | | | 80 | 52 | 132 | Officers & frontline staff |
| Procurement | Vehicles-Mahindra Scorpio | nos. | - | - | 10 | - | 14 | 24 | Distributed to 12 DMUs and 2 in PMU |
| | Vehicles-Maruti Suzuki Ertiga | nos. | - | - | 2 | - | - | 2 | At HQ |
| | Vehicles-Tata LPT 407 EX 2-34 | nos. | - | - | - | - | 1 | 1 | |
| | Hero Super Splendor motor-cycles | nos. | - | - | 100 | - | 63 | 163 | Distributed to 80 FMUs in 30 DMUs & 2 Training Centres and SBR |
| | Equipment-GPS | nos. | - | 90 | 90 | 87 | - | 267 | |
| | Equipment-Camera | nos. | - | - | 90 | 54 | - | 144 | |
| | Equipment-Computer | nos. | - | 13 | 43 | 2 | 9 | 67 | |
| | Equipment-Printer | nos. | - | 7 | 43 | 1 | 2 | 53 | |
| m | Tally Software | nos. | - | 25 | 12 | - | - | 37 | |
| Biodiversity Conservation | | | | | | | | | |
| Improvement of Wildlife Habitat in Protected Areas | Grass land Plantation in Plains | ha. | - | - | 0.00 | 100.00 | 100.00 | 200.00 | |
| | Fodder tree plantation after bamboo removal in the hills | ha. | - | - | 0.00 | 5.00 | 25.00 | 30.00 | WL-I DMU 20 ha (Fodder Tree Plantation by working out Malling Bamboo areas) WL-II DMU 5 ha (Fodder Tree Plantation by working out Malling Bamboo areas) |
| Studies | Studies | nos. | - | - | - | 2 | 4 | 6 | |
| Equipment | Nylon Net | Sq. m. | - | - | 500 | - | - | 500 | |
| | Searchlights | nos. | - | - | 25 | - | - | 25 | |
| | Field gear | nos. | - | - | 175 | 50 | - | 225 | |
| | Protective Gear | nos. | - | - | - | - | 50 | 50 | |

| Progressive Statement of Achievements | | | | | | | | | |
|---------------------------------------|-----------------------------|-----------|-------------------------|-------------------------|-------------------------|-------------------------|---|--|---------|
| Activities | Particulars | Unit | Achievements 2012-13 | Achievements 2013-14 | Achievements 2014-15 | Achievements 2015-16 | Achievements 2016-17 (upto 31.03.2017) | Total achievement (upto 31.03.2017) | |
| | | | Physical | Physical | Physical | Physical | Physical | Physical | Remarks |
| Utilization of Grants | | | | | | | | | |
| Utilisation of Grants | Reimbursible | Rs. Lakhs | - | 198.87 | 1,702.96 | 3,874.90 | 4,046.47 | 9,823.20 | |
| | Non-reimbursible | Rs. Lakhs | - | 56.63 | 295.50 | 463.80 | 601.81 | 1,417.74 | |
| | Total Utilisation Grants | Rs. Lakhs | - | 255.50 | 1,998.46 | 4,338.70 | 4,648.28 | 11,240.94 | |
| | Non-Grant Fund | Rs. Lakhs | - | - | 121.79 | 78.84 | 80.31 | 280.94 | |
| | Total Utilisation Grants | Rs. Lakhs | - | 255.50 | 2,120.25 | 4,417.54 | 4,728.59 | 11,521.88 | |
| Re-imbursements | Reimbursible | Rs. Lakhs | - | 176.90 | 1,320.37 | 3,335.70 | 3,777.79 | 8,610.76 | |
| | Reimbursible Non-Grant Fund | Rs. Lakhs | - | - | 121.79 | 78.84 | 80.31 | 280.94 | |
| | Total | Rs. Lakhs | - | 176.90 | 1,442.16 | 3,414.54 | 3,858.10 | 8,891.70 | |





WEST BENGAL STATE FOREST DEVELOPMENT AGENCY

22.1 Objectives

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 10th 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-FR/III-M-19/2003 dated 10th June, 2014.

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

22.2 Executive Body

WBSFDA, General Body Members are as follows:-

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

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 Chairman, SPMU of JICA for Project on training
8. The Chief Conservator of Forests, SDP
9. All Chairmen of FDAs
10. All Secretaries of FDAs nominated by PCCF & HoFF

- During the Year 2016-17, the 10th EB Meeting had been held on 28.09.2016 and GB Meeting had been held on 01.12.2016.

22.3 Major Activities

- Rashtriya Krishi Vikas Yojana (RKVY) :
- National Afforestation Program (NAP) :
- Ecotourism Projects of the Forest Directorate being monitored by WBSFDA :
Online Booking System:
- Green India Mission
- West Bengal Pollution Control Board Funded Schemes
- NMPB Scheme
- MPLAD Fund Schemes
- Planning Dept of Govt of W.B Funded Schemes
- Wild Animal Anti-Depredation Schemes
- Border Area Development Project (BADP) fund:



Radio Collaring of Tigress



Release of Rescued Gharial



Wildlife Conservation Award Function



Alipore Zoological Park

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 10 no. Mini Zoos were handed over to West Bengal Zoo Authority vide G.O. No. (i) 3841/For/FR/0/IIM-27/2002 dated 14.09.2010 (ii) 3842/For/FR/0/IIM-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.

23.1 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.

23.2 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:

- a. Director, Padmaja Naidu Himalayan Zoological Park, Darjeeling
- b. Director, Zoological Garden, Alipore, Kolkata
- c. Director, Animal Husbandry & Veterinary Services
- d. Zoo Expert
- e. 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 no. 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 6 Zoos viz., (i) Rasikbeel Mini Zoo, (ii) Surulia Mini Zoo, (iii) Garchumuk Deer Park (iv) Adina Deer Park, & (v) South Khairbari Rescue Centre (vi) Harinalaya, New Town are managed by West Bengal Zoo Authority.

23.3 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:

| | | |
|-----|---|-------------------|
| 1. | The Chief Secretary to the Govt. of West Bengal | Chairman |
| 2. | Addl. Chief/Principal Secretary to the Govt. of West Bengal, Dept. of Forests | Vice-Chairman |
| 3. | Secretary, West Bengal Zoo Authority | Member- Secretary |
| 4. | Secretary to the Govt. of West Bengal, Dept of Finance | Member |
| 5. | Principal Chief Conservator of Forests & HOFF, West Bengal | Member |
| 6. | Principal Chief Conservator of Forests (Wildlife) and CWLW, West Bengal | Member |
| 7. | Member Secretary, Central Zoo Authority, New Delhi | Member |
| 8. | Director, Animal Husbandry & Vet. Services, W.B | Member |
| 9. | Director, Padmaja Naidu Himalayan Zoological Park, Darjeeling | Member |
| 10. | Director, Zoological Garden, Alipore, Kolkata | Member |
| 11. | Shri Debasish Paramanik, Raigunj Panchayet Samiti, Uttardinaajpur | Member |
| 12. | Shri Sankar Dhar, People's for Animals, Alipurduar | Member |
| 13. | Sk. Johar Ali, President , All Backward Class Relief & Development Mission | Member |
| 14. | Smt. Debolina Biswas, Councilor, Kolkata Minicipal Corporation, Ward No. 74 | Member |

23.4 Schedule of meetings held

During 2016 the meetings of Governing Body and Technical Committee were held as follows :

Governing Body Meeting

| | | | |
|----|--------------------------|---|---------------|
| 12 | thGoverning Body Meeting | : | On 25.02.2016 |
| 13 | thGoverning Body Meeting | : | On 17.08.2016 |

Technical Committee Meeting

| | | | |
|----|-------------------------------|---|---------------|
| 13 | thTechnical Committee Meeting | : | On 29.01.2016 |
| 14 | thTechnical Committee Meeting | : | On 11.05.2016 |
| 15 | thTechnical Committee Meeting | : | On 17.02.2017 |

23.5 List of Recognised Zoos :

(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
12. Harinalaya (Deer Park), New Town

(b) 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. Topkeydara 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).

23.6 Physical Achievements

- North Bengal Wild Animals Park, viz., Bengal Safari has been inaugurated by Hon'ble Chief Minister, West Bengal on 21.01.2016. Mamata Banerjee, Hon'ble Chief Minister, West Bengal inaugurated Tiger Safari at the North Bengal Wild Animals Park (Bengal Safari) on 22nd January, 2017 at Siliguri. Administrative Building, Veterinary Hospital, Kitchen for animals and the Stores Building as well as Restaurant were also inaugurated by Hon'ble Chief Minister, West Bengal on the same day. Ten (10) Air-conditioned Vehicles are being used for the purpose of safari. In addition to these, enclosures of Red Jungle Fowl, Jungle Cat, Peacock, Mixed Birds Aviary, Exotic Birds aviary have been complete. 5 Gharial were released in quarantine pool separately made for this purpose. West Bengal Zoo authority in the meantime has been able to completed the following works:

A. Infrastructure Development:

1. Construction of Entry Gates at the National Highway – 2 nos
2. Construction of main entry gate & exit gate with
3. Development of parking area.

4. Construction of road and footpath inside the park
 5. Water supply and Electricity network
 6. Construction of Administrative Building
 7. Construction of Animal Hospital
 8. Construction of Food Godown and Kitchen for animals
 9. Construction of Director Residence and Staff Quarters
- B. Visitor's Facility
1. Landscaping of Garden, Bonsai Garden and Orchidarium
 2. Establishment of Souvenir Shop
 3. Construction of Cafeteria and Canteen
 4. Construction of Washrooms for Visitors
 5. Tourists Rest Sheds/rain shelters
 6. Construction of Watch Tower
 7. Children Park
 8. Development of Parking area
 9. Drinking Water facilities at different locations.
- C. Safari Development
1. Construction of 9.5 km long boundary wall/fencing around the Bengal Safari
 2. Mixed Herbivore Safari with 5.5 km long perimeter wall/fence and 7.8 km safari road
 3. Development of pick-up and drop point for safari vehicles
 4. Purchase of safari vehicles – 10 nos
 5. Pheasant enclosure
 6. Jungle cat enclosure which is open top enclosure
 7. Tiger Safari
 8. Gharial Enclosure
 9. Bear Safari (part work)
 10. Leopard Safari (part work)
 11. Mixed aviary Enclosure (part work)

- 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 two Tigers and 10 Salt Water Crocodiles in the Tiger Rescue Centre at Jharkhali. Infrastructure Development work has been done like part construction of boundary wall and service road. Nylon net fencing was done for the protection purpose. Experts team of Jadavpur University has been engaged for feasibility study, EIA, design and estimate of Canopy walk.
- Modernization of Alipore Zoological Garden, Kolkata is under progress and the enclosure for Leopard and Jaguar has been constructed and expansion of Indian Elephant enclosure is being done. 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. New Animal Hospital has been constructed at the Zoo premises. Improvement was done in all the herbivores enclosures through soil conservation works. Bengal Natural History Museum at Darjeeling was completed and commissioned which is now added attraction for the visitors.
- 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. Most of the work under the project for development has been completed like boundary wall & fencing, road net work, Leopard

enclosure, Monkey enclosure, Lesser Cat enclosure etc.

- 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 like Monkey & Langour enclosure, Visitor pathway, Water Bird aviary, Bear enclosure etc.
- WBZA has finalized the Master Layout Plan and Master Plan for all the zoos under its control for their future development during the period. Master Layout Plan & Master Plan of North Bengal wild animals Park (Bengal Safari), Siliguri and Zoological Garden, Alipore was approved by Central Zoo Authority. The Master Layout Plan of Junglemahal Zoological Park, Jhargram & Adina Deer Park, Malda was approved by Central Zoo Authority during this financial year.

23.7 Financial Achievements

Budget 2016-17

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 2016-17 "2406-02-III-NP-002-31-01-V" | For maintenance of all Zoos under WBZA | 21.165 crore |
| West Bengal Zoo Authority Fund | Non Plan | - do - | 3.630 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) 2016-17 "2406-02-III-SP-002-31-02-V" | For improvement and development of all Zoos under WBZA | 8.00 crore |
| - do - | - do - | North Bengal Wild Animals Park | - |

Performance 2016-17

A. Statement of Non-plan Fund allocated during the year 2016-17

| Sl.No. | Name of Zoo | Fund Allocation (Rs.) | Amount Spent (Rs.) |
|--------|--|-----------------------|--------------------|
| 1 | Head Office WBZA | 1,21,50,000 | 51,10,896 |
| 2 | Zoological Garden, Alipur | 14,88,00,000 | 12,21,63,000 |
| 3 | Padmaja Naidu Himalayan Zoological Park | 7,81,70,000 | 576,25,600 |
| 4 | North Bengal Wild Animals Park (Bengal Safari) | 3,83,00,000 | |
| 5 | Junglemahal Zoological Park | 1,06,50,000 | 66,48,000 |
| 6 | Sundarban Wild Animals Park | 61,75,000 | 46,02,600 |
| 7 | Bardhaman Zoological Park | 72,50,000 | 80,99,700 |
| 8 | Rasikbeel Mini Zoo | 62,90,000 | 35,68,000 |
| 9 | Surulia Mini Zoo | 42,75,000 | 33,48,800 |
| 10 | Garchumuk Deer Park | 54,00,000 | 48,18,000 |
| 11 | Adina Deer Park | 32,90,000 | 25,06,700 |
| 12 | South Khairbari and Kunjanagar Rescue Centre | 78,75,000 | 32,24,400 |
| | Total | 32,86,25,000 | 24,79,53,596 |

B. Details of Plan Fund utilised by different Zoos/Parks for the year 2016-17

| Sl.No | Name of Zoos/Parks | Department | Expenditure (Rs.) |
|-------|---|--------------------------------------|---------------------|
| 1 | Zoological Garden, Alipore | State Plan Forest Deptt. | 72,92,153 |
| 2 | Padmaja Naidu Himalayan Zoological Park, Darjeeling | State Plan Forest Deptt. | 100,00,000 |
| 3 | North Bengal Wild Animals Park, Siliguri | North Bengal Development Deptt. Fund | 200,00,000 |
| | | State Plan Forest Deptt. | 1,50,00,000 |
| | | Tourism Deptt. Fund | 2,50,00,000 |
| 4 | Junglemahal Zoological Park, Jhargram | State Plan Forest Deptt. | 16,78,895 |
| | | Pachimanchal Unnayan Parishad Fund | 1,52,37,895 |
| 5 | Sundarban Wild Animals Park, Jharkhali | State Plan Forest Deptt. | 8,37,247 |
| 6 | Bardhaman Zoological Park, Bardhaman | State Plan Forest Deptt. | 21,06,523 |
| 7 | Rasikbeel Mini Zoo, Coochbehar | State Plan Forest Deptt. | 3,07,820 |
| 8 | Surulia Mini Zoo, Purulia | State Plan Forest Deptt. | 1,08,395 |
| | | Pachimanchal Unnayan Parishad Fund | 25,82,187 |
| 9 | Garchumuk Deer Park, Howrah | State Plan Forest Deptt. | 17,75,057 |
| 10 | South Khairbari and Kunjanagar Rescue Centre | State Plan Forest Deptt. | 48,48,347 |
| 11 | Adina Deer Park | State Plan Forest Deptt. | 3,21,040 |
| | Total | | 10,70,95,559 |

Revenue Collection

| Month | Amount (Rs.) |
|----------------|---------------------|
| April 2016 | 60,96,037 |
| May 2016 | 48,22,063 |
| June 2016 | 57,82,116 |
| July 2016 | 71,79,117 |
| August 2016 | 68,80,325 |
| September 2016 | 54,34,876 |
| October 2016 | 65,15,270 |
| November 2016 | 1,09,80,744 |
| December 2016 | 1,07,62,209 |
| January 2017 | 2,56,19,172 |
| February 2017 | 2,69,50,587 |
| March 2017 | 1,00,07,353 |
| Total | 12,70,29,869 |

23.8 Visitors of Zoos:

| Sl. No | Name of the Zoo | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|--------|---|-----------|-----------|-----------|-----------|
| 1 | Zoological Garden, Alipore, Kolkata | 28,57,346 | 29,72,455 | 30,93,290 | 34,12,446 |
| 2 | Padmaja Naidu Himalayan Zoological Park, Darjeeling | 4,22,704 | 5,51,818 | 5,41,379 | 4,98,789 |
| 3 | Junglemahal Zoological Park, Jhargram | 70,558 | 95,227 | 1,05,722 | 1,29,406 |
| 4 | Bardhaman Zoological Park, Bardhaman | 1,09,050 | 1,14,610 | 1,10,068 | 1,02,798 |
| 5 | Rasikbeel Mini Zoo, Cooch Behar | 86,900 | 81,465 | 90,000 | 1,05,152 |
| 6 | Surulia Mini Zoo, Purulia | 32,867 | 24,560 | 23,212 | 30,635 |
| 7 | Garchumuk Deer Park, Howrah | 3,62,288 | 3,94,725 | 1,57,908 | 1,70,304 |
| 8 | Adina Deer Park, Maldah | 72,192 | 62,600 | 42,105 | 75,120 |

| Sl. No | Name of the Zoo | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|--------|--|-----------|-----------|-----------|-----------|
| 9 | Kunjanagar Eco-Park, Coochbehar | 60,500 | - | - | - |
| 10 | North Bengal Wild Animals Park, Siliguri | - | - | 82,523 | 1,42,259 |
| 11 | Sundarban Wild Animals Park, Sundarban | - | - | - | 1,29,200 |
| | Total No. | 40,74,405 | 42,97,460 | 42,46,207 | 47,96,109 |

23.9 Major Activities

Animal Exchange/Acquisition from Different Zoos:

| Date | Name of the Species | Acquired from | Acquired to | Sex | Age | No. |
|------------|-----------------------|----------------------|-------------------------------|--------|--------------------------|-----|
| 25.06.2016 | Snow Leopard (Makalu) | Dudley Zoo, U.K | PNHNP, Darjeeling | Male | 2 years 2 Months 14 Days | 1 |
| 01.09.2016 | Snow Leopard (Namkha) | Mulhouse Zoo, France | PNHNP, Darjeeling | Male | 2 years 2 Months | 1 |
| 20.06.2016 | Leopard (Kajal) | Kunjanagar Deer Park | South Khairbari Rescue Centre | Female | | 1 |
| 06.08.2016 | Leopard (Sindhu) | Rajabhatkhawa | South Khairbari Rescue Centre | Female | | 1 |

Animal Acquired from different Zoos/Rescue Centres/ Parks to North Bengal Wild Animals Park, Siliguri during 2016-2017

| Date | Animals | Sex Ratio | Acquired From |
|------------|---|-----------|------------------------------------|
| 05.06.2016 | Indian Pond Heron (Ardeola grayii) | 1:0:0 | Rescued from Shaktigarh, Siliguri |
| 06.08.2016 | Indian Peafowl (Pavo cristatus) | 0:1:0 | Kunjanagar Mini Zoo |
| 06.09.2016 | Indian Elephant (Elephas maximus) | 0:2:0 | Olympic Circus |
| 01.10.2016 | Gharial (Gavialis gangeticus) | 2:3:0 | Bethuadahari Wildlife Sanctuary |
| 22.11.2016 | Spotted Deer (Axis axis) | 13:32:5 | Hizli Eco Park |
| 30.12.2016 | Royal Bengal Tiger (Panthera tigris tigris) | 1:1:0 | Zoological Garden, Alipore |
| 02.02.2017 | Barking Deer (Muntiacus muntjak) | 1:0:0 | Rescued from Kurseong Division |
| 25.02.2017 | Fulvous Fruit Bat | 0:0:1 | Rescued from Hakimpara, Siliguri |
| 15.02.2017 | Barn Owl | 0:0:1 | Rescued from Champasari |
| 23.02.2017 | Crested Serpent Eagle | 0:0:1 | Rescued from Baikunthapur Division |
| 10.03.2017 | Spotted Deer (Axis axis) | 0:1:0 | Rescued from Baikunthapur Division |

Animal Acquired from different Zoos/Rescue Centres/Parks to Junglemahal Zoological Park, Jhargram during 2016-2017

| Date of Acquisition | Name of the Species | Acquired from | Sex | Age (Years) | Number |
|---------------------|-----------------------|----------------------------|-----|-------------|--------|
| 09.04.2016 | Fresh Water Crocodile | Zoological Garden, Alipore | M | 8 | 1 |
| | Fresh Water Crocodile | | F | 3 | 1 |

| Date of Acquisition | Name of the Species | Acquired from | Sex | Age (Years) | Number |
|---------------------|-----------------------|---|-----|------------------|--------|
| 14.04.2016 | Jackle | Wild Animal Rescue & Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | M | 3-4 | 2 |
| | Sand Boa | | U | 3 | 1 |
| 17.04.2016 | Indian Wolf(puppy) | Parimal Kanan, CK Road | F | 3 months | 1 |
| | Languor Cub | | F | 4 months | 1 |
| 20.04.2016 | Rhesus Macaque | Wild Animal Rescue & Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | F | 6 | 1 |
| | Monocled Cobra | | U | 4 | 1 |
| | Common Krait Snake | | U | 2 | 1 |
| 23.04.2016 | Russel Viper | Wild Animal Rescue & Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | U | 3 | 1 |
| | Red Boa | | U | 3 | 1 |
| | Sand Boa | | U | 3 | 1 |
| | Vine Snake | | U | 2 | 1 |
| 10.05.2016 | Rhesus Macaque | Wild Animal Rescue & Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | M | 5 | 1 |
| | Rhesus Macaque | | F | 5 | 1 |
| | Monocellate Cobra | | U | 3 | 1 |
| | Spectacled Cobra | | U | 3 | 1 |
| | Rat Snake | | U | 3 | 1 |
| | Lesser Adjutant Stork | | U | 2 | 1 |
| | Civet Cat | | U | 2-4 | 5 |
| | Hawk | | U | 2-3 | 2 |
| 14.05.2016 | Rhesus Macaque | Wild Animal Rescue & Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | F | 6-7 | 1 |
| | Jackle | | F | 5 | 1 |
| | Russel Viper | | U | 2 | 1 |
| | Civet Cat | | U | 2-4 | 6 |
| 16.05.2016 | Rabit | Hizli Range, KGP Divn. | U | 1-2 | 10 |
| | Guinea Pig | | U | 3-6 | 5 |
| 27.05.2016 | Jackle | Wild Animal Rescue & Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | U | 1-5 | 3 |
| | Russel Viper | | U | 1-2 | 2 |
| | Civet Cat | | U | 2 months 5 years | 8 |
| | Sikrabaz | | U | 1-3 | 6 |
| | Monocellate Cobra | | U | 1-3 | 3 |
| | Rat Snake | | U | 2 | 1 |
| 02.06.2016 | Rhesus Macaque | - do - | F | 1-6 | 2 |
| | Jackle | | U | 1-5 | 3 |
| 03.06.2016 | Monocled Cobra | - do - | U | 3 | 1 |
| | Russel Viper | | U | 15 days | 1 |
| | Parakeet | | U | 1-2 | 30 |
| | Parial Kite | | U | 3-4 | 2 |
| | Languor Common | | U | 6 | 1 |
| | Munia | | U | 1-2 | 17 |
| | Civet Cat | | U | 2 months-3 years | 3 |

| Date of Acquisition | Name of the Species | Acquired from | Sex | Age (Years) | Number |
|---------------------|---------------------------|---|-----|------------------|--------|
| 11.06.2016 | Jackle | - do - | U | 6 | 5 |
| | Spectacled Cobra | | U | 1 | 1 |
| | Russel Viper | | U | 1-2 | 2 |
| | Rat Snake | | U | 1 | 1 |
| | Chequered Keel Back Snake | | U | 1 | 1 |
| | Bengal Monitor Lizard | | U | 2 | 1 |
| | Civet Cat | | U | 2 months-3 years | 11 |
| | Parakeet | | U | 1-2 | 12 |
| 05.07.2016 | Indian Rock Python | Garbeta Range, RPN Divn. | U | 3 | 1 |
| | Spectacle Cobra | | U | 1-2 | 2 |
| 10.07.2016 | Elephant Calf | Ramgarh Beat, Goaltore | M | 3 | 1 |
| 13.07.2016 | Indian Rock Python | Hizli Range, Kharagpur | U | 3 | 1 |
| 06.08.2016 | Jackle | Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | U | 2-3 | 3 |
| | Civet Cat | | U | 2 months-1 year | 3 |
| | Rat Snake | | U | 1-2 | 3 |
| | Monocellate Cobra | | U | 5 months | 1 |
| | Russel Viper | | U | 4 months | 4 |
| | Rhesus Macaque | | U | 5 | 1 |
| | Burn Owl | | U | 3 months | 1 |
| 08.08.2016 | Nilgai | Adina Deer Park, Maldah Divn. | F | 3-4 | 2 |
| 10.09.2016 | Cocktail | Contai Range | U | 2-3 | 2 |
| | Badri | | U | 1-2 | 18 |
| | Peacock | | M | 2 | 2 |
| | Peacock | | F | 2 | 1 |
| 16.09.2016 | Duckling | Hizli Range, Khargpur | U | 4 days | 2 |
| 20.09.2016 | Spotted Deer | Chandrokona Range | F | 1 month | 1 |
| 28.10.2016 | Monitor Lizard | Hizli Range, Khargpur | U | 1-2 | 4 |
| 08.12.2016 | Owl | Haldia Range Wild Animal Rescue & Transit Facility Centre, Wildlife(HQ) Divn, Salt Lake, Kolkata | U | 1 month-1 year | 5 |
| 28.12.2016 | Jackle | | U | 2-3 | 6 |
| | Jungle Cat | | F | 3 | 1 |
| | Small Indian Civet | | U | 1.5 | 1 |
| | Common Civet | | U | 1-2 | 3 |
| | Monocellate Cobra | | U | 1 month-1year | 3 |
| | Russel Viper | | U | 1-2 | 12 |
| | Sand Boa | | U | 2 months | 1 |
| | Parakeet | | U | 6 months-1 year | 40 |
| | Owl | | U | 3 monsths-1 year | 3 |
| | Poria Kite | | U | 1 | 5 |
| | Munia | | U | 1 | 4 |
| | Bulbul | | U | 6 months | 1 |
| 31.12.2016 | Owl | Haldia Range | U | 5 months | 5 |
| 05.01.2017 | Spotted Deer | Chandra Range, Medinipur Divn. | M | 5 | 1 |

| Date of Acquisition | Name of the Species | Acquired from | Sex | Age (Years) | Number |
|---------------------|---------------------------|---|-----|----------------|--------|
| 12.01.2017 | Russel Viper | Wild Animal Rescue & Transit Facility Centre, | U | 1-2 | 3 |
| | Rat Snake | | U | 1 month-1 year | 2 |
| | Checkered Keel Back Snake | Wildlife(HQ) Divn, Salt Lake, Kolkata | U | 1 | 1 |
| 23.01.2017 | Spotted Deer | Goaltore Range | F | 3 | 1 |
| 14.02.2017 | Parakeet | Haldia Range | U | 1-2 months | 2 |
| 27.02.2017 | Fishing Cat | Haldia Range | M | 3 | 1 |
| 28.02.2017 | Nilgai | Arambagh | F | 3 | 1 |
| 18.03.2017 | Fishing Cat | Hizli Range | F | 2 months | 1 |

23.10 Animal Adoption Programme

Statement of Adoption of Animals of Zoological Garden, Alipore During the year 2016-2017:

| Party Name | Amount | Animal | Address | Date | Bank Name | Period |
|--|-----------|---------------------------------------|---|----------|---|--------------------------|
| Accord Private Limited(Sudeep Ganguly,Director) | 100000.00 | Giraffe (Male) | 166B, S P Mukherjee Rd,Kol-26 | 05.04.16 | The cathelic Syrian Bank Ltd., Salt Lake Branch | 08.07.2016 to 07.07.2017 |
| Modern India Con-Cast Ltd. | 20000.00 | Monkey (Assamese) | 6G, Everest House ,46C, J L neheru Rd, Kol-71, | 14.07.16 | Axis Bank Ltd.,Kolkata Br. | 15.07.2016 to 14.07.2017 |
| Accord Private Limited(Sudeep Ganguly,Director) | 40000.00 | Chimpanzee, Babu | Upohar,HIG Complex,Flat no.1803, Chakgaria, P S Panchsayer,Kol-94 | 03.08.16 | SBI, Rash Behari Br | 03.08.2016 to 02.08.2017 |
| Pallishree Limited | 130000.00 | Rhino,Brow Antlered Deer, Fishing Cat | Merlin Infinite,Room No 1205,12th fl.Sector V, Salt Lake City | 06.08.16 | Bank of India, Salt Lake Br. | 08.08.2016 to 07.08.2017 |
| Caring Minds | 60000.00 | Zebra (female) | 24 Balltgunge Circular Rd.Kolkata-19 | 20.08.16 | SBI , Shakespeare Sarani | 23.08.16 to 22.08.17 |
| Abhijit Bannerjee-Sloth Bear | 40000.00 | Bear(F) Pritha | D.H.Rd,576/a/7B,Kol-34,Behala | 30.09.16 | UBI | 30.09.2016 to 29.09.2017 |
| Pyaridevi Chabiraj Steels pvt. Ltd. | 15000.00 | peafowl (male) | Jaya Bibi Road 38&39/27 , Ghusuri, Howrah 711107 | 28.10.16 | Axis Bank | 28.10.16 to 27.10.16 |
| Debjani Choudhury Nath -2 Black Swan | 20000.00 | Black Swan | Kabi Bharati Sarani 60/2, Kol-700 029, Flat 4 D | 24.12.16 | SBI | 24.12.2016 to 23.12.2016 |
| Hitesh Lamba | 10000.00 | Goffin's Cockatoo | DLF -1, New Town, Kolkata 700 102 | 18.02.17 | HDFC, Salt Lake City, Kolkata | 18.02.2017 to17.02.2018 |
| Department of Zoology For UGR PG STUDIES , Serampore College | 20000.00 | Fishing Cat | Serampur College, Serampur, Hoogly | 18.02.17 | Vijaya Bank, Serampore | 20.02.2017 to19.02.2018 |

| Party Name | Amount | Animal | Address | Date | Bank Name | Period |
|---------------------|-------------|------------------------------------|---|----------|--|----------------------|
| Delhi Public School | 10000.00 | Peacock | 254, Shantipally, R B Connector, E M Bypass Kol-107 | 21.02.17 | Oriental Bank of Commerce, Shantipally, Kasha, Kol-107 | 03.03.17 to 02.03.18 |
| Total | 4,65,000.00 | Four Lakh Sixty Five Thousand only | | | | |

Statement of Adoption of Animals of Padmaja Naidu Himalayan Zoological Park, Darjeeling During the year 2016-2017:

| Party Name | Amount | Animal | Period |
|-------------------------|-------------|------------------------------|--------|
| Dudley Zoo, U,K | 1,00,000.00 | Snow Leopard | 1 year |
| Pallashree Ltd, Kolkata | 1,00,000.00 | Snow Leopard | 1 year |
| Pallashree Ltd, Kolkata | 50,000.00 | Red Panda | 1 year |
| Total | 2,50,000.00 | Two Lakh Fifty Thousand only | |

Mamata Banerjee, Hon'ble Chief Minister, West Bengal inaugurated Tiger Safari at the North Bengal Wild Animals Park (Bengal Safari) on 22nd January, 2017 at Siliguri



INTERNATIONAL TIGER DAY, 2016 at Zoological Garden, Alipore



WORLD SNAKE DAY AND BANMAHOTSAB, 2016 at Zoological Garden, Alipore



Snow Leopard (Makalu) from Dudley Zoo at Padmaja
Naidu Himalayan Zoological Park, Darjeeling





STATE DEMOGRAPHY

1.1 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 | | | Population 20011 | | | Decennial Growth Rate (%) | | Population Density Per Sq.Km. | |
|--------|----------------------------|------------|-----------------|----------|----------|------------------|----------|----------|-----------------------------|-----------|-------------------------------|-------|
| | | | 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 Dinajpur | 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 Medinipur* | 4,736 | 4417377 | 2268322 | 2149055 | 5094238 | 2631094 | 2463144 | 14.87 | 15.32 | 933 | 1076 |

*Figures of Paschim Medinipur & Purba Medinipur for 2001 have been recast as erstwhile Medinipur divided into two districts after 2001 Census.

TABLE-1.1

Administrative Units in West Bengal-2014 Number

| Division & District | Sub-Division | Police Station | Development Blocks | Panchayat Samiti | Gram Panchayat | Villages | Municipalities | MC |
|---------------------|--------------|----------------|--------------------|------------------|----------------|----------|----------------|-----|
| (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 | - |

| Division & District | Sub-Division | Police Station | Development Blocks | Panchayat Samiti | Gram Panchayat | Villages | Municipalities | MC |
|---------------------|--------------|----------------|--------------------|------------------|----------------|----------|----------------|----|
| 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 | - |

Women Police Station 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 Abstract, 2011.
- (3) Directorate of Police, Govt. of West Bengal

Table 1.2 :: Districtwise Population of West Bengal By Rural and Urban Areas, 2011.

| District | Population 2011 (P) | | | Percentage of Urban Population |
|-------------------|---------------------|----------|----------|--------------------------------|
| | Total | Rural | Urban | |
| Bankura | 3596292 | 3295613 | 300679 | 8.36 |
| Bardhaman | 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 |

1.2 DEMOGRAPHY OF WEST BENGAL

| Demography | | | |
|--|-------------------|---------------|---------------------------|
| Population | | 1991 | |
| | Total | 68077965 | 80176197 |
| | 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 (India) | Hindus | 74.72 (72.00) | 72.47(80.46) |
| % Share of SC (India) | Muslims | 23.61(12.12) | 25.25(13.43) |
| % Share of ST (India) | | 23.62 (16.48) | 23.02(16.2) |
| % Share of Children (0-6) | | 5.59 (8.08) | 5.50 (8.2) |
| Sex Ratio (India) | | 16.98 (17.94) | 14.24 (15.93) |
| Sex Ratio (India) | All | 917 (927) | 934 (933) |
| | SC | 931 (922) | 949 (936) |
| | 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) |
| Education | | | |
| Literary Rate (%) | | 1991 | 2001 |
| | Total | 57.70 (52.21) | 68.64 (64.8) |
| (India) | All | | |
| | Male | 67.81 (64.13) | 77.20 (75.3) |
| | Female | 46.56 (39.29) | 59.61 (53.7) |
| | 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) |
| ST | Total | 27.78 (29.60) | 43.40 (47.1) |
| | Male | 40.07 (40.65) | 57.38 (59.2) |
| | Female | 14.98 (18.19) | 29.15 (34.8) |
| Gender Gap in Literacy | | Primary | Upper Primary |
| No. of Schools-SSA-2006 | | 50255 (Govt.) | 11440 (Govt/ Govt. added) |
| Pupil - Teacher Ration (Govt)- SSA-'06 | | 45.20 | 61.41 |
| Net Enrolment Ratio (Overall) SSA'06 | | 98.03 | 78.74 |
| Dropout Rate (Cohort study SSA-2004) | | 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) | 86 | |

| 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 | | | |
|--|--------|--------------|--------------|
| Work participation rate (India) | | 2001 | |
| | | Male | Female |
| | Rural | 54.1 (52.11) | 20.9 (30.79) |
| | Urban | 53.7 (50.60) | 11.6 (11.88) |
| % of main worker (India) | Rura | 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 1.3 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) Figure of 2010 & 2011 are projected figure Source : Directorate of Annual Resources &
2) 2012 (19th Livestock Census figure) Animal Health Govt. of West Bengal

Table 1.4 District-wise Geographical Area Of West Bengal

| State/District | Geographical Area in Sq.Kms.2001 (Revised) | | |
|-------------------|--|-------------------------|-------------------------|
| | 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 |

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 Dinaipur, Nadia, Murshidabad, Gooch Behar, North 24-Parganas, 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.

2.2 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 South West. 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.

2.3 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 Aquit 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 Aeris 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.

Agric 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.

Table 2.1 Mean Maximum and Minimum Temperature By Station and Month in West Bengal (Average of daily Maximum and Minimum Temperature) - 2005

| Station/Degrees in Celssius | January | | February | | March | | April | | May | | June | |
|----------------------------------|---------|-----|----------|-----|-------|-----|-------|-----|-----|-----|------|-----|
| | 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 | 12 | 9 | 14 | 12 | 20 | 15 | 23 | 17 | 22 | 16 | 25 | 19 |
| Darjeeling | 9 | 1 | 13 | 4 | 15 | 6 | 19 | 8 | 18 | 10 | 19 | 13 |
| Sub Himalayan West Bengal | | | | | | | | | | | | |
| Jalpaiguri | 24 | 12 | 27 | 15 | 30 | 18 | 32 | 21 | 31 | 23 | 33 | 24 |
| Coochbehar | 23 | 11 | 26 | 15 | 29 | 18 | 30 | 20 | 30 | 23 | 32 | 25 |
| Balurghat | 25 | - | 34 | 12 | - | - | - | - | 37 | 23 | 39 | 30 |
| Malda | 23 | 13 | 28 | 17 | 32 | 21 | 35 | 24 | 35 | 25 | 36 | 27 |
| Gangetic West Bengal | | | | | | | | | | | | |
| Kolkata | 25 | 15 | 30 | 19 | 33 | 23 | 35 | 26 | 36 | 27 | 36 | 28 |
| Krishnagar | 25 | 16 | 30 | 22 | 34 | 26 | 35 | 27 | 37 | 29 | 38 | 30 |
| Berhampur | 23 | 13 | 28 | 18 | 32 | 21 | 35 | 24 | 37 | 27 | 36 | 26 |
| Burdwan | 24 | 13 | 30 | 18 | 33 | 22 | 35 | 24 | 37 | 25 | 38 | 27 |
| Suri | 24 | 12 | 29 | 16 | 33 | 20 | 36 | 23 | 37 | 25 | 38 | 27 |
| Bankura | 24 | 13 | 30 | 17 | 34 | 22 | 36 | 25 | 39 | 27 | 39 | 28 |
| Midnapur | 25 | 15 | 30 | 18 | 34 | 23 | 36 | 25 | 37 | 25 | 38 | 28 |
| Purulia | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

Table 2.2 Mean Maximum and Minimum Temperature By Station and Month in West Bengal (Average of daily Maximum and Minimum Temperature) - 2005

| Station/Degrees in Celcius | July | | August | | September | | October | | November | | December | |
|----------------------------|------|-----|--------|-----|-----------|-----|---------|-----|----------|-----|----------|-----|
| | 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 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

Table 2.3 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 | 1428 | 2152 | 1301 | 1244 | 1538 | 1342 | 2078 | 1728 |
| Paschim Medinipur | | | 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 | 1579 | 2208* | 1410 | 1180 | 1669 | 1208 | 1658 | 1321 |
| South 24 Parganas | | | 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 2.4 : 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 Pradesh, 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 | Rajasthan |
| XV | Island region | Andaman & Nicobar Islands, Lakshadweep |

Source : Planning Commission (Khanna, 1989) has identified 15 resource development regions in the country, 14 in the main land and remaining one in the islands of Bay of Bengal and Arabian Sea.

Table 2.5 : 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 Bengal, 1988-89

Table 2.6 : Description of agro-ecological subregions

| Agro-ecological subregion number | Description | Area(per cent of TGA) (8.87 m. ha) |
|----------------------------------|---|------------------------------------|
| 16.2 | Darjeeling Himalayas, warm, perhumid agro-ecological subregion with shallow to moderately deep, loamy Brown and Red hill soils, low to medium AWC (75-100 mm/m) and more than 300 days of LGP | 2.9 |
| 16.1 | Moderately to gently sloping foothills of Bhutan Himalayas, 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 | 1.9 |
| 15.3 | Level Teesta Plain, hot, perhumid agro-ecological subregion with deep, loamy to clayey alluvium-derived soils, medium AWC (100-150 mm/m) and 270-300 days of LGP. | 9.6 |
| 15.1 | Nearly level to gently sloping Ganga plain (Bengal Basin), 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. | 55.7 |

| Agro-ecological subregion number | Description | Area(per cent of TGA) (8.87 m. ha) |
|----------------------------------|---|------------------------------------|
| 18.5 | Gently sloping to level Gangetic lower Delta, moist sub-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. | 7.6 |
| 12.3 | Gently sloping and/or gently undulating Chottanagpur 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. | 22.3 |

(Source: Soils of West Bengal for Optimising Land Use. NBSS Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

Table 2.7 : Soils under limiting depth classes

| Class | Location | | Area affected | |
|-------------------------------|--------------------|---|---------------|-----------------------------------|
| | Agro-eco subregion | Distribution (District) | '000ha | Percent of Mapped Area (% of TGA) |
| Very Shallow (0-25cm) | Hot Subhumid | Purulia | 30.7 | 0.4(0.3) |
| Shallow (25-50 cm) | Warm Perhumid | Part of Darjiling | 15.4 | 0.2 (0.2) |
| | Hot Subhurrid | Purulia, Medinipur, Bankura | 303.00 | 3.5 (3.4) |
| Moderately shallow (50-75 cm) | Warm Perhumid | Part of Darjiling | 109.8 | 1.3 (1.2) |
| | Hot Subhurrid | Part of Medinipur, Bardhaman, Birbhum, Purulia, Bankura | 15.4 | 0.2 (0.2) |

(Source: Soils of West Bengal for Optimising Land Use. NBSS Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

Table 2.8 :Soils under limiting drainage classes

| Class | Location | | Area affected | |
|-----------|-------------------------------|---|---------------|-----------------------------------|
| | Agro-eco subregion | Distribution (District) | '000ha | Percent of Mapped Area (% of TGA) |
| Very poor | Hot Subhumid | Part of Medinipur, Hooghly and 24-Parganas(S) | 173.4 | 2.0 (1.9) |
| Poor | Hot Part Perhumid to Subhumid | Part of 24-Parganas, Nadia, Murshidabad, Jalpaiguri, Kochbihar, Medinipur, Hawrah Hooghly | 2453.3 | 28.4 (27.6) |
| Imperfect | Hot Subhumid | Part of Bardhaman, Birbhum, Hooghly, W. Dinajpur, Malda, Medinipur & Purulia | 1747.6 | 20.3 (19.7) |
| Excessive | Warm Perhumid | Part of Darjiling and Jalpaiguri | 56.1 | 0.6(0.6) |
| | Hot Subhumid | Part of Bankura & Purulia | 8.6 | 0.1 (0.1) |

(Source: Soils of West Bengal for Optimising Land Use. NBSS Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

Table 2.9 : Soils under limiting erosion classes

| Class | Location | | Area affected | |
|-----------|--------------------|--|---------------|-----------------------------------|
| | Agro-eco subregion | Distribution (District) | '000ha | Percent of Mapped Area (% of TGA) |
| Severe | Warm Perhumid | Part of Medinipur, Hooghly and 24-Parganas(S) | 37.0 | 0.4(0.4) |
| | Hot Subhumid | Western part of Purulia, Birbhum, Bankura and Medinipur | 20.4 | 0.2(0.2) |
| Moderate, | Hot Subhumid | Western part of Bardhaman Birbhum, Medinipur, 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 Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

Table 2.10 : Soils under limiting textural classes (surface)

| Class | 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, arddhaman, Murshidabad, Nadia | 1550.7 | 18.0 (17.5) |

(Source: Soils of West Bengal for Optimising Land Use. NBSS Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

Table 2.11 :Soils under limiting salinity classes

| Class | Location | | Area affected | |
|-------------|--------------------|--------------------------------------|---------------|-----------------------------------|
| | 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 Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

Table 2.12 : 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 Dinajpur | 112.0 | 1.3(1.3) |
| | Hot Subhumid | Part of North Dinajpur, Malda, Murshidabad, Nadia, Barddhaman, 24-Parganas, Medinipur | 931.2 | 10.8 (10.5) |
| 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 Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

Table 2.13 : Soils under limiting flooding 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(BengalBasin) | 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 Publ. 27b (Soils of India Series). National Bureau of Soil Survey and Land Use Planning. Nagpur (India) , December, 1992)

FORESTS

3.1 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 20°31' N and 27°12' N latitude and 85°50' E and 89°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 extreme 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, Gal, 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 forestry plantations, raised outside forest land, having forest like micro-ecosystem, have been enumerated as forest cover.

As per classification of satellite imageries, the vegetation cover of the state is more than 27% of the geographical area as in 2006. The vegetation cover includes village orchards/groves, tea garden and horticulture plantations.

Table 3.1

| | |
|--|------------------------|
| 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 |

Table 3.2

| 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

Table : 3.3

| 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 |

Table : 3.4

| 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% |

Table : 3.5

| Forest Cover Information in Different Patch Size Class | | | | |
|--|---------------------------|----------------|--------------|------------|
| 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 |

Table : 3.6

| Forest Types | Area | Percent |
|---|----------------------------|---------|
| | (Area in km ²) | |
| 2B/2S3 Sub Himalayan Secondary Wet Mixed Forest | 357.50 | 2.86 |
| 3C/C I ai East Himalayan Sal | 323.67 | 2.59 |
| 3C/CI bi East Himalayan Upper Bhabar Sal | 151.95 | 1.22 |
| 3C/CI bii East Himalayan Lower Bhabar Sal | 126.22 | 1.01 |
| 3C/C I c Eastern Tarai Sal | 326.32 | 2.61 |
| 3C/C2d iii Eastern Heavy Alluvium plain Sal | 5.08 | 0.04 |
| 3CIDS I Moist Sal Savannah | 12.33 | 0.10 |
| 3C/C3a West Gangatic Moist Mixed Deciduous Forest | 10.98 | 0.09 |

| Forest Types | Area | Percent |
|--|----------------------------|---------|
| | (Area in km ²) | |
| 3C/C3b East Himalayan Moist Mixed Deciduous Forest | 378.87 | 3.05 |
| 3C/2S2 (Secondary Euphorbiaceous, Scrub) | 6.33 | 0.05 |
| 3/I S I Low Alluvial Savannah Woodland (Salmalia - Albizzia) | 34.44 | 0.28 |
| 4B/TS I Mangrove Scrub | 123.12 | 0.99 |
| 4BITS2 Mangrove Forest | 1,025.33 | 8.22 |
| 4BITS3 Salt Water Mixed Forest | 487.72 | 3.91 |
| 4BITS4 Brackish Water Mixed Forest | 313.62 | 2.51 |
| 4BLEI Palm Swamp Forest | 151.61 | 1.21 |
| 4CIFS2 Sub Montane Hill-valley Swamp Forest | 3.26 | 0.03 |
| 4D/SS2 Barringtonia Swamp Forest | 10.83 | 0.09 |
| 4D/2S I Eastern Wet Alluvial Grassland | 4.59 | 0.04 |
| SB/Clc Dry Peninsular Sal Forest | 2,732.05 | 21.88 |
| SB/C2 Northern Dry Mixed Deciduous Forest | 429.41 | 3.44 |
| SIDS I Dry Deciduous Scrub | 84.38 | 0.68 |
| S/ES Butea Forest | 109.97 | 0.88 |
| S/IS2 Khair Sissoo Forest | 219.89 | 1.76 |
| S/IS2 Khair Sissoo Forest | 339.41 | 2.72 |
| II B/C I a Lauraceous Forest | 123.39 | 0.99 |
| II B/C I b Buk Oak Forest | 56.58 | 0.45 |
| II B/C I c 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 |
| PlantationITOF | 4,202.24 | 33.67 |
| Total | 12,481 | 100 |

Table 3.7

| Growing Stock | |
|---------------------------------------|-------------------|
| Growing Stock in Recorded Forest Area | 84.32 million cum |
| Growing Stock in TOF | 37.69 million cum |

Table 3.8

| 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 3.9 District-wise Forest Cover of West Bengal

| District-wise Forest Cover | | | | | | (Area in km ²) | | |
|----------------------------|--------------------|-------------------|-------------------|-------------|-------|----------------------------|--------|-------|
| District | Geo-graphical Area | Very Dense Forest | Mod. Dense Forest | Open Forest | Total | Percent of GA | Change | Scrub |
| Bankura* | 6,882 | 212 | 379 | 673 | 1,264 | 18.37 | 20 | 35 |
| Bardhaman* | 7,024 | 60 | 88 | 168 | 316 | 4.50 | -3 | 9 |
| Birbhum* | 4,545 | | 30 | 144 | 175 | 3.85 | -1 | |
| Kolkata | 185 | 0 | 0 | 0 | 0 | 0.00 | 0 | 0 |
| Coochbehar | 3,387 | 0 | 27 | 322 | 349 | 1.30 | | 0 |
| Dakshin Dinajpur* | 2,219 | 0 | 5 | 82 | 87 | 3.92 | 0 | 0 |
| Darjeeling* | 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* | 6,227 | 718 | 439 | 1,699 | 2,856 | 45.86 | -7 | 35 |

| District-wise Forest Cover | | | | | | | (Area in km ²) | |
|----------------------------|--------------------|-------------------|-------------------|-------------|--------|---------------|----------------------------|-------|
| District | Geo-graphical Area | Very Dense Forest | Mod. Dense Forest | Open Forest | Total | Percent of GA | Change | Scrub |
| Malda* | 3,733 | 0 | 214 | 290 | 504 | 13.50 | 0 | 0 |
| Medinipur* | 14,081 | 211 | 810 | 1,973 | 2,994 | 21.26 | 10 | 12 |
| Murshidabad* | 5,324 | 0 | 54 | 295 | 349 | 6.56 | | 2 |
| Nadia | 3,927 | | 159 | 319 | 479 | 12.20 | 0 | |
| North 24 Pargana | 4,094 | 13 | 185 | 526 | 724 | 17.68 | -1 | 0 |
| Purulia* | 6,259 | 31 | 310 | 531 | 872 | 13.93 | 3 | 21 |
| South 24 Pargana T | 9,960 | 977 | 753 | 1,052 | 2,782 | 27.93 | 8 | |
| Uttar Dinajpur | 3,140 | 0 | 3 | 232 | 235 | 7.48 | -8 | 0 |
| | 88,752 | 2,948 | 4,172 | 9,708 | 16,828 | 18.96 | 23 | 133 |

Table: 3.10 Change Matrix of West Bengal

| Forest Cover Change Matrix | | | | | | (Area in km ²) |
|----------------------------|-----------------|-------|-------|--------|--------|----------------------------|
| Class | 2015 Assessment | | | | | Total ISFR |
| | VDF | MDF | OF | Scrub | NF | 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 | III |
| 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: 3.11 Altitude-wise Forest Cover of West Bengal

| Altitude-wise Forest Cover | | | | | (Area in km ²) |
|----------------------------|-------|-------|-------|-------|----------------------------|
| Altitude 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 3.12 Division Wise Updated Recorded Forest Land & Area

| WP DIVISION | NAME OF THE DISTRICT | NAME OF THE DIVISION | ANY SPECIFIC AREAS INCLUDED | AREA IN KM2 | | | | | | REMARKS | |
|------------------------------|--|--|---|--------------------|---------------------|---------------------------------|---------------------------|-----------------|---------------------------------|--|---------------------------------|
| | | | | RESERVED FOREST | PROTECTED FOREST | UNCLASSIFIED STATE FOREST | PRIVATE FOREST LAND | AREA (Jan18) | OLD AREA | | |
| NORTH | DARJEELING | DARJEELING | | 178.6687 | | 89 | | 267.6687 | 267.6687 | Source: Working Plans and Report of DFO, W/P North | |
| | | KURSEONG | | 162.1878 | | 1.3399 | | 163.5277 | 163.5277 | | |
| | | KALIMPONG | | 372.8766 | | | | 372.8766 | 372.8766 | | |
| | | DARJEELING WILDLIFE DIVISION (WL-I) | Senchal WLS (Darjeeling District) | 38.88 | | | | 38.88 | 38.88 | Source: Annual Report 2014-15 WL Wing and confirmation by DFO,Darjeeling WL Division | |
| | | | Singalila NP (Darjeeling District) | 78.6 | | | | 78.6 | 78.6 | | |
| | | | Mahananda WLS (Darjeeling District) and (Jalpaiguri District) Jorepokhari WLS (Darjeeling District) | 161.17 | | | | 161.17 | 158.04 | | |
| | | | | 0.04 | | | | 0.04 | 0.04 | | |
| | | TOTAL | | 992.4231 | 0 | 90.3399 | 0 | 1082.763 | 1079.633 | Source: Annual Report 2014-15 WL Wing | |
| | GORUMARA WILDLIFE DIVISION (Wild Life II) | Gorumara NP (Jalpaiguri District) | 79.45 | | | | 79.45 | 79.45 | | | |
| | | Chapramari WLS (Jalpaiguri District) | 9.6 | | | | 9.6 | 9.6 | | | |
| | | Neora Valley NP (Darjeeling District) | 159.8917 | | | | 159.8917 | 159.8917 | | | |
| | | TOTAL | | 248.9417 | 0 | 0 | 0 | 248.9417 | 248.9417 | Source: Report of DFO, W/P North & Annual Report 2014-15 WL wing | |
| | JALDAPARA WILDLIFE DIVISION | | 84.5344 | | 5.6243 | | 90.1587 | 90.1587 | | | |
| | ALIPURDUAR | JALDAPARA NATIONALPARK | | | 216.34 | | | | 216.34 | 216.34 | Source: Report of DFO,W/P North |
| | | | | | | | | | 306.4987 | 306.4987 | |
| | | BTR (WEST) DIVISION | | | 257.1161 | | 0.3597 | | 257.4758 | 257.4758 | |
| BTR (WEST) NP &WLS | | | | 109.4773 | | | | 109.4773 | 109.4773 | | |
| | | | | | | | | 366.9531 | 366.9531 | | |
| BTR (EAST) DIVISION | | | | 111.391 | | 1.5454 | | 112.9364 | 112.9364 | | |
| BTR (EAST) NP &WLS | | | | 274.43 | | 0.4012 | | 274.8312 | 274.8312 | | |
| | | | | | | | | 387.7676 | 387.7676 | | |
| TOTAL | | | 1053.2888 | 0 | 7.9306 | 0 | 1061.2194 | 1061.2194 | Source: Report of DFO,W/P North | | |
| BAIKUNTHAPUR DIVISION | | | 66.6324 | 161.9574 | 0.23542 | | 228.82522 | 228.8252 | | | |
| JALPAIGURI | JALPAIGURI DIVISION | | | 275.6818 | 0 | 35.1982 | | 310.88 | 310.88 | | |
| | TOTAL | | 342.3142 | 161.9574 | 35.43362 | 0 | 539.70522 | 539.7052 | Source: Report of DFO,W/P North | | |
| COOCHBEHAR | COOCHBEHAR DIVISION | | | 0 | 37.0686 | 4.9524 | 24.5328 | 66.5538 | | 66.5538 | |
| | TOTAL | | | 0 | 37.0686 | 4.9524 | 24.5328 | 66.5538 | 66.5538 | Source: Report of DFO,W/P North | |
| TOTAL A (WORKING PLAN NORTH) | | | | 2636.9678 | 199.026 | 138.6562 | 24.5328 | 2999.18312 | 2996.0531 | | |

Division Wise Updated Recorded Forest Land & Area (Contd.)

| WP DIVISION | NAME OF THE DISTRICT | NAME OF THE DIVISION | ANY SPECIFIC AREAS INCLUDED | AREA IN KM2 | | | | | | REMARKS |
|----------------|-------------------------|---------------------------------------|--------------------------------|--------------------|---------------------|---------------------------------|---------------------------|-----------------|-------------|---|
| | | | | RESERVED FOREST | PROTECTED FOREST | UNCLASSIFIED STATE FOREST | PRIVATE FOREST LAND | AREA (Jan18) | OLD AREA | |
| SOUTH-II | BANKURA | BANKURA (NORTH) | | 22.9982 | 489.532 | 33.4085 | | 545.9387 | 531.02542 | Source: Working Plans and Report of DFO, WP North |
| | | BANKURA (SOUTH) | | 66.11 | 491.50336 | 5.39139 | | 563.00475 | 563.00475 | |
| | | PANCHET | | 8.7845 | 329.3965 | 0.32 | | 338.501 | 338.501 | |
| | | TOTAL | | 97.8927 | 1310.43186 | 39.11989 | 0 | 1447.44445 | 1432.53117 | |
| | PURULIA | PURULIA | | 75.4878 | 251.5623 | 349.8256 | | 676.8757 | 511.7282 | Source: Working Plans and Report of DFO, WP South-II along with details in 2nd Draft Working Plan |
| | | KANGSABATI (NORTH) | | 0 | 249.0272 | 22.0145 | | 271.0417 | 268.8266 | |
| | | KANGSABATI (NORTH) | | 10.2477 | 238.7582 | 36.5871 | | 285.593 | 278.6177 | |
| | | TOTAL | | 85.7355 | 739.3477 | 408.4272 | 0 | 1233.5104 | 1059.1725 | |
| | BURDWAN | BURDWAN | | 24.04353 | 148.0246 | 46.38648 | | 218.45461 | 218.45461 | Source: Working Plans and Report of DFO, WP South-II |
| | | DURGAPUR | | 3.5027 | 31.97495 | 14.15503 | | 49.6327 | 49.6327 | |
| | | Arambagh Range HOWRAH SOCIAL FORESTRY | | | 3.37281 | | | 3.37281 | 3.37281 | |
| | | TOTAL | | 27.54623 | 183.37236 | 60.54153 | 0 | 271.46012 | 271.46012 | |
| | BIRBHUM | BIRBHUM | | 19.9076 | 53.90364 | 92.63418 | | 166.44542 | 166.44542 | Source: Working Plans and Report of DFO, WP South-II |
| | | TOTAL | | 19.9076 | 53.90364 | 92.63418 | 0 | 166.44542 | 166.44542 | |
| | | TOTAL B (WORKING PLAN SOUTH-II) | | 231.08203 | 2287.05556 | 600.7228 | 0 | 3118.86039 | 2929.60921 | |
| | | | | | | | | | | |



Division Wise Updated Recorded Forest Land & Area (Contd.)

| WP DIVISION | NAME OF THE DISTRICT | NAME OF THE DIVISION | ANY SPECIFIC AREAS INCLUDED | AREA IN KM2 | | | | | | REMARKS |
|----------------|--------------------------------|----------------------|--------------------------------|--------------------|---------------------|---------------------------------|---------------------------|-----------------|-------------|---|
| | | | | RESERVED FOREST | PROTECTED FOREST | UNCLASSIFIED STATE FOREST | PRIVATE FOREST LAND | AREA (Jan18) | OLD AREA | |
| SOUTH-1 | PASCHIM MEDINIPUR | MEDINIPUR | | 38.1752 | 444.7202 | 30.685 | | 513.5804 | 513.5804 | Source: Working Plans and Report of DFO, WP South-1 |
| | | RUPNARAYAN | | 0.2851 | 291.0948 | 0.0065 | | 291.3864 | 291.3864 | |
| | | JHARGRAM | | 23.4961 | 523.9462 | 47.5334 | | 594.9757 | 594.9757 | |
| | | KHARAGPUR | | | 297.3497 | 28.0854 | | 325.4351 | 325.4351 | |
| | | TOTAL | | 152.7008 | 1778.8808 | 122.74 | 0 | 2054.3216 | 2054.3216 | |
| | PURBAMEDINIPUR | PURBAMEDINIPUR | | | 15.75612 | 3.1186 | | 18.87472 | 18.87472 | Source: Working Plans and Report of DFO, WP South-1 |
| | | TOTAL | | 0 | 15.75612 | 3.1186 | 0 | 18.87472 | 18.87472 | |
| | SOUTH 24 PARGANAS | 24 PARGANAS (SOUTH) | | 1579.29 | | 2.68 | | 1581.97 | 1571.77 | Source: Working Plans and Report of DFO/WP South-1 along with details in 3rd Draft Working Plan |
| | | S.T.R. | Chintamonikar Bird WLS | 0.0721 | | | | 0.0721 | 0 | |
| | | TOTAL | | 4164.3621 | 0 | 2.68 | 0 | 4167.0421 | 4156.77 | |
| SOUTH-1 | NORTH 24 PARGANAS | 24 PARGANAS (NORTH) | | 0.948 | | 0.0154 | | 0.9634 | 0.9634 | Source: Working Plans and Report of DFO, WP South-1 |
| | | TOTAL | | 0.948 | 0 | 0.0154 | 0 | 0.9634 | 0.9634 | |
| | NADIA | NADIAMURSHIDABAD | | 5.10402 | 3.173 | 4.0728 | | 12.3343 | 12.3343 | Source: Working Plans and Report of DFO, WP South-1 |
| | | | | 0.9011 | 5.6115 | 1.188 | | 7.7006 | 7.7006 | |
| | MURSHIDABAD | TOTAL | | 6.00512 | 8.7845 | 5.24528 | 0 | 20.0349 | 20.0349 | |
| | | | | 7.73954 | 3.72038 | 5.56053 | | 17.02045 | 17.02045 | |
| | MALDA | TOTAL | | 7.73954 | 3.72038 | 5.56053 | 0 | 17.02045 | 17.02045 | Source: Working Plans and Report of DFO, WP South-1 |
| | | | | 2.07491 | 1.26382 | 2.68506 | | 6.02379 | 6.02379 | |
| | UTTAR DINAJPUR | RAIGUNJ | | 4.14492 | 2.91546 | 1.21388 | | 8.27426 | 8.27426 | Source: Working Plans and Report of DFO, WP South-1 |
| | | | | 6.21983 | 4.17928 | 3.89894 | 0 | 14.29805 | 14.29805 | |
| | TOTAL C (WORKING PLAN SOUTH-1) | | | 4337.97539 | 1811.32108 | 143.25875 | 0 | 6292.55522 | 6282.28312 | |
| | TOTAL A+B+C | | | 7206.02522 | 4297.40264 | 882.63807 | 24.5328 | 12410.59873 | 12207.94543 | INCREASE IN RF AREA* |
| | | | | | | | | | | 202.6533 |

*THE FOREST DEPARTMENT HAS TAKEN UP THE WORK OF UPDATING THE FOREST LAND RECORDS AND AFTER THE FIRST PHASE OF EXERCISE, IT INSPIRES THAT THE TOTAL RECORDED FOREST AREA UNDER THE PERMANENT MANAGEMENT OF FOREST DEPARTMENT IS HIGHER THAN REPORTED EARLIER. SOME OF THE REASONS FOR INCREASE ARE AS FOLLOWS:

1. RECEIPT OF LAND IN LIEU OF THE LAND TRANSFERRED TO DIFFERENT USER AGENCIES GIVEN UNDER FCA
2. SOME AREAS UNDER VARIOUS DIVISIONS WERE NOT RECORDED IN THE OLD WORKING PLANS AND HAVE NOW BEEN REVISED & ADDED BASED ON AVAILABLE LAND RECORDS. THESE LAND RECORDS HAVE ALSO BEEN INCORPORATED IN THE REVISED AND APPROVED WORKING PLANS AS REQUIRED
3. THE LAND RECORDS OF PURULIA DISTRICT HAVE BEEN UPDATED TO SOME EXTENT BASED ON AVAILABLE LAND RECORDS DOCUMENTS. THE WORK IS STILL UNDER PROGRESS. MANY TERRITORIES OF PURULIA DISTRICT WERE PART OF MANBHUM DISTRICT AND WERE TRANSFERRED FROM ERSTWHILE BIHAR STATE IN 1956. THE RECORDED LAND AREA HAS HENCE INCREASED TO SOME EXTENT AND IS ANTICIPATED TO INCREASE FURTHER WITH THE COMPLETION OF LAND RECORDS UPDATION EXERCISE.



Tiger in Bengal Safari, Siliguri

ADMINISTRATION

4.1 CADRE STRENGTH OF IFS & WBFS IN WEST BENGAL AS ON 31.03.2017

IFS CADRE OF WEST BENGAL

| Sl No | Authorised Structure of the IFS 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 01.01.2017 | No of Post |
|-------|---|------------|---|------------|
| 1 | Senior Duty Post under the State Govt | 78 | Senior Duty Post | 72 |
| 2 | Central Deputation Reserve @ 20% of (1) above | 15 | Central Deputation | 3 |
| 3 | State Deputation Reserve @ 25% of (1) above | 19 | State Deputation | 21 |
| 4 | Training Reserve @ 3.5% of (1) above | 2 | Training Reserve | 13 |
| 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 | 37 |
| 6 | Leave Reserve & Junior Posts Reserve @ 16.5% if item (1) above | 12 | Leave Reserve & Junior Posts | 7 |
| 7 | Post to be filled by Direct Recruitment (1+2+3+4+6-5) | 88 | Posts filled by Direct Recruitment | 79 |
| 8 | Total Authorised Strength | 126 | Total Present Strength | 116 |

WBFS CADRE OF WEST BENGAL

| Authorised & existing cadre strength of the West Bengal Forest Service (As per Govt Order No.1499-For dated 15.05.2000 & 3887-For. dated 10.11.2006) as on 01.01.2017 | | | |
|---|--|------|-----------------|
| Sl. No. | Description | Nos. | Actually Posted |
| 1 | Direct Recruit Officers | 63 | 53 |
| 2 | Promoted Officers | 63 | 61 |
| 3 | Officers in charge of Division /Sr. Duty Post (DFO/DCF) | 23 | 21 |
| 4 | Officers posted as ADFO /Jr. Duty Post | 87 | 61 |
| 5 | Officers on deputation @ 10% of (3+4) | 11 | 11 |
| 6 | Officers undergoing training & Leave Reserve @ 5% of (3+4) | 5 | 21 |
| | Total Authorised Strength: | 126 | 114 |

4.2 Statement showing the sanctioned strengths of officers and staff of the Forest Directorate along with the existing strengths and vacancy positions as on 31.3.2017 given below:-

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|--------------------------|-------------------|-------------------|-----------|
| 1. | IFS | 126 | 111 | 15 |
| 2. | WBFS | 126 | 112 | 14 |
| 3. | A.O. | 1 | 1 | 0 |
| 4. | FR | 585 | 331 | 254 |
| 5. | DR/Fr. | 1282 | 605 | 677 |
| 6. | FG | 2454 | 1183 | 1271 |
| 7. | HFG | 231 | 83 | 148 |
| 8. | Head Clerk (Regional) | 65 | 63 | 2 |
| 9. | Head Clerk (Directorate) | 8 | 8 | 0 |
| 10. | Accountant (Reg.) | 8 | 3 | 5 |
| 11. | Accountant (Dte.) | 2 | 2 | 0 |
| 12. | Asst. Statistician | 1 | 0 | 1 |
| 13. | Computing Spr. | 2 | 2 | 0 |
| 14. | Computer | 7 | 0 | 7 |
| 15. | UDC (Reg.) | 327 | 243 | 84 |
| 16. | UDC (Dte.) | 26 | 25 | 1 |

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-------------------------------|-------------------|-------------------|-----------|
| 17. | Typist (Directorate) | 15 | 8 | 7 |
| 18. | Typist (Regional) | 28 | 5 | 23 |
| 19. | LDC (Regional Cadre) | 350 | 65 | 295 |
| 20. | LDC (Dte) | 26 | 6 | 20 |
| 21. | Statistician | 1 | 0 | 1 |
| 22. | Drivers | 146 | 72 | 74 |
| 23. | Agriculture Extension Officer | 2 | 0 | 2 |
| 24. | Asst. Foreman (Mech.) | 4 | 0 | 4 |
| 25. | Asst. Saw Doctor | 2 | 0 | 2 |
| 26. | Attendant | 1 | 0 | 1 |
| 27. | Asst. Soil Chemist | 1 | 0 | 1 |
| 28. | Band Saw operator | 10 | 1 | 9 |
| 29. | Bearer | 3 | 2 | 1 |
| 30. | Boatman | 102 | 37 | 65 |
| 31. | Boiler Driver | 1 | 0 | 1 |
| 32. | Boiler Fireman | 3 | 0 | 3 |
| 33. | Bungalow Chowkidar | 94 | 72 | 22 |
| 34. | Bengali Translator | 1 | 1 | 0 |
| 35. | Cashaub | 1 | 0 | 1 |
| 36. | Chowkidar | 2 | 1 | 1 |
| 37. | Cleaner/Truck Cleaner | 27 | 16 | 11 |
| 38. | Cook | 4 | 0 | 4 |
| 39. | Cook-cum-Bearer | 2 | 2 | 0 |
| 40. | Crane Operator | 3 | 2 | 1 |
| 41. | Cross-cut-Operator | 6 | 1 | 5 |
| 42. | C.T.Mobile Medical Unit | 1 | 0 | 1 |
| 43. | Compounder | 1 | 1 | 0 |
| 44. | Dakwalla | 104 | 44 | 60 |
| 45. | Darwan | 34 | 25 | 9 |
| 46. | Draftsman/Head Draftsman | 35 | 16 | 19 |
| 47. | Driver-cum-Mechanic | 3 | 0 | 3 |
| 48. | Duftary | 13 | 7 | 6 |
| 49. | Duplicating Operator | 1 | 1 | 0 |
| 50. | Electrician | 1 | 1 | 0 |
| 51. | Engine Driver | 9 | 6 | 3 |
| 52. | Electric Workman | 4 | 0 | 4 |
| 53. | ECG Technician | 1 | 0 | 1 |
| 54. | Fitter | 1 | 0 | 1 |
| 55. | Forest Watcher | 13 | 1 | 12 |
| 56. | Forest Worker | 17 | 6 | 11 |
| 57. | GDA (Medical Unit) | 2 | 1 | 1 |
| 58. | Gate Operator/ H.G.O. | 5 | 1 | 4 |
| 59. | Grass Cutter | 36 | 12 | 24 |
| 60. | Game Watcher | 2 | 1 | 1 |
| 61. | Game Guard | 4 | 0 | 4 |
| 62. | Installation Guard | 10 | 0 | 10 |
| 63. | Kiln Supervisor | 1 | 0 | 1 |
| 64. | Laskar | 17 | 8 | 9 |
| 65. | Lathe man | 1 | 0 | 1 |

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-----------------------------|-------------------|-------------------|-----------|
| 66 | Laboratory Assistant | 3 | 2 | 1 |
| 67 | Laboratory Attendant | 1 | 1 | 0 |
| 68 | Mahut | 25 | 4 | 21 |
| 69 | Majhi | 44 | 21 | 23 |
| 70 | Mali | 193 | 129 | 64 |
| 71 | Medical Officer | 2 | 0 | 2 |
| 72 | Mosalchi | 1 | 0 | 1 |
| 73 | Muharrir Grade-I, Grade-II | 2 | 2 | 0 |
| 74 | Museum Darwan | 1 | 0 | 1 |
| 75 | Night Guard | 11 | 7 | 4 |
| 76 | Night Watchman | 5 | 1 | 4 |
| 77 | Nurse | 2 | 0 | 2 |
| 78 | Oil Man – greaser | 9 | 4 | 5 |
| 79 | Orderly | 534 | 478 | 56 |
| 80 | Peon | 102 | 82 | 20 |
| 81 | Office Supdt. | 1 | 1 | 0 |
| 82 | Pharmacist | 2 | 0 | 2 |
| 83 | Power Saw Operator | 5 | 0 | 5 |
| 84 | Pump Driver | 1 | 0 | 1 |
| 85 | Road Roller Driver | 3 | 0 | 3 |
| 86 | Record Supplier | 2 | 1 | 1 |
| 87 | Renepont Operator | 2 | 0 | 2 |
| 88 | Road Roller Mate | 3 | 0 | 3 |
| 89 | Research Officer | 1 | 0 | 1 |
| 90 | Ropeway Motor Driver | 7 | 0 | 2 |
| 91 | Road Khalasi | 3 | 0 | 3 |
| 92 | Saw Doctor | 1 | 0 | 1 |
| 93 | Serang | 7 | 4 | 3 |
| 94 | Skilled Mazdoor | 10 | 0 | 10 |
| 95 | Station Helper | 5 | 0 | 5 |
| 96 | Personal Assistant | 48 | 46 | 2 |
| 97 | Sub-Station Operator | 2 | 1 | 1 |
| 98 | Karmabandhu (Sweeper) | 52 | 19 | 33 |
| 99 | Sukhani | 5 | 1 | 4 |
| 100 | Tractor Driver | 1 | 0 | 1 |
| 101 | Tractor Mate | 5 | 0 | 5 |
| 102 | Taxidermist | 1 | 0 | 1 |
| 103 | Ticket Seller | 1 | 0 | 1 |
| 104 | Technical Asstt. | 1 | 0 | 1 |
| 105 | Tractor Mount Roller Driver | 1 | 1 | 0 |
| 106 | Unskilled Mazdoor | 46 | 1 | 45 |
| 107 | Veterinary Officer | 1 | 0 | 1 |
| 108 | Watcher | 1 | 1 | 0 |
| 109 | X-Ray Assistant | 1 | 1 | 0 |
| 110 | Karmasathi (Zamadar) | 2 | 0 | 2 |

4.3 PERMANENT DEPUTATION POSTS TO WBFDC

| Sl no. | Name of Posts | Sanction 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 | Inst. Guard | 2 | 0 | 2 |
| 8 | Motor Driver | 1 | 0 | 1 |
| 9 | Power Saw Operator | 1 | 1 | 0 |
| 10 | Skilled Mazdoor | 19 | 3 | 16 |
| 11 | Stn. Helper | 5 | 0 | 5 |
| 12 | Unskilled Mazdoor | 6 | 4 | 2 |

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

4.4 PARKS & GARDENS WING

| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
|-------|-----------------------------|-------------------|-------------------|-----------|
| 1 | Garden Supervisor | 22 | 14 | 8 |
| 2 | Head Uddyan Rakshi | 30 | 16 | 14 |
| 3 | Horticulture Officer | 5 | 0 | 5 |
| 4 | Senior Horticulture Officer | 2 | 1 | 1 |
| 5 | Senior Mali | 70 | 56 | 14 |
| 6 | Supdt. Horticulture officer | 1 | 0 | 1 |
| 7 | Uddyan Rakshi | 120 | 69 | 51 |
| 8 | Uddyan Shramik | 280 | 147 | 133 |

| LLOYD BOTANIC GARDEN | | | | |
|----------------------|-----------------------|-------------------|-------------------|-----------|
| Sl.No | Name of Posts | Sanction Strength | Existing Strength | Vacancies |
| 1 | Black smith | 1 | 0 | 1 |
| 2 | Carpenter | 1 | 1 | 0 |
| 3 | CT | 1 | 0 | 1 |
| 4 | Darwan | 6 | 2 | 4 |
| 5 | Head Mali | 1 | 0 | 1 |
| 6 | Herbarium Cleaner | 4 | 3 | 1 |
| 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 | 0 | 1 |
| 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 | 3 | 22 |

SUPERNUMERARY POSTS

| | |
|--------------|------|
| Bana Majdoor | 245 |
| Bana Shramik | 2111 |

4.5 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 | -- |
| Total | 18 | 58 | 474 | 762 |

4.6 RECRUITMENT:-

Direct Recruitment:-

Direct recruitment of EXECUTIVE PERSONNEL:-

Appointment of Forest Ranger:

There has been direct recruitment of Executive personnel viz. Forest Ranger. Selection made by the Public Service Commission, West Bengal on the post of FR is 136. Being selected on the basis of results of West Bengal Forest Service & West Bengal Sub-ordinate Forest Service Examination, 2013, 63 candidates have been offered appointment to the post of Forest Ranger during the financial year 2016-17, out of which 57 candidates joined the said post during the period.

Appointment of Deputy Ranger / Forester:

The WBSSC made selection of 131 candidates for recruitment to the post of Deputy Ranger / Forester during the year 2016-17 on the basis of results of DRF examination, 2015 conducted by them, but none of them joined the said post during that period.

APPOINTMENT ON COMPASSIONATE GROUND:-

During the period April, 2016 to March, 2017, 137 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 IN GROUP- C ON COMPASSIONATE GROUND

| Sl No | Designation | No. of candidate selected for appointment (75 Nos.) |
|-------|------------------------|---|
| 1 | Deputy Ranger/Forester | 50 |
| 2 | Forest Guard | 11 |
| 3 | Lower Division Clerk | 14 |

DETAILS OF SELECTION FOR APPOINTMENT IN GROUP- D ON COMPASSIONATE GROUND

| Sl No | Designation | No. of candidates offered appointment (85 Nos.) |
|-------|--------------------|---|
| 1 | Orderly | 50 |
| 2 | Peon | 9 |
| 3 | Mali | 18 |
| 4 | Bungalow Chowkider | 8 |

4.7 DEPLOYMENT OF WBFS (DFO/DFC) :

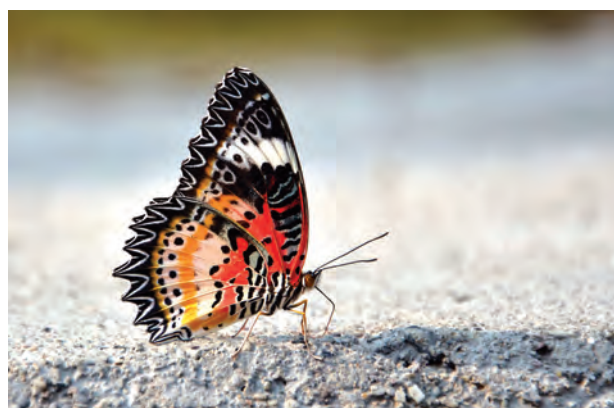
| SI. No. | Name of Division | SI. No. | Name of Division |
|---------|--|---------|---|
| 1. | DFO Working Plan South-I Division | 13. | Deputy Conservator of Forest, Personnel |
| 2. | DFO Working Plan South-II Division | 14. | Deputy Conservator of Forest, Legal |
| 3. | DFO Kangsabati (South) Division | 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 | | |

4.8 DEPLOYMENT OF ADFOs :

| SI. No. | Name of Division | Sanctioned Strength | SI. No. | Name of Division | Sanctioned Strength |
|---------|------------------------------|-----------------------|---------|------------------------------|-----------------------|
| 1. | Personnel Management Cell | 1 | 30. | DFO, Planning | 1 |
| 2. | Working Plan (N) Division | 1 | 31. | Attached to APCCF (NB) | 1 |
| 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 | 41. | 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 | 2 (1 for Murshidabad) | 46. | 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 | 51. | 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 |



Great Indian Hornbill



Himalayan Red Lacewing



Wild Elephant Herd in Glade



Mati Utsav



Inauguration of Bana bandhav Utsav by Honorable
MIC at Lalgarh

“সবুজ বাংলা
বিশ্ব বাংলা”

পশ্চিমবঙ্গ সরকার, বন দপ্তর

‘স্বাধীন হতে চাওয়া গাছ’
বাংলা আজ



‘সবুজ বাংলা’
বিশ্ব বাংলা’

বন সংরক্ষণ
আদ্য

তারিখ - ১৪-২০শে জুন, ২০১৯

স্থান - আউশগ্রাম হাই স্কুল, পূর্ব বর্ধমান

বন বিভাগ, পূর্ব বর্ধমান

JOINT FOREST MANAGEMENT COMMITTEE

5.1 JFMCs in West Bengal as on 31/03/2017

A total of 4261 numbers of JFMCs having total membership of 497214 with approximate ratio of male: female membership at 9:1 has been reported to be registered in West Bengal covering 527877.65 ha forest area being protected by them. The SC & ST constitute 55.59 % of members in the JFMCs.

| Division | No of JFMC | Area Protected (in Ha) | Male | Female | Members | | | |
|------------------|------------|------------------------|--------|--------|---------|--------|--------|--------|
| | | | | | Total | SC | ST | Others |
| Darjeeling | 77 | 14890.648 | 4223 | 486 | 4709 | 200 | 2086 | 2423 |
| Kurseong | 46 | 13094.61 | 1158 | 1643 | 2801 | 930 | 1002 | 869 |
| Darjeeling WL | 0 | 0 | 0 | 0 | 0 | 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 | 4320 | 665 | 4985 | 825 | 2876 | 1284 |
| Coochbehar | 25 | 3903.67 | 2932 | 209 | 3141 | 1497 | 517 | 491 |
| Jaldapara WL | 27 | 7475.73 | 4360 | 180 | 4540 | 727 | 2483 | 1330 |
| Gorumara WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Raiganj | 21 | 1162.60 | 1727 | 74 | 1801 | 864 | 412 | 525 |
| Malda | 5 | 289.521 | 432 | 89 | 511 | 311 | 191 | 9 |
| Bankura North | 543 | 43567.94 | 50845 | 2094 | 52939 | 19947 | 7917 | 25075 |
| Bankura South | 642 | 45211 | 56181 | 4637 | 60818 | 14683 | 18614 | 27521 |
| Panchet | 231 | 28336.27 | 27710 | 1593 | 29343 | 11120 | 4336 | 13457 |
| Kangsabati North | 246 | 17501.96 | 24019 | 885 | 24904 | 5748 | 8100 | 11056 |
| Kangsabati South | 305 | 25446 | 29561 | 569 | 30130 | 4293 | 10899 | 14938 |
| Purulia | 225 | 30845.22 | 20812 | 898 | 21710 | 7035 | 5913 | 8762 |
| Burdwan | 67 | 355.93 | 17158 | 3142 | 20300 | 7756 | 5559 | 6958 |
| Durgapur | 23 | 2436.439 | 3781 | 3836 | 7617 | 2544 | 1329 | 3744 |
| Midnapur | 364 | 44785.54 | 48102 | 2822 | 50924 | 10137 | 9191 | 31596 |
| Jhargam | 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 | 8925 | 14631 |
| Purba Midnapur | 19 | 1887.48 | 4760 | 1097 | 5857 | 1256 | 50 | 4551 |
| Birbhum | 198 | 9008.23 | 16869 | 352 | 17211 | 6095 | 5586 | 5540 |
| Nadia Msd | 11 | 916.332 | 957 | 44 | 1001 | 221 | 254 | 526 |
| 24 Parganas (S) | 40 | 42534 | 10801 | 10718 | 21519 | 11830 | 514 | 9175 |
| STR | 26 | 25194 | 4698 | 4400 | 9048 | 8736 | 326 | 0 |
| 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Howrah | 4 | 234.32 | 788 | 0 | 788 | 332 | 108 | 348 |
| Total | 4261 | 527877.65 | 450602 | 46669 | 497214 | 150725 | 125698 | 219695 |

5.2 Eco-Development Committees in West Bengal

A total of 115 numbers of EDCs having total membership of 26264 with approximate ratio of male: female membership at 3:1 has been reported to be registered in West Bengal covering 81672.52 ha forest within protected area being protected by them. The SC & ST constitute 64.78% of members in the EDCs.

(As on 31.03.2017)

| Name of Forest Division | Name of Protected Area | No. of EDC | Area Protected (in Ha) | No. of Members | | | SC | ST | Others |
|-------------------------|------------------------|------------|------------------------|----------------|--------|-------|------|------|--------|
| | | | | Male | Female | Total | | | |
| Darjeeling Wildlife | Mahananda WLS | 15 | 12406.55 | 2693 | 2118 | 4911 | 1305 | 1022 | 2514 |
| | Senchal WLS | 15 | 4114.81 | 1587 | 1211 | 2798 | 101 | 1496 | 1200 |
| | Singalila N.P. | 1 | 350 | 63 | 72 | 135 | 0 | 59 | 76 |

| | | | | | | | | | |
|-------------------------|-------------------------|-----|----------|-------|------|-------|------|------|------|
| Gorumara Wildlife | Neora Valley N.P. | 7 | 5756.58 | 3916 | 1380 | 5296 | 1834 | 2206 | 1256 |
| | Gorumara N.P. | 10 | 6239.97 | 1936 | 345 | 2281 | 727 | 714 | 840 |
| | Chapramari WLS | 2 | 1429.73 | 101 | 7 | 108 | 15 | 53 | 40 |
| Buxa Tiger Reserve (E) | Buxa Tiger Reserve | 14 | 23534.97 | 1454 | 173 | 1627 | 223 | 612 | 792 |
| Buxa Tiger Reserve (W) | | 7 | 10809.17 | 263 | 181 | 444 | 126 | 318 | 0 |
| Jaldapara Wildlife | Jaldapara WLS | 35 | 16514.09 | 7169 | 832 | 8001 | 3354 | 2258 | 2389 |
| Raiganj | Kulik WLS | 3 | 130 | 193 | 21 | 214 | 172 | 30 | 12 |
| Birbhum | Ballavpur WLS | 4 | 226.28 | 276 | 34 | 310 | 9 | 196 | 105 |
| Nadia –Murshidabad | Bethuadahari WLS | 1 | 66.67 | 96 | 6 | 102 | 55 | 29 | 18 |
| Sunderban Tiger Reserve | Sundarban Tiger Reserve | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas North | Bibhuti Bhushan WLS | 1 | 93.70 | 35 | 2 | 37 | 24 | 5 | 8 |
| TOTAL | | 115 | 81672.52 | 19782 | 6382 | 26264 | 7945 | 8998 | 9250 |

5.3 Status of Self Help Group as on 31/03/2017 (Excluding Women SHG)

As per report received from Divisions, total number of 3598 SHGs is present in all these Division out of which 2263 numbers of are exclusively women SHG.

| District | Division | No of SHG | Members Male | Female | Total | No of JFMC/ EDC in SHG | Corpus Fund Generated (in INR) |
|------------------|------------------|-----------|--------------|--------|-------|------------------------|--------------------------------|
| Darjeeling | Darjeeling | 18 | 86 | 102 | 188 | 64 | 141146.00 |
| Darjeeling | Kurseong | 0 | 0 | 0 | 0 | 0 | 0 |
| Darjeeling | Darjeeling WL | 18 | 60 | 64 | 124 | 9 | 777054.00 |
| Jalpaiguri | Baikunthapur | 63 | 79 | 604 | 683 | 49 | 721000.00 |
| Jalpaiguri | Jalpaiguri | 0 | 0 | 0 | 0 | 0 | 0 |
| Jalpaiguri | Gorumara WL | 14 | 0 | 167 | 167 | 9 | 0 |
| Alipurduar | BTR East | 0 | 0 | 0 | 0 | 0 | 0 |
| Alipurduar | BTR West | 187 | 1445 | 246 | 1691 | 33 | 0 |
| Coochbehar | Cooch Behar | 0 | 0 | 0 | 0 | 0 | 0 |
| Coochbehar | Jaldapara WL | 148 | 444 | 1332 | 1776 | 12 | 0 |
| Uttar&Dakshin | | | | | | | |
| Dinajpur | Raiganj | 0 | 0 | 0 | 0 | 0 | 0 |
| Malda | Malda | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura | Bankura North | 3 | 20 | 10 | 30 | 3 | 152650.00 |
| Bankura | Bankura South | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura | Panchet | 77 | 610 | 18 | 628 | 36 | 0 |
| Purulia | Kangsabati North | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | Kangsabati South | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | Purulia | 113 | 413 | 1085 | 1498 | 108 | 0 |
| Burdwan | Burdwan | 0 | 0 | 0 | 0 | 0 | 0 |
| Burdwan | Durgapur | 2 | 5 | 132 | 137 | 2 | 0 |
| Paschim Mednipur | Midnapur | 197 | 1741 | 291 | 2032 | 41 | 0 |
| Paschim Mednipur | Jhargarm | 172 | 1637 | 204 | 1841 | 64 | 0 |
| Paschim Mednipur | Rupnarayan | 245 | 632 | 1925 | 2557 | 112 | 1245390.00 |
| Paschim Mednipur | Kharagpur | 87 | 0 | 261 | 261 | 87 | 0 |
| Purba mednipur | Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 |
| Birbhum | Birbhum | 91 | 574 | 510 | 1084 | 0 | 0 |
| Nadia & MSD | Nadia Msd | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (S) | 24 Parganas(S) | 0 | 0 | 0 | 0 | 0 | 0 |
| Howrah | Howrah | 0 | 0 | 0 | 0 | 0 | 0 |

| District | Division | No of SHG | Members Male | Female | Total | No of JFMC/ EDC in SHG | Corpus Fund Generated (in INR) |
|-----------------|-----------------|-----------|--------------|--------|-------|------------------------|--------------------------------|
| 24 Parganas (S) | STR | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 parganas (N) | 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | | 1435 | 7746 | 6951 | 14697 | 629 | 3037240 |

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

| District | Division | No of SHG | Members Female | No of JFMC/ EDC in SHG | Corpus Fund Generated (in INR) |
|------------------------|------------------|-----------|----------------|------------------------|--------------------------------|
| Darjeeling | Darjeeling | 1 | 10 | 10 | 0 |
| Darjeeling | Kurseong | 12 | 36 | 7 | 0 |
| Darjeeling | Darjeeling WL | 8 | 91 | 6 | 303554.00 |
| Jalpaiguri | Baikunthapur | 56 | 604 | 49 | 0.00 |
| Jalpaiguri | Jalpaiguri | 23 | 271 | 6 | 0 |
| Jalpaiguri | Gorumara WL | 14 | 167 | 10 | 0 |
| Alipurduar | BTR East | 252 | 2299 | 0 | 0 |
| Alipurduar | BTR West | 0 | 0 | 0 | 0 |
| Coochbehar | Coochbehar | 0 | 0 | 0 | 0 |
| Coochbehar | Jaldapara WL | 112 | 1232 | 12 | 0 |
| Uttar&Dakshin Dinajpur | Raiganj | 0 | 0 | 0 | 0 |
| Malda | Malda | 0 | 0 | 0 | 0 |
| Bankura | Bankura North | 57 | 570 | 40 | 621250.00 |
| Bankura | Bankura South | 40 | 320 | 20 | 79796.00 |
| Bankura | Panchet | 891 | 10370 | 101 | 7000000.00 |
| Purulia | Kangsabati North | 0 | 0 | 0 | 0 |
| Purulia | Kangsabati South | 0 | 0 | 0 | 0 |
| Purulia | Purulia | 80 | 1085 | | 0 |
| Burdwan | Burdwan | 0 | 0 | 0 | 0 |
| Burdwan | Durgapur | 60 | 502 | 0 | 0 |
| Paschim Mednipur | Midnapur | 3 | 291 | 3 | 0 |
| Paschim Mednipur | Jhargarm | 66 | 660 | 35 | 0 |
| Paschim Mednipur | Rupnarayan | 119 | 1222 | 70 | 1212639.00 |
| Paschim Mednipur | Kharagpur | 87 | 609 | 87 | 0 |
| Purba mednipur | Purba Midnapur | 0 | 0 | 0 | 0 |
| Birbhum | Birbhum | 5 | 1456 | 288 | 0 |
| Nadia & MSD | Nadia Msd | 0 | 0 | 0 | 0 |
| 24 Parganas (S) | 24 Parganas(S) | 234 | 2808 | 6 | 0 |
| 24 Parganas (S) | STR | 143 | 1430 | 26 | 0 |
| 24 Parganas (N) | 24 Parganas (N) | 0 | 0 | 0 | 0 |
| Howrah | Howrah | 0 | 0 | 0 | 0 |
| TOTAL | | 2263 | 26033 | 515 | 9217239 |

5.5 STATUS OF FDA as on 31/03/2017

As per report received from Divisions, a total of 1114 numbers of FDA having total membership of 203,009 with approximate ratio of male: female membership at 10:1 has been reported to be registered in West Bengal. The SC & ST constitute 53.34% of members in the FDA.

| Name of FDA | No of JFMC/EDC in FDA | No of JFMC/EDC members in FDA | | | | | | Fund utilisation in NAP /other Schemes (in Rs. Lakhs) |
|-------------|-----------------------|-------------------------------|--------|-------|-----|------|--------|---|
| | | Male | Female | Total | SC | ST | Others | |
| Darjeeling | 77 | 4223 | 486 | 4709 | 200 | 2086 | 2423 | 0 |
| Kurseong | 46 | 1158 | 1643 | 2801 | 930 | 1002 | 869 | 18.148 |

| Name of FDA | No of JFMC/EDC in FDA | No of JFMC/EDC members in FDA | | | | | | Fund utilisation in NAP /other Schemes (in Rs. Lakhs) |
|------------------|-----------------------|-------------------------------|--------|---------|-------|-------|--------|---|
| | | Male | Female | Total | SC | ST | Others | |
| Darjeeling WL | 31 | 4343 | 3501 | 7844 | 1406 | 2648 | 3790 | 0 |
| Baikunthapur | 66 | 6192 | 131 | 6323 | 4529 | 790 | 1004 | 0 |
| Jalpaiguri | 63 | 1386 | 61 | 1447 | 463 | 410 | 574 | 3.45 |
| Gorumara WL | 12 | 1989 | 349 | 2338 | 737 | 759 | 842 | 0 |
| BTR East | 17 | 1556 | 181 | 1738 | 456 | 908 | 435 | 0 |
| BTR West | 34 | 2013 | 206 | 2219 | 147 | 1611 | 461 | 0 |
| Cooch Behar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jaldapara WL | 62 | 9956 | 650 | 10606 | 3660 | 3704 | 3142 | 0 |
| Raiganj | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Malda | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura North | 3 | 2432 | 97 | 2529 | 986 | 223 | 1320 | 3.63 |
| Bankura South | 17 | 2027 | 55 | 2082 | 428 | 385 | 1269 | 5.50 |
| Panchet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati North | 57 | 5940 | 160 | 6100 | 789 | 2563 | 2748 | 0 |
| Kangsabati South | 46 | 19211 | 396 | 19607 | 3203 | 7562 | 8842 | 0 |
| Purulia | 49 | 5961 | 356 | 6317 | 2107 | 1554 | 2656 | 2.63 |
| Burdwan | 67 | 17158 | 3142 | 20,300 | 7756 | 5559 | 6985 | 4.36 |
| Durgapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Midnapur | 2 | 48038 | 2801 | 50839 | 10131 | 9186 | 31522 | 0 |
| Jhargarm | 125 | 12198 | 693 | 12891 | 2135 | 5192 | 5564 | 0 |
| Rupnarayan | 53 | 8059 | 641 | 8700 | 2018 | 2297 | 4385 | 0 |
| Kharagpur | 254 | 29025 | 1586 | 30611 | 7028 | 8952 | 14631 | 0 |
| Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Birbhum | 33 | 2787 | 221 | 3008 | 805 | 935 | 1268 | 0 |
| Nadia Msd | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (S) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| STR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Howrah | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1114 | 185652 | 17356 | 203,009 | 49914 | 58326 | 94730 | 37.718 |



JFMC Training on Green Composting

FORESTRY RESEARCH

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 Siliguri and Silviculture (South) Division with its headquarter at Midnapore.

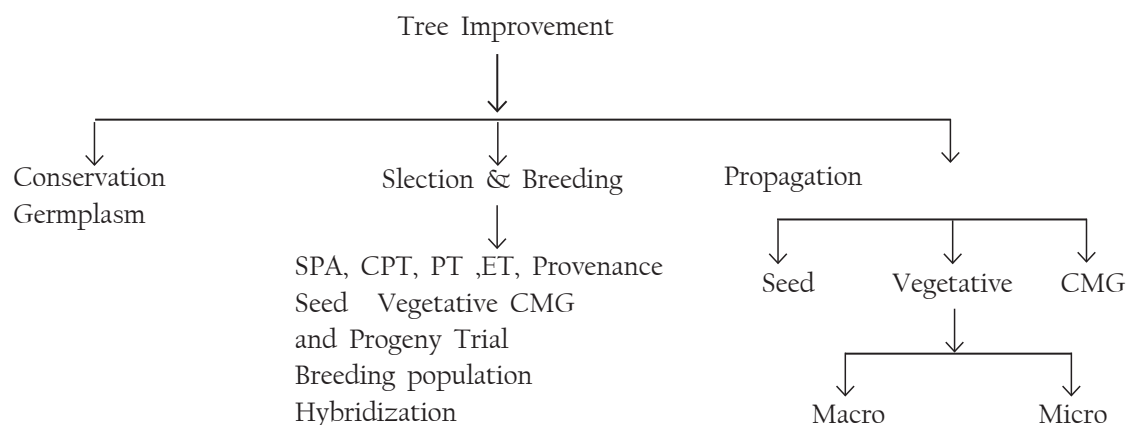
Major mandate of the Research Circle is as follows:

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



6.1 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

SEED STAND

| Division Wise Area | | | Maintained during 2016-17 | Created during 2016-17 |
|--------------------|--------------------|--------------------|---------------------------|------------------------|
| Silviculture Hills | Silviculture North | Silviculture South | 220.76 Ha. | Nil |
| 170.76 Ha. | 220.60 Ha. | 37.17 Ha. | | |

PLUS TREES

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

B. Plus Trees created during 2016-17 :

| CREATION OF PLUS TREES Silviculture (Hills) Division | | | | | | | | | |
|--|--------------------------------|------------|---|-------------------------------|-------|---------|------------------|-------------|-------------|
| 1. | <i>Pterocarpus marsupium</i> | PANC/PM/I | 1 | Darjeeling Wild Life Division | Sukna | Koklong | Panchanai | 26°48'15.9" | 88°22'01.7" |
| 2. | <i>Phoebe attenuata</i> | PANC/PN/II | 1 | -do- | -do- | -do- | -do- | 26°48'14.1" | 88°22'0.6" |
| 1 | <i>Mangifera sylvatica</i> | | 1 | Darjeeling Wild Life Division | Sukna | Punding | Upper Champasari | 26°48'15.9" | 88°22'01.7" |
| 2 | <i>Mangifera sylvatica</i> | | 1 | | Sukna | Gulma | Lower Champasari | 26°48'52.9" | 88°24'44.2" |
| 3 | <i>Mangifera sylvatica</i> | | 1 | | Sukna | Gulma | Chuklung | 26°49'24.9" | 88°25'37.8" |
| 4 | <i>Mangifera sylvatica</i> | | 1 | | Sukna | Koklong | Panchanai | 26°48'07.2" | 88°22'06.3" |
| 5 | <i>Cinnamomum cecidodaphne</i> | | 1 | | Sukna | Koklong | Panchanai | 26°48'25.5" | 88°24'54.7" |
| 6 | <i>Pterocarpus marsupium</i> | | 1 | | Sukna | Koklong | Panchanai | 26°48'17.0" | 88°21'59.4" |

CREATION OF PLUS TREES Silviculture (North) Division - NIL

CREATION OF PLUS TREES Silviculture (South) Division - NIL

C. Experimental plantation undertaken during 2016-17

- Plantations : For assured supply of genetically improved seeds the Divisions under this circle undertake plantations of RET (Rare, Endangered & Threatened) as well as maintenance of Seedling Seed Orchard both in North & South Bengal.
- Clonal / Progeny Orchards & Provenance Trials
- Setting up of Block Plantations along with regular plantations for long term testing of improved seeds / clones.

Experimental trials taken up during 2016-17 :

| Sl. No. | Name of Experimental Trial | Species | Objective | Area | Location | Remarks |
|-------------------------------|-----------------------------------|---|---|------|--|------------|
| Silviculture (South) Division | | | | | | |
| 1 | Mud Flat Plantations | Mangrove species like- Heritiera foetida (Sundari), Avicennia alba (Baen), Xylocarpus granatum (Dhundul), Aegiceras corniculatum (Khalsi), Acanthus ilicifolius (Hargoza) Bruguiera gymnorhiza (Kankra) etc. | For reclamation of Sea-shore mud flat area | 2.0 | Dakshin Kadua under Digha Research Station | State Plan |
| 2 | Seedling Seed Orchard (SSO) Pltn. | P. santalinus, S. oleosa, T. chebula, P. marsupium, D. latifolia etc | To create a Seed Production Area with seedlings raised from seeds of identified plus trees for getting quality seeds. | 5.0 | Jhargram, Nunungeria | State Plan |

| Sl. No. | Name of Experimental Trial | Species | Objective | Area | Location | Remarks |
|--------------------------------------|----------------------------|---|---|------------|-------------------------------|------------|
| 3 | CMA | Eucalyptus | Production of Eucalyptus ramets over 10,000 nos. Spacing 1mt. X 1mt. | 1.0 | At Mouza – Chandmura, Arabari | State Plan |
| 4 | Root trainers experiment | Various RET Species | For suitable size of root trainers over 16,000 nos. In different sizes of Hycopot like – 60cc, 100cc, 160cc, 300cc, 500cc, 800cc. | 16000 nos. | At Mouza – Chandmura, Arabari | State Plan |
| Silviculture (North) Division | | | | | | |
| 5 | Seedling Seed Orchard | Jarul, Pacasaj, Sidha, Gante, Setisal, Benteak, Arjun, Kawla, Lohakat, Dudhe Lali, Kainjal. | To create a Seed Production Area with seedlings raised from seeds of identified plus trees for getting quality seeds. | 4.0 | Kharia bandar -1 | State Plan |

D. CERTIFIED SEEDS & QPMs SUPPLIED DURING 2016-17

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

Certified Seeds – Silviculture (North) Division . 1159.175 Kg

Certified Seeds – Silviculture (South) Division.

| QPM | Quantity supplied | Remarks |
|---|-------------------|--|
| Certified Seeds | 2500 Kgs | |
| Quality Planting Materials | 2,62,000 nos. | |
| Production of Eucalyptus ramets, Creation & Maintenance | 70,000 Nos. | At – Arabari Modern Nursery, under Arabari Research Range, WBFBC Project (JICA Scheme) funded by WBFDC Ltd. & Seedling already supplied to Bankura (South) Crop. Division. |
| Production of Akashmoni Seedling (QPM) Creation & Maintenance | 1,50,000 Nos. | |

E. 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 | Silviculture (Hills) | 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 | | 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 | Silviculture (North) | Rajabhatkhawa | 0.50 lakh |
| 9. | Salugarah Modern Nursery | | Salugarah | 0.20 lakh |
| 10. | Lataguri Modern Nursery (recently upgraded under RIDF scheme) | | Lataguri | 2.00 lakh |
| | Trials on modern nursery practices | Silviculture (South) | Nil | Nil |

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 % |
|-------------------------------|-------------------------------|--------------|--------------|-------------------------------------|---------------|
| Silviculture (Hills) Division | | | | | |
| 1. | <i>Cinnamomumcecidodaphne</i> | 50 | | Seed are soaked in water for 24 hrs | 30 |
| 2. | <i>Polyalthiasimiarum</i> | 20 | | Seed are soaked in water for 24 hrs | 15 |
| 3. | <i>Pterocarpus marsupium</i> | 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 Compose | T14 :: Wood dust : Vermicompost | T15 :: Sand : Vermicompost |
| T16 :: Vermiculite : Compost | T17 :: BuriRice husk : Compost | T18 :: Cow dung |
| T19 :: Wood dust : Cow dung | T20 :: Sand : Cow dung | |

| SILVICULTURE (SOUTH) DIVISION | | | | | | | |
|-------------------------------|----------------------------------|-----------|---|--------------------------------|------|---------------------------------|------|
| Sl. No. | Species | Treatment | Remarks | Growth Measurement As onAug-15 | | Growth Measurement As on.Mar-16 | |
| | | | | Ht. | Dia. | Dia | Dia |
| 1 | Shorearobusta | T1 | No special treatment was given, seedlings were raised in 150 cc root trainers | 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 | | 13.8 | 4.6 | 20.6 | 9.3 |
| 5. | Buchananialanzan (Pial) | T3 | | 6.4 | 2.2 | 9.0 | 2.44 |
| 6. | Terminalia belerica | T10 | | 11.8 | 4.2 | 14.75 | 3.97 |
| 7. | Madhucalatifolia (Mohul) | T17 | | 11.0 | 3.8 | 13.22 | 6.99 |
| 8. | Lagerstroemia parviflora (Sidha) | T2 | | 11.8 | 2.2 | 19.5 | 3.08 |
| 9. | Terminalia chebula (Haritoki) | T7 | | 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 |
| T3 :: Compost : Sand 2:1 | T4 :: Vermicompost : Sand (2:1) |
| T5 :: Leaf Mould : sand 2:1 | T6 :: Cowdung : Sand 2:1 |

| SILVICULTURE (HILLS) DIVISION | | | | | | | |
|-------------------------------|------------------|-----------|-----------------------------|--------------------------------|------|---------------------------------|-----|
| Sl. No. | Species | Treatment | Remarks | Growth Measurement As onAug-15 | | Growth Measurement As on.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 hycopots : Nursery sal root base trials were carried out using different sizes of hycopots. 4 different sizes of hycopots were taken up for trial on different species as listed in table below .The results of the trials are as follows.

- Container :150cc :300cc :1000cc :1400cc
- Trial :

| | |
|--|---------|
| T-1 - Sand + good earth | ::1:2 |
| T-2 - Sand +good earth + varmi compost | ::1:1:2 |
| T-3 - Good earth + varmi compost | ::1:2 |

T-4 – Sand + good earth + cow-dung ::1:1:2
T-5 – Good earth + leaf mould + cow dung ::1:1:2

| Sl. No. | Species | Container Size | Treatment | Silviculture (North) Division | |
|---------|-----------------------------|----------------|-----------|--------------------------------------|--------------------------------------|
| | | | | Root Growth Measurement As on May-16 | Root Growth Measurement As on Mar-17 |
| | | | | Ht. | Hit |
| 1 | <i>Shorea robusta</i> (Sal) | 150cc | T1 | 4.00cm | 13.40cm |
| | | | T2 | 4.20cm | 12.00cm |
| | | | T3 | 4.50 cm | 16.30 cm |
| | | | T4 | 4.80 cm | 13.40 cm |
| | | | T5 | 4.00 cm | 14.10 cm |
| 2 | <i>Shorea robusta</i> (Sal) | 300 cc | T1 | 4.20 cm | 13.00 cm |
| | | | T2 | 4.00 cm | 14.10 cm |
| | | | T3 | 4.00 cm | 12.90 cm |
| | | | T4 | 4.00 cm | 12.40 cm |
| | | | T5 | 4.60cm | 19.70cm |
| 3 | <i>Shorea robusta</i> (Sal) | 1000 cc | T1 | 5.00cm | 16.20cm |
| | | | T2 | 5.50 cm | 26.60 cm |
| | | | T3 | 6.00 cm | 31.90 cm |
| | | | T4 | 4.50 cm | 30.70 cm |
| | | | T5 | 4.70 cm | 33.70 cm |
| 4 | <i>Shorea robusta</i> (Sal) | 1400 cc | T1 | 4.20 cm | 20.60 cm |
| | | | T2 | 4.50 cm | 22.20 cm |
| | | | T3 | 5.00 cm | 20.00 cm |
| | | | T4 | 5.20 cm | 22.60 cm |
| | | | T5 | 4.80 cm | 22.70 cm |

6.2 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 2016-17 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 | | | | | | | |
| WB/Silvi/PP-2 | 2.0 Ha. | H.F. | 1969 | Jhargram | Banspahari | Kakrajhore | Kakrajhore |
| WB/Silvi/PP-3 | 10.0 Ha. | H.F. | 1973 | Jhargram | Banspahari | Banspahari | Kakrajhore |
| WB/Silvi/PP-1 | 12.58 Ha | H.F. | 1977 | Bankura (S) | Ranibandh | Sutan | SutanBarapacha |
| Silviculture (North) Division | | | | | | | |
| WB/JP/LT-2 | 8.40 | H.F | 1933 | Jalpaiguri | Lataguri | Lataguri | Lower Tondur-1 |
| WB/JP/3 | 7.6 | H.F | 1933 | Gorumara WL | S. Gorumara | Gorumara | Gorumara |
| WB/24/NDR | 20 | H.F | 1957 | BTR(E) | Rydak | Mainabari | Bhutanghat-2 |
| Silviculture (Hills) Division | | | | | | | |
| 26 | 04 | Plantation | 1959 | Kurseong | Bamanpokhri | Bamanpokhri | Bamanpokhri |
| 16 | 5.8 | HF | 1932 | Darjeeling | Takdah | Takdah | Lopchu-2 |
| 28 | 12 | HF | 1965 | Kalimpong | | | Bokhim-5 & Pembaling-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 2016-17 maintenance & floral inventory works were undertaken in different LSPs as given below :

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 2016-17.

| S.P. No. | Area in Acre | Plantation/H.F. | Year of formation | Division | Range | Beat | Block/Compartment |
|--------------------------------------|--------------|-----------------|-------------------|-------------|---------------|-----------|-------------------|
| Silviculture (South) Division | | | | | | | |
| 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-11 | 2.64 Ha. | - | - | Bankura (N) | Gangajalghati | Mejia | Mejia |
| Silviculture (North) Division | | | | | | | |
| Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| Silviculture (Hills) Division | | | | | | | |
| Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |

6.3 List of Arboretum

| Name of Arboretum | 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 | Nodia-Murshidabad | Mahatpur | Krishnagar | 1.25 | | Misc. Spp. |
| Chakhatisole | | Chakhatisole | | 0.40 | | Misc. Spp. |
| Silviculture (Hills) Division | | | | | | |
| Arboretum Part – I at Panchanai | Darjeeling Wildlife | Panchanai | KurseongResearch Range | 3.00 | 1942 | Acrocarpusfraxinifolia, Amoorawallichii, Bombaxceiba, Castanopsis spp., Lagerstroemia flos-reginae, Switeniamacrophylla, Tectonagrandis, Terminalia tomentosa, Xyliadolabriformis |
| Arboretum Part – II at Kyanuka | Darjeeling Wildlife | Kyanuka | KurseongResearch 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, Pinuspatula, Pinustaeda, Pinusmassoniana, Pinusthunbergii, Abiesspectabilis, Taxuswallichiana. |
| Silviculture (North) Division | | | | | | |
| Khutimari Arboretum | Jalpaiguri Division | SMG-7 | Moraghat | | | |
| Beat- Khutimari. | 0.62 Ha. | 1929 | Misc. Species. Total- 40 Spp. | | | |
| WRVK Arboretum | BTR(W) | SRVK-10 | WRVK Beat-WRVK | 1.5 Ha. | 1994 | Misc. Species. Total- 34 Spp. |

6.4 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 Amlachati having 854 species of medicinal plants collected from different parts of the state.

| Name of Herbal Garden / Demonstration Plot | Division | Location | Range | Area / No. of beds/ species | Year of creation | Major species | |
|--|-----------------|--------------------|--------------------------------|------------------------------|------------------|---|---|
| | | | | | | RET | Regular |
| Amlachati Ex-Situ site | Jhargram | Amlachati | Lodhasuli | 2.0 Ha/ 468 Nos./704 Nos. | 2001 | <i>Gymnemasyvestre</i> , <i>Tinosporacordifolia</i> , <i>Tylophora indica</i> , <i>Clerodendrum indicum</i> , <i>Rouvolfia serpentina</i> , <i>Dicliptera bupleuroides</i> etc. | <i>Centella asiatica</i> , <i>Bacopamonnieria</i> , <i>Enhdrafluctuans</i> , <i>Wedeliachinensis</i> etc. , |
| Digha Herbal Garden | Purba Medinipur | Khadalgobra | Contai | 0.095 Ha/ 70 Nos. / 146 Nos. | 2004 | | |
| Sonada | Darj. WL | Sonada | | | | <i>Rauvolfia serpentina</i> , <i>Asparagus racemosus</i> , <i>Tylophora indica</i> , <i>Gymnemasyvestre</i> , <i>Morinda citrifolia</i> , <i>Dioscoria pruriens</i> , <i>Hemidesmus indicus</i> , <i>Gloriosa superba</i> , <i>Tinosporacordifolia</i> , <i>Curcuma amada</i> | |
| Takdah | Darjeeling | Takdah | | | | | |
| Sukna | Darj. WL | Sukna | | | | | |
| Lava | Kpg WBFDC | Lava | | | | | |
| Bhuttabari | | Bhuttabari | | | | | |
| LBG | Silvi (H) | LBG | | | | | |
| Salugarah | BKP | Shorea Nature Park | Salugarah Lab Range | 220 beds | 03-04 | | Regular |
| Rajabhatkhawa | 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 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.

Given below in tabular form is the details of 7 new MPCAs :-

| Project for Creation of 7 New MPCAs (CONS/WB-01/2014) | | | | | | | |
|---|---|--|--|--|--|--|--|
| Name of MPCAs | Panchanoi | Phalut | Rachela | Bichabhanga-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 |
| 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 Altitude 2931 M | 27°11'50.4" N 88°03'33.8"E Altitude 2931 M | 26°43'32.8"N 88°46'49.6"E Altitude 165 M | 26°41'06" N 89°33'18" E Altitude 158 M | 26°43'32.8"N 88°46'49.6"E Altitude 165 M | 23°23'45.3" N 86°58'59.8"E Altitude 235M |
| Project Period | 2013-14 to 2016-17 | | | | | | |
| 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 (Hills) | | | Silviculture (North) | | Silviculture (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 |

6.5 Project calendar :

| Sl. No. | Year | Jhargram | Kharagpur | Rupnarayan | Medinipore | Bankura (N) | Bankura (S) | Bisnupur | Kangsabati (S) | Kangsabati (N) | Total |
|--|--------------------|-----------|-----------|------------|------------|-------------|-------------|-----------|----------------|----------------|------------|
| Mixed Pltn. of Trees having MFP Valus. | | | | | | | | | | | |
| 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 |
|---|--------------------|-----------|-----------|------------|------------|-------------|-------------|-----------|----------------|----------------|------------|
| Regeneration of Perennial Herbs and Shrubs of Medicinal value (intercropping in new Plantation) | | | | | | | | | | | |
| 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 |
| Regeneration of Perennial Herbs and Shrubs of Medicinal valueHerbs&Shurbs (intercropping in Old Plantation) | | | | | | | | | | | |
| 1. | Year II (2016-17) | 15 | 15 | 15 | 15 | -- | -- | -- | -- | -- | 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 |

6.6 Achievement 2016-17

1. Tree Species Plantations with intercropping :- 2016-17

| Sl. No | Name of the Division | Name of the Range | Name of the Beat | Mouza | Area in Ha. |
|--------------------|----------------------|-------------------|------------------|---------------------------|-------------|
| 1 | Kharagpur | Nayagram | Nayagram | Dhansola / Khanamuri | 10 |
| 2 | | Chandabila | Patina | Khasjungle -6 | 05 |
| Sub Total in Ha. | | | | | 15 Ha. |
| 3 | Medinipur | Arabari | Dakshinsole | Kadalowa, J.L. No. 433 | 06 |
| 4 | | Godapeasal | Anandapur | Ahammadpur | 04 |
| 5 | | Medinipur | Baghasole | Khasjungle, J.L. No. 424 | 10 |
| 6 | | Pirakata | Bhimsole | Salboni, J.L. No. 90 | 10 |
| 7 | | Pirakata | Ranja | Ranja, J.L. No. 44 | 10 |
| Sub Total in Ha. | | | | | 40 Ha. |
| 8 | Jhargram | Manikpara | Ram Rama | Bhauta Khas, J.L. No. 667 | 06 |
| 9 | | Manikpara | Balivasa | Lalitasole, J.L. No. 563 | 14 |
| 10 | | | Kusumghati | Rajabasa, J.L. No. 651 | 06 |
| 11 | | | Kusumghati | Keshiakotra, J.L. No. 561 | 04 |
| 12 | | Lodhasuli | Lodhasuli | Ranidihi, J.L. No. 941 | 10 |
| Sub Total in Ha. | | | | | 40 Ha. |
| 13 | Rupnarayan | Amlagora | Raskundu | Dhanghori, J.L. No. 59 | 05 |
| 14 | | Hoomgarh | Baromesia | Bariboth, J.L. No. 233 | 10 |
| 15 | | Mahalisai | Mahalisai-I/II | Tilaboni, J.L. No. 95 | 05 |
| 16 | | Goaltore | Baro Patasole | Bakisole, J.L. No. 73 | 10 |
| Sub Total in Ha. | | | | | 30 Ha. |
| Grand Total in Ha. | | | | | 125 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 | Khasjungle, J.L. No. 76 | 10.00 |
| 2 | | Chandabila | Chandabila | Kuldiha, J.L. No. 24 | 5.00 |
| 3 | Medinipur | Medinipur | Baghasole | Khasjungle, J.L. No. 424 | 15.00 |
| 4 | Jhargram | Manikpara | Kusumghati | Amdiha, J.L. No. 568 | 15.00 |
| 5 | Rupnarayan | Amlagora | Raskundu | Dhanghori, J.L. No. 59 | 5.00 |
| 6 | | Amlagora | Raskundu | Dhalma, J.L. No. 759 | 5.00 |
| 7 | | Garhbeta | Bhadika | Kuilibandh, J.L. No. 551 | 5.00 |
| 8 | Bankura (S) | Simlapal | Simlapal | Jagonnathpur, J.L. No. 140 | 25.00 |
| 9 | Bankura (N) | Radhanagar | Bhora | Bhora, J.L. No. 60 | 20.00 |
| 10 | Panchet | Bishnupur | Bishnupur-II | Chakbagmari, J.L.No. 267 | 10.00 |
| 11 | | | | Bakinala, J.L. No. 287 | 10.00 |
| 12 | | | | Ramanchaupuan, J.L. No. 264 | 5.00 |
| 13 | Kangsaboti (N) | Raghunathpur | Raghunathpur-I | Daikere | 5.00 |
| 14 | | Para | Para | Karika Bandh | 5.00 |
| 15 | | Hura | Hura | Karika Bandh | 10.00 |
| 16 | Kangsaboti (S) | Manbazar-I | Sindurpur | Kumardi | 10.00 |
| 17 | | | | Marugara | 10.00 |
| | Total in Ha. | | | | 170.00 |

6.7 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 N₂, total N₂, available P₂O₅, available K₂O and C/N ratio. During 2016-17, 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 2016-17 |
|----------------------|-----------------------------|--|
| Silviculture (South) | Soil Testing Lab. Midnapore | Nil |
| Silviculture (North) | Soil Testing Lab. Salugarah | 217 |





Forest Martyrs' Memorial in Banabitan, Salt Lake

MISCELLANEOUS INFORMATIONS

7.1 Status of forest check post (f.c.p.) in west bengal as on 31.03.2017

As reported by Divisions, there are 58 numbers of Forest Check Posts existing in West Bengal as on 31.03.2017, out of which 13 numbers of Forest Check Posts are presently non-functional.

| Division | Name of F.C.P | Location of F.C.P. | Beat | Range | Contact Number | Status of Operation |
|------------------|-------------------|------------------------------------|--------------------|---------------------|----------------|---------------------|
| Darjeeling | Ghoombhanjang FCP | Ghoombhanjang, Sukhia Pokhri Rd. | Ghoombhanjang | Darjeeling | 8116602242 | F |
| Kurseong | Ghoshpukur FCP | Ghoshpukur NH 31D | FCP Beat | Bagdogra | - | F |
| | Gosainpur FCP | Gosainpur Asean H.W. | FCP Beat | Bagdogra | - | F |
| Darjeeling WL | Jorebunglow FCP | Jorebunglow old Military Road | Jorebunglow | Senchal west | - | F |
| | Sanada F C.P. | Sanada old Military Road | old Military Road | Senchal west | - | F |
| | 3rd Mile F FCP | 3rd Mile Simkuna | Rambi | Senchal East | - | F |
| | Tumling FCP | Tumling | Gairibus | Singalila South | - | F |
| | Gairibus FCP | Gairibus Sandakphu | | | | |
| 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 | 2½ Mile FCP | 2½ Mile Sevoke Road, Siliguri | Sarugara HQ | Sarugara | - | F |
| | 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 |
| BTR East | Barobisha FCP | Barobisha NH-31 | Barobisha | Bholka | - | F |
| | Mainabari FCP | Mainabari | Mainabari | North Raydak | - | F |
| | Jainti FCP | Jainti | Jainti HQ | Jainti | - | F |
| BTR West | Damanpur FCP | Damanpur | Damanpur | East Damanpur | - | F |
| | Rajabhatkhawa FCP | Rajabhatkhawa | West Rajabhatkhawa | Rajabhatkhawa | - | F |
| CoochBehar | NIL | - | - | - | - | - |
| Jaldapara WL | Chilapata FCP | Chilapata Range | Chilapata | Chilapata | - | F |
| | Kodalbasti FCP | Kodalbasti | Kodalbasti | Kodalbasti | - | F |
| | Hasimara FCP | Hasimara | -para | Nilpara | - | F |
| | Bhagate Jote FCP | Bhagate Jote | Lankapara | Lankapara | - | |
| | - | F | | | | |
| Gorumara WL | NIL | - | - | - | - | - |
| Raiganj | NIL | - | - | - | - | - |
| Malda | NIL | - | - | - | - | - |
| Bankura North | Salbani FCP | Keshiaakole | Salbani | Bankura North | 9083254736 | F |
| | 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 |
| | Simulia FCP | Simulia | Purulia-1 | Puruliapara | 9932353129 | F |
| Kangsabati South | NIL | - | - | - | - | - |
| Purulia | Joypur Forest FCP | Joypur | Joypur beat | Joypur | - | F |
| Burdwan | NIL | - | - | - | - | - |
| Durgapur | NIL | - | - | - | - | - |
| Division | Name of F.C.P | Location of F.C.P. | Beat | Range | Contact Number | Status of Operation |
| Midnapur | Bhadutala FCP | Bhadutala | Bhadutala | Bhadutala | - | F |

| Division | Name of F.C.P | Location of F.C.P. | Beat | Range | Contact Number | Status of Operation |
|--------------------|---------------------------------|------------------------------------|---------------|---------------|----------------|---------------------|
| | Pirkata FCP | Pirkata | Bhimsole | Pirkata | - | F |
| | Chandrakona FCP | Chandrakona | Andharnayan | Chandrakona | - | F |
| Jhargarm | Balivasa FCP | | Balivasa | MPP-Jhargarm | 9733817669 | F |
| | Gopiballavpur FCP | Gopiballavpur | Gopiballavpur | Gopiballavpur | 9679306047 | F |
| | | | | | | |
| Rupnarayan | Raskundu More FCP | - | Pathrisole | Amlogora | - | F |
| | Monglapota FCP | - | Chandabala | Amlogora | - | F |
| | Panikotor FCP | Panikotor | Raskundu | Amlagora | - | NF |
| | Pingboni FCP | Pingboni | Barapatasole | Goaltore | - | NF |
| | Dhachati FCP | Dhachati | Barapatasole | Goaltore | - | NF |
| | Kesia FCP | Kesia | Reparghara | Mahalisai | - | NF |
| Kharagpur | Prembazar Kpg-keshiary Rd. FCP | Prembazar Kpg-keshiary Rd. | Hijli | Hijli | 03222-277226 | NF |
| | Belda-Contai Rd. FCP | Belda-Contai Rd. | Belda | Belda | 03229-255258 | NF |
| | Nayagarm-Kharikamathani Rd. FCP | Nayagarm-Kharikamathani Rd | Nayagarm HQ | Nayagarm | - | F |
| | Kalaikunda NH-6 FCP | Kalaikunda NH-6 | Kalaikunda | Kalaikunda | 03222-232257 | F |
| Purba Midnapur | 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 Utilisation | NIL | - | - | - | - | - |

Note:

F: Functional

NF: Non-Functional

7.2 Forest Villages (FV) of 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-II | 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, 20th Mile, 21st Mile, Kalkut, Panijhora, Gadadhar, Garam(E), Garam(W), Pana, Raimatang, Nimati, Poro(N), Poro(S) , Gangutia, Garobusty, Adhmabusty. | 20 | 375 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| District | Division | Name of forest villages | No. of FV | No. of Registered Forest Villagers |
|--|------------|---|-----------|------------------------------------|
| Jalpaiguri | BTR-East | Bengdoba, Sankosh, Kumar-Gram, New-Lands, Siltong, Tiamari, Chipra, Lepraguri, Indu-basty, Khuntimari, Balapara, Santrabari, Chunabhathi, 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 FV, 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, Lingsebung, 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 |
| Total (Originally FV were fewer, however due to local administrative reasons some FV have been split into two separate hamlets/FVs . The names/nos of forest villages/ statistics shown are subject to further verification (Source: PCCF/WB's statement on FDAs dt. 1/9/2009. | | | 170 | 3,534 |

7.3 Length of Forest Road (in Km) as on 31.03.2017

The length of Forest Road as on 31.03.2017 was 5661.022 km.

| District | Name of Division | Water Bound Macadam (Km.) | Block Top Motor able (Km.) | Cement concrete (Km.) | Ear then (Km.) | Non Motor able Foot Tracks (Km.) | Other Motor able Road (Km.) | Total (km.) |
|-----------------------|---------------------|---------------------------|----------------------------|-----------------------|----------------|----------------------------------|-----------------------------|-------------|
| Darjeeling | Darjeeling | 6 | 13.30 | 0 | 0 | 92 | 0 | 111.3 |
| Darjeeling | Kurseong | 0 | 7.875 | 2 | 5 | 45.5 | 0 | 60.375 |
| Darjeeling | Kalimpong Soil Con. | 0 | 2.000 | 0 | 0 | 0 | 0 | 2.000 |
| Darjeeling | Darjeeling WL | 50 | 29.772 | 0 | 36.3 | 251.025 | 0 | 367.097 |
| Jalpaiguri | Baikuntha Pur | 0 | 0 | 0 | 76.53 | 120 | 0 | 196.53 |
| Jalpaiguri | Jalpaiguri | 180 | 0 | 0 | 59.9 | 183 | 0 | 422.9 |
| Jalpaiguri | Gorumara WL | 160 | 0 | 0 | 0 | 4 | 0 | 164 |
| Alipurduar | BTR East | 0 | 55 | 0 | 257 | 320 | 0 | 632 |
| Alipurduar | BTR West | 0 | 63 | 0 | 203 | 367 | 0 | 633 |
| Coochbehar | Cooch Behar | 0 | 0 | 0 | 94.00 | 0 | 0 | 94.0 |
| Coochbehar | Jaldapara WL | 65 | 0 | 0 | 172.5 | 262.5 | 0 | 500 |
| Uttar&DakshinDinajpur | Raiganj | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Malda | Malda | 0 | 2.4 | 0 | 2.0 | 4.5 | 0 | 8.9 |
| Bankura | Bankura North | 0 | 0 | 0 | 640 | 197 | 0 | 837 |
| Bankura | Bankura South | 0 | 0 | 0 | 78 | 0 | 0 | 78 |
| Bankura | Panchet | 0 | 118 | 0 | 204 | 0 | 0 | 322 |

| District | Name of Division | Water Bound Macadam (Km.) | Block Top Motorable (Km.) | Cement concrete (Km.) | Earthen (Km.) | Non Motorable Foot Tracks (Km.) | Other Motorable Road (Km.) | Total (km.) |
|------------------|------------------|---------------------------|---------------------------|-----------------------|---------------|---------------------------------|----------------------------|-------------|
| Purulia | Kangsabati North | 0 | 0 | 0 | 0 | 275.45 | 0 | 275.45 |
| Purulia | Kangsabati South | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | Purulia | 131 | 72 | 0 | 0 | 0 | 0 | 203 |
| Burdwan | Burdwan | 0 | 0 | 0 | 7 | 0 | 0 | 7 |
| Burdwan | Durgapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Paschim Mednipur | Midnapur | 0 | 0 | 0 | 0 | 0 | 85.05 | 85.05 |
| Paschim Mednipur | Jhargam | 0 | 0 | 0 | 94.0 | 0 | 0 | 94.0 |
| Paschim Mednipur | Rupnarayan | 73.5 | 23.5 | 0 | 335.5 | 37.5 | 0 | 470 |
| Paschim Mednipur | Kharagpur | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purba mednipur | Purba Midnapur | 0 | 0 | 0 | 20 | 0 | 0 | 20 |
| Birbhum | Birbhum | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nadia & MSD | Nadia Msd | 0 | 0 | 0 | 30 | 10 | 0 | 40 |
| 24 Parganas (S) | 24 Parganas(S) | 0 | 0 | 0 | 0 | 1.5 | 0 | 1.5 |
| 24 Parganas(S) | STR | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (N) | 24 Parganas (N) | 0 | 0 | 0.42 | 0 | 10.5 | 0 | 10.92 |
| Howrah | Howrah | 0 | 0 | 0 | 10 | 15 | 0 | 25 |

7.4 MANDAYS GENERATED during F.Y. 2016-17 in Forestry Activities

Mandays generated in various Forestry activities during F.Y. 2016-17 was 1,932,568 and the average wage rate was Rs. 224.20.

(Reference _____)

| Name of Forest Division | Mandays Generated | Average Wage Rate (in INR) |
|-------------------------|-------------------|----------------------------|
| Darjeeling | 32746 | 224.46 |
| Kurseong | 53424 | 224.46 |
| Baikunthapur | 42300 | 225.00 |
| Jalpaiguri | 60,000 | 224.00 |
| NTEP | 4,030 | 216.00 |
| Siliguri S.F | 5,50,000 | 225.00 |
| Jalpaiguri S.F | 35,626 | 224.00 |
| BTR East | 10,460 | 224.00 |
| BTR West | 56,370 | 224.00 |
| Coochbehar | 6659 | 224.00 |
| Darjeeling WL | 26595 | 224.00 |
| Jaldapara WL | 165451 | 224.00 |
| Gorumara WL | 57,480 | 224.00 |
| Raiganj | 52,540 | 224.00 |
| Malda | 27,305 | 224.00 |
| Bankura North | 75,890 | 226.00 |
| Bankura South | 3,22,572 | 224.51 |
| Panchet | 2,90,000 | 225.00 |
| Kangsabati North | 21,178 | 225.00 |
| Kangsabati South | 43475 | 224.16 |
| Purulia | 2,00,33,945 | 225.00 |
| Burdwan | 4,26,50,000 | 224.00 |
| Durgapur | 20,235 | 224.00 |
| Midnapur | 90,563 | 224.00 |
| Jhargam | 177642 | 225.00 |
| Rupnarayan | 1,25,830 | 226.00 |
| Kharagpur | 44,353 | 224.00 |
| Purba Midnapur | 55,499 | 224.00 |
| Birbhum | 65498 | 224.00 |
| Nadia Murshidabad | 375 | 224.00 |
| Howrah | 143340 | 225.00 |

| Name of Forest Division | Mandays Generated | Average Wage Rate (in INR) |
|------------------------------|-------------------|----------------------------|
| EFD | 9897 | 224.00 |
| 24 Parganas(S) | 106084 | 224.57 |
| 24 Parganas(N) | 1,14,912 | 224.57 |
| STR | 1,69,00,000 | 224.47 |
| Monitoring North | 1,278 | 224.57 |
| Monitoring South | 17415 | 224.00 |
| Kalimpong Soil Conservation | 32,500 | 224.00 |
| Kurseong Soil Conservation | 21,630 | 224.57 |
| Jalpaiguri Soil Conservation | 42,849 | 224.00 |
| Silviculture South | 5959 | 224.00 |
| Silviculture North | 10554 | 224.00 |
| Silviculture Hill | 10054 | 224.00 |
| Working Plan North | 15784 | 224.00 |
| Working Plan S-I | 910 | 224.00 |
| Working Plan S-II | 1247 | 226.00 |
| Total | 1,932,568 | 224.20 |

7.5 NTFP Outturn

As per Divisional report, the approximate value of NTFP outturn during F.Y.2016-17 was Rs. 1060.771 lakh . The outturn of cashew as 260910.04kg, 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 area was 7687 m3 and 1020 m3 respectively.

| Division | Bamboo | Honey | Kendu Leaves | Sal Seeds | Cashew Seeds | Bahera | Haritaki | Kusum | Citronella Grass | Citronella Oil | Mahua Flower | Mahua Seeds | Boulder | RBM | Others | Total Value |
|-------------------|--------|-------|--------------|-----------|--------------|--------|----------|-------|------------------|----------------|--------------|-------------|---------|-------|--------|-------------|
| 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-Murshidabad | | | | | | | | | | | | | | | 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 |

| Division | Bamboo | Honey | Kendu Leaves | Sal Seeds | Cashew Seeds | Bahera | Haritaki | Kusum | Citronella Grass | Citronella Oil | Mahua Flower | Mahua Seeds | Boulder | RBM | Others | Total Value |
|---------------------|--------|--------|--------------|-----------|--------------|--------|----------|-------|------------------|----------------|--------------|-------------|---------|-------|--------|-------------|
| 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) STR | | 33.031 | | | | | | | | | | | | | 0.000 | 33.031 |
| Wildlife (HQ) | | | | | | | | | | | | | | | 0.000 | 0.000 |
| Total | 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 | 1060.771 |

7.6 OUTTURN OF FOREST PRODUCE FOR FINANCIAL YEAR 2016-17

As per Divisional report, area felled during F.Y.2016-17 was 2754.43 ha and outturn of Timber was 24390.7215 m³, outturn of Firewood was 45627.563 m³, of pulpwood was 5919.594 m³. The outturn of poles and post and cogging sleeper was 740947, 1766 and 7085 numbers respectively and it includes the produce of all dimensions and of all species.

| Name of Division | Area felled (in Ha) | Outturn of Timber (in M3) | Outturn of Fire wood (in M3) | Outturn of Pulp wood (in M3) | Outturn of Poles In Nos | Outturn of Post In Nos | Outturn of Cogging Sleepers In Nos |
|------------------|------------------------|------------------------------|---------------------------------|---------------------------------|----------------------------|---------------------------|---------------------------------------|
| Darjeeling | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kurseong | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Darjeeling WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Baikunthapur | 36.63 | 5921.974 | 1272 | 0 | 0 | 0 | 0 |
| Jalpaiguri | 22.09 | 2402.898 | 213.598 | 0 | 0 | 0 | 0 |
| BTR East | 0 | 770.145 | 0 | 0 | 0 | 0 | 0 |
| BTR West | 0 | 778.149 | 119 | 0 | 0 | 0 | 0 |
| Coochbehar | 0 | 161.217 | 20.353 | 0 | 0 | 0 | 0 |
| Jaldapara WL | 33.11 | 3098.464 | 850 | 0 | 0 | 0 | 0 |
| Gorumara WL | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Raiganj | 0 | 1586.107 | 0 | 0 | 0 | 0 | 0 |
| Malda | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura North | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bankura South | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Panchet | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati North | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kangsabati South | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Purulia | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Burdwan | 165 | 577.464 | 6310.643 | 71.903 | 50897 | 1766 | 0 |
| Durgapur | 100 | 326.204 | 1821.331 | 591.484 | 15758 | 0 | 0 |
| Midnapur | 529.5 | 753.183 | 5875.552 | 0 | 133037 | 0 | 0 |
| Jhargarm | 706.1 | 637.501 | 12644.841 | 0 | 74714 | 0 | 0 |
| Rupnarayan | 730 | 1685.938 | 5319.062 | 1846.667 | 399727 | 0 | 7085 |
| Kharagpur | 332 | 375.284 | 9159.316 | 2978.19 | 53541 | 0 | 0 |
| Purba Midnapur | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Birbhum | 100 | 967.711 | 819.227 | 431.35 | 7767 | 0 | 0 |
| Nadia Msd | 0 | 4348.4825 | 1202.64 | 0 | 5506 | 0 | 0 |
| 24 Parganas(S) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| STR | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 Parganas (N) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Howrah | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2754.43 | 24390.7215 | 45627.563 | 5919.594 | 740947 | 1766 | 7085 |

7.7 OUTTURN OF MINOR FOREST PRODUCE FOR THE YEAR 2016-17 NTFP

| Unit | Darjeeling | NTFP | Bankura (North) | Bankura (South) | Panchet | Kang-South | Medinipur | Jhargam | Rupnarayan | Kharagpur | Purba Medinipur | 24 Parganas South | STR | BTR West | Total |
|------------------|------------|-----------|-----------------|-----------------|---------|------------|-----------|---------|------------|-----------|-----------------|-------------------|----------|----------|-----------|
| BAMBOO | Nos | 454000.00 | 3626.00 | | | 9682.00 | | | | | | | | | 467308.00 |
| HONEY | Kg | | | | | | | | | | | | 26425.00 | 33515.00 | 59940.00 |
| CASHEW | Kg | | | 182500.00 | 8662.50 | 40500.00 | | 425.00 | 8350.54 | 19682.00 | | 790.00 | | | 260910.04 |
| AMLOKI | Qntl. | | | | | | | 30.00 | 82.50 | | | | | | 112.50 |
| BAHERA | Qntl. | | | | | | | 220.00 | 1.00 | | | | | | 221.00 |
| MAHUA FLOWER | Qntl. | | | | | | | 150.00 | | | | | | | 150.00 |
| MAHUA SEED | Qntl. | | | | | | | | 120.62 | | | | | | 120.62 |
| NATA SEED | Qntl. | | | | | | | 1550.00 | | | | | | | 1550.00 |
| NEEM SEED | Qntl. | | | | | | | | 1.50 | | | | | | 1.50 |
| KENDU LEAVES | Qntl. | | | | | | | 1220.00 | 2442.00 | | 1800.00 | | | | 5616.50 |
| SAL SEED | Qntl. | | | 26.50 | | | 128.00 | 250.00 | 128.54 | | | | | | 378.54 |
| CITRONELLA OIL | Ltr | | 783.50 | | | | | | | | | | | | 783.50 |
| CITRONELLA GRASS | Qntl. | | 1724.00 | | | | | | | | | | | | 1724.00 |
| HARITAKI | Qntl. | | | | | | | 100.00 | 2.50 | | | | | | 102.50 |
| KUSUM | Qntl. | | | | | | | 30.00 | | | | | | | 30.00 |
| KURCHI | Qntl. | | | | | | | | 2.00 | | | | | | 2.00 |
| PIAL | kg | | | | | | | 15.00 | | | | | | | 15.00 |
| TULSI | Kg | | 10.00 | | | | | | | | | | | | 10.00 |
| BLACK PEPPER | Kg | | 2.00 | | | | | | | | | | | | 2.00 |
| PURNAVA | Kg | | 8.00 | | | | | | | | | | | | 8.00 |
| GANDAL PATA | Kg | | 3.00 | | | | | | | | | | | | 3.00 |
| DHADHAKI PHOOL | QTL | | | | | | | | 0.50 | | | | | | 0.50 |
| KUCHILA SEED | QTL | | | | | | | | 1.00 | | | | | | 1.00 |
| GUM | Qntl. | | | | | | | | 5.00 | | | | | | 5.00 |
| SHYAMLATA | Qntl. | | | | | | | | 1.00 | | | | | | 1.00 |
| BEL | nos | | | | | | | | 800.00 | | | | | | 800.00 |
| KALMEGH | Qntl. | | | | | | | | 1.00 | | | | | | 1.00 |
| GURMAR | Kg | | 10.00 | | | | | | | | | | | | 10.00 |
| BOULDER | M3 | | | | | | | | | | | | | 7687.00 | 7687.00 |
| RBM | M3 | | | | | | | | | | | | | 1020.00 | 1020.00 |

7.8 Parks permanently maintained by Parks & Gardens (North) Division

| Sl. No. | Name of Park | Area (in acre) | Range | Beat | District |
|---------|---------------------------|----------------|------------|------------|----------------|
| 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 (Mukta Mancha) | 0.73 | Coochbehar | Coochbehar | Coochbehar |

Total Area (acre) 59.01 Ac.

7.9 MISCELLANEOUS INFORMATION

District and Division wise information of Saw Mills and other Wood Based Industries of West Bengal as on 31.03.2015.

| Sl. No. | District | Division | No of licensed units (General Category) | No. of licensed units (Secondary non-Pasting Category) | No. of Licenced units (OGL Category) |
|-------------|-------------------|---------------------|---|--|--------------------------------------|
| 1 | Paschim Medinipur | Medinipur | 41 | 65 | 0 |
| 2 | | Jhargram | 19 | 51 | 0 |
| 3 | | Rupnarayan | 12 | 35 | 0 |
| 4 | | Kharagpur | 151 | 373 | 0 |
| 5 | Purba Medinipur | Purba Medinipur | 159 | 279 | 3 |
| 6 | Bankura | Bankura (North) 28 | 28 | 125 | 0 |
| 7 | | Bankura (South) | 33 | 113 | 0 |
| 8 | Puntlia | Panchet | 13 | 33 | 0 |
| 9 | | Purulia | 4 | 58 | 0 |
| 10 | | Kangsabati (North) | 31 | 77 | 0 |
| 11 | | Kangsabati (South) | 9 | 13 | 0 |
| 12 | | Birbhum | 74 | 358 | 0 |
| 13 | Burdwan | Burdwan | 116 | 322 | 0 |
| 14 | | Durgapur SF | 87 | 94 | 0 |
| 15 | Howrah | Howrah SF | 63 | 866 | 70 |
| 16 | Hooghly | Howrah SF | 121 | | |
| 17 | North 24 Parganas | 24 parganas (North) | 162 | 830 | 11 |
| 18 | South 24 Parganas | 24 parganas (South) | 144 | 727 | 11 |
| 19 | | Sunderban TR | 0 | 15 | 0 |
| 20 | Nadia | Nadia-Murshidabad | 85 | 272 | 1 |
| 21 | Murshidabad | Nadia-Murshidabad | 77 | | |
| 22 | Kolkata | Forest Utilization | 175 | 122 | 1 |
| 23 | Malda | Malda | 118 | 388 | 0 |
| 24 | Uttar Dinajpur | Raigunj | 68 | 560 | 0 |
| 25 | Dakshin Dinajpur | | 29 | | |
| 26 | Darjeeling | Darjeeling | 3 | 13 | 0 |
| 27 | | Kurseong | 9 | 57 | 0 |
| 28 | | Kalimpong | 1 | 0 | 0 |
| 29 | | Baikunthapur | 23 | 394 | 0 |
| 30 | Jalpaiguri | Baikunthapur | 68 | | |
| 31 | | Jalpaiguri | 80 | 121 | 0 |
| 32 | | Jaldapara WL-III | 12 | 125 | 0 |
| 33 | | Buxa TR (East) | 12 | 98 | 0 |
| 34 | | Buxa TR (West) | 15 | 61 | 0 |
| 35 | Coochbehar | Coochbehar | 135 | 668 | 0 |
| Grand Total | | | 2197 | 7313 | 97 |



Alignment of transect line during elephant census



Joint Patrolling



Study table and bench supplied to school



Medicinal Plantation



Sit & Draw competition during Wildlife day



Banamahotsav



Flagging Off the Airawat



Training on chemical immobilization



Maintenance of Forest Road





DEPARTMENT OF FORESTS
GOVERNMENT OF WEST BENGAL

