

Tree Plantation Outside

Forest Area (TPOFA) Guidelines

(A guide to prepare for the implementation of TPOFA)



**West Bengal Forest and Biodiversity Conservation Project
(WBFBCP)**

Foreword

The present guidelines have been prepared to assist in the planning and implementation of the Tree Plantation Outside Forest Area (TPOFA) sub-component under the Afforestation Component of the West Bengal Forest and Biodiversity Conservation Project. This sub-component has as objective the afforestation outside recorded forest areas in available Government Land to mitigating the biotic pressure on forests by increasing forest resources outside recorded forest areas, thereby increasing the green cover. An important contribution towards the creation of enhanced social-environmental awareness in the communities through this sub-component would enable them to sustainably manage the generated green cover. The former would be instrumental in the reduction of dependency on existing forest resources. The project sub-component envisages the increase of green cover through afforestation on Govt. or community land only and not on individual or private land.

The main objective of these guidelines is to help the Project Staff to understand the purpose and scope of the TPOFA component and further assist in following some basic steps and processes to enhance the participation of beneficiaries in preparation for, and implementation of activities.

The West Bengal Forest Department (WBFD) has decades of experience in Joint Forest Management. Shared experiences and insights obtained throughout these decades of interaction with the rural population contributed by the WBFD, have had an important influence on the contents of this document.

To create a tool enabling standardization of the process for the entire State, the present document has been organized in such a manner, that it can be used by any Government Institution or Organization wishing to work towards an increase in forest resources outside recorded forest areas and increase in green cover. WBFBCP specific details regarding defined activities have been included but are general enough for use across the board.

A high level Technical Committee constituted by the Principal Chief Conservator of Forests, HoFF has edited & approved the Manual.

Project Management Unit
West Bengal Forest and Biodiversity Conservation Project

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Thank you again for your hospitality, patience and support.

*Dr. J.P. van Kooijk,
Team Leader, PMC
November, 2015*

Contents

Chapter	Subject	Pages
1	Introduction	1
2	Project Area	1
2.1	Strip Plantation (B1)	1
2.2	Block Plantation (B2)	1
3	Implementation of TPOFA	2
3.1	Selection of potential sites & beneficiary villages	2
3.2	Identification of beneficiaries	3
3.3	Selection & formation of Beneficiary Groups (BG)	4
3.4	Letter of Consent by BG through EC	4
3.5	Preparation of TPOFA Implementation Plan	5
3.6	Implementation of field works	5
3.6.1	Nursery	5
3.6.2	Selection of Plant Species for Strip/Block Plantations	6
3.6.3	Out-planting	6
3.6.4	Maintenance & Protection	7
3.7	Management of Plantations	7
4	Sale of Produce from the Plantation	8
5	Sharing of Benefit	8
6	Project Monitoring & Evaluation	9
7	Training	9
8	Financial	10
8.1	Mode of Payment	10
8.2	Accounts of BG/Govt. Educational Institute, Health Centres, etc.	10
8.3	Costs for labour and material	11

Annexure I	Letter of Consent to be signed by the members of the BG	12
Annexure II	Letter of Consent to be signed by the Head of the Institution	14
Annexure III	Cost of strip Plantations (B1) with Escalations	16
Annexure IV	Cost of Block Plantations (B2) with Escalations	18
Annexure V	Rates for Phase-wise Payments under Strip Plantations (B1) with Escalations	20
Annexure VI	Rates for Phase-wise Payments under Block Plantations (B2) with Escalations	22

1. Introduction

Tree Plantation Outside Forest Area (TPOFA) sub-component under Afforestation Component of the West Bengal Forest and Biodiversity Conservation Project aims at afforestation outside the recorded forest area in available Government Land with the objective of mitigating the biotic pressure on forests by increasing forest resources outside recorded forest area. The outcomes of the activity would increase the green cover. Communities through enhanced social awareness would be able to sustainably manage the generated green cover and thereby would be instrumental in reducing the dependency on existing forest resources.

This Project sub-Component involves multi-stakeholders namely,

- i. The Forest Department
- ii. Local Self Government (Gram Panchayat/ Panchayat Samiti)
- iii. Individual Beneficiary
- iv. Govt. Agencies (Land donor) e.g. PWD, Irrigation Department, Govt. Educational Institutes, Health Centres, etc.

2. Project Area

The project sub-component envisages increasing green cover through afforestation on the Govt. or the community or Government Institute land only but not on individual or private land.

The target land area under the project will be covered under two plantation models:

B1- STRIP Plantation

B2- BLOCK Plantation

2.1 Strip Plantation (B1)

The state has an extensive network of roads, river banks and canal banks etc. Plantations will be taken up on the available land on the flanks of roads or canals. However, the railway tracts are being kept out of the purview of the sub-component due to expected post planting management issues.

Minimum viable area for taking up the plantation work is prescribed as 5 ha. However, if a 5 ha land area is not available in one stretch, a minimum of 1.25 ha notional area (1.25 km road side/canal side with 4 rows of plantation, double row on each side at spacing of 2.5m x 2.5m) may be considered under this sub-component.

2.2 Block Plantation (B2)

Land available under various Departments such as PWD/Irrigation/Panchayat as well as areas under Govt. /Govt. aided Educational Institutions/Hospitals may also be considered for this sub-component.

Minimum viable area for taking up the plantation work is prescribed as 5 ha. However, for Govt. /Govt. aided/Community owned Educational Institutions, a minimum number of 400 trees (equivalent to a notional area of 0.25 ha) may be considered under this sub-component only on approval of the Circle In charge.

3. Implementation of TPOFA

Under TPOFA sub-component, planting of trees on the land identified by the GP will be carried out by the FMU with active participation of Beneficiary Groups. The technical and financial support for the same will be provided by FMU as per the norms of the project.

The BGs / Govt. Educational Institutes, Health Centres, etc. will receive, through FMUs, the financial support for raising planting stock, creation of plantations and its maintenance up to 3rd year at a fixed rate as prescribed under the project. Only after raising requisite number of quality planting material and successfully out planting them in the selected area the payment will be made to the BGs / Govt. Educational Institutes, Health Centres, etc. at the prescribed rates, as detailed in Annexures V & VI.

After completion of the 3rd year maintenance or conveniently thereafter, the plantation will be handed over to the GP. Following the transfer of plantations to the GP the beneficiary group will have right to enjoy the benefits from the plantations sustainably but will not acquire any other right on the land.

Upon the transfer of plantation, FMUs would continue to monitor the plantations on yearly basis till the maturity of the trees (as prescribed under the related paragraph) and EC would monitor the same half yearly and report to FMU about the performance of the plantation.

Any particular plantation may be retained and any particular plantation transferred to GP may be resumed for specific public purpose by the Government. The plantations will be harvested and disposed of on maturity by the DMU in consultation with BBSSS of the Panchayat Samity.

The direct costs of establishment, protection, maintenance, harvesting of plantations and subsequent reforestation at the same site, shall be deducted from total sale value of the final harvest as per norms of the Govt. orders *in vogue*. The balance amount shall be distributed among BG, GP & Forest Department in the ratio of 25% : 25%: 50% respectively.

The above provisions related to transfer of plantations and distribution of sale proceeds, however, would not be applicable in case of Plantation (Block/Strip) created by Govt. Educational Institute, Health Centres etc.

Implementation of the sub-component involves following steps:

- i. Selection of Potential sites & beneficiary villages/Govt. Institutes
- ii. Identification of beneficiaries (not applicable for Govt. Institutes)
- iii. Selection & formation of Beneficiary Groups (not applicable for Govt. Institutes)
- iv. Letter of Consent by BG through EC/ Head of Govt. Institutes
- v. Preparation of TPOFA Implementation Plan
- vi. Implementation of field works
- vii. Management of Planted areas

3.1 Selection of Potential sites & beneficiary villages

West Bengal Forest Department (WBFD) through its field level units would conduct Awareness programme periodically first with Bon-o-Bhumi Sanskar Sthayee Samiti (BBSSS) and Gram Panchayat (GP) and then following formation of Executive Committee (EC), among the beneficiaries, about the importance of local natural capital and need of its conservation. The main motive is to develop

consensus among the community about importance of plantations such as Strip Plantations and Block Plantations. Against this background they would also cover the current project goal, possible outcomes and benefits.

Divisional Management Unit (DMU)/Field Management Unit (FMU) will contact BBSSS, GP and Zilla Parishad (ZP) / Govt. Educational Institutes, Health Centres, etc. in order to have a clear idea about the land availability for the TPOFA sub-component.

DMU through FMU may also collect information about the available land area in the Division under PWD/Irrigation dept. /Panchayat land/ Govt. Institutional land in the selected DMUs.

Additionally, land information can also be sourced from existing Forest Protection Committees (FPCs) from their micro-plans through Focused Group Discussion (FGD).

Criteria for selection of an area will be as follows:

- The availability of minimum eligible area.
- Areas to be planted should be Govt. owned land and not under any private ownership.
- The willingness of the community/institution to participate.
- Priority to the region where inhabitants are economically backward.

Gram Panchayat & Ban-o-Bhumi Sanskar Sthayee Samiti (BBSSS) and the respective Line Department, if any, have to be intrinsically involved in the site selection process.

3.2 Identification of beneficiaries

Field Management Unit (FMU) will organize awareness camps on TPOFA, its deliverables and possible benefits for the communities.

FMU in consultation with GP, will prepare the lists of Beneficiaries and the nominees of beneficiaries for EC (the nominees of beneficiaries for EC should not be more than six).

The EC shall approve the list of beneficiaries.

Executive Committee (EC) shall comprise of the following members as per Wbfd's notification No.: 2204-For/D/1/6M-7/93:

- a. *Sabhapati* or any member of *Bon-o-Bhumi Sanskar Sthayee Samiti* nominated by the Sabhapati
- b. *Gram Pradhan* or any member of local *Gram Panchayat(s)* as may be nominated by the *Pradhan(s)*
- c. Elected representatives of beneficiaries (not exceeding 6)
- d. Beat Officer - Member Secretary

In Forest Fringe areas, if functional and strong FPCs exist who depend on forests and have some suitable Govt. land available for plantation in the area, the same FPCs can be selected as beneficiary groups.

The villages which already have a few functional Self Help Groups (SHGs), who can take up nursery activities for plant production, may also be considered.

However, the above selection process shall not be applicable in case of Govt. Educational Institutes, Health Centres, etc.

In such cases the Head of the Institute, in consultation with the FMU shall prepare the implementation plan specifying benefit sharing mechanism within the institute. Emphasis should be laid on non-deployment of outside labourers for the implementation of the sub-component in an institute.

Responsibilities of EC

The EC will carry out the following responsibilities :

- Help FMU in selecting land for Plantation
- Help FMU in selecting beneficiaries/BGs
- Help in selecting of species for plantation
- Coordinate between FMU and BGs
- Resolve disputes, if any
- Monitor the progress of works on regular basis
- Suggest any corrective measures to FMU/BG

In case of Govt. Educational Institutes, Health Centres, etc., the Institute, shall carry out the following responsibilities:

- Help FMU in selecting land for Plantation
- Help in selecting of species for plantation
- Resolve disputes, if any
- Monitor the progress of works on regular basis
- Suggest any corrective measures to FMU

3.3 Selection & formation of Beneficiary Groups (BG)

Individual BGs shall also be formed from the list of selected beneficiaries and shall be approved by the EC. The number of individual beneficiaries in one BG should be preferably in between 6-25. This has a reference to G.O. No. 2204-for/D/1/6M-7/93 dated 12.05.1995. It is also suggested that the beneficiary group may be preferably restricted to the norm of not more than 5 beneficiaries per ha.

3.4 Letter of Consent by BG through EC

BG will submit, to FMU a Letter of Consent (**Annexure I**) signed by all the members of the BG and duly counter signed by all the members of EC. The Head FMU on satisfaction will approve and accept the same.

In case of Govt. Educational Institutes, Health Centres, etc., the Head of Institution, will submit, to FMU a Letter of Consent (**Annexure II**) duly signed by him. The Head FMU on satisfaction will approve and accept the same.

The Head FMU will forward the approved and accepted copy of Letter of Consent (LOC) to the Head of DMU for record.

3.5 Preparation of TPOFA Implementation Plan

FMU would prepare a comprehensive Implementation Plan for TPOFA for each plantation site (and not for each BG) in participation with BGs and ECs or with Govt. Educational Institutes, Health Centres etc. as the case may be.

The TPOFA plan will contain following items:

- i. Title of the Implementation Plan
- ii. Model of Plantations
- iii. Objectives
- iv. Location of the land area selected (with Lat/Long)
- v. A village Mouza map in annexure to locate the selected site
- vi. Land & Soil characters
- vii. Targets- Physical & Financial
- viii. List of beneficiaries identifying each BG and its corresponding management area (not applicable for Govt. Educational Institutes, Health Centres etc.)
- ix. Selected plant species list with their economic value
- x. Propagation technique of the species
- xi. Plan of training of nursery technique to the SHG/Beneficiary group
- xii. Creation Plan (yearly stating season & number of plants)
- xiii. Maintenance plan
- xiv. Harvest plan for final felling
- xv. Harvest plan for Non-wood products (grass, fruits, bark, oil seeds etc.)
- xvi. Monitoring plan with Half-yearly/ Yearly Progress Report format

The prepared TPOFA plan must be approved by the DMU before implementation.

3.6 Implementation of field works

The field works under the TPOFA sub-component can be divided into three stages:

- i. Nursery
- ii. Out Planting
- iii. Maintenance & Protection

3.6.1 Nursery

The nursery should be established near to the selected site of plantation to minimize transport cost. High Land area, having fertile soil with adequate provision of regular water supply, should be preferred for nursery establishment.

The BGs / Govt. Educational Institutes, Health Centres, will have the responsibility for establishing a field nursery.

The material including insecticides, fertilizers, polybags, good quality soil & manure, rope, bamboo, tin, watering can, thatch etc. would be provided to the BGs / Govt. Educational Institutes, Health Centres, by the FMU.

The nursery beds, preferable of size 4.0 m x 1.2 m will be of sunken type. The seedlings will be grown in polythene tubes of size 8.0 cm x 4.0 cm. The potting mixture should preferably have a mix of cow dung manure/compost and good earth. It is suggested that about 10-15% more seedlings should be

grown, keeping margin for casualties. The payment however will be made on the basis of 1600 seedlings per ha of notional area.

Germination should be induced in mother beds, but the larger seeds can be dibbled in the polythene tubes directly.

The nursery works should start in the month of January of each year. The planting material should be ready by the month of June/July.

The success of the plantation also depends on the health and size of the seedlings. It is therefore suggested that seedlings of a height of more than 45.0 cm with a well-developed root & shoot system should only be selected for out planting. Lanky and malformed seedlings and seedlings whose potting mix has fallen off, should be discarded.

The seedlings should be shifted on a regular basis to avoid penetration of roots in the soil at nursery. The grading and culling of inferiors should also be undertaken.

3.6.2 Selection of Plant Species for Strip/Block Plantations

Species Selection Criteria

According to the agro-climatic situation and soil characteristics the species will be selected primarily by the BG /Govt. Educational Institutes, Health Centres in consultation with FMU. The species for either model (B1 or B2) may have one or more of the following qualities:

- Should have good fuel/fodder/timber quality
- Shade providing
- Fruit bearing or oil yielding
- Aesthetically attractive
- Economically important
- Medicinal value
- Soil fertility enriching
- Quick growing
- Capacity to combat pollution

It is also suggested that :

- Maximum species combination should not exceed 4-6, which can be managed better
- Indigenous plant species should be preferred to introduced or exotic species.
- Combination with bamboo may be explored in Block plantations, if cost permits.

3.6.3 Out Planting

The general spacing for TPOFA is 2.5 m x 2.5 m as per project document. Though in North Bengal 2m x 2m, while in embankment planting in the Sunderbans 1.25 m x 1.25 m is generally followed, the uniform spacing of 2.5 m x 2.5 m should be followed strictly.

Pits of the size 60 cm + 45 cm / 2 x 45 cm x 45 cm should be dug well before the onset of monsoon.

The area should be cleaned of weeds prior to out planting. The area should also be fenced with live fence of Ipomoea, Acacia, Vitex or Arundo spp. Attempts may also be taken to raise brushwood fence before planting, if cost permits.

For strip plantation, the 1st row of the plantation (row counted from the road/canal) on either side of the road/ canal should be preferably planted with fruit and ornamental trees.

The plantation will be maintained with four cleaning, mulching and weeding in the year of creation.

The material including insecticides, fertilizers, fencing materials etc. would be provided to the BGs / Govt. Educational Institutes, Health Centres, by the FMU.

For undertaking afforestation programme in Government Educational Institutes, Health Centres etc. under B2 Model in a particular year, FMUs can be entrusted with the responsibility of raising the required number of seedlings under its control and supervision.

3.6.4 Maintenance & Protection

A feeling of partnership among the beneficiaries must be developed in order to provide best protection of the plantations.

The BGs /Govt. Educational Institutes, Health Centres, will be responsible for protection of plantations. The BGs / Govt. Educational Institutes, Health Centres, will get requisite fund for watch and ward.

The monetary support for this activity is built in the cost norm to which the BG / Govt. Educational Institutes, Health Centres, will be entitled on raising each hectare of plantation.

The following maintenance works will be carried out in the subsequent year of creation :

- 1st year maintenance will have three cleaning, mulching, weeding and infilling
- 2nd year maintenance will have two cleaning, mulching, weeding and infilling
- 3rd year maintenance will have one cleaning, mulching and weeding.

In addition, provisions for maintenance and repairing of fencing will be available during the 1st, 2nd and 3rd years of maintenance.

The BGs / Govt. Educational Institutes, Health Centres, would ensure maintenance/protection of the plantations without any damage to road /canals, bridges/culvert etc.

3.7 Management of Plantations

The plantation activity will be considered to be completed in following stages:

Advance work – consisting of nursery works, survey & demarcation, digging of pits (part) including site cleaning

Creation Works – consisting of digging of pits (balance part), filling pits, transplanting, 4 weeding, cleaning & mulching, erection of live hedge and/or brush wood fencing, watch & ward and beating up of casualties.

Mulching will be done to conserve moisture, to improve the fertility and health of the soil and to reduce weed growth. Mulch is a layer of material applied to the surface of an area of soil.

In creation work, soil is to be burrowed with the help of a pick-axe and a spade all around the plant over width of 45 cm in order to break capillary action and to conserve moisture for the plant. Sometimes it is needed to apply chemical fertilizers as per direction to promote growth of the seedling in the juvenile stage.

1st Year Maintenance - beating up of casualties, 3 weeding, cleaning & mulching, watch & ward, maintenance of live fence etc.

2nd Year Maintenance - beating up of casualties, 2 weeding, cleaning & mulching, watch & ward, maintenance of live fence etc.

3rd Year Maintenance - beating up of casualties, 1 weeding, cleaning & mulching, watch & ward, maintenance of live fence etc.

The rotation of B1 and B2 plantations should be generally seven years, subject to the following conditions:

- (i) The girth at breast height should not be less than 45.0 cms
- (ii) At least 10% of the fruit bearing and flowering spp. should be retained. However, all fruit bearing spp. may also be retained if the BG / Govt. Educational Institutes, Health Centres, desires so.
- (iii) The Tussar host trees, if any, may also be retained if BG / Govt. Educational Institutes, Health Centres, desires so.
- (iv) For strip plantation, the 1st row of the plantation (row counted from the road/canal) on either side of the road/ canal together with all fruit and ornamental trees will be retained and will never be harvested destructively.
- (v) Only sustainable collection of fruits/bark and seeds will be allowed and the trees will be retained without any damage.

4. Sale of Produce from the Plantation

The sale of trees on maturity will be carried out by auction as per GO No. 2098-For Dated 14.05.2010. The BGs / Govt. Educational Institutes, Health Centres, shall have the right over the lops & tops (all produce having a girth of less than 10.0 cm), bark and leaves of the same.

5. Sharing of Benefit

Plantation Block/strip will be handed over to GP in the 3rd year or thereafter (after 3rd year's maintenance) but monitoring of the plantations by FD in addition to that by BG should continue till the maturity.

This would not be applicable in case of Plantation (Block/Strip) created by Govt. Educational Institute, Health Centres etc.

The FMU will provide the yearly maintenance cost till 3rd year to the BG/ Govt. Educational Institute, Health Centres, provided the plantation survival percentage would be as per norms, i.e. 80% in 1st year and 70% in 3rd year (B1) and 80% in 1st year and 75% in 3rd year (B2). The maintenance cost will

get reduced on prorata basis to the survival percentage. The BG in turn will distribute the same amongst the beneficiaries

Collection of leaves, fallen twigs, grass, fruits, mushrooms, medicinal plant parts, etc. without destructive means, may be made by the beneficiaries from the plantation site of their particular BG.

Rearing of Tussar through Disease Free Laying (DFL) Eggs may be allowed on host plants. The beneficiaries will enjoy 100% benefit from such cultivation.

The final harvest of tree for timber will be sold and benefit sharing process will be as per amendment to Govt. Notification No. 2914-For dated 22.07.1986 issued vide Notification No. 2098 – For dated 14.5.10

After deduction of direct cost of establishment, maintenance etc., balance amount will be shared as follows:

- 50% will be used by the FD for taking up greening areas where no plantations exist.
- 25% shall be transferred to Gram Panchayat for taking up Developmental works in local area.
- 25% will be distributed amongst the beneficiaries.

This would not be applicable in case of Plantation (Block/Strip) created by Govt. Educational Institute, Health Centres etc.

6. Project Monitoring & Evaluation

The FMU will maintain a plantation journal for each plantation site (and not for each BG) and will keep photographic records of the plantation from time to time.

The beneficiaries / Govt. Educational Institute, Health Centres etc. would have to regularly monitor the plantations and submit a report to FMU, every six months (September & March), through EC (directly in case of Plantation created by Govt. Educational Institute, Health Centres etc.) about theft/poaching/or illegal cutting of the trees if any at the earliest, in writing.

In addition, the Monitoring wing of the Directorate of Forests shall monitor the survival % and growth of the trees in 1st and 3rd year of the plantation. However, the disbursal of the maintenances for 1st and 3rd year shall be based on the report of Monitoring jointly conducted by the FMU and BG/GP/ Govt. Educational Institute, Health Centres etc. The fund for monitoring the plantations shall be provided from the project.

7. Training

FMUs will impart training to BGs / Govt. Educational Institute, Health Centres etc & GPs on the following :

- Accounting procedure of the usufruct share to be handled by them.
- Nursery Technique for better planting material production
- Sustainable harvest of fruits, seeds and other NTFPs

FMU will also provide proper guidance for implementing TPOFA at beneficiary level and the subject would cover duties and responsibilities of individual beneficiaries, and EC/GP/BBSSS/ Govt. Educational Institute, Health Centres etc.

8. Financial

8.1 Mode of Payment

The payment, in lump sum, will be made to the accounts of the BG / Govt. Educational Institute, Health Centres etc by FMU by drawing A/C Payee cheques in phases on completion of each stage of an activity. The number of phases, in which the amount is to be paid, stages and indicative month for payment of each phase have been shown below :

Activity	No. of Phases	Indicative Month of Payment	Phase	Stages
Advance Work	In Two Phases	January & March	1 st Phase	On getting the work started for Nursery establishment
			2 nd Phase	On getting the seedlings raised & digging of pits (part)
Creation Work	In Five Phases	May, July, September, December & March	1st Phase	Digging of balance pits
			2 nd Phase	Filling of pits & transplanting
			3 rd Phase	2nd Weeding cleaning Mulching
			4 th Phase	4th Weeding cleaning Mulching
			5 th Phase	Assessment in March
1 st Year Maintenance	In Three Phases	July, October & March	1st Phase	Beating up of casualties and 1st Weeding cleaning Mulching
			2 nd Phase	3rd Weeding cleaning Mulching
			3rd Phase	Assessment in March
2 nd Year Maintenance	In Two Phases	August & December	1st Phase	2nd Weeding cleaning Mulching
			2 nd Phase	Assessment in September
3 rd Year Maintenance	In One Phase	September	1st Phase	Assessment in September after Weeding cleaning Mulching

8.2 Accounts of BG/Govt. Educational Institute, Health Centres, etc.

BGs/ Govt. Educational Institute, Health Centres etc. shall be trained to manage funds in an efficient and transparent manner. Funds shall be transferred to BGs / Govt. Educational Institute, Health Centres etc. in a phased manner by FMU on the basis of their approved plan.

The performance of BGs / Govt. Educational Institute, Health Centres etc. shall be assessed by the FMU on an annual basis.

The accounts of BG / Govt. Educational Institute, Health Centres etc. shall be operated jointly by one Member of BG / Govt. Educational Institute, Health Centres etc. and a Member of the Executive Committee, duly authorized by the Executive Committee/ Head of the Govt. Educational Institute, Health Centres etc. In addition, another member of the BG / Govt. Educational Institute, Health Centres etc. (other than the first Member) shall be nominated as the Treasurer. Information regarding these nominees shall be communicated to the FMU.

The BG will be responsible to make payments to individual beneficiary of the beneficiary Group and will submit a copy of the record of disbursement to the FMU for records.

8.3 Cost for labour and material

The base costs, for both labour and material, to carry out advance, creation and maintenance works, have been calculated on the basis of rates as on May, 2011. The number of plants to be planted in 1 ha (notional area) is fixed as 1600 nos.

Model plantation	Base Cost (Rs./ha)			Cost to be paid to BG on completion of every stage per seedling. (Rs.)
	Labour (Rs.)	Material (Rs.)	Total (Rs.)	
Strip Plantation				
Advance work	4680.00	1320.00	6000.00	2.93
Creation work	24360.00	2980.00	27340.00	15.22
1 st Yr Maint.	12360.00	580.00	12940.00	7.72
2 nd Yr Maint.	9360.00	200.00	9560.00	5.85
3 rd Yr Maint.	7920.00	240.00	8160.00	4.95
Total	58680.00	5320.00	64000.00	36.67
Block Plantation				
Advance work	4680.00	1320.00	6000.00	2.93
Creation work	21480.00	2980.00	24460.00	13.41
1st Yr Maint.	10440.00	580.00	11020.00	6.52
2nd Yr Maint.	7440.00	200.00	7640.00	4.65
3rd Yr Maint.	6000.00	240.00	6240.00	3.75
Total	50040.00	5320.00	55360.00	31.27

The base rate has been converted to actuals for the year 2014-15, 2015-16, 2016-17, 2017-18, 2018-19 & 2019-20, giving effect to price escalation as provided under the Project. The year-wise rates have been shown in **Annexures III & IV**.

The rates at which the phase wise payments will be made are detailed in **Annexures V & VI**. These rates may, however, get modified in exceptional cases, with concurrence of Project Management Unit of WBFBC Project.

Annexure I

Letter of Consent to be signed by the members of the BG

To,
The Head

_____ FMU

West Bengal Forests & Biodiversity Conservation Project,

Sub: Consent letter for implementing subcomponent "Tree Plantation Outside Forest Area (TPOFA)"

Dear Sir,

With due respect, we would like to give our consent for implementation of the project subcomponent "**Tree Plantation Outside Forest Area** ' under the project entitled, **West Bengal Forests & Biodiversity Conservation Project** in the selected land for **Strip/Block** Plantations.

We, the beneficiaries understand the benefits that will accrue from the activity and ensure our full and integrated support for implementation of the project in our area /selected land.

We the beneficiaries understand that:

- I. Under TPOFA component, planting of trees on the land identified by the GP will be carried out by the _____ FMU with our active participation.
- II. The technical and financial support for the same will be provided by _____ FMU as per the norms of the project.
- III. We will receive, through _____ FMU, the financial support for raising planting stock, creation of plantations and its maintenance up to 3rd year at a fixed rate as prescribed under the project.
- IV. The financial support will be given to us, in phases, at a fixed rate as prescribed under the project.
- V. After completion of the 3rd year maintenance or conveniently thereafter, the plantation will be handed over to the GP.
- VI. Following the transfer of plantations to the GP the beneficiary group will have right to enjoy the benefits from the plantations sustainably but will not acquire any other right on the land.
- VII. Upon the transfer of plantation, _____ FMU would continue to monitor the plantations on yearly basis till the maturity of the trees (as prescribed) and EC would monitor on half yearly basis and report to FMU about the performance of the plantation.
- VIII. Any particular plantation may be retained and any particular plantation transferred to GP may be resumed for specific public purpose by the Government.
- IX. The plantations will be harvested and disposed of on maturity by the DMU in consultation with BBSSS of the Panchayat Samity. Provided that, harvesting of the plantation may be done by competent authorities of Govt. even before maturity for public purpose.
- X. The direct costs of establishment, protection, maintenance, harvesting of plantations and subsequent reforestation at the same site, shall be deducted from total sale value of the final harvest as per norms of the Govt. orders *in vogue*.
- XI. The balance amount shall be distributed among BG, GP & Forest Department in the ratio of 25% : 25%: 50% respectively.
- XII. For strip plantation, the 1st row of the plantation (row counted from the road/canal) on either side of the road/ canal together with all fruit and ornamental trees will be retained

and will never be harvested destructively. Only sustainable collection of fruits/bark and seeds will be allowed and the trees will be retained without any damage.

Having understood the above clauses, we are willing to undertake the following responsibilities:

- I. Production of planting material with technical and financial support from _____ FMU.
- II. Establishment of the plantation with technical and financial support from _____ FMU.
- III. Maintenance of the plantations and protection of the same from theft/damage/illegal felling etc. upto its maturity.
- IV. Reporting to the member secretary of EC/FPC or GP members about theft/ damage/ felling in plantations & submission of monitoring report to FMU on six monthly basis (September & March).

We assure that the above responsibilities will be sincerely carried out by us to make the project successful in all respects.

Sl. No.	Beneficiaries' Names	Father's name	Signature/LTI

Counter signed

Members of EC

Sl. No.	Name of members with designation	Signature

Approved & Accepted

Head of FMU with Seal & Date

Annexure II

Letter of Consent to be signed by the Head of Institution

To,
The Head

_____ FMU
West Bengal Forests & Biodiversity Conservation Project,

Sub: Consent letter for implementing subcomponent "Tree Plantation Outside Forest Area (TPOFA)"

Dear Sir,

With due respect, we would like to give our consent for implementation of the project subcomponent "**Tree Plantation Outside Forest Area**" under the project entitled, **West Bengal Forests & Biodiversity Conservation Project** in the selected land for **Strip/Block** Plantations.

We understand the benefits that will accrue from the activity and ensure our full and integrated support for implementation of the project in our area /selected land.

We understand that:

- I. Under TPOFA component, planting of trees on the land identified by the Institute will be carried out by the _____ FMU with our active participation.
- II. The technical and financial support for the same will be provided by _____ FMU as per the norms of the project.
- III. We will receive, through _____ FMU, the financial support for raising planting stock, creation of plantations and its maintenance up to 3rd year.
- IV. The financial support will be given to us, in phases, at a fixed rate as prescribed under the project.
- V. We will have right to enjoy the benefits from the plantations sustainably.
- VI. _____ FMU would continue to monitor the plantations on yearly basis till the maturity of the trees (as prescribed) and the Institute would monitor on half yearly basis and report to FMU about the performance of the plantation.
- VII. The plantations will be harvested and disposed of on maturity by the DMU in consultation with the Institute, if the Institute so desires.
- VIII. The direct costs of establishment, protection, maintenance, harvesting of plantations and subsequent reforestation at the same site, shall be deducted from total sale value of the final harvest as per norms of the Govt. orders *in vogue*.
- IX. The balance amount shall be distributed between Institute & Forest Department in the ratio of 50% : 50% respectively.
- X. For strip plantation, the row of the plantation with all fruit and ornamental trees will be retained and will never be harvested destructively. Only sustainable collection of fruits/bark and seeds will be allowed and the trees will be retained without any damage.

Having understood the above clauses, we are willing to undertake the following responsibilities:

- I. Production of planting material with technical and financial support from _____ FMU.
- II. Establishment of the plantation with technical and financial support from _____ FMU.

- III. Maintenance of the plantations and protection of the same from theft/damage/illegal felling etc. upto its maturity.
- IV. Reporting to the FMU about theft/ damage/ felling in plantation & submission of monitoring report to FMU on six monthly basis (September & March).

We assure that the above responsibilities will be sincerely carried out by us to make the project successful in all respects.

Head of Institute's Name	Father's name	Signature with Seal & Date

Approved & Accepted

Head of FMU with Seal & Date

Annexure III

Cost of Strip Plantations (B1) with Escalations

Base Cost				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	4,680	1,320	6,000
2	Creation Work	24,360	2,980	27,340
3	1st Year Maintenance	12,360	580	12,940
4	2nd Year Maintenance	9,360	200	9,560
5	3rd Year Maintenance	7,920	240	8,160
	TOTAL	58,680	5,320	64,000
2012-13				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	5,488	1,407	6,895
2	Creation Work	28,565	3,177	31,741
3	1st Year Maintenance	14,493	618	15,112
4	2nd Year Maintenance	10,976	213	11,189
5	3rd Year Maintenance	9,287	256	9,543
	TOTAL	68,808	5,671	74,479
2013-14				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	6,435	1,500	7,935
2	Creation Work	33,495	3,386	36,881
3	1st Year Maintenance	16,995	659	17,654
4	2nd Year Maintenance	12,870	227	13,097
5	3rd Year Maintenance	10,890	273	11,163
	TOTAL	80,684	6,045	86,730
2014-15				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	7,546	1,599	9,145
2	Creation Work	39,276	3,610	42,886
3	1st Year Maintenance	19,928	703	20,631
4	2nd Year Maintenance	15,091	242	15,334
5	3rd Year Maintenance	12,770	291	13,060
	TOTAL	94,611	6,444	1,01,055

2015-16				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	8,848	1,705	10,553
2	Creation Work	46,055	3,848	49,903
3	1st Year Maintenance	23,368	749	24,117
4	2nd Year Maintenance	17,696	258	17,954
5	3rd Year Maintenance	14,974	310	15,283
	TOTAL	1,10,940	6,870	1,17,810
2016-17				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	10,375	1,817	12,192
2	Creation Work	54,004	4,102	58,106
3	1st Year Maintenance	27,401	798	28,199
4	2nd Year Maintenance	20,750	275	21,026
5	3rd Year Maintenance	17,558	330	17,888
	TOTAL	1,30,089	7,323	1,37,412
2017-18				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	12,166	1,937	14,103
2	Creation Work	63,325	4,373	67,698
3	1st Year Maintenance	32,131	851	32,982
4	2nd Year Maintenance	24,332	293	24,625
5	3rd Year Maintenance	20,588	352	20,941
	TOTAL	1,52,542	7,806	1,60,348
2018-19				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	14,266	2,065	16,331
2	Creation Work	74,255	4,661	78,917
3	1st Year Maintenance	37,676	907	38,584
4	2nd Year Maintenance	28,532	313	28,844
5	3rd Year Maintenance	24,142	375	24,517
	TOTAL	1,78,871	8,322	1,87,192
2019-20				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	16,728	2,201	18,929
2	Creation Work	87,072	4,969	92,041
3	1st Year Maintenance	44,179	967	45,146
4	2nd Year Maintenance	33,456	333	33,790
5	3rd Year Maintenance	28,309	400	28,709
	TOTAL	2,09,744	8,871	2,18,615

Annexure IV

Cost of Block Plantations (B2) with Escalations

Base Cost				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	4,680	1,320	6,000
2	Creation Work	21,480	2,980	24,460
3	1st Year Maintenance	10,440	580	11,020
4	2nd Year Maintenance	7,440	200	7,640
5	3rd Year Maintenance	6,000	240	6,240
	TOTAL	50,040	5,320	55,360
2012-13				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	5,488	1,407	6,895
2	Creation Work	25,187	3,177	28,364
3	1st Year Maintenance	12,242	618	12,860
4	2nd Year Maintenance	8,724	213	8,937
5	3rd Year Maintenance	7,036	256	7,291
	TOTAL	58,677	5,671	64,348
2013-14				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	6,435	1,500	7,935
2	Creation Work	29,535	3,386	32,921
3	1st Year Maintenance	14,355	659	15,014
4	2nd Year Maintenance	10,230	227	10,457
5	3rd Year Maintenance	8,250	273	8,523
	TOTAL	68,805	6,045	74,850
2014-15				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	7,546	1,599	9,145
2	Creation Work	34,633	3,610	38,242
3	1st Year Maintenance	16,833	703	17,535
4	2nd Year Maintenance	11,996	242	12,238
5	3rd Year Maintenance	9,674	291	9,965
	TOTAL	80,680	6,444	87,125

2015-16				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	8,848	1,705	10,553
2	Creation Work	40,610	3,848	44,458
3	1st Year Maintenance	19,738	749	20,487
4	2nd Year Maintenance	14,066	258	14,324
5	3rd Year Maintenance	11,344	310	11,654
	TOTAL	94,606	6,870	1,01,475
2016-17				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	10,375	1,817	12,192
2	Creation Work	47,619	4,102	51,721
3	1st Year Maintenance	23,145	798	23,943
4	2nd Year Maintenance	16,494	275	16,769
5	3rd Year Maintenance	13,302	330	13,632
	TOTAL	1,10,935	7,323	1,18,258
2017-18				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	12,166	1,937	14,103
2	Creation Work	55,838	4,373	60,211
3	1st Year Maintenance	27,139	851	27,990
4	2nd Year Maintenance	19,341	293	19,634
5	3rd Year Maintenance	15,597	352	15,950
	TOTAL	1,30,082	7,806	1,37,888
2018-19				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	14,266	2,065	16,331
2	Creation Work	65,476	4,661	70,138
3	1st Year Maintenance	31,824	907	32,731
4	2nd Year Maintenance	22,679	313	22,992
5	3rd Year Maintenance	18,289	375	18,665
	TOTAL	1,52,534	8,322	1,60,856
2019-20				
Sl. No.	Activity	Labour	Material	Total
1	Advance Work	16,728	2,201	18,929
2	Creation Work	76,777	4,969	81,746
3	1st Year Maintenance	37,316	967	38,284
4	2nd Year Maintenance	26,593	333	26,927
5	3rd Year Maintenance	21,446	400	21,846
	TOTAL	1,78,861	8,871	1,87,732

Annexure V

Rates for Phase-wise Payments under Strip Plantations (B1) with Escalations

Labour														Total Material per ha	Total Cost per ha
Creation 2014-15							Payments (Rs.)								
	Adv	Cre	Y1 Maint	Y2 Maint	Y3 Maint	TOTAL	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total per seedling	Total Labour per ha		
2013-14	6435						1.9	2.12				4.02	6432	1,500	7,932
2014-15		39276					4.5	4.5	4.5	4.5	6.55	24.55	39280	3,610	42,890
2015-16			23368				4.5	4.5	5.6			14.6	23360	749	24,109
2016-17				20750			6	6.97				12.97	20752	275	21,027
2017-18					20588		12.87					12.87	20592	352	20,944
110418							110416							6,486	1,16,902
Labour														Total Material per ha	Total Cost per ha
Creation 2015-16							Payments (Rs.)								
	Adv	Cre	Y1 Maint	Y2 Maint	Y3 Maint	TOTAL	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total per seedling	Total Labour per ha		
2014-15	7546						2.2	2.52				4.72	7552	1,599	9,151
2015-16		46055					5	5	5	5	8.78	28.78	46048	3,848	49,896
2016-17			27401				5.5	5.5	6.13			17.13	27408	798	28,206
2017-18				24332			7	8.21				15.21	24336	293	24,629
2018-19					24142		15.08					15.08	24128	375	24,503
129476							129472							6,914	1,36,386

Labour														Total Material per ha	Total Cost per ha
Creation 2016-17							Payments (Rs.)								
	Adv	Cre	Y1 Maint	Y2 Maint	Y3 Maint	TOTAL	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total per seedling	Total Labour per ha		
2015-16	8848						2.5	3.03				5.53	8848	1,705	10,553
2016-17		54004					6	6	6	6	9.75	33.75	54000	4,102	58,102
2017-18			32131				6.5	6.5	7.08			20.08	32128	851	32,979
2018-19				28532			8	9.83				17.83	28528	313	28,841
2019-20					28309		17.7					17.7	28320	400	28,720
151823							151824							7,371	1,59,195

Annexure VI

Rates for Phase-wise Payments under Block Plantations (B2) with Escalations

Labour														Total Material per ha	Total Cost per ha	
Creation 2014-15							Payments (Rs.)									
	Adv	Cre	Y1 Maint	Y2 Maint	Y3 Maint	TOTAL	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total per seedling	Total Labour per ha			
2013-14	6,435						1.90	2.12				4.02	6,432	1,500	7,932	
2014-15		34,633					4.00	4.00	4.00	4.00	5.65	21.65	34,640	3,610	38,250	
2015-16			19,738				4.00	4.00	4.34			12.34	19,744	749	20,493	
2016-17				16,494			5.00	5.30				10.30	16,480	275	16,755	
2017-18					15,597		9.75					9.75	15,600	352	15,952	
92,897														92,896	6,486	99,382
Labour														Total Material per ha	Total Cost per ha	
Creation 2015-16							Payments (Rs.)									
	Adv	Cre	Y1 Maint	Y2 Maint	Y3 Maint	TOTAL	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total per seedling	Total Labour per ha			
2014-15	7,546						2.20	2.52				4.72	7,552	1,599	9,151	
2015-16		40,610					5.00	5.00	5.00	5.00	5.38	25.38	40,608	3,848	44,456	
2016-17			23,145				4.50	4.50	5.46			14.46	23,136	798	23,934	
2017-18				19,341			6.00	6.09				12.09	19,344	293	19,637	
2018-19					18,289		11.43					11.43	18,288	375	18,663	
1,08,930														1,08,928	6,914	1,15,842

Labour														Total Material per ha	Total Cost per ha
Creation 2016-17							Payments (Rs.)								
	Adv	Cre	Y1 Maint	Y2 Maint	Y3 Maint	TOTAL	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total per seedling	Total Labour per ha		
2015-16	8,848						2.50	3.03				5.53	8,848	1,705	10,553
2016-17		47,619					5.50	5.50	5.50	5.50	7.76	29.76	47,616	4,102	51,718
2017-18			27,139				5.00	5.00	6.96			16.96	27,136	851	27,987
2018-19				22,679			7.00	7.18				14.18	22,688	313	23,001
2019-20					21,446		13.40					13.40	21,440	400	21,840
1,27,732							1,27,728							7,371	1,35,099