

Annual Report

Financial Year 2024 - 25

**Project for Forest and Biodiversity Conservation
for Climate Change Response in West Bengal
(WB-FBCCCR)
(ID – P311)**

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Chapter I: About the Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal

1.1 Introduction:

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 "Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR)".

The Govt. of West Bengal vide its Resolution No. 710-FOR/13099/18/2023, dated 4th May, 2023, the West Bengal Forest & Biodiversity Conservation Society, under the administrative control of the Department of Forests, West Bengal has established the administrative, supervisory and monitoring mechanism in respect of Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) and the project is being implemented by the Project Management Unit (PMU) already existing within the West Bengal Forest and Biodiversity Conservation Society.

1.2 The Project:

1.2.1 Objective:

It is a project to mitigate and adapt to climate change, conserve and restore ecosystems by ecosystem based climate change measures, biodiversity conservation and restoration, livelihood improvement activities and institutional strengthening, thereby contributing to sustainable socio-economic development in West Bengal.

1.2.2 Project Cost and Project Design:

The Japanese ODA loan assisted project worth ₹ 650 Crore (₹ 520 Crore loan component and ₹ 130 Crore state share) is being implemented for 8 years starting from 2023-24 to 2030-31 in consideration of capabilities of stakeholders and time required to conduct activities in sustainable manner.

1.2.3 Implementation Structure:

The Project is being implemented through an autonomous Society named "West Bengal Forest and Biodiversity Conservation Society". The Society has been registered under West Bengal Societies Registration Act, 1961, on 19th July, 2012, at Kolkata vide Registration Number S/1L/93991 of 2012-2013, dated 19.07.2012. The present office of the Society is located at Block-LB-2, Sector-III, Salt Lake City, Kolkata-700106, West Bengal.

Hierarchy:

The Project Management Unit (PMU) under Society is in-charge of the overall managerial tasks of the Project. Various offices of the West Bengal Forest Department (WBFD) at the Circle, Division and Range levels are implementing the Project. At the field level, 34 nos. of Division Management Units (DMU) and 90 nos. of Field Management Units (FMU) have been established. A total of 600 number of Joint Forest Management Committees (JFMC) were selected, which were earlier formed as per the extant resolutions/regulations issued by Government of West Bengal are implementing the “Community Infrastructure Development Activities” and “Income Generation Activities”. Income Generation Activities shall be undertaken through Self-Help Groups (SHGs) from within the members of JFMCs.

1.3 Components:

The various components of work being implemented under the Project are as follows:

Component 1: Ecosystem Based Climate Change Measures (Production of Quality Planting Material (QPM), Plantation in degraded forest area and outside forest areas, Creation of Seed Production Area (SPA), Ecosystem based Disaster risk reduction through Catchment Area Treatment Plan (CAT), Green Laboratory initiatives etc.)

Component 2: Biodiversity Conservation (Human-Wildlife conflict mitigation, Species Conservation program, Studies on Wild Animals and their behavior etc.)

Component 3: Livelihood Improvement (Community Infrastructure Development & Income Generation activities)

Component 4: Institutional Strengthening (Digital transformation through MIS platform linked to web-GIS, Digitization of JFMC boundary, Monitoring and Evaluation, Publicity and Publication, Strengthening Forest Research, Mobility, Buildings, Staff, Equipment, Trainings etc.)

1.3.1 Phases of Project:

The Project is divided into three phases- Preparatory Phase, Implementation Phase, and Phase-Out/Closing Phase.

Preparatory Phase (1 year): 2023-24

Preparatory Phase is crucial for successful implementation of the Project. The first step is institutional arrangement by way of setting up Project Management Unit (PMU), Divisional Management Unit (DMU), and Field Management Unit (FMU) and so on, followed by recruitment of contractual staff, preparation of operation manual and other guidelines, orientation and capacity development for WBFD staff in each rank. Project Management Consultant (PMC) shall be deployed as per rules in vogue. Required surveys and assessments for planning and baseline data for sustainable forest management as well as biodiversity conservation has been conducted during this phase.

Implementation Phase (5 years): 2024-25 to 2028-29

All components in implementation phase are put into action based on the Preparatory phase.

Phase-Out/Closing Phase (2 years): 2029-30 to 2030-31

After the Implementation phase, Phase-out works will be undertaken for sustainability. The focus would be on evaluating each component in detail to plan and take measures for covering up the backlog and to achieve greater impact and sustainability.

1.4 Organizational Details:

1.4.1 Establishment of PMU, DMUs and FMUs:

The State Government, vide its no. 710-FOR/13099/18/2023, dated 4th May, 2023, adopted the resolution that the West Bengal Forest and Biodiversity Conservation Society would be utilized for the administrative, supervisory and monitoring mechanism in respect of WB-FBCCCR Project and got 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) were established under the Society. 34 DMUs were established for participating in the Project activities and 90 FMUs were totally constituted in them.

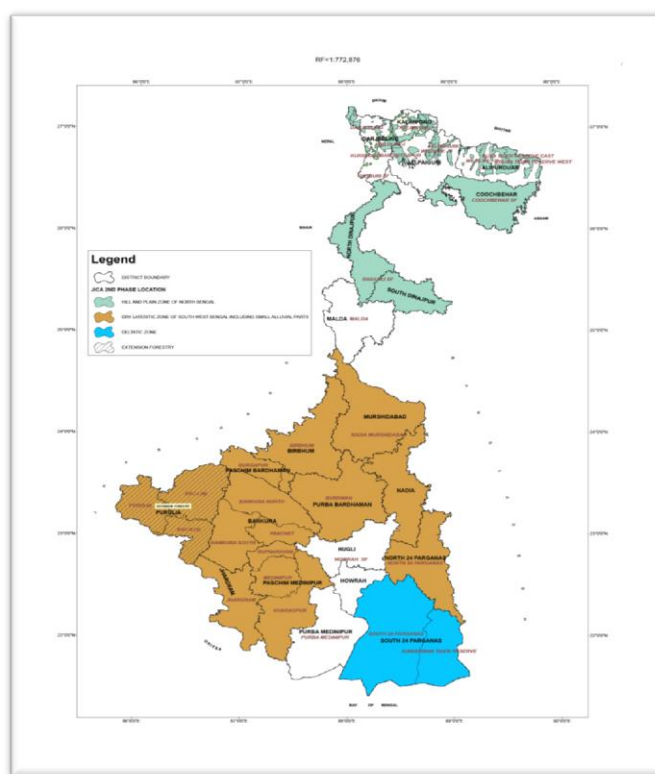


Figure 1: Location Map of WB-FBCCCR Project

Landscape based approach

- **Green colour**- Hills and North Bengal
- **Brown colour**- Dry lateritic and alluvial
- **Blue colour**- Deltaic landscape
- **White colour**- Outside Project area

1.4.2 Consolidation of Legal System for Institutionalization of Society and PMU:

- The Regulations and By-Laws 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 22.06.2023. 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.
- The website of the project titled <https://wbfbcccr.in/> has been launched in March, 2024.

1.4.3 Deployment of Staff:

The G.O. for establishment of exclusive PMU for the Project has been issued vide No. 740-FOR/13099/20/2023 dated 12th May, 2023.

The Department of Forest, Govt. of W.B. issued orders for the appointment of six (6) officers to the PMU, as Chief Project Director, Project Director (Administration, Finance and Coordination), Additional Project Director (Administration, Finance and Coordination), Additional Project Director (Planning, Implementation and Monitoring), Joint Project Director (Administration, Finance and Coordination) and Joint Project Director (Planning, Implementation and Monitoring) as on date.

At present five (05) Officers have joined the Society on deputation whereas two posts namely, Additional Project Director (Administration, Finance and Coordination) and Additional Project Director (Planning, Implementation and Monitoring) are vacant as on date.

The Governing Body (GB) of West Bengal Forest and Biodiversity Conservation Society, in its meeting, held on 22.06.2023, had approved recruitment of personnel - 29 for the PMU and 358 for the DMUs under various categories - by the Society through Service Provider under the Provision "Support Staff of PMU and DMU" of the Chapter "Recruitment and Service Rules."

In addition the GB of the Society, in its meeting held on 22.06.2023, had approved engagement of retired personnel on contract basis for PMU. The positions of Accounts Officer and Authorized Range Officers are proposed to be filled up by retired Government Servants as per existing G.O. vide Nos 6093-F (P) dt: 25.11.2016 and 10935-F(P) dt: 05.12.2011.

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

Table 1: Details of the staff working at the PMU

Sl. No.	Position	Mode of Engagement	Category of expenses	Joined On
1.	Chief Project Director	On Deputation	Non-reimbursable	September, 2021
2.	Project Director (Administration, Finance and Coordination)	On Deputation	Non-reimbursable	March, 2020
3.	Additional Project Director (Administration, Finance and Coordination)	On Deputation	Non-reimbursable	Vacant
4.	Additional Project Director (Planning, Implementation and Monitoring)	On Deputation	Non-reimbursable	Vacant
5.	Joint Project Director (Administration, Finance and Coordination)	On Deputation	Non-reimbursable	August, 2023
6.	Joint Project Director (Wildlife and Biodiversity)	On Deputation	Non-reimbursable	August, 2024
7.	Joint Project Director (Planning and Implementation)	On Deputation	Non-reimbursable	August, 2024
8.	Accounts Officer	Contractual Retired personnel	Non-Reimbursable	Vacant
9.	Forest Ranger	-do-	Non-reimbursable	April, 2023
10.	Accountant-cum-Cashier	Contractual through Service Provider	Reimbursable	July, 2014
11.	Accountant-cum-Cashier	-do-	Reimbursable	July, 2014
12.	Accountant-cum-Cashier	-do-	Reimbursable	June, 2014
13.	Computer Operator-cum-Office Assistant	-do-	Reimbursable	November, 2014
14.	Computer Operator-cum-Office Assistant	-do-	Reimbursable	November, 2014
15.	Computer Operator-cum-Office Assistant	-do-	Reimbursable	August, 2019
16.	Office Attendant	-do-	Reimbursable	November, 2014
17.	Office Attendant	-do-	Reimbursable	November, 2014
18.	Office Attendant	-do-	Reimbursable	May, 2016

1.4.4 High Power Committee:

The High Power Committee (HPC) for the Project has been constituted vide Government of West Bengal, Department of Forests' Notification no. 712-For /13099/19/2023 dated 04.05.2023. The constitution of High Power Committee for the new project is as follows:

Table 2: Members of the High Power Committee

Sl. No.	Position in HPC	Position in the Institutions
1.	Chairperson	Additional Chief Secretary / Principal Secretary Forests, GoWB
2.	Member	Principal Chief Conservator of Forests (HoFF), WBFD
3.	Member	Chief Wildlife Warden/ PCCF (Wildlife), WBFD
4.	Member	Representative of Dept. of Science and Technology and Biotechnology, GoWB
5.	Member	Representative of Dept. of Disaster Management and Civil Defence , GoWB
6.	Member	Representative of Finance Department, GoWB
7.	Member	Representative of Department of Environment, GoWB
8.	Member	Representative of Department of Panchayet& Rural Development, GoWB
9.	Member	Representative of Department of Self Help Group & Self Employment, GoWB
10.	Member Secretary	Chief Project Director, WB-FBCCCR
By invitation – as required from time to time		
Special Invitee		Representative of Research Institutions/ Specialised Agencies
Special Invitee		Representative of GoI/ MOEF&CC
Special Invitee		Representative of JICA, India

1.4.4.1 Roles and Responsibilities of HPC

The High Power Committee has the following Roles and responsibilities:

- Approve the Operational Manual including the Financial Rules and Accounting Procedures, policies and guidelines on gender mainstreaming, differently-abled persons, and revolving fund;
- Advise/resolve issues and problems related to financial flow from GoWB to project, and with other government departments that are detrimental to the success of the project;
- Facilitate convergence and coordination of project with other government departments;
- Facilitate assistance from other government departments as per requirement;
- Suggest and endorse measures and actions to resolve issues raised by JICA, DEA, MOEF& CC or any other agencies related to the project; and
- Take up policy related matters of the project.

1.4.4.2 Meetings of HPC

HPC will meet at least once in a year or more frequently if the situation arises in a year, particularly during the preparatory phase of the project. In case the members are not available on the day of HPC meeting, they may nominate senior rank officers in the state government/ state department as their representatives to attend the meetings with authorisation for decision making.

A minimum of five members will form the quorum for HPC meetings. Agenda of the meeting and proposals will be circulated by the Member-Secretary well in advance to all members, at least seven days ahead of the meeting date. The proceedings of HPC meetings will be circulated to all the members/ attendees within reasonable timeframe, after the meeting is concluded.

1.4.5 Governing Body / 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:

Table 3: Members of the Governing Body of the Society

Sl. No.	Position in GB	Position in the Institutions
1.	Chairperson	Principal Chief Conservator of Forests and HoFF, West Bengal
2.	Vice Chairperson	PCCF, General, West Bengal
3.	Member	Chief Wildlife Warden/ PCCF, Wildlife, West Bengal
4.	Member	PCCF, RMD, West Bengal
5.	Member	PCCF & CEO, WBCAMPA
6.	Member	MD, Wbfdcl
7.	Member	Representative of Finance Department, Government of West Bengal
8.	Member	APCCF, Finance, Forest Directorate, West Bengal
9.	Member	APCCF & Director, Sundarban Biosphere Reserve, West Bengal
10.	Member	APCCF, WL (HQ), Forest Directorate, West Bengal
11.	Member	APCCF, HRD, Forest Directorate, West Bengal
12.	Member	APCCF, North Bengal, Forest Directorate, West Bengal
13.	Member	Chief Environment Officer, Department of Environment, Government of West Bengal
14.	Member	Member Secretary, West Bengal Biodiversity Board (WBBB)
15.	Member	CCF (Finance), Forest Directorate, West Bengal
16.	Member Secretary	Chief Project Director, WB-FBCCCR
By invitation – as required from time to time		

Sl. No.	Position in GB	Position in the Institutions
Special Invitee		Representative of Research Institutions/ Specialized Agencies
Special Invitee		Member Secretary, West Bengal Zoo Authority
Special Invitee		Representative of PMU
Special Invitee		Representative of Consulting Services/ Team Leader (PMC)

The project is being 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) have been established under the Society.

According to the Rules and By-Laws of the Society overall responsibility of the Society lies on Governing Body in which senior officials of Forest Department, the Government of West Bengal are ex-officio members. The Governing Body (GB) headed by the Principal Chief Conservator of Forests and HoFF, West Bengal, monitors the financial and physical targets to review the work of PMU and provide necessary assistance and direction from time to time.

The activities of the Society are vested 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 functions 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).

The Divisional Management Units (DMU) function under the guidance of PMU.

DMUs are implementing 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 are being followed by concerned officers heading DMU in execution of the works of the Project.

At the grass root level 90 Field Management Units (FMUs) under 34 nos. of DMUs were set up to ensure project implementation at the Range level.

FMUs were created within the office of Range Officer (RO). FMUs 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 (DMUs) are monitoring the functioning of FMUs.

Institutional arrangements made for implementation of the project:

Table 4: Institutional Arrangements

Sl. No.	Details of Institutional Arrangements
1	Constitution of the HPC (High Power Committee vide no. 712-FOR/13099/19/2023 dated 04.05.2023).
2	Constitution of the GB (Governing Body vide no. 712-FOR/13099/19/2023 dated 04.05.2023).
3	Notification of 34 Divisional Management Units (DMUs) and 90 Field Management Units (FMUs) as implementation units of the project vide no. 710-FOR/13099/18/2023 dated 04.05.2023.
4	Authorization of WBFBCS (West Bengal Forest and Biodiversity Conservation Society to implement the Project vide no. 740-FOR/13099/20/2023 dated 12.05.2023).
5	2 nd meeting of GB (Governing Body) was held on 03.05.2024 and APO (Annual Plan of Operation) for F.Y 2024-25 has been approved.
6	Identification of 600 JFMCs have been completed (Abstract in Table 10). Moreover they have been equally divided in 4 Phases (150 JFMCs in each Phase) for easy implementation and effective monitoring. The preparation of Microplan for Phase-I has been completed and Community Development Activity for this Phase is ongoing.
7	New Bank accounts have already been generated in Mother-Child-Grand Child mode for units under this project (Here PMU is Mother, DMU is Child and FMU is Grandchild).
8	Accounting platform for Cloud Hosted Real Time Online Accounting System has been developed and launched to DMUs and accounting operation has already been started after conducting sufficient training.
9	New e-Mail ID for project was created and intimated to all.

1.4.6 Organogram:

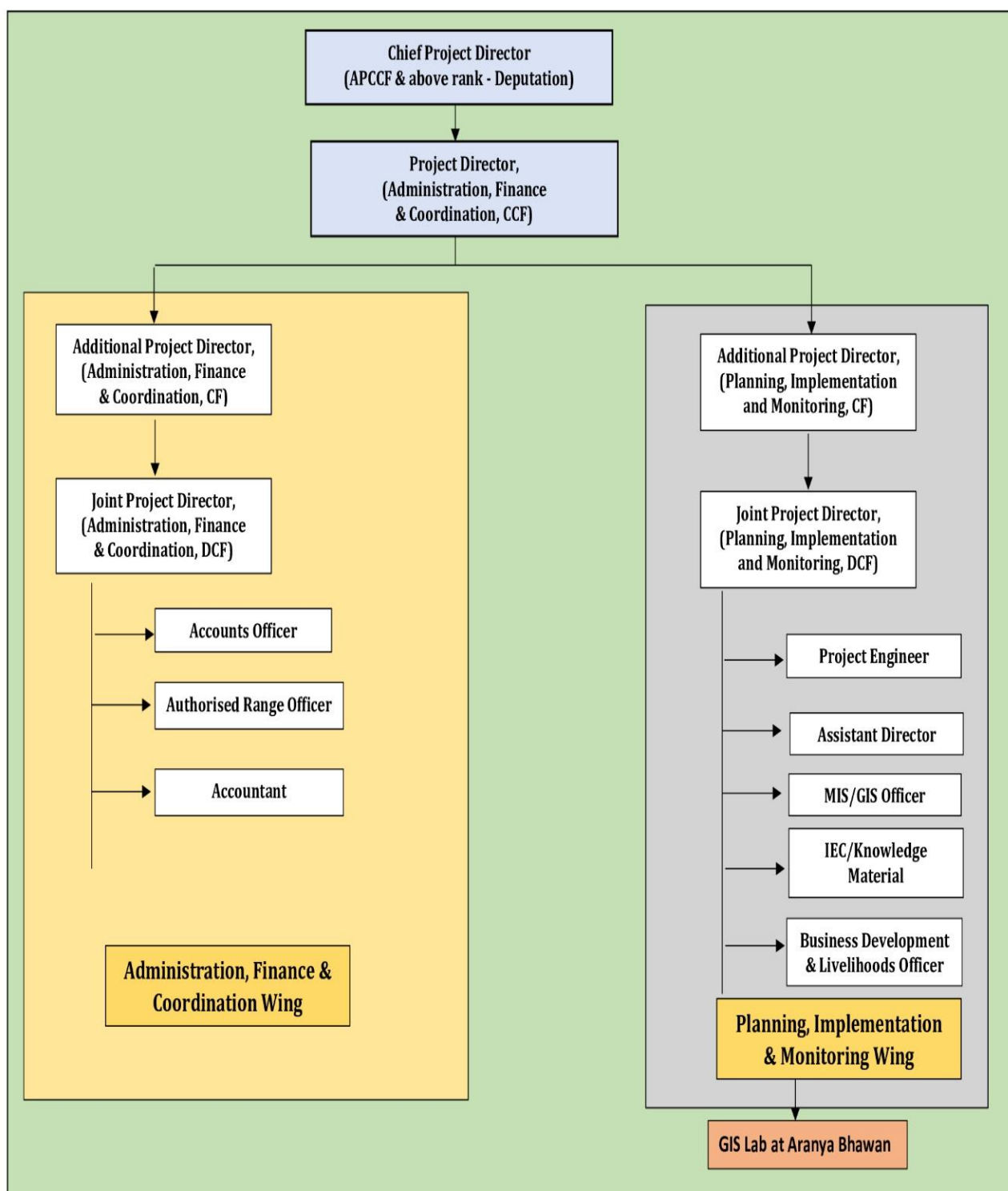


Figure 2: Organogram of PMU, WB-FBCCCR Project

1.4.7 Schedule of Meetings held:

1. The 2nd Meeting of the Governing Body of the WB-FBCCCR under West Bengal Forest and Biodiversity Conservation Society was held on 03.05.2024 at 12:00 PM in the 6th Floor, Conference Room, Aranya Bhawan at LA-10A, Sector,-III, Salt-lake City, Kolkata-700106.
2. Online Meeting with respective CCFs/CFs and Head, DMUs to discuss Budget Allocations to DMU under the Project WB-FBCCCR for Financial Year 2024-25 was held on 14.05.2024 at 12 PM in the Conference Room, WB-FBCCCR.
3. Meeting of Evaluation Committee for PMC engagement for the Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) was held on 20.05.2024 at 01:00 PM in the Mini-Conference Room, WB-FBCCCR.
4. Meeting of the Steering Committee for the project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) regarding “West Bengal Data Strategy” was held on 30.05.2024 at 03.30 PM in the Mini-Conference Hall, PMU Office, WB-FBCCCR.
5. Meeting of Evaluation Committee for PMC engagement for the Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) was held on 01.08.2024 at 01:00 PM in the Mini-Conference Room, WB-FBCCCR.
6. Meeting on deciding scope of study of assessment of Aquatic Biodiversity in Sundarban and Territorial Water for the Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) was held on 12.08.2024 at 01:00 PM in the Mini-Conference Room, WB-FBCCCR.
7. Meeting of the committee for Creation of Carbon Estimation Lab for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) was held on 03.09.2024 at 12:00 PM in the Mini-Conference Room, PMU at WB-FBCCCR.
8. Review Meeting with Shri Mana Ram Baloch, IFS Principal Chief Conservator of Forests and WB-FBCCCR Project Officials for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) was held on 12.09.2024 at 12:30 PM in the Mini-Conference Room, PMU at WB-FBCCCR.
9. Review Meeting with respective CCFs/CFs and Head, DMUs on Progress of work under WB-FBCCCR during the year 2024-25 and WB-FBCCCR Project Officials was held on 11.12.2024 and 13.12.2024 at Mini-Conference Room, PMU, WB-FBCCCR.
10. An online meeting with third party evaluators selected by JICA regarding JICA Ex-Post Evaluation on "West Bengal Forest and Biodiversity Conservation Project" (L/A No. ID-P223) under WB-FBCCCR Project was held on 13.01.2025 at Mini-Conference Room, PMU, WB-FBCCCR.
11. Meeting of Evaluation Committee for PMC engagement for the Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) was held on 30.01.2025 at 01:00 PM in the Mini-Conference Room, WB-FBCCCR.
12. Minutes of the Meeting with Working Plan & G.I.S. Circle regarding present status of work and future proposals of work in Working Plan & G.I.S. Circle under WB-FBCCCR Project was held on 18.03.2025 at 01:00 PM at Mini-Conference Room, PMU, WB-FBCCCR.
13. Meeting on finalizing scope of study of assessment of Aquatic Biodiversity in Sundarbans of JICA assisted Project for Forest and Biodiversity Conservation for

Climate Change Response in West Bengal (WB-FBCCCR) was held on 24.03.2025 at Mini-Conference Room, PMU, WB-FBCCCR.

14. 1st Meeting of Committee on Knowledge Material Preparation was held on 25.03.2025 at Aranya Bhawan for the purpose of creating Knowledge Material under WB-FBCCCR as per the committee created by CPD, WB-FBCCCR vide his office order no. 10/WBFBCCCR/7-4(30)/24-25 dated 10.03.2025.

1.4.8 Engagement of Project Management Consultant:

As a part of the project design and institution arrangements, a team of experienced professionals will be procured and deployed at the state level as PMC to assist PMU in managing the project and to extent required technical guidance for a limited number of years. They will assist the Project Management Unit of the project by providing following services.

1. Assistance in the management of the project.
2. Technical Assistance in the implementation of the project components/activities in an efficient and effective manner.
3. Facilitation of implementation of Environmental and Social Assessment Framework (ESAF) and Vulnerable People's Planning Framework (VPPF).
4. Technology Transfer.

The process of Engagement of Project Management Consultant is going on step wise viz. floating of REOI, shortlisting of bidders, floating of RFP followed by technical evaluation. Now, we are waiting for approval from JICA regarding technical evaluation, once completed financial evaluation and final selection would be done hopefully in F.Y. 2025-26.

1.4.8.1 Staffing:

Two positions of the Professional (A) consultant (International Expert and Eight Positions of Professional (B) consultant would be engaged during the project.

Professional (A) consultant would be for following designations:

- a) Community Resilience against Climate Change
- b) GIS/MIS/DX

Professional (B) consultant would be for following designations:

- a) GIS/MIS/DX
- b) Sustainable Forest Management
- c) Biodiversity Conservation
- d) Soil/Water Conservation
- e) Capacity Development
- f) Micro-Finance/Business Development Support
- g) Monitoring & Evaluation
- h) Social and Environmental Consideration

The procurement of PMC (Project Management Consultant) for the project is under process. The RFP (Request for proposal) was floated and Technical Evaluation is under approval from JICA, India (Ref: Memo no 267/WBFBCCCR/4-1(1)/24 dated 27.02.2025).

1.4.9 Project Contractual Staff:

PMU will hire the professional from the open market through outsourcing to extend support and assist project operations at PMU, DMUs, FMUs and JFMCs level. These project staffs will be in addition to the project staff that will be deployed by WBFD on deputation to PMU, and notify the field units, viz., offices of CCF, CF, DFO and ranges to work on the project in addition to the regular departmental functions. The type of staff to be hired on contract includes – Technical Experts/Professional, Office Assistants, Multi-Utility Persons, Computer Operators, Drivers, Security personnel etc.

The Procurement process of Manpower deployment has been concluded successfully and Award of Contract would commence in F.Y. 2025-26.

Chapter II: Achievements in brief during Financial Year 2024-25

2.1 Background:

India's 85% National Land is highly vulnerable to multiple natural disasters including cyclones, floods and sedimentation due to climate change and this grow into a serious problem. In Intended Nationally Determined Contributions (INDC) under the Paris Agreement, Government of India has pledged to reduce the emissions intensity of GDP by 45% of 2005 levels towards 2030. The National Forest Policy 1988 stipulates the hilly area to maintain two third of the Green Cover Area for disaster prevention and for stabilization of the ecosystem. Draft National Forest Policy in 2018 stipulates that strategic actions especially sustainable forest management will be taken to strengthen forest-based climate change mitigation and adaptation.

The State of West Bengal is endowed with long topography and varied Flora and Fauna from the North containing Himalayan Alpine Zone to the Southern part of the mangrove forest facing the Bay of Bengal. However, the forest cover of the state was 14.64% in 2011 which was lower than its national average 21.05%. After that, a Japanese ODA Loan Project entitled the "West Bengal Forest and Biodiversity Conservation Project" was conducted from 2012 and the forest cover have been improved to 18.96% in 2021. Although there has been improvement, the pressure on forest natural resources and degradation of ecosystem remains strong and forest cover of the state is still below one third of the geographical area due to progress of urbanization use of forest products and other resources to earn a living etc.

The project is being implemented partially in continuation of the past interventions with introduction of new methodologies based on the lessons learnt in the past. West Bengal is diverse in its nature and society. The project implementation method is based on landscape-based planning. Each bio-geographical zone experiences different types and level of climate change impacts. Furthermore, when considering interventions for disaster reduction, scattered treatment areas would not be beneficial. As the causes of damages are likely to be complex and a single intervention may not be effective in reducing the damages. In other words, there may also be a need to implement a combination of interventions to be effective in reducing disaster risks and sizeable area may need to be treated. Thus, site identification and planning are being done on the basis of watershed, which is severely affected by disaster and forest-based intervention, are seen to be effective. In this way, limited financial resources can be utilized efficiently and effectively.

2.2 Selection Criteria:

Identification of project site was undertaken in the following steps: 1) Identification of landscape; 2) Scoping of Districts and Divisions and 3) Identification of Ranges or unit of project intervention for each sub-component. Interventions are being done at 23 territorial Divisions, 06 Wildlife Divisions and 05 functional Divisions.

2.3 Summary of Works:

Component 1: Ecosystem Based Climate Change Measures (Production of Quality Planting Material (QPM), Plantation in degraded forest area and outside forest areas, Creation of Seed Production Area(SPA), Ecosystem based Disaster risk reduction through Catchment Treatment Plan(CAT), Green Laboratory initiatives etc.)

Table 5: Ecosystem Based Climate Change Measures

Sl. No.	Name of Intervention	Quantity	Remarks
1	Upgrading and Maintenance of Central Nursery	37 Central Nurseries	Ongoing
2	Quality Planting Material (QPM) Production	17, 36,350 nos. of QPM	Ongoing
3	Preparation of Catchment Area Treatment (CAT) Plan	13 Forest Divisions	MoU (Memorandum of Understanding) signed on 31 st July 2024 with ICAR -Indian Institute of Soil and Water Conservation (IISWC) Dehradun. Field Survey in Purulia, Kangsabati (North) and Kangsabati (South) DMUs is completed.
4	Creation of Seed Production Area (SPA)		Advance work done for 1. 15 Ha in SRVK-9 by Buxa-Coochbehar Research FMU under Silviculture (North) DMU and 2. 4 Ha and 6 Ha in Senchal Catchment and Lava respectively by Silviculture (Hill) DMU respectively.

Component 2: Biodiversity Conservation (Human-Wildlife conflict mitigation, Species Conservation program, Studies on Wild Animals and their behavior etc.)

Table 6: Biodiversity Conservation

Sl. No.	Name of Intervention	Quantity	Remarks
	Biodiversity Conservation through people's participation in Protected Area		
1)	Training on Dolphin Conservation	LS	2 day workshop held at Bethuadahari WLS under Nadia-Murshidabad DMU for field staffs handling Dolphin rescue in field during September 2024.

Sl. No.	Name of Intervention	Quantity	Remarks
			A total of 40 field staffs from 4 Forest Divisions participated in this workshop (12 each from Burdwan, Nadia-Murshidabad, Malda Division and 4 from Howrah Division).
2)	Training on Conservation of Fishing Cat	1	One day workshop on breeding and releasing of fishing cat was organized at Alipore Zoo during October 2024. Total of 38 nos. of participant participated in the workshop.
3)	Assessment of Aquatic Biodiversity in Sundarban Biosphere Reserve	LS	A committee has been formed and proposal submitted by Zoological Survey of India. Presentation on this was held on 24.03.2025 at PMU in presence of officers of Wildlife Wing related with the work. Revised scope of work would be submitted by ZSI in this regard shortly as per discussion at the meeting.
4)	Development of Ex-Gratia Payment Software	LS	Development of Ex-Gratia Payment Software is ongoing with WEBEL. Meetings are being held at PMU as well as with Addl. PCCF & CCF/MIS & e-Gov. in this regard.

Table 7: Activities taken up in four smaller sanctuaries

Name of the Sanctuary	DMU	Amount (Rs. in Lakh)	Activities
Bethuadahari WLS	Nadia-Murshidabad	12.54	Improvement of Boundary Wall with concertina wire fencing.
Ballavpur WLS	Birbhum	19.32	Construction of boundary wall (800 mtr.), Repairing of water tank, feeding shed, feed godown and ticket counter, nature trail and sitting arrangement for visitors.
Bibhutibhusan WLS	24 Parganas (North)	10.46	Visitor sitting arrangement, rest shed & plinth protection and construction of drinking water booth.
Chintamani Kar WLS	24 Parganas (South)	24.87	Repairing and maintenance of toilet, sinking of submersible pump, morrum road and renovation of staff quarter.

2.3.1 Component 3: Livelihood Improvement (Community Infrastructure Dev. & Income Generation activities).

Table 8: Livelihood Improvement

Sl. No.	Name of Intervention	Quantity	Remarks
1)	Community Mobilisation	150 JFMCs (Batch-II)	Ongoing
2)	Reorganisation/ Reconstitution of JFMC		Completed
3)	Project Familiarization		Completed
4)	Microplan preparation and related training		Preparation of Microplan on the basis of training is ongoing.
5)	Training on SHEP (Smallholders Horticulture Empowerment and Promotion) Approach		3 days Training of Trainer (ToT) was held at SFTI, Hijli during November 2024. 20 nos Field trainings to JFMC members were arranged in Kharagpur, Midnapore, Jhargram, Rupnarayan and Panchet DMUs.

2.3.4 Component 4: Institutional Strengthening (Digital transformation through MIS platform linked to web-GIS, Digitization of JFMC boundary, Monitoring and Evaluation, Publicity and Publication, Strengthening Forest Research, Mobility, Buildings, Staff, Equipment, Trainings etc.)

Table 9: Institutional Strengthening

Sl. No.	Name of Intervention	Quantity	Remarks
1	Digitization of JFMC Boundary	150 JFMCs (Batch-I)	Work for 30 JFMCs (Darjeeling DMU – 11, Darjeeling WL DMU – 4, Kurseong DMU – 6, Kalimpong DMU – 9) has been completed. Balance 120 JFMCs (Bankura South DMU – 88, Panchet DMU – 32) also on the verge of completion.
2	Mobility Support	30 Cars, 85 Motor Cycles, 4 Utility vehicles	Matter is lying with Finance Department, Government of West Bengal.
3	JFMC Training on Microplan & PRA Techniques	450 nos. of JFMC Members have been trained in 11 batches	3 days Training on Microplan & PRA Technique were held at State Forest Training Institute Hijli and West Bengal Forest School, Dow Hill under Development Circle, West Bengal.
4	Augmentation of Mini-Conference Room	01 No.	Completed
5	Computerized Accounting System		
a)	Tally Implementation Development and hosting in	LS	Completed

Sl. No.	Name of Intervention	Quantity	Remarks
	Microsoft Cloud		
b)	Development of component wise detailed Chart of Accounts (COA)	LS	Completed
6	Carbon Estimation Lab	01 No.	During F.Y. 24-25 Fund was provided to SFTI, Hijli (through Kharagpur DMU) for purchasing Laboratory drying oven, micro weighing balance, Range finder, GPS, electronic clinometer, Computer, Printer etc. and the tender process is ongoing.
7	Launch of Website	01 No.	New website for West Bengal Forest and Biodiversity Conservation Society (www.wbfbcs.in) is launched. This new website is linked to project website both old (www.wbfbcp.org) and new (www.wbfbcccr.in).
8	Guidelines and Manuals	02 Nos.	<ol style="list-style-type: none"> 1. A book on SHEP (Smallholders Horticulture Empowerment and Promotion) Handbooks in Bengali published, distributed and also loaded in our website for ready reference. This is also being used during training to JFMC members. 2. Brochure on Dolphin Handling. 3. Brochure on Breeding and Release of Fishing Cat.
9	Socio-Economic and Forest Resource Baseline Survey	LS	MoU (Memorandum of Understanding) signed on 5 th December 2024 with Indian Institute of Forest Management (IIFM), Bhopal. Field Survey already completed in Kharagpur DMU.
10	Preparation of Knowledge Material	LS	A committee has been formed in this regard and the committee suggested 25 relevant topics covering all four components of WB-FBCCCR.

Chapter III: Initiatives on Ecosystem based Climate Change Measures

3.1 Component Objective:

The objective is to enhance forest ecosystem services (multiple functions of forest), reduce disaster risk and enhance community resilience against climate change impacts. In order to reduce the adverse impacts of climate change in each landscape, the component to mitigate the causes of frequently occurring disasters (flooding in North Bengal/Sundarbans, drought in South-West Bengal) are being implemented, the project is effectively utilizing multiple functions of forests. In order to do that, forest treatment has been properly zoned for the specific purpose. WB-FBCCCR is supporting preparation of Catchment Area Treatment (CAT) Plan for the 13 forest Divisions of South-West Bengal. In Sundarbans, frequent flooding caused by sea level rising and damage to embankments is one of the most challenging topics in West Bengal. So attempts are being made to use bamboo structures to restore mangroves for mitigating the damages on embankment. In order to increase community resilience the plantation models in the project are mostly mixed plantations with NTFPs species/indigenous species where local populations will benefit and will be able to protect the community for a long term.

3.2 Upgrading and Maintenance of Central Nursery:

Central nursery facility constructed by the State Plan and Phase-I Project WBFBCP are being upgraded to ensure continuous production of QPM for planting activities under the project and under State Government schemes. The upgrading and Maintenance of 37 Central nurseries was started in the Financial Year 2023-24 and completed in Financial Year 2024-25.

Table 10: List of Central Nurseries under WB-FBCCCR Project

Sl. No.	Name of Circle	Name of DMU	Name of Range/FMU	Name of Beat	Name of Location	Installed Capacity (No. of Seedlings)
1	Western	Medinipur	Arabari	Arabari	Arabari Forest Range Office, Paschim Medinipur	60,000
2	Western	Medinipur	Medinipur	Gopegarh	Rangamati, Beside Rupnarayan Forest Division Office, Rangamati, Paschim Medinipur	60,000
3	Western	Medinipur	Pirakata	Bhimsole	Abradihi, Pirakata Forest Range Office, Paschim Medinipur	60,000
4	Western	Kharagpur	Hijli	Hijli	Hijli Eco Park	60,000
5	Western	Kharagpur	Kalaikunda	Kalaikunda	This unit shall be raised at Hijli Central Nursery under	60,000

Sl. No.	Name of Circle	Name of DMU	Name of Range/FMU	Name of Beat	Name of Location	Installed Capacity (No. of Seedlings)
					Hijli Range/FMU	
6	Western	Kharagpur	Nayagram	Nayagram	Nayagram Range HQ	60,000
7	Western	Rupnarayan	Amlagora	Pathrisole	Amlagora Modern Nursery	60,000
8	Western	Rupnarayan	Amlagora	Pathrisole	Pathrisole Central Nursery	60,000
9	Central	Bankura North	Barjora	Barjora	Barjora	60,000
10	Central	Bankura North	Beliatore	Beliatore	Beliatore	60,000
11	Central	Bankura North	G. Ghati	Amarkanan	Amarkanan	60,000
12	Central	Bankura North	Radhanagar	Bhora	Bhora	60,000
13	Central	Bankura South	Simlapal	Simlapal	Simlapal Central Nursery	60,000
14	Central	Bankura South	Bankura	Ratanpur	Ratanpur Central Nursery	60,000
15	Central	Bankura South	Indpur	Chingra	Chingra Central Nursery	60,000
16	Central	Panchet	Bishnupur	Bishnupur-I	Dwadasbari, Bishnupur Central Nursery	60,000
17	Central	Panchet	Bankadaha	Peardoba	Sabarakone, Amdangra Central Nursery	60,000
18	Central	Panchet	Joypur	Joypur	Joypur, Joypur Central Nursery	60,000
19	South East	Birbhum	Suri	Chhora	Chhora	60,000
20	South East	Birbhum	Dubrajpur	Hetampur	Hetampur	60,000
21	South West	Kangsabati North	Hura	Keshargarh	Keshargarh	80,000
22	South West	Kangsabati South	Manbazar-I	Kenda	Kenda Central Nursery	60,000
23	South West	Purulia	Balarampur	Balarampur	Rangadih	60,000
24	South West	Purulia Extension Forestry	Purulia Extension Forestry FMU	Purulia	Kantadih Central Nursery	60,000
25	North West	Raiganj	Attached Forest Range	-	Division Compound	60,000
26	Hill	Darjeeling	Rimbick	South Rimbick	South Rimbick-1	60,000

Sl. No.	Name of Circle	Name of DMU	Name of Range/FMU	Name of Beat	Name of Location	Installed Capacity (No. of Seedlings)
27	Hill	Kurseong	Tukriajhar	Tukriajhar	Tukriajhar	60,000
28	Hill	Kalimpong	Neora	Gorubathan	Gorubathan	60,000
29	Northern	Baikunthapur	Belacoba	Gourikone	Bodaganj	60,000
30	Northern	Jalpaiguri	Chalsa	Chalsa	Chalsa Range HQ	60,000
31	Northern	Jalpaiguri	Moraghat	Khuntimari	Central Moraghat-7	60,000
32	Northern	Cooch Behar	Cooch Behar-II	HQ	Debibari	60,000
33	Wildlife North	Jaldapara Wildlife	Nilpara	Nilpara	Nilpara	60,000
34	Buxa Tiger Reserve	Buxa Tiger Reserve (East)	South Rydak	SRD HQ	SRD HQ	60,000
35	Buxa Tiger Reserve	Buxa Tiger Reserve (West)	West Rajabhatkhawa	West Rajabhatkhawa	Rajabhatkhawa	60,000
36	Research	Silviculture Hill	Kalimpong Upper Hill Research	Lava	Lava-1	60,000
37	Research	Silviculture North	Buxa Coochbehar Research	Rajabhatkhawa	SRVK-15	60,000



Figure 3: Upgradation of MS Stand at Suri FMU under Birbhum DMU



Figure 4: Maintenance of Seedlings at Suri FMU under Birbhum DMU

3.3 Quality Planting Material (QPM) Production:

In the first meeting of the Governing Body of WBFBCS for WB-FBCCCR held at Aranya Bhawan on 22nd June, 2023, the issue of Production of Quality Planting Material (QPM) in central nurseries under WB-FBCCCR was discussed. It was decided unanimously that only good quality tall seedlings should be used for Plantations under WB-FBCCCR. This practice

has already been started for the proposed plantations under State Plan schemes and release of fund is split in two year for raising of seedlings in nursery (in first year) and maintenance of the same seedlings (second year till planted in filed). This was further suggested to use bigger hycopots of sizes 750 cc and 1000 cc and to constitute a committee to decide upon the Types (volume), Dimensions and proportion of hycopots (750 cc/1000 cc) for producing QPM under WB-FBCCCR.

The committee has recommended use of larger size hycopots of 750 cc and 1000 cc for producing tall seedlings and keeping them in nurseries for longer period.

Larger sized hycopots of 750 cc and 1000 cc are available in market in West Bengal and will be better suited for producing tall seedlings, keeping them in nurseries for longer period whereas 1000 cc hycopots are suggested for slow growing species like Sal, Haritaki, Mahua, Piyasal, Dhaw, Haldu, Karam to be maintained in nurseries. Whereas 750 cc hycopots can be used for fast growing species like Arjun, Pakasaj, Panisaj, Sirish, Bahera, Challa, Karanjand Ficus species etc.

The production of 17, 36,350 nos. of QPM has started during Financial Year 2023-24 for planting two years old seedlings in plantation as per approved MoD of the project and this were maintained during Financial Year 2024-25.



Figure 5: Seeds dibbled in mother-bed during QPM Production at **Bankura North DMU**



Figure 6: Germinated seedlings in mother-bed during QPM Production at **Bankura North DMU**

3.4 Preparation of Catchment Area Treatment (CAT) Plan:

Development of MoU with SLUSI (Soil and Land Use Survey of India) for Catchment area treatment (CAT) Plan preparation in 13 DMUs of South West Bengal is ongoing. A meeting regarding Catchment Area Treatment (CAT) Plan Preparation was held on 8th September, 2023 and 19th December, 2023. It was resolved that high priority area of micro-watershed would be generated from the existing database with SLUSI and division wise cost for generation of priority maps, detailed Soil Survey (in very high-priority area) would be proposed. We agreed to it and necessary steps for preparation of CAT Plans of 13 forest divisions within South-West Bengal with initial phasing of 3 forest divisions namely Jhargram, Medinipur and Rupnarayan Forest Divisions followed by the other Divisions as mentioned in MoD. SLUSI had been requested for necessary initiation for signing of MoU (Memorandum of Understanding) for taking up the work.

But, it was found that the organisation was incapable to take up the work and complete it in time bound manner. The matter was discussed and vide resolution at 2nd Governing Body meeting held on 03.05.2024. The work was awarded to ICAR-IISWC, Dehradun. MOU with ICAR-IISWC has been signed in October 2024 for preparation of CAT plan for 13 Divisions of WB and Release of 1st instalment of Rs. 13.00 Lakhs took place in 31.12.2024. Field Survey in Purulia Division took place from 24.01.25 to 31.01.25. Field Survey in Kangsabati North and Kangsabati South took place from 17.02.25 to 25.02.25.

3.5 Community resilience works at Sundarban Tiger Reserve (STR):

3.5.1 Objective:

In order to reduce the risk of high-tide flooding, increasing water embankment capacities, bamboo-based coastal defence structure was introduced with augmentation of vegetation covers including dibbling of mangroves.

3.5.2 Site Selection:

The sites for treatment were selected on the basis of following criteria:

- Villages which have serious damages by frequent cyclone attacks.
- Earthen embankments are constructed to protect the residential areas. The Mangroves are damaged but still has the potential to recover with artificial bamboo based defence structure.
- RCC embankment is not constructed.
- Villagers are willing to collaborate with the project via microplan.

On the ocean side of the mangrove, bamboo based defence structure are being installed namely Permeable Dam and Porcupine Structure. The porcupine structure are made up of bamboo and are placed near embankment to reduce the erosion at the base of the embankment by water current.

The porcupine structure under community resilience works was implemented in STR during Financial Year 2023-24. Porcupines are a form of a permeable structure made by bamboo to reduce flow and trap sediment. They have pole-like projections in all directions

that are used as flood control structure as well as river bank and river bed protection. No work was taken up in the Financial Year 2024-25 in this regard.



Figure 7: Porcupine structure made with bamboo before installation at STR in March, 2024



Figure 8: Porcupine structure made with bamboo after installation at STR in March, 2024

Chapter IV: Initiatives on Biodiversity Conservation

4.1 Component Objective:

The objective of this components are protection, preservation, management or restoration of biological diversity of the State through scientific and adaptive management of protected areas, conservation of rare and endangered species, mitigation of human-wildlife conflict, which are under threats of climate change impacts.

4.2 Biodiversity Conservation through people's participation in Protected Area:

4.2.1 Objective:

The objective is to conserve biodiversity of protected areas and to strengthen the stake of the neighbouring communities in conservation of the PAs. A considerable part of West Bengals forest covering more than 30% of area is under PA network. Presently, there are 15 Wildlife Sanctuaries and 6 National Parks in the state. While most of the PAs are large and housed one or more flagship spp., a few of them are located mostly in laterite alluvial landscape and deltaic landscape of West Bengal, covering a small area and harbour local biodiversity. PAs of the latter category fails to attract considerable funding but serve the useful purpose of conservation of distinct genotype of local population as well as awareness generation for visitors. They also serve as habitat to various types of faunal wildlife.

4.2.2 Location:

This PAs are located in places that have little forest or wildlife and are close to urban areas. Given their proximity to urban centres, they receive relatively high number of visitors and serve as an opportunity for conservation- related education of the civil society. For intensified management of selected PAs of the latter category, the project is taking up four selected PAs (Bethuadahari Wildlife Sanctuary; Ballavpur Wildlife Sanctuary; Bibhutibhusan Wildlife Sanctuary and Chintamani Kar Bird Sanctuary) for critical activities and infrastructure development. Three of the four small PAs (except Chintamani Kar Bird Sanctuary) also have the facility, the Nature Interpretation Centre, which is under construction. The three also have various amenities of visitors including lodging, trails and sitting places that are in various states of utilisation.

4.2.2.1 Bethuadahari Wildlife Sanctuary (Nadia-Murshidabad DMU)

Following works are envisaged during the project:

1. Improvement of boundary fencing
2. Desilting, net fencing of one Gharial pond
3. Desilting and beautification of second pond.
4. Improvement and repairing of inspection shed.
5. Repair of Aviary.
6. Development and repairing of Deer feeding area.
7. Making new Orchidarium.
8. Development and digitization of Nature interpretation Centre

Improvement of boundary fencing was taken up at Bethuadahari Wildlife Sanctuary during Financial Year 2023-24. The work also continued in phased manner during Financial Year 2024-25 as per approved Annual Plan of Operations.



Figure 9: Brick work during development of Boundary wall and fencing at Bethuadahari Wildlife Sanctuary



Figure 10: Boundary wall after plastering at Bethuadahari Wildlife Sanctuary

4.2.2.2 Ballavpur Wildlife Sanctuary (Birbhum DMU)

Following works have been approved in MoD for implementation during the project:

1. Construction of boundary wall (800 mtr.)
2. Repairing of water tank, feeding shed, feed godown and ticket counter
3. Chain link fencing over 400 mtr.
4. Development of nature trail over 400 mtr.
5. Installation of CC camera and accessories.
6. Development of signage, awareness books and faunal chart.
7. Interactive display arrangements for school children and tourists.

Development of nature trail and sitting arrangement for visitors was done at Ballavpur Wildlife Sanctuary during Financial Year 2023-24. No work was executed during Financial Year 2024-25 as the management plan of the wildlife sanctuary is under finalization.



Figure 11: Development of nature trail at Ballavpur

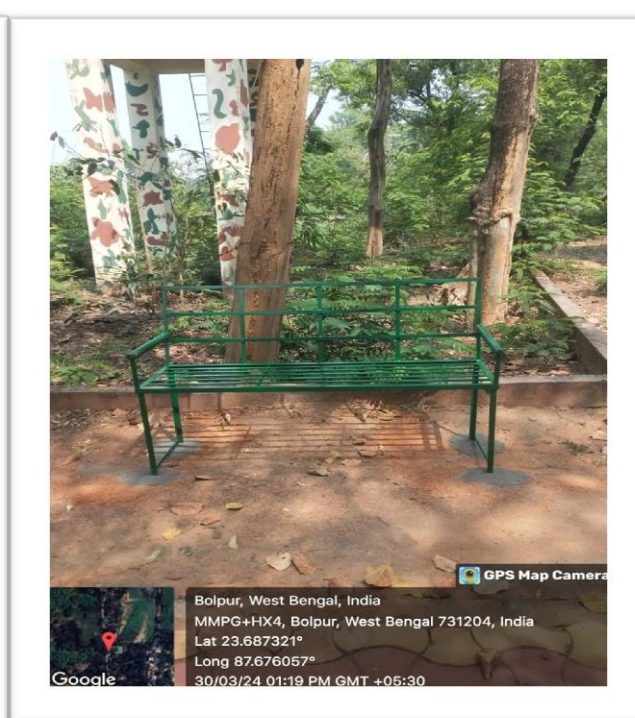


Figure 12: Development of sitting arrangement for visitors at Ballavpur Wildlife Sanctuary

4.2.2.3 Bibhutibhusan Wildlife Sanctuary (North 24-Parganas DMU)

Following augmentation have been approved in MoD for implementation during the project:

1. Construction of chain link fencing along the buffer zone.
2. Construction of RCC Visitors Rest shed.
3. Development of Orchidarium.

Construction of RCC Visitors Rest shed was done at Bibhutibhusan Wildlife Sanctuary during Financial Year 2023-24. Work was also taken up during Financial Year 2024-25 as per approved Annual Plan of Operations.



Figure 13: Construction of RCC Visitors Rest shed was done at Bibhutibhusan Wildlife Sanctuary

4.2.2.4 Chintamani Kar Bird Sanctuary (South 24 Parganas)

Following augmentation have been approved in MoD for implementation during the project:

1. Increase height of boundary wall with concertina wire
2. Extension of rainwater harvesting unit in one existing pond using silpaulin sheet with bamboo piling
3. Submersible pump with RO system
4. Maintenance of patrolling and visitor path
5. Repair of toilet facility
6. Renovation and maintenance of staff quarter
7. Informative display boards
8. Community mobilisation and awareness creation

Work was also taken up during Financial Year 2024-25 as per approved Annual Plan of Operations.



Figure 14: Installation of Submersible Pump was done at Chintamani Kar Bird Sanctuary



Figure 15: Construction of Staff Toilet was done at Chintamani Kar Bird Sanctuary

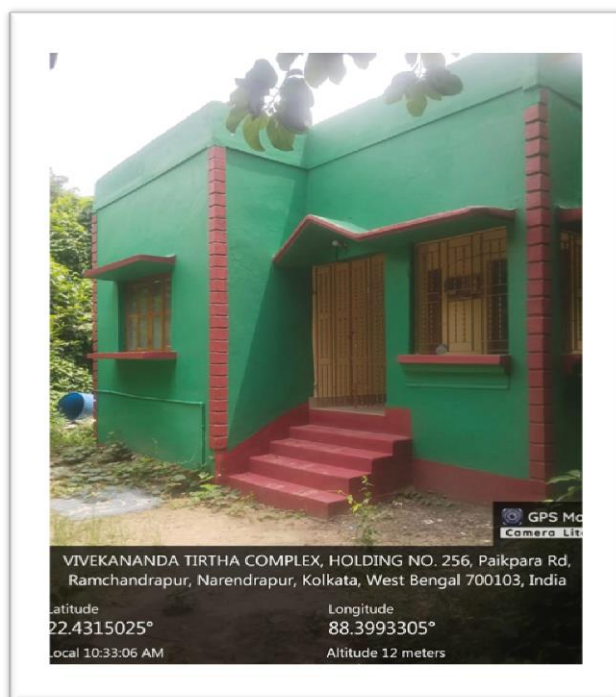


Figure 16: Construction of Staff Quarter was done at Chintamani Kar Bird Sanctuary



Figure 17: Construction of Morrum Road was done at Chintamani Kar Bird Sanctuary

Chapter V: Initiatives on Livelihood Improvement

5.1 Component Objective:

The objective is to strengthen community resilience against adverse impact on climate change in each landscape through community development activities, livelihood improvement and improved access to traditional medicine.

The communities living in and around forest areas in 3 project landscapes are part of JFMCs who would jointly undertake the work of forest and biodiversity conservation. Out of the 4,500 odd JFMCs in the state 600 have been selected for the purpose. These communities are scattered across the State and have different socio-economic backgrounds. Thus, the interventions to respond to their requirements vary from landscape to landscape. Thus, the activities in this component are planned landscape-wise and designed with flexibility to cater to varying requirements of the community.

5.2 Identification of JFMCs:

600 nos. JFMC were selected as a unit of project implementation from the area where Component 1 and 2 activities are being implemented. The selection criteria are as follows:

- Willingness of JFMC members for participation in the project.
- Keen interest in JFM and collective action towards forest protection and human-wildlife conflicts.
- High dependency on forest resources.
- Not received support from Phase 1.
- Constituting a cluster.
- Have protected forests on their own will as a collective action.
- Vulnerable to climate change.
- Minimum area in Hills and North Bengal Landscape and Dry lateritic & Alluvial Landscape for intervention would be at least 10 ha.

The identification of 600 JFMCs has been completed. The participation of JFMCs is vital in achieving project activities proposed to be undertaken at JFMC level by the community. Therefore, the project will undertake activities to enable community to be ready with robust institutional arrangement, equipped with project information, expected benefits and their responsibilities before microplanning, livelihoods, and other activities initiated. There will be total of four (04) batches in each of three landscapes during the project implementation period.

Table 11: Abstract of JFMCs selected for WB-FBCCCR

Name of Circle	Name of DMUs	Nos. of JFMCs Selected for WB-FBCCCR
Western	Medinipur	50
Western	Kharagpur	34
Western	Rupnarayan	30
Western	Jhargram	64
Central	Bankura North	74
Central	Bankura South	88
Central	Panchet	32
South-East	Birbhum	27
South-East	Burdwan	10
South-East	Durgapur	3
South-West	Purulia	30
South-West	Kangsabati North	33
South-West	Kangsabati South	41
Sundarban Biosphere Reserve	Nadia-Murshidabad	1
Sundarban Biosphere Reserve	South 24 Parganas	5
Sundarban Tiger Reserve	Sundarban Tiger Reserve	4
Hill	Darjeeling	11
Hill	Kalimpong	9
Hill	Kurseong	6
Wildlife North	Darjeeling Wildlife	4
Northern	Baikunthapur	9
Northern	Coochbehar	3
Northern	Jalpaiguri	8
Wildlife North	Gorumara Wildlife	2
Buxa Tiger Reserve	Buxa Tiger Reserve (East)	4
Buxa Tiger Reserve	Buxa Tiger Reserve (West)	5
Wildlife North	Jaldapara Wildlife	13
Total		600

5.3 Community Mobilisation:

Strengthening mutual trust and relationship with transparency is a pre-requisite for enhanced community involvement and developing belongingness as they need to be familiarised with the project objectives, activities, roles and responsibilities of key stakeholders and expected benefits, etc.

5.4 Reorganisation/ Reconstitution of JFMC:

5.4.1 Background:

Since some households may not have been enrolled as a member of JFMCs or detached from JFMCs, reorganising and reconstituting JFMC is being conducted. The process ensures membership to the households, which were not part of JFMC – based activities. Reorganisation of executive committee of JFMC will provide opportunities to the members to be elected as executive committee members.

5.4.2 Objective:

Revive and strengthen cohesiveness among JFMC members, trust and relationship.

5.4.3 Description of Activities:

- General Body Meeting was organised and Executive Committee was reconstituted and JFMC membership updated with inclusion of new eligible members in JFMCs as per the by-laws of JFMCs.
- Proceedings of the meeting were recorded and duly signed by the JFMC members present.

5.4.4 Implementation Structure:

FMU took the lead in planning and organising JFMC general meeting for reorganisation /reconstitution of JFMC activities in close coordination with the respective DMU.

5.4.5 Implementation Methodology:

Then the fringe population was familiarised with the objectives of WB-FBCCCR and then the guidelines for Microplan preparation were circulated in November, 2023 to the implementing DMUs. Training on PRA and Microplanning for 450 JFMC members (@ 3 members/JFMC for the 150 JFMCs where intervention would be done first) by CF, Development Circle has been successfully completed during Financial Year 2024-25.

5.5 Project Familiarization:

To strengthen mutual trust and relationship with transparency is a pre-requisite for enhanced community involvement and developing belongingness, WB-FBCCCR objectives, impact of climate change, activities, roles and responsibilities of key stakeholders and expected benefits have been familiarised among JFMC members.

5.5.1 Objective:

These are as follows:

- Inculcate JFMC support and participation in the project

- Familiarise JFMC members with the project objectives, activities, roles and responsibilities of key stake holders and expected short- and long-term benefits to JFMC members from the project etc.
- Inform them about project implementation modalities and further develop understanding on the objectives i.e. to enhance capacity of JFMCs/SHGs in developing resilience through implementation of the project, there benefits and their roles in the project

5.5.2 Implementation Structure:

Familiarization meeting has been organised in JFMC by FMU in close coordination with the respective DMUs.

5.5.3 Description of Activities:

- FMU has hold meetings with JFMC member and share brief descriptions of project objectives, key activities under each sub-component, institutional arrangement to plan and implement activities at JFMC level. Advance notices were given to JFMC members to secure their attendance.
- Landscape specific climate change impact on community were explained as indicated below:

Hills and North Bengal Landscape- They were explained about climate change-induced disasters like flood, heavy rain, landslides on forest, agriculture and on other livelihood resources, impact of wildlife on human lives, cattle, crop, house etc.

Dry Lateritic and Alluvial Landscape- Impact of recurrent drought, scanty rain on forest, agriculture, fishery/animal husbandry and on other livelihood resources, impact of wildlife on human lives, cattle, crop, house etc.

Deltaic Landscape- Impact of cyclone, heavy rain and flood on houses, embankment/village road, agriculture, fishery and on other livelihood resources, impact of tiger on human lives, cattle, crop, house etc.

- Roles and responsibilities of the project and JFMCs were explained in the meeting and minutes of the meeting were prepared.

5.6 Confirmation of JFM Boundary:

Since designated forest area protected by a JFMC has no defined digital boundary and physical demarcation, which may lead to dispute with neighboring JFMC during benefit sharing, forest resource extraction, harvesting of NTFPs etc., thus demarcation of JFMC boundary was undertaken as described in 6.2 Digitization of JFMC Boundary in Chapter 6.

5.6.1 Objective:

- Confirm JFM forest area prior to the project intervention and resolve disputes, if any.
- Ensure the proper benefit sharing by setting the clear boundary of JFM forest area.

5.6.2 Implementation Structure:

FMU worked with JFMCs to confirm JFMC Boundaries. Thereafter the pillar positioning will be done along the boundaries jointly by FMU and JFMC members (6.2 Digitization of JFMC Boundary in Chapter 6).

5.7 Microplan preparation and related training thereof:

JFM based activities and their implementation requires people-centric participatory planning and community collaboration. A process and approach needs to be followed by FMU where villagers' voices are heard, appreciated, and their choices and aspirations recognised rather than imposing upon them the ideas and priorities by outsiders. Out of many planning process and approach, microplanning at the village level provides scope for community involvement and say in planning and interventions. All activities planned by JFMC for implementation need to be included in the microplan.

The objectives of preparation of microplan are as follows:

- Identify the needs for forest and biodiversity conservation and livelihood improvement.
- Assess the potential for convergence and prepare a convergence plan.
- Develop a plan for JFMCs and the project to implement the community level interventions.

So, for Microplan preparation first Community Mobilisation followed by reorganisation/reconstitution of JFMC was continuing for 150 JFMCs in Second Batch.

Table 12: Abstract of Preparation of Microplan for the 2nd Batch 150 JFMCs under WB-FBCCCR

Name of Circle	Name of DMUs	Preparation of Microplan for the 2 nd Batch 150 JFMCs under WB-FBCCCR
Central	Bankura North	74
Western	Kharagpur	34
Western	Rupnarayan	30
Northern	Cooch Behar	03
Buxa Tiger Reserve	Buxa Tiger Reserve (East)	04
Buxa Tiger Reserve	Buxa Tiger Reserve (West)	05
Total		150

Chapter VI: Initiatives on Institutional Strengthening

6.1 Component Objective:

It is designed to support project implementation to strengthening of the capacity of implementing units at all levels and stakeholders as required. Activities required for monitoring and evaluation of the project implementation are also included in this component.

6.2 Digitization of JFMC Boundary:

As part of the project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR), boundaries of 150 nos. of JFMC are to be digitized. As per meeting held on 30th November, 2023 at PMU, WB-FBCCCR, the work was allotted to Working Plan and GIS Circle for boundary digitization for 150 nos. JFMCs in 06 Forest DMUs viz., Bankura South (88 JFMCs), Panchet (32 JFMCs), Darjeeling (11 JFMCs), Kalimpong (09 JFMCs), Kurseong (06 JFMCs) and Darjeeling Wildlife (04 JFMCs) during Financial Year 2023-24. For implementation the 06 DMUs were requested to submit the details of Area of Mouza, Plot/Compartment of the JFMCs to Conservator of Forests, Working Plan and GIS to undertake the work. Work for 30 JFMCs (Darjeeling DMU – 11, Darjeeling WL DMU – 4, Kurseong DMU – 6, Kalimpong DMU – 9) has been completed. Balance 120 JFMCs (Bankura South DMU – 88, Panchet DMU – 32) are also on the verge of completion.

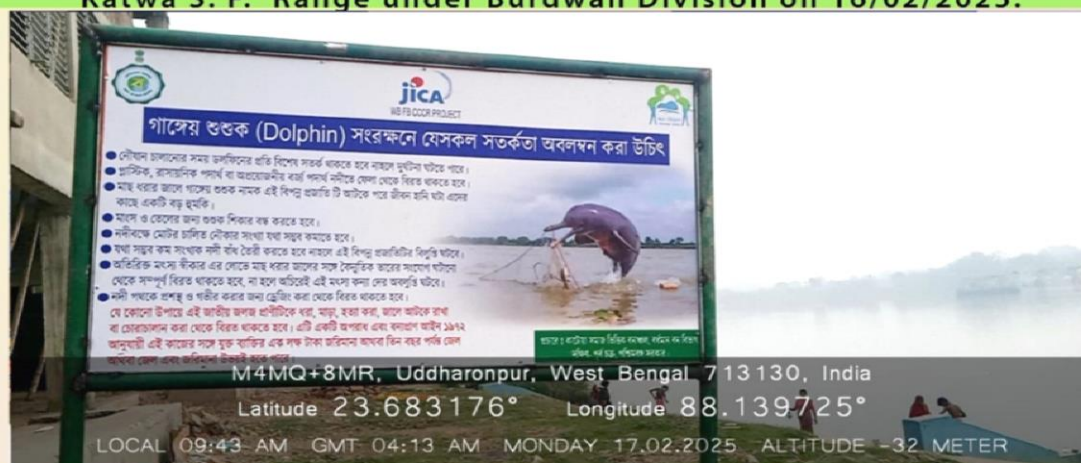
6.3 Mobility Support:

The project will support mobility of the project implementation unit at all levels. Cars, Motorcycles, trucks and speed-boats are proposed to be procured under the project. Measures for Procurement of 30 Cars, 85 Motor Cycles, 4 Utility vehicles has been initiated. The matter is lying with the Finance Department, Government of West Bengal.

6.4 Two days Training Workshop on Dolphin Conservation and Handling:

A two day workshop on 'Dolphin Conservation and Handling' was organized by WB-FBCCCR on 6th and 7th September, 2024 at Bethuadahari under Nadia-Murshidabad DMU. A total of 40 field staffs from 4 Forest Divisions participated in this workshop (12 each from Burdwan, Nadia-Murshidabad, Malda Division and 4 from Howrah Division). 8 nos. Forest Range Officers, 2 nos. Deputy Ranger/Foresters, 14 nos. Forest Guards, 12 nos. Banasahayak and one each from Zoo Keeper, Veterinary Assistant, Zoo Research Assistant and Banashramik took part in the workshop. A resource person Md. Sahanawaz from WWF also took part in the workshop.

Awareness Generation Programme for Conservation of Gangetic Dolphin.
Venue: Uddharonpur Ferry Ghat of Ketugram Beat under
Katwa S. F. Range under Burdwan Division on 16/02/2025.



Flex for awareness generation programme for conservation of Gangetic Dolphin

Component 2
 Biodiversity Conservation

Figure 18: Awareness Generation Programme for Conservation of Gangetic Dolphin at Katwa S.F. Range under Burdwan DMU on 16.02.2025

6.5 Breeding and Releasing of Fishing Cat:

The one day workshop on Breeding and Releasing of Fishing Cat organized by WB-FBCCCR Project in collaboration with West Bengal Zoo Authority and Zoological Garden Alipore was held on 04.10.2024 in the Conference Room of Zoological Garden Alipore. A total of 38 nos. of participant participated in the workshop. The resource person Dr. Sulata Maity, Scientific Officer, WBZA and Ms. Ishita Chongder, Zoo Biologist (CB), WBZA presented a brief overview on Technical Matters and Conservation Breeding Programme of Fishing Cat.



Figure 19: Workshop on Management of Fishing Cat organized by WB-FBCCCR in collaboration with WBZA and ZGA held at Zoological Garden, Alipore on 04th October, 2024

6.6 Training on SHEP:

The training on SHEP (Small-holder Horticulture Empowerment Promotion) was held at SFTI Hizli from 25th -27th November, 2024. It consisted of ToT (Training of Trainers) to forest officers and staffs (ADFO's, FR's, DR/Fr's etc.) on the first day followed by training to JFMC members on the 2nd day. On the 2nd day resource persons were from Forest Directorate, Horticulture Experts and representatives from local banks. On the third day field visit was made to horticultural firm to observe the avenues for cultivating alternative high value crops in the first half. This was followed by market surveys at 2 nearby localities. After returning to SFTI Hijli the participants made presentations group wise on the learnings during the training programme.



Figure 20: Banner and Group Photo of the training



Figure 21: Workshop cum Training Programme on SHEP approach at Goaltore FMU under Rupnarayan DMU



Figure 22: Inauguration of workshop on 25.11.2024 by Chief Conservator of Forests, Western Circle



Figure 23: Bank official explaining about KCC and other loans on 26.11.2024



Figure 24: Lecture on 26.11.2024 by Dr. Krishnendu Ghorai, Retd. Deputy Director, Department of Horticulture



Figure 25: Market survey at Prembazar, Kharagpur on 27.11.2024



Figure 26: Market survey at Khajra on 27.11.2024



Figure 27: Farm visit near Khajra on 27.11.2024

6.7 JFMC Training on Microplan & PRA Techniques:

414 nos. of JFMC Members have been trained in 11 batches in the State Forest Training Institute Hijli and 36 nos. of JFMC Members have been trained in the West Bengal Forest School, Dow Hill both under Conservator of Forests, Development Circle, West Bengal for the purpose of three days Training on Microplan & PRA Technique under Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) was held during Financial Year 2024-25.



Figure 28: Training on PRA and Microplan at SFTI Hijli



Figure 29: Training on PRA and Microplan at Bishnupur, Panchet



Figure 30: Training on PRA and Microplan at Bishnupur by SFTI Hijli



Figure 31: Group discussion on PRA at Bishnupur by SFTI Hijli

6.8 Carbon Estimation Lab:

6.8.1 Background:

According to Working Plan Code, 2014, details of biomass for carbon stock assessment is expected to be given based on the forest types and land used. The divisional level carbon data developed through the preparation of Working Plan needs to be organized at state level. Standardized framework of spatial database using modern technology is required in a cost effective way.

6.8.2 Objective:

The objective of a carbon estimation lab is to develop a spatial database of carbon stock assessment in the entire state of West Bengal with standardized framework.

6.8.3 Implementing Unit:

A carbon estimation lab will be established under the research and development wing at SFTI Hijli and will have close contact with the GIS and Working Plan circle. The lab will be engaged in following tasks:

- i. Collecting growing stock/carbon stock estimation data based on resource assessment.
- ii. Modelling of biomass/carbon stock with other parameters (e.g., Basal Area Factor) in the different forest types.
- iii. Spatial assessment of carbon stock based on satellite images.
- iv. Updating the data as required.

6.8.4 Progress

A presentation regarding this was made by Conservator of Forests, Development Circle on 04.01.2024 at PMU, WB-FBCCCR via a model based on Artificial Intelligence and Machine Learning. A follow-up meeting with Conservator of Forests, Development Circle was held on 19.03.2024 at PMU, WB-FBCCCR to further discuss the issues. Tender for procurement purpose was held at SFTI Hijli and the documents were submitted for approval to PMU, WB-FBCCCR.

6.9 Launching of Project website:

The project website will be utilised by PMU to disseminate and share the project details and achievements as a process of bringing in transparency. The website will also be utilised for real-time disclosure of information. The reports/knowledge material published by the project will be available in digital form as well, and will be shared through the project website to facilitate further information dissemination. The website would serve as means to minimize use of paper, and aligning with the digital initiatives by Government of India and Government of West Bengal.

The website has been developed to feature the following – photographs and videos, articles and messages, GIS based interactive maps, MIS reports, advertisements and notices, banners, reports and plans, budget and expenditure statements, featured links, comments, page to communicate with the project authorities and registering grievances, FAQs, surveys, newsletters and snapshots of project progress, etc.

The administrative access for editing, uploading and updating contents on the websites is with the PMU. PMU will be responsible for the task of website design, development and maintenance.

Our website <https://wbfbcccr.in/> has been launched in March 2024 and it is being updated regularly with new happenings during implementation of WB-FBCCCR Project.



Figure 32: Homepage of WB-FBCCCR website <https://wbfbcccr.in/>

6.10 Guidelines and Manuals:

To share project results and success in the public domain, as well as bring in awareness on key project processes, publicity and publications activities are being taken up by PMU.

Publicity and publication are very important for creating an awareness environment as well as for sharing knowledge and information. These elements form the means for external communication and to make sure that outputs, results and best practices are landscape segregated and shared outside with the stakeholders. PMU is also ensuring that the publications are disseminated to all stakeholders in an effective manner.

Flexibility is with PMU to plan and execute the activities adjusted with the project pace and requirements and accordingly, allocations have been made.

The following publications were made during Financial Year 2024-25.

1. SHEP (Smallholders Horticulture Empowerment and Promotion) Handbooks in Bengali.
2. Brochure on Dolphin Handlings
3. Brochure on Breeding and Release of Fishing Cat.

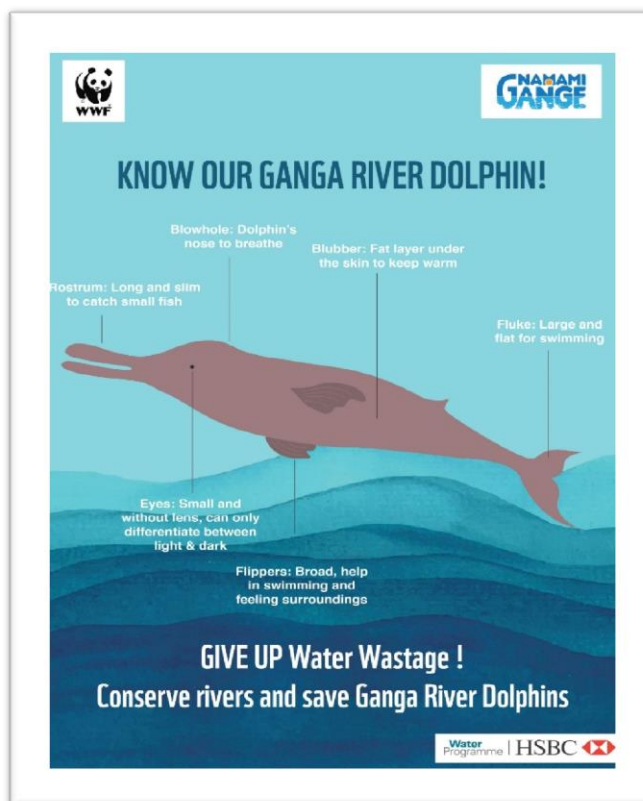
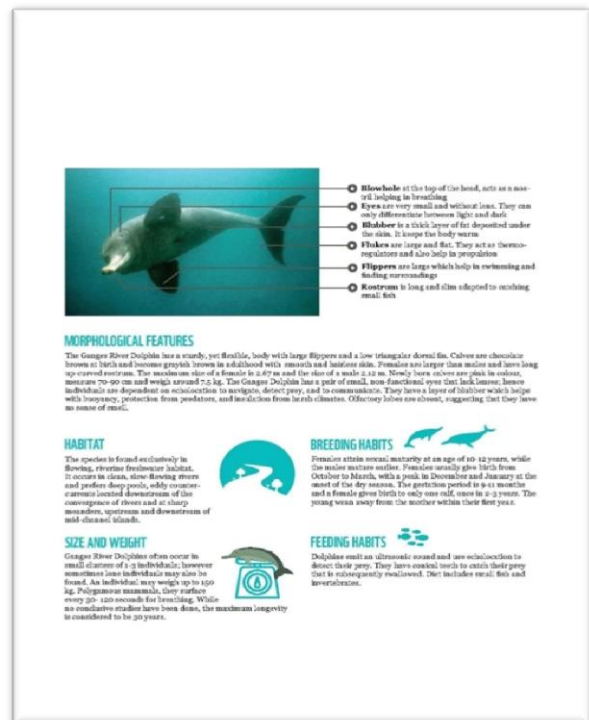
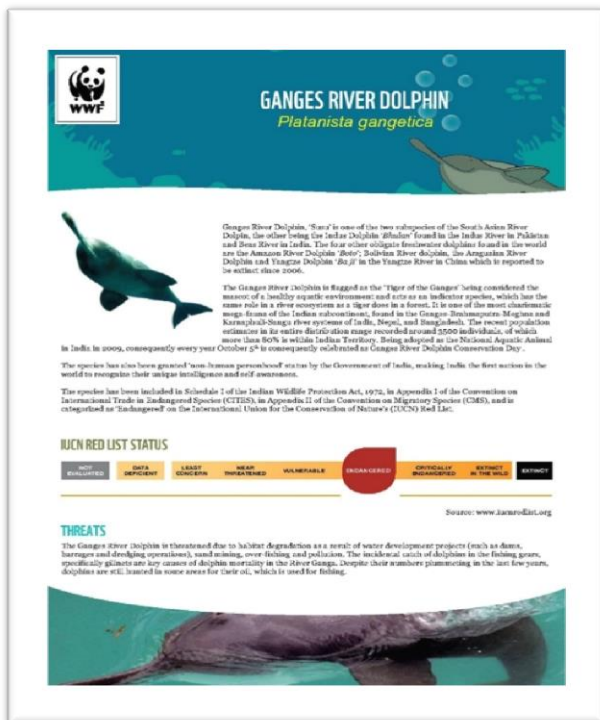


Figure 33: Brochure on Dolphin Handling



Figure 34: Brochure on Breeding and Release of Fishing Cat

Chapter VII: Other Activities

7.1 Background:

The activities outside the financial outlay of the project have been included here and PoC is one of the major components during Financial Year 2023-24 in this category which was implemented at Jhargram DMU to zero-in on efficacy of AI-Trailguards in Elephant infested lateritic tract of South-West Bengal with high population density.

7.2 Proof of Concept (PoC):

A Proof of Concept (PoC) is a demonstration of a product/phenomenon in which work is focused on determining whether an idea can be turned into a reality. A PoCs goal is not to seek market demand for the concept or choose the best way to produce it. Rather than focusing on building or developing the idea, it tests whether the idea is feasible or viable. In addition, it enables those involved in the Proof-of-Concept exercise to explore its financial potential.

7.3 Summary of Implementation

7.3.1 Objective: To mitigate human-elephant conflict in W.B, JICA worked with WBFD in a PoC at Jhargram, West Bengal and to zero-in on a methodology which may be replicable in similar tract of the state.

7.3.2 Technology partner: A Digital partner, with similar experience, “RESOLVE” was selected.

7.3.3 Funding: This PoC was complimentary in nature and selection of digital partner and entire payment was done by JICA.

7.3.4 Timeline and Budget:

Timeline: Mid-August 2023 to January 2024

Budget ceiling: USD 70,000 including all taxes and expenses

Cost of each AI Trailguard: USD 750 i.e. Rs. 62,273.00 (approx.)

7.3.5 AI Trailguard-Features:

- An AI -enabled camera-based alert.
- First, a motion sensor is triggered,
- Secondly, an AI algorithm in- camera selects images of interest and transmits directly
- Range of vision is 10-12 m

7.3.6 Activities in the PoC exercise:

1. Project setup and planning
2. Training workshop
3. Pilot deployment
4. Roll-out deployment

7.3.7 Transmission of alert:

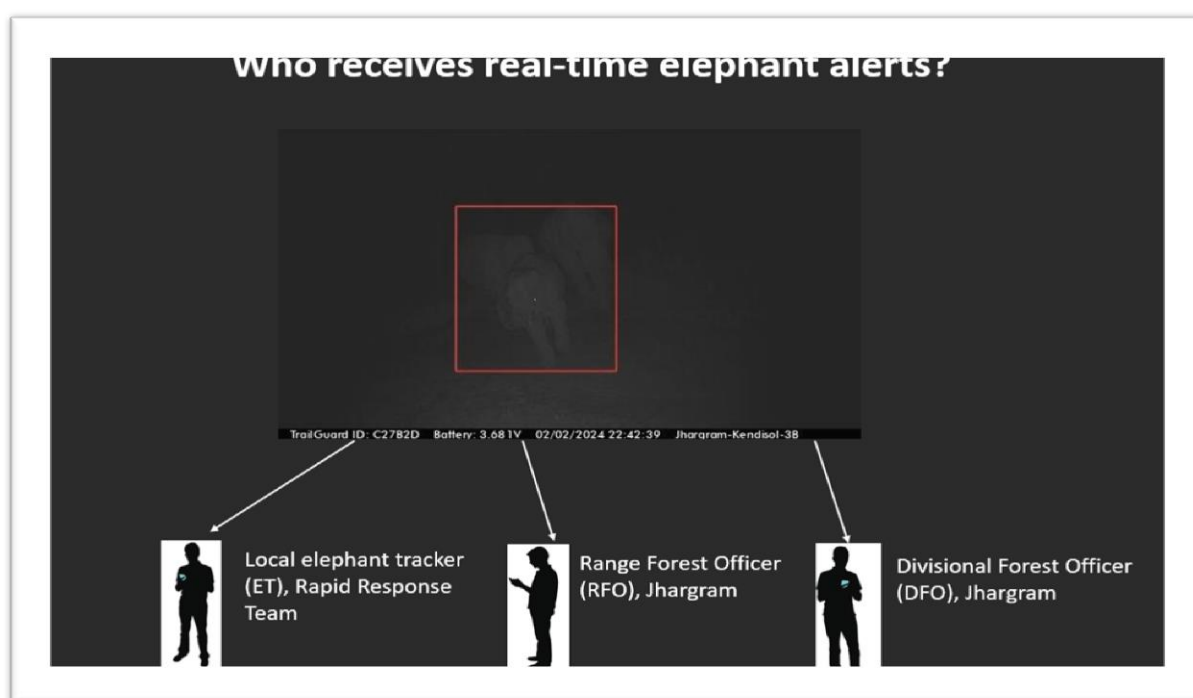


Figure 35: Schematic real-time transmission of elephant alerts to Jhargram DMU aiding in managing HEC events

7.4 Results:

7.4.1 Real-time detection and transmission of elephant alerts:

- 175 detections transmitted in real-time.
- Rapid Response Teams (RRTs) planned their responses as per Standard Operating Procedures (SOP)
- Detection of lone bulls, small groups and herds

7.4.2 Using the real-time elephant alerts for effective mitigation measures:

- RRTs alerted JFMC members in adjoining sites of elephant detection.
- The response from the RRTs include:
 - Blocking of trails and forest roads from human use for the duration until elephants cross over to the forest;
 - Using loud noises to scare them away.

- RRTs alerted JFMC members in adjoining sites of elephant detection.
- The response from the RRTs include:
- blocking of trails and forest roads from human use for the duration until elephants cross over to the forest;
- Using loud noises to scare them away.

7.4.3 Potential for re-identification of elephants in Jhargram:

- In past two years RRTs encountered problems by lone bull elephants.
- Taking this into account strategic placement of TrailGuard AI systems about 44%, elephant alerts were of lone bulls.
- During PoC, 7-12 unique lone bull individuals detected across different locations.
- Preparing a dossier of these “problem” elephants.
- Monitoring the movement patterns of lone bulls.

7.5 Further way ahead:

- Maintain the 30 AI Trailguard units in Jhargram for further 1 year.
- Rs.50,00,000/- for EWS under JICA project, may be used for further expansion. (Rs.50,00,000 / Rs. 62,273.00 = 80 AI Trailguards)
- Elephant routes are there in Jhargram and we worked on 3 routes, we may try to place AI Trailguards in balance 6 routes at Jhargram.
- We may try it in one protected area in North Bengal also.



Figure 36: Image taken at Jhargram-Barashuli on 01.01.2024 by AI trailguard during PoC at Jhargram DMU



Figure 37: Selection of installation area in Jhargram during September, 2023 during PoC at Jhargram DMU

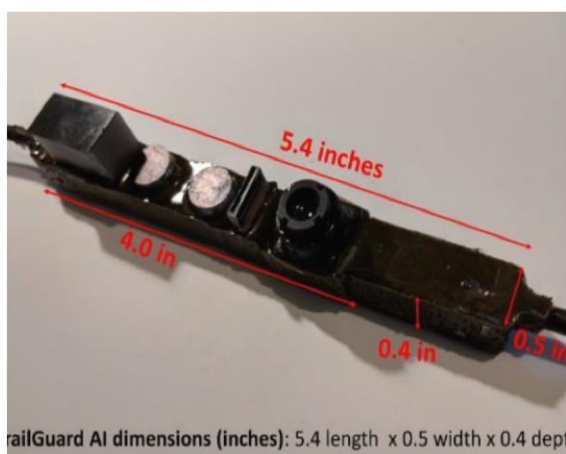


Figure 38: AI trailguard in close-up which were used during PoC at Jhargram DMU



Figure 39: Installing AI Trailguard on tree at Jhargram Division in November, 2023 during PoC at Jhargram DMU

7.6 Further progress regarding AI Trail Guards at Jhargram during Financial Year 2024-25

Five new AI Trail Guards were donated by RESOLVE in lieu of the earlier supplied 30 AI Trail Guards for PoC. These new advanced AI Trail Guards were installed in Jhargram DMU in the elephant infested region as per guidance of Head, DMU Jhargram and his team.

7.7 Detailed status of KB-17 Land for construction of PMU Building:

In WBFBC Project (West Bengal Forest and Biodiversity Conservation Project)- first JICA funded forestry project for the State, building support was extended at the state level, by providing funds to add two floors to the existing headquarter building (i.e. Aranya Bhawan). It was envisaged that PMU could be located in the additional structure, but due to the government decision to relocate the Minister in-charge, along with the forest secretariat from the existing old government building to the forest headquarter, the space available could be utilised only for establishing GIS facility for the project purpose. Now, the PMU building will come-up in separate land, and will exclusively be utilised by the PMU for implementation of the Project activities. The step wise timeline of activities till now for this are as follows:

- Joint inspection by SDM, 24 Parganas North was done for encroachment eviction on 09.09.2024.
- Encroachment has been evicted in January, 2025.
- Inter-departmental transfer of the said land at KB-17 Salt Lake over an area of 8.4783 Kattahs from Urban Development and Municipal Affairs to Forest Department is took place on 24.02.2025.
- e-Tender for Request for Proposal for Engagement of Architectural Firm Consultant for the WB-FBCCCR Project has been cancelled due to non-receipt of minimum bids. In this regard, Publication of Abridged Tender Notice against e-Tender 2nd call for Request for Proposal for Engagement of Architectural Firm Consultant for the WB-

FBCCCR Project has been issued vide this office letter no. 464 /WBFBCCCR/3-1(1A)/24 dated 28.03.2025.

7.8 Visit of Counsellor, Embassy of Japan on 18.12.2024:

As per direction to PMU from JICA, Japanese Embassy Counsellor Mr. Jiro Koderu was welcomed at Netaji Subhash Chandra Bose Airport, Dumdum, Kolkata at around 10 AM on his arrival from New Delhi by the Officials of WB-FBCCCR Project. After a short briefing and introduction, he was accompanied to Hijli Forest House, Kharagpur Forest Division. There a brief halt was given for freshening up and also to discuss the plan and purpose of the visit. Then the Project Officials along with the Local Forest Field Officials accompanied him to the following field sites as per the approved tour program:

- 1) **Tall Seedlings Nursery:** Visit to Hijli Central Nursery which has been developed and upgraded under the WB-FBCCCR for taking up the afforestation works within the Forest Division in the next planting season. More than 40 different forestry species have been raised in the nursery with some notable presence like Sal, Arjun, Red Sanders, Kusum, Neem, Mahua, Haritaki, Bahera etc. The nursery has presently a stock of more than 70000 seedlings. Around 20 Nos. local JFMC members are working daily in the nursery on daily wages.
- 2) **Older Plantation Created under JICA funded WBFBCP:** Visit to 2018-19 Sal & Associates Plantation at Mouza-Rangamatia, Beat & Range Hijli under Kharagpur Forest Division. The plantation was raised over 13.5 Ha area in the Phase — Project (WBFBCP) under the JICA ODA Loan in A2 Model.
- 3) **Livelihood Interventions:** Visit to the site of Community Infrastructure Development Activities (CIDA) and Income Generation Activities (IGA) at Kesuria Mouza & JFMC, Beat & Range Hijli under Kharagpur DMU. Under the CIDA Component of the Project (WBFBCP), a Community Hall was constructed in the said JFMC in 2017-18. Micro financing was done to the SHGs under the JFMC in the said project as a part of IGA wherein they established small business like sewing, rearing of Goats & Poultry, Small Shops etc. which has uplifted them economically and reduced their dependence on Forests.

After the completion of the above mentioned field visit, returned back to Hijli Forest Rest House for refreshment. Then proceeded to Lalit Great Eastern Hotel, Kolkata. At around 07:00 PM Mr. Koderu was see offed at Great Eastern Hotel.



Figure 40: Visit of Mr. Jiro Koderu, Counsellor, Embassy of Japan at Hijli Central Nursery



Figure 41: Welcoming Mr. Jiro Koderu, Counsellor, Embassy of Japan at Hijli Forest Rest House on 18.12.2024

7.9 Ex-Post Evaluation on "West Bengal Forest and Biodiversity Conservation Project" (L/A No. ID-P223) under WB-FBCCCR Project

I. Background of Ex-Post Evaluation:

Japan International Cooperation Agency (JICA) evaluates projects throughout its project cycle mainly to fulfil two purposes:

- a) to improve projects further through the learning loop in the project cycle [learning from lessons drawn from ex-post evaluation]; and
- b) to ensure accountability to stakeholders including Japanese nationals and people of partner countries.

In view of this, the Evaluation Department of JICA, in principle, carries out external ex-post evaluation on all JICA's projects which cost JPY 1 billion or above and other projects deemed to provide valuable insight within two to three years after project completion. Ex-post evaluation focuses on whether project activities have been carried out appropriately to realize their development outcomes, on to what extent the project contributed to development results and on how well their effectiveness will be sustained. A basic approach is to assess projects against stated objectives, benchmarks and expected outcomes. With such objectives and to ensure impartiality and transparency, the Evaluation Department of JICA appoints and dispatches third party evaluators, which is called external ex-post evaluation.

For the above-captioned project, the Evaluation Department of JICA has appointed OPMAC Corporation. Throughout the evaluation process, the team of the above consultant will visit the project sites and concerned organizations, conduct various surveys and then evaluate the project based on the OECD DAC 6 evaluation criteria (relevance, coherence, effectiveness, impact, efficiency, and sustainability). Results of evaluation, including lessons learned and recommendations, will be fed back to JICA as well as the government of the partner countries including executing agencies, to help improve JICA projects as well as to ensure accountability and transparency. They will be also open to the public via JICA's website.

II. Schedule of Study:

The schedule is as follows:

- | | | | |
|----|-------------------------------------|---|--------------------------------|
| a. | Start of Study | : | September 27, 2024 |
| b. | Preparatory Work | : | October to December 2024 |
| c. | Response to Questionnaire | : | December 2024 |
| d. | Field Visit 1 | : | January 10 to January 31, 2025 |
| e. | Analytical Work | : | February to May 2025 |
| f. | Field Visit 2 | : | Mid-May 2025 |
| g. | Drafting of Evaluation Report | : | June 2025 |
| h. | Comments on Draft Evaluation Report | : | Late September 2025 |
| i. | Completion of Final Report | : | January 16, 2026 |

The final report on the evaluation study will be submitted by OPMAC to JICA on January 16, 2026.

In connection with this, Mr.Keishi Miyazaki, Managing Director & CEO, OPMAC Corporation; Mr. Kazuki Kawamura, Consultant, OPMAC Corporation and Dr. Suchandrima Chakarabarty,

Associate Consultant, Tetra Tech India visited Kolkata in January, 2025. Followed by field visit in North Bengal and South Bengal in January, 2025. They visited Darjeeling, Jalpaiguri, Cooch Behar, Kharagpur, Bankura, Midnapore and Sundarban during their field visit. They would again visit on Mid-May 2025 during Financial Year 2025-26.

Detailed interview and observation has been made from JFMC, SHG and Village Households:

Organizational and institutional aspects- Feedback from JFMC

- Monthly JFMC meetings, annual General Assembly Meetings and Annual Board Meetings are conducted regularly, with proper documentation like, resolution notes, minutes of the meeting and other relevant documents.
- Proper cycle of election of board members are conducted with the period varying between 3-5 years for different JFMCs through nomination and selection process based on eligibility.
- Most of the JFMC presidents mentioned that they have a fairly good institutional capacity where trainings of the roles of the JFMC members have been carried out during the initial phase of the project either by WBFD officials, or Block Officers or in rare cases some NGO partners.

Technical aspects- Feedback from JFMC and SHG

- In all, JFMC members have different role in different perspectives for which they have received different training and maintain respective books/registers.
- Records are systematically maintained, with plantation records, meeting minutes, and financial reports securely stored at the Block Officer's office. Regular audits are conducted to ensure accurate and efficient record-keeping.
- The technical capacity of JFMC/EDC is moderate but requires enhancement. Strengths include regular training, proper documentation, and active afforestation initiatives. However, challenges such as infrequent training sessions, decreasing youth engagement, and limited financial resources impede long-term sustainability and technical progress. Although afforestation efforts have been successful, members need more frequent refresher courses and updated skill development to stay aligned with evolving forestry practices.

Financial aspects- Feedback from JFMC and SHG

- The Forest Department remains the primary financial contributor. Additionally, limited to moderate funding comes from roads, electricity and other block development projects and some funds from small grants for afforestation activities.
- Sometime some JFMC has some projects run by NGO's although they are not regular.

- While the income sharing from sale of forest product is limited in JFMCs in the reserve forest the JFMCs in lower plain generate more income from CFC work and grant a larger chunk of income-share which they use for community development work.
- While the financial capacity of JFMC/EDC in the mountain and forest area of Darjeeling are limited and unsustainable, as after the JICA project the funding has significantly declined the JFMC in the Jalpaiguri division seems to be financially better-off due to better income from income sharing work.
- But overall in all areas the funding from of the JFMCs has generally declined from the JICA project time which has created constraints in funding development activities and created financial uncertainty threatening long-term sustainability.

Environmental conservation- Feedback from JFMC, SHG and Village Household

- The afforestation activities, particularly the strategic planting of indigenous tree species, have significantly contributed to improving soil stability and reducing erosion. These native trees, with their extensive root systems, not only bind the soil more effectively but also enhance its nutrient profile, fostering a healthier ecosystem. This has been particularly impactful in areas prone to landslides and soil degradation, ensuring long-term environmental resilience.
- Furthermore, conservation efforts have complemented afforestation initiatives by introducing protective measures such as the construction of robust barriers to shield vulnerable areas from external pressures. These barriers, made from eco-friendly and durable materials, help prevent further soil loss and safeguard newly planted vegetation. Additionally, the installation of improved drainage systems has played a crucial role in mitigating the adverse effects of heavy rains and floods.
- Some villages by channelling excess water efficiently, these systems reduce the risk of waterlogging, minimize surface run-off, and protect both agricultural land and forested areas from erosion and damage. Collectively, these efforts represent a comprehensive approach to fostering ecological balance and ensuring the sustainability of natural resources.
- Species diversity in the region has shown remarkable improvement, with significant increases observed in populations of wild boars, deer, leopards, and a variety of bird species. This resurgence can be attributed to targeted conservation efforts, including habitat restoration, afforestation, and the establishment of protected zones that have reduced human-wildlife conflicts and poaching.
- The increase in wild boars and deer, as herbivores, plays a vital role in maintaining the ecological balance, contributing to seed dispersal and fostering the regeneration of native flora. Leopards, as apex predators, help regulate prey populations, ensuring a balanced ecosystem. The thriving bird populations enhance pollination and seed distribution, supporting a richer and more diverse habitat.

- These changes not only indicate ecological recovery but also suggest a healthier and more resilient ecosystem capable of supporting both wildlife and local communities. The positive trends underline the importance of sustained conservation programs and collaborative efforts to preserve biodiversity in the region.
- Reports from local farmers and village authorities highlight an increase in incidents of human-animal conflict involving leopards, elephants, and wild boars. This increase has had a direct negative impact on the local community, including reduced loss of agricultural crops, income, and property such as houses. It has also increased the strain on animal husbandry activities, with more cases of loss of livestock, such as chickens and goats.
- These conflicts often led to severe repercussions, including economic setbacks for families and emotional distress. In some cases, these interactions tragically resulted in the loss of human lives. The reported increase in such incidents underscores the effectiveness of targeted conservation measures, improved wildlife management practices, and community-based initiatives aimed at reducing human-wildlife interactions. There is a need for more discussion for sustainable solutions for maintaining local biodiversity and also foster coexistence, enhancing the safety, livelihoods, and overall well-being of the affected communities.

Improvement of people' standard of living- Feedback from JFMC, SHG and Village Household

- Since the project's implementation, there has been a notable improvement in livelihoods, with diversification playing a key role in enhancing community resilience. Compared to a decade ago, household surveys reveal a significant shift in income sources. Families have increasingly adopted secondary income-generating activities, leading to a reduced dependency on forests for their primary needs.
- Agriculture has emerged as a more sustainable and productive livelihood option, benefiting from better practices and resource availability. Additionally, the growth of tourism has created new opportunities for income, such as running homestays, guiding tours, or selling local handicrafts. Small businesses, including retail shops, food services, and artisan trades, have also flourished, providing stable alternative income streams for many households.
- This shift not only reflects the success of capacity-building efforts and resource optimization but also underscores the community's ability to adapt and thrive through diversified economic activities. The reduced reliance on forest resources has contributed to environmental conservation while simultaneously improving the socio-economic well-being of the community.

Women's Social Participation and Economic Activities- Feedback from JFMC, SHG and Village Household

- Women have experienced significant empowerment due to increased income from Self-Help Groups (SHGs), improved access to loans, and enhanced decision-making roles within both households and village-level governance. These developments

have enabled women to take on more active and influential roles in shaping their families' and communities' futures.

- The higher income from SHGs has provided women with greater financial independence, allowing them to contribute meaningfully to household expenses and savings. Access to loans through these groups has further empowered them to start small businesses, invest in education, or expand agricultural activities, thereby diversifying income sources.
- Increased participation in decision-making within households has elevated women's voices in financial planning, children's education, and other critical matters. At the village level, their involvement in community discussions and governance has fostered more inclusive decision-making processes.
- This empowerment is further reinforced by the migration of male members of households, which often places women in key roles to manage finances and resources, thereby strengthening their leadership and economic capacity. With continued access to education, skill development, and financial resources, women are poised to play a pivotal role in ensuring long-term financial sustainability and driving social progress in their communities.

Suggestions for Future Initiatives- Feedback from JFMC, SHG and Village Households:

1. Wildlife Conflict Mitigation:

- Install electric fencing and construct elephant trenches to prevent animals like elephants and wild boars from entering agricultural areas. This ensures the safety of crops and property while maintaining animal welfare.
- Promote awareness programs about non-lethal conflict mitigation techniques and involve the local community in maintenance.

2. Financial Support for JFMC and Villagers:

- Increase funding for Joint Forest Management Committees (JFMC) to enhance their operational capacity.
- Establish loan facilities through JFMC and the West Bengal Forest Department (WBFD) to provide villagers with accessible credit for livelihood activities.
- Expand funding for Self-Help Groups (SHGs) and offer longer repayment periods to ensure productive use of the loans and sustainable returns.

3. Capacity Building and Training:

- Conduct frequent training programs for JFMC and SHG members focusing on financial management, resource accounting, and long-term sustainability strategies.

- Introduce training in alternative income-generation activities such as mushroom cultivation, beautician courses, eco-tourism services, and handicraft production. This will diversify income sources and empower women.

4. Support for Eco-Tourism Development:

- Provide support for the construction of eco-lodges and community-run guest houses.
- Facilitate training programs on eco-tourism management, hospitality, and marketing.
- Launch targeted advertising campaigns to promote the region as a sustainable tourism destination.
- Encourage local ownership and participation to ensure that tourism benefits flow directly to the community.

5. Market Access for Agricultural and Commercial Crops:

- Develop infrastructure for the collection, storage, and transportation of perishable goods like mushrooms and vegetables to ensure timely delivery to markets.
- Create linkages with larger markets or cooperatives to provide fair pricing for the villagers' produce.

6. Infrastructure Development for Safety and Accessibility:

- Build additional culverts, concrete village roads, and bridges to improve accessibility, especially for elders and children, reducing the risk of accidents.
- Upgrade the village infrastructure to ensure year-round safety and connectivity. By implementing these measures, the community's livelihoods, financial stability, and overall resilience can be significantly enhanced, fostering a more sustainable and inclusive development pathway.



Figure 42: Meeting with CCF, Hill Circle, Darjeeling on 15.01.2025



Figure 43: Meeting with officials and staff at Senchal under Darjeeling Wildlife DMU on 15.01.2025



Figure 44: Meeting with officials and staff at Kurseong DMU on 17.01.2025



Figure 45: Meeting with officials and staff at Senchal under Darjeeling Wildlife DMU on 17.01.2025

Chapter VIII: Accounts & Audit

8.1 Background:

Accounting and auditing are related and go hand-in-hand with one another. Accounting provides information on the financial health, profitability and performance of an organization, while auditing aims to determine whether or not the financial data provided by accounting is correct. Accounting and audit have a pivotal role to play in the financial activities and record keeping process of any Society. However, their roles and focus are different. While accounting translates to a much wider field, encompassing everything, including the flow of funds from the government to the society, auditing is more of a specialized service.

Auditing is a part of the accounting world. It is an examination of accounting and financial records that is undertaken independently. This is done to determine if the company or the business undertaking/society has confirmed its operations to the existing laws and generally accepted accounting principles.

Accounting of an organisation/society is done by its own employees. The financial statements used in accounting are a brief summary of financial transactions over an accounting period. Accounting is categorized into various branches such as Cost Accounting, Financial Accounting, Management Accounting etc. The accounting report helps the management to inform society's decisions.

8.2 Computerized Accounting System:

Computerized accounting system based on standard accounting software (Tally) is being utilized for maintaining financial records till FMU level for real-time reporting. The accounting software has been customized and adopted for financial management, tracking disbursement as per annual plans and efficiently compiling Statement of Expenditures (SOEs) for submission to JICA, State Government and Central Aids, Accounts and Audit Division (CAAA) under the Ministry of Finance, Department of Economic Affairs, Government of India. All operational levels are being strengthened both in terms of equipment/connectivity and human-resource for implementing the plans. Systematic training was planned for all key staff, at all levels to handle and utilize this software for maintaining financial records and generating reports including landscape segregated financial progress reports.

8.2.1 Tally Implementation Development and hosting in Microsoft Cloud:

Implementation and development was done as follows:

- 1) Tally Prime Server
- 2) Microsoft Azure Cloud implementation
- 3) Tally virtual users
- 4) TS-pulse enterprise edition
- 5) Microsoft Office 2022 Standard Edition
- 6) PMU, DMU and FMU wise database creation
- 7) DMU wise Group Creation
- 8) Head wise Budget Setup
- 9) Budget Data Entry

- 10) Cumulative Report
- 11) User wise Data Security Management

8.2.2 Development of component wise detailed Chart of Accounts (COA):

Selection of Cost/Chartered Accountant Firm for development of component wise detailed Chart of Accounts (COA) for PMU, DMU and FMU, Mapping of COA with the Tally Software in base data files along with preparation and submission of Accounting Manual and procedure (PMU, DMU and FMUs) of WB-FBCCCR Project is being done.

Manual and procedure (PMU, DMU and FMUs) of WB-FBCCCR Project is being done.

8.3 Audit:

8.3.1 Statutory Audit:

To institute financial discipline and controls as well as to comply with JICA requirements, audits is being undertaken on a regular basis. Statutory financial audits is annually conducted at PMU and DMUs by engaging a qualified chartered accountant firm by PMU.

8.3.2 Internal Audit:

Beside the annual Statutory Audits, PMU is instituting a system of undertaking concurrent audits annually to keep close track of funds and its utilization, and capacitate various project offices to maintain systematic and proper records as per the JICA norms. It is carried through a qualified and credible CA firms experienced in auditing externally-aided projects.

The e-Tender for Selection of bona fide Chartered / Cost Accountant Firms for Internal Audit for Financial Year 2024-25 of PMU and DMUs of Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal (WB-FBCCCR) are floated in <https://wbenders.gov.in/> on 03.04.2025 vide NIT NO. : WBFBCCCR/NIT-04/2024-25 vide Memo No. 478/WBFBCCCR/1-7(3)/25 dated 28.03.2025.

8.3.3 CAG Audit:

The audit of office of the West Bengal Forest and Biodiversity Conservation Society (Japan International Cooperation Agency) from 4th March, 2025 to 7th March, 2025 was carried out by field audit party of office of the Principal Accountant General (Audit- II), West Bengal for undertaking the review of Cash/Fund Management. The response to comments furnished by them is under process.

8.4 Financial Results:

8.4.1 Utilisation of Grants:

The Society has received ₹ Nil Crores as Grant during the year 2024-25. The expenditure was incurred from the balance fund of ₹ 40 Crores released during Financial Year 2023-24.

Funds to the tune of ₹ 29.15 Crores were released to DMUs during the FY 2024-25.

The expenditure incurred during Financial Year 2024-25 for implementation of works in the PMU, DMUs and FMUs was as per approved APO for the Financial Year 2024-25 and is to the tune of ₹ 19.48 Crores.



**Project for Forest and
Biodiversity Conservation for
Climate Change Response in West Bengal
(WB-FBCCCR)**

Block- LB 2, Sector III, Salt Lake City, Near Water Tank No.16 Kolkata, West Bengal 700106
Web. : wbfbcccr.in ■ E-mail : wbfbcccr@gmail.com