GOVERNMNET OF MEGHALAYA

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

Evaluation Study on Plantation Scheme under National Afforestation Programme for last 10 years in Meghalaya
FINAL REPORT

Submitted by

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EVALUATION STUDY ON

National Afforestation Programme (NAP)

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Executive Summary

Executive Summary of
National Afforestation Programme (NAP) of Meghalaya

1.1. Introduction

Meghalaya is predominantly a tribal state situated in the North eastern region of the country having more or less a tropical climate and a rugged physiographic condition ranging from l50m to 1950m. In terms of tribal composition the state has three distinct regions namely Garo Hills, Khasi Hills and Jaintia Hills.

The recorded forest area of the state is 9,496 Sqkm. Out of this reserve forest constitutes 11.71%, Protected Forest 0.13% and un-classed forests 88.16% of the total forest area. Control of un-classed forests rests with Autonomous District Councils. The forests of the state are rich in Biodiversity and endowed with rare species of orchids and medicinal plants. There are two National Parks and 3 wildlife sanctuaries covering an area of 433.68 sqkm. which constitutes 1.36% of the state's geographical area.

In terms of Forest density classes, the state has 410 sqkm of very dense Forest, 7,410 sqkm of open forests and 9,510 sqkm. of moderately dense forests.

National Afforestation and Eco-development schemes are implemented in those degraded / moderately dense forests and 7,410 sq. kms of open forests.

Under NAEB, JFMC started in the state in 2003 vide government Notification No FOR.64/99/186 & FOR 62/2000/239 Dtd. 9th September 2003 and actual work started from 2004-05 and are continuing. The progress and performance of the programme overall is encouraging.

1.2. Need and scope of this report

The land tenure system of the state is different from that of other parts of the country, as a result major part of the land and forest area is under the control and management of community, local bodies, private parties or individual. Forest department of the state controls only about 11.84% of the total forest area of the state.

To mitigate this shortcoming, Government had taken up various programmes, through Forest Development Corporation and Social forestry wing of forest Department to take up plantations in open forest and various degraded forest areas of the state. But those efforts were found to be insufficient in comparison to the destruction caused to the forests due to various biotic causes including fire and grazing.

Therefore, preservation of environment has gained attention not only by Government and Social scientists but also of other non-governmental organizations at various fora. It was felt at all levels that it is essential to augment the existing degraded forest areas, particularly catchments areas of various river sources to protect soil erosion and to maintain water regime.

The concept of Joint Forest Management (JFM) regime has evolved gradually since the formulation of National Forest Policy, 1988 and JFM circular dated 1st June 1990. In the year 2002-03, the National Afforestation and Eco-development Board (NAEB) of Ministry of Environment & Forests, Government of India initiated the National Afforestation Programme (NAP) to support the JFM regime in the country. Supplementing livelihoods by creating community assets, value addition to forest produce and capacity building of Communities are the tenets of this scheme.

To replenish this forest assets of the state, Government of Meghalaya has taken advantage of this programme of National Afforestation and Eco-development Board and this NAP has been started in the state of Meghalaya by taking community, as a partner to reproduce and rejuvenate the forest areas of the state from the year' 2003. Nine (9) Forest Development Authorities (FDA) were formed in the state and JFMCs were formed under these FDAs. These JFMCs formed by different communities have taken up massive plantation works in their respective areas in collaboration with the state government from the year 2004-05. Since it is almost l0 yrs that this programme was started in the state it has been decided to evaluate the progress of NAP plantation in the state and hence this evaluation study.

1.3. Forest area:-

The recorded forest area of the state is 9,496 sqkm1. Reserved forest constitutes 11.7% Protected forests 0.13% and un-classed forests 88.16% of the total forest area. Control of un-classed forests rests with the Autonomous District Councils of Khasi, Jaintia and Garo Hills. The forests of Meghalaya arc rich in biodiversity and endowed with species of orchids and medicinal plants.

1.4. Protected areas:-

Meghalaya has two National parks, and three wild life sanctuaries covering an area of 433.68 sqkm which constitutes about I.93% of the state's total geographical area.

1.5. Forest cover:-

The forest covers in the State, based on interpretation of Satellite data of October 2006 - March 2007, is 17,321sqkm which is 77.23% of the states geographical area. In terms of forest canopy density classes, the state has 410 km2 very dense forest, 7410 km2 open
forests. The distribution of forest cover is shown below:-

Sl no.	Forest Density Class	Geographical Area (%)
1	Very Dense forest (VDF)	1.83
2	Moderately Dense forest (MDF)	42.36
3	Open forest (OF)	33.04
4	Scrub Forest	0.94
5	Non forest	21.83

1.6. OBJECTIVES OF NATIONAL AFFORESTATION PROGRAMM ACTIVITIES:

1.6.1. Short term objectives

Regeneration and eco-development of the degraded forests of the village and its adjoining areas. Augmentation of the availability of fuel wood, fodder and grasses from these regenerated areas. Securing people's participation in planning & regeneration process to ensure sustainability and equitable distribution of forest products from the regenerated forests.

- To encourage agro-forestry and development of common property resources.

- To promote efficient use of fuel wood and to reduce the drudgery of rural women involved in collection of wood and also to improve environment \.
- Convervation and improvement of non-timer forest produce viz., bamboos, cane, medicinal plants and medicinal fruits, fruits etc.
- Encourage production of non-timber products such as honey, nuts etc from the regenerated areas.
- Developed waters resources through plantation
- Development and extension of improved technologies
- Rehabilitation of special problem land i.e. steep hill slopes, river banks etc.
- Employment generation for rural mass

1.6.2. Long term objectives

- Protection and conservation of natural resources through active involvement of people
- Checking land degradation, deforestation and loss of biodiversity
- Ecological restoration and environmental conservation and eco-development.
- Fulfillment of broader objective of productivity, equality and sustainability for the general good of the people
- Improve quality of life and self-sustenance aspect of people living in and around forest areas.

1.6.3. Expected benefits

- To check and prevent further soil erosion by way of planting different local tree
- Species and improve water regime of the area.
- To preserve existing mixture of Forest Cover and Biodiversity.
- To earn better livelihood, by sale of usufructs.
- To generate employment opportunities to the local people.

1.6.4. Vision

It is expected that on maturity these forests will be able to provide alternative job other than shifting cultivation within the village and can have a decent living having sufficient to eat, clothes to wear, water to drink, school to educate, with good health & sound mind.

1.6.5. Resolution

Joint forest management committee works were started in the state of Meghalaya vide Government of Meghalaya's order no NO. FOR.64/99/186 Dated Shillong, the 9th September 2003.

1.7. JOINT FOREST MANAGEMENT (JFM) IN MEGHALAYA

Whereas the Government of Meghalaya is concerned about the degradation of forests and forest eco systems in the State due to unsustainable biotic pressure;

And whereas, the State Government aims to halt the degradation of forests in the State and improve these by protecting the existing forests and undertaking forest based resource development programmes and re-stocking the degraded forests.

And whereas the State Government feels that active participation and involvement of the people is essential for protection of existing forests and successful implementation of afforestation and aided regeneration schemes and forest based resource development programmes;

And whereas the management of forests and wild biodiversity areas needs to be improved;

Now, therefore, the Governor of Meghalaya, in consultation with the Jaintia Flills Autonomous District Council, Khasi Hills Autonomous District Council and Garo Hills Autonomous District Council, is pleased to announce the implementation of 'Joint Forest Management' (JFM) in the State as per the following directives:

1.7.1. OBJECTIVES OF JOINT FOREST MANAGEMENT (JFM) :

- to elicit the active participation of local communities for regeneration of degraded forests in their neighborhood by undertaking afforestation, Aided natural regeneration and conservation of wild bio-diversity.
- To involve local communities in improving the environment in the state and country
- To elicit and ensure the cooperation of location population to halt declining trend in the forest cover and degradation of eco-systems.

- To ensure proper synergy between th technical expertise and infrastructure of the Forest & Environment Department and traditional knowledge and untapped human resources of local tribal communities to ensure conservation of wild bio-diverse resources as well as to expand forest cover in the State by undertaking afforestation /regeneration programme on barren and degraded lands.

1.7.2. AREAS TO BE COVERED UNDER JOINT FOREST MANAGEMENT:

- Degraded forest areas including those owned by communities, clans and individuals
- Any other land which has ecological significance or which needs management intervention on ecological / environmental considerations.

1.7.3. TYPES OF WORK PROPOSED TO BE EXECUTED THROUGH JOINT FOREST MANAGEMENT:

- Artificial regeneration to be undertaken on baren lands existing in the State.
- Aided natural regeneration measures to be undertaken for restocking of degraded forests.
- Forest & wildlife protection.
- Various entry point activities to elicit and ensure continued co-operation between local communities and Forest & Environment Department / Autonomous District councils. Such activities may include creation of community assets like roads and culverts, water harvesting structures, sheds for schools and community halls etc. and the total expenditure on these shall not exceed the norms prescribed in the scheme /work concerned.
- Any other work including that related to protection of environment and management of eco-systems, which may be assigned by Forest Authorities of the State Government and the Autonomous District Councils.

1.8. Involvement of Women and SC/ST in the Programme

The state of Meghalaya is predominantly inhabited by Khasi, Jaintia & Garo community who has been declared as Scheduled tribes and the land belongs to them as such all activities are

done by these communities. So it is the scheduled tribe community who are benefited due to this programme.

As it is well known, among the tribal people there is no gender bias at the same time as per tribal tradition of the state, women are the owner of the land and men folk are protecting the land on behalf of the women as a result women are involved in all activities starting from selection of plantation sites, species selection, planting of seedlings, entry point activities, they take active part in meetings etc.

1.9. Implementing Agencies

For implementing the scheme as per Government of Meghalaya's OO No FOR.62/2000/239 Dt 9th September 2003 Forest Development Agencys were formed in the Nine Forest Divisions of the state for implementing the National Afforestation Programme (NAP) as per the guidelines of National Afforestation and Eco development Board (NAEB).

1.10. Salient features of different Forest Divisions – as indicated in the Statement

1.11. Conclusion

The National Afforestation Programme (NAP) project in Meghalaya has been performing very well. People's participation is also excellent and the targeted people are very much involved.

Their co-operation and participation in every operation under NAP is encouraging. In some Joint Forest Management Committee (JFMC) the people participation is so excellent that the self help groups are maintaining fishery ponds full of healthy fishes which are their source of income. They are also rearing honey bee besides other economic activities.

During the visit to the JFMC villages, group discussions were held with the villagers who have expressed strong determination for protection of the forest they have created and assured to protect the forest at any cost. This shows the concern the villagers have towards the NAP.

There are nine numbers of FDAs formed in the state under which there are 359 JFMCs with 40618 households. The total area of plantation raised is 30572 hectare which shows the people's positive participation as well as contribution towards the success of the NAP project.

Statement showing the salient points of different Forest Divisions

Sl. No.	Name of FDAs	Reserve Forest Area in Sqkm	Project cost in Rs Lakhs	Nos. of JFMCs	Area covered in Ha.	Membership in terms of Household	Grading	Involvement of women (in %)
1	Jaintia Hills Territorial FDA	311.21	208.21	19	1050	1021	Very Good (6.75)	33.98
2	Jaintia Hills SF FDA	311.21	490.02	32	2470	5734	Very Good (7.40)	34.98
3	West Khasi Hills SF FDA	31 Ha	1149.19	53	5962	5358	Very Good (8.00)	50.02
4	East Khasi Hill SFDA	18.65	471.96	48	3045	8819	Very Good (7.08)	45
5	Khasi Hills Wildlife FDA	125.91	341.66	16	2390	1533	Very Good (7.33)	43.46
6	North Khasi Hills SF FDA	126.35	592.70	78	3480	8740	Very Good (7.58)	47.71
7	East Garo Hills FDA	155.36	549.92	45	3960	1245	Very Good (7.75)	45
8	West Garo Hills SF FDA	19.21	673.32	42	4715	4272	Very Good (7.75)	35.08
9	South Garo Hills SF DA	91.18	625.92	29	3500	3896	Very Good (7.58)	47.71
			5102.9	**362**	**30572**	**40618**		

Replies to Comments on the Evaluation study of NAP

Annexure - I

Annexure - I

Replies to comments on the Evaluation Study of NAP

1. Total area covered year wise furnished in Table I

2. Target area to be covered year wise furnished in Table I

3. Area covered under plantation year wise furnished in Table I

TABLE I

TABLE SHOWING AREA COVERED YEAR-WISE TOTAL PLANTATION RAISED / TOTAL AREA COVERED BY ALL THE FOREST DEVELOPMENT AGENCIES OF MEGHALAYA FROM THE PERIOD 2004-05 TO 2013-14 IN HA.

Years	East Garo Hills FDA		East Khasi Hill SFDA		Khasi Hills Wildlife FDA		Ri Bhoi FDA		Jaintia Hills Territorial FDA	
	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
2004-05	570	570	620	620	-	-	-	-	-	-
2005-06	430	430	380	380	-	-	650	650	-	-
2006-07	500	500	315	315	-	-	550	550	-	-
2007-08	500	500	510	510	-	-	650	650	-	-
2008-09	-	-	-	-	-	-	300	300	650	650
2009-10	750	750	100	100	-	-	250	250	-	-
2010-11	450	450	140	140	840	840	150	150	-	-
2011-12	365	365	380	380	1200	1200	250	250	420	400
2012-13	395	395	600	600	350	350	400	400	-	-
2013-14	-	-	-	-	-	-	280	280	-	-
	3960	3960	3045	3045	2390	2390	3480	3480	1070	1050

Cont…

TABLE I (cont..)

	Jaintia Hills SF FDA		South Garo Hills SF DA		West Khasi Hills SF FDA		West Garo Hills SF FDA		Total Plantation Raised by all te FDAs w.e.f. 2004-05 to 2013-14	
Years	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)	Target (in Ha.)	Achievement (in Ha.)
1	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
2004-05	-	-	-	-	600	600	600	600	2390	2390
2005-06	900	480	500	500	500	500	600	600	3960	3540
2006-07	-	420	500	500	750	750	550	550	3165	3585
2007-08	430	430	600	600	300	300	700	700	3690	3690
2008-09	420	420	1000	1000	900	900	200	200	3470	3470
2009-10	220	200	-	-	150	150	-	-	1470	1450
2010-11	120	120	400	400	1200	1200	700	700	4000	4000
2011-12	150	150	250	250	600	600	500	500	4115	4095
2012-13	250	250	250	250	522	522	365	365	3132	3132
2013-14	260	-	-	-	440	440	500	500	1480	1220
	2750	2470	3500	3500	5962	5962	4715	4715	30872	30572

Total area covered by all the FDAs of the state of Meghalaya is 30572 ha. Or 30572 sqkm

4. Number of nurseries raised per Hectare

Sl. No.	Treatment of the Area	Number of plants / Ha.
1	Artificial Regeneration	1100 / ha.
2	Bamboo Plantation	625 / ha.
3	Mixed Plantation	1100 / ha.
4	Cane Plantation	625 / ha.
5	Pasture Development	400 / ha.
6	Regeneration of Herbs of Medicinal value	2000 / ha.

Nurseries are generally raised centrally; however number of seedlings required and planted per ha. has already been indicated in the "Plantation Norms" given in Table II.

TABLE II

ABSTRACT OF THE PLANTATION NORMS APPROVED FOR NATIONAL AFFORESTRATION PROGRAMME FOLLOWED BY ALL THE FOREST DEVELOPMENT AGENCIES IN THE STATE OF MEGHALAYA

	Items of Works	Aided Natural Regeneration (200 plants / ha.)	Artificial Regeneration (1100 plants / ha.)	Bamboo Plantation (625 plants / ha.)	Mixed Plantation (1100 plants / ha.)	Cane Plantation (625 plants / ha.)	Regeneration of Herbs & Medicinal Value (2000 plants / ha.)	Pasture Development (400 plants / ha.)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
A	Advanced Works	3920	6300	4200	6300	4200	8400	3920
B	1st Year Creation	2800	4900	2240	4900	2800	5600	2240
C	2nd Year Maintenance	980	2100	980	2100	1260	2100	1400
D	3rd Year Maintenance	700	1260	560	1260	980	1260	1120
E	4th Year Maintenance	420	840	420	840	560	840	840
F	5th Year Maintenance	280	560	280	560	560	840	840
G	Soil & Moisture (15%)	1365	2394	1302	2394	1554	2856	1554
H	Monitoring & Evaluation, Micro Planning, Fencing, Awareness raising (10%)	910	1596	868	1596	1036	1904	1036
I	Over Head 10%	910	1596	868	1596	1036	1904	1036
J	Entry Point Activities	4000	4000	4000	4000	4000	4000	4000
	Grand Total	16285	25546	15718	25546	17986	29704	17986

PRESCRIBED NORMS UNDER VARIOUS SCHEMES UNDER NATIONAL AFFORESTRATION PROGRAMME

Sl. No.	Items of Works	Aided Natural Regeneration (200 plants / ha.)	Artificial Regeneration (1100 plants / ha.)	Bamboo Plantation (625 plants / ha.)	Mixed Plantation (1100 plants / ha.)	Cane Plantation (625 plants / ha.)	Regeneration of Herbs & Medicinal Value (2000 plants / ha.)	Pasture Development (400 plants / ha.)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Advance Work - Survey and Demarcation	140	140	140	140	140	140	140
2	Jungle Clearance, slash burning, Pruning, hoeing, Pit digging and staking	1000	1050	1050	1050	1050	1050	1050
3	Improved Technology 25% of Plantation and maintenance cost	1982	2296	1260	2296	1260	2380	1480
4	Nursery (including 20% casualty replacement for plantation) advance work, creation and maintenance	448	2464	1400	2464	1400	4480	900
5	Camp hut & Inspection path	350	350	350	350	350	350	350
	Total "A"	3920	6300	4200	6300	4200	8400	3920

5. Beneficiaries / Joint Forest Management Committee covered year wise

Total of JFM committee and households covered /benefitted in each Forest Development Agency till date has been shown in the Table III

TABLE III

FOREST DEVELOPMENT AGENCIES OF MEGHALAYA AT A GLANCE

Sl no.	Name of FDAs	No. of JFMCs	Nos. of Household/ Beneficiaries	Amount spent	Total Area covered /Plantation raised
1	Jaintia Hills Territorial FDA	19	1021	208.21	1050
2	Jaintia Hills SF FDA	32	5734	490.02	2470
3	West Khasi Hills SF FDA	53	5358	1149.19	5962
4	East Khasi Hill SFDA	48	8819	471.96	3045
5	Khasi Hills Wildlife FDA	16	1533	341.66	2390
6	North Khasi Hills SF FDA	78	8740	592.70	3480
7	East Garo Hills FDA	45	1245	549.92	3960
8	West Garo Hills SF FDA	42	4272	673.32	4715
9	South Garo Hills SF DA	29	3896	625.92	3500
		362	40618	5102.9	30572

6. Cost of seedlings supplied to beneficiaries:-

Since the seedlings has been raised centrally and supplied to the JFMCs no separate record has been maintained for different types of seedlings supplied to different JFMCs.

7. Number of labour engaged per hectare:

This cannot be specified as for various different works requirement of labour is different. However fund is allotted by the department for different works as shown in Table II.

8. Wages per labour

As specified in the approved scheme Rupees 100/- is paid per man day.

9. Total amount of wages incurred:-

No such record has been maintained by the FDAs, However forestry activities are labour intensive. Daily labour is engaged at every step of plantation works starting from seed collection, seed drying, nursery creation, bed making, transplanting, preparation of poly bag nursery, carriage of seedlings in field, staking in field, pit digging, planting weeding in

nursery stage as well as in field plantations etc, in all these activities approximately 85% of the approved amount is spent on payment of daily wages.

10. Maintenance cost :

Maintenance of the plantations were done/incurred as per approved plantation norms as in Table II

11. SWOT analysis of the scheme:-

The objective of SWOT analysis is to identify the most important internal and external factors in the four groups Strengths, Weaknesses, Opportunities & Threats.

Strengths

- Supplementing livelihood by creating community assets.
- Value addition to forest produced.
- Improvement of natural Forest and increase in vegetation covered.
- Various forest based livelihood profession like honey collection boxes, broom grass, plantation, fishery ponds etc.
- Soil and water conservation activities.
- Use of improved technology
- Employment generation for rural mass.
- Improvement of non timber forest produces like bamboos, cane, medicinal plants, medicinal fruits etc.
- Production of non timber products such as honey, nuts etc.
- Encourage agro forestry.
- Promote efficient use of fuel wood.
- Checking of land degradation and deforestation.
- Ecological restoration and environmental conservation.
- Improvement of quality of lives.
- Community participation for common good,
- Involvement of women.
- Capacity Building of Community.

Weakness

- Resistance to change

- Landuse Change
- Personal Shortage

  During evaluation it has been observed that in many of the JFMCs, plantations has been done with maintenance work. However, few entry point activity has been taken up in some divisions due to shortage of fund. CEO informed that pending entry point activity works would be done whenever fund is released.

- Plantation, planting, weeding and protection money may be released during January by the Govt. to the FDA. When the money is released during June, by then planting season is almost over in this climatic conditions.

- During survey it has been observed that none of the JFMCs village development fund has been created. So it is suggested Village development fund may be created immediately.

- However, it is found that number of meetings held is below normal requirements as executive committee meetings are to be held once in every three months and general body meetings are to be held once in a year, reason being non receipt of fund from the NAEB regularly.

Opportunity

- Improvement of income from production of Honey, Mushrooms , Forest fruits, Medicinal and aromatic plants etc.
- Environmental awareness on forest management.
- Training on afforestation and forest management.
- Expansion of forest covered.
- Improving of forest structure like forest roads, soil conservation, fishery, flood control and irrigation schemes.
- Suitable members from the JFMCs may be provided opportunities in Forestry jobs.
- Some income generating schemes like fishery, piggery, dairy etc may be taken in every JFMC for their sustainability.
- Some interested JFMC member may be trained in different professions viz., Apiculture, Tailoring, Mat making, Floriculture etc

Threats:

- Lack of fund for investment.
- Lack of fund for forest management.

12. It is obvious that increase in forest area is bound to improve environment. This increase in vegetation cover is supposed to reduce soil erosion, reduce surface run off, improve water holding capacity of ground etc.

13. Whether the implementation of the schemes has any impact on:
    - Any forestry plantation is bound to improve natural forest/vegetation stock.
    - This may not improve unit tree productivity but it is bound to increase biomass production per unit area.
    - Plantations are generally not done on agricultural or otherwise useful lands. However forestry plantations are taken up on denuded and abandoned shifting cultivated lands.
    - In Meghalaya problem lands are mainly limited to mining areas which are taken up as and when suggested by the JFMC members.
    - Various forest based livelihood professions yiz Honey collection boxes, Broom grass plantations; fishery ponds etc are been provided under entry point activities.
    - Plantations are mainly taken up on degraded forest lands through joint forest Management committees which are decentralized participatory institutions.
    - Since the plantations are still too young benefits from the plantations are limited to collection of small wood, honey, fruits, firewood and fodder.
    - Support is extended, as and when various development departments including DRDA require any support.

14. Improved Technologies or practices have been employed during
    - Improved technologies at nursery are used by using various hormones, cuttings, various manure and bio-fertilizers.
    - In forestry plantations irrigation is hardly used. However, soil and water conservation techniques are practiced and has been used at the plantations by way of constructing contour bands, contour trenches, with boulders, bamboos, gully plugging in steep slopes, etc.

- Bio-fertilizers & Root trainers are used at nursery level. Hormonal treatment is used on a limited scale where cuttings and rhizomes are used as planting stock, especially in case of bamboo nursery.
- Under improved technologies all the FDAs has constructed green houses with sprinkler irrigation facility for boosting growth to nursery seedlings.
- In many of the JFMCs power tillers are used for preparation of nursery beds and other forestry activities as and where possible.
- During pre-planting & planting stage in the field, use of improved technologies is very limited. However fencing is done where problem of cattle grazing is common.
- Fire protection measures are used during fire season in plantations, as fire damage
- tends to reduce growth of planted seedlings, sometimes burning whole plantation.

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DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME (NAP)

East Garo Hills Social Forestry Division

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CHAPTER I

INTRODUCTION

1.1. General

East Garo Hills district is situated in the middle of the state of Meghalaya having an Geographical area of 1490 Sq Km. The district is situated approximately between the latitudes 25°24' and 26° 10' N and the longitudes of 90° ' and 91°.30'' E .The Garo Hills district was divided into two districts, viz. the West Garo Hills district and the East Garo Hills district during October 1976. The erstwhile West Garo Hills district was further divided into two administrative districts of West and South Garo Hills on June 1992. The district was created on October 22, 1976 vide Govt. Notification no HPL 399/75/140 dated October 9,1976 with Headquarters at **Williamnagar**. which is located in a beautiful natural surrounding at the foot of Rangira hills.

1.2. Boundary

The East Garo Hills district is, bounded by the West Khasi Hills district on the east, the South Garo Hills on the South & south-east, the North Garo Hills district on the north and north-west and West Garo hills district on the west. The North Garo Hills District has been curved out of erstwhile East Garo Hills District with an area of 1,113 Sq Kms.

Earlier to bifurcation**,** the East Garo Hills district was bounded on the north by the Goalpara district of Assam, on the South & West by the West Garo Hills district and the east by the West khasi hills district .It is situated between the $25^0$24"and $26^0$10"N latitude and between $90^0$3" and 91^0 East longitude. The district covers an area of 2,603 Sq.km having a population of 1,88,830.

Majority of the people of the district are Garos , who are the original inhabitants of the district. They believe in the existence of supreme beings. At present most of the Garos have embraced Christianity. Most of the Garos follow the slash and burn method of cultivation thereby causing immense damage to the Biodiversity of the district.

The East Garo hills district is pre-dominantly inhabited by the Garos, a tribe with a matrilineal society belonging to the Bodo family of the Tibeto-Burman race . Other indigenous inhabitants are the Hajongs, Rabhas, Koches, Rajbansis, Meches, Kacharis and

Dalus. The district is also inhabited by Bengalis, Assamese, Nepalese, Marwaries, Biharis and people from other parts of India.

1.3. Topography

The East Garo Hills district is mostly hilly with plains fringing the northern, western and the south-western borders. The major part of the district comprises rugged hills The district boasts of one of the longest river of the state with its tributaries i.e Simsang. There is hardly any lake in this district, worth mentioning except Tashek which has been formed during the earth quake of 1897 near Songsak.

1.4. Rivers flowing to the North

Ildek :- this starts from Papira hills crosses over to Goalpara and falls to Bramhaputra

Dudhnoi : it is also known as Manda. It starts from Jamge Village runs through Imbanggre
and connects with Chira river.

Krishnai: also known as Damring. It starts from Arbella peak which runs through Rongrang via thapa village and falls to Bramhaputra.

Jinari also known as Didram. It starts from Dolonggre village runs through Rari, Gokolgre, Bajongdoba and enters Goalpara.

Didak: it starts from Anogre village and flows to Bramhaputra.

1.5. Forests of the district:-

Forest occupies a large part of the geographical area of the district, where the life of the tribal population is linked and governed by the forests. The tribal people enjoy their customary rights over the forests. The district is having an area of 1914.54 Sq kms of land under different class of forests(58.38% of total area), out of which about 360.27 Sq kms of forest land are degraded(as per 2001 FSI report). The district is having about 155.37 Sq kms of area under Reserved Forests The forests outside the Govt. reserved forests are administered by the Garo Hills Autonomous District Council.

Depletion of forest cover and biodiversity is a serious cause of concern and if this trend continues the district is sure to face acute environmental and hydrological problems in near future. To arrest this trend of degradation of forests & biodiversity Government has initiated a number of schemes *viz*, Village reserved forest scheme, National Afforestation

scheme, Greening India scheme etc. This degradation of biodiversity has taken a great toll on the medicinal plants reserve of the district. To regain some of the lost biodiversity and valuable wealth of medicinal plants and to provide affordable treatment to the rural mass of the district National Medicinal Plantation Board Proposes to take up some innovative schemes under its ambit. A State Medicinal plantation Board has also been created very recently to encourage cultivation of various locally available and locally used medicinal plants.

A critical analysis on forests of East Garo Hills district gives the following pictures. Reserved forests 155.36 sqkm Nokrek National parks occupies a sizable portion of the district and plantation forest is 2,899 hectares. Life of the local people is very much linked to the forests of the district.

All the State Government owned, Reserve Forests, protected forests and National Parks are having dense Forests; only about 15% of the dense forests grow in private forests and community lands. The second category of forests are open forests and are not very useful because they cannot provide both tangible and intangible benefits to the people. The lands under this category are often prone to soil erosion that leads to gradual denudation of land, besides adverse climatic conditions. The existing forest cover is far less than the average set by the National Forest policy and most of the areas in the district need urgent attention so far as afforestration is concerned. The problem may be countered only by massive afforestation and protecting the existing forests.

1.6. Major forest types seen

On the basis of Rainfall, Altitude, Temperature the following forest types can be noticed. The district has mostly dense tropical mixed forest, and a small patch of temperate forest in the higher parts of the Nokrek range.

1.6.1. Sal forest

Forests of East Garo Hills are predominantly sal forests with *Gmelina arborea, Schima wallichii,*etc. According to Champion and Seth the forests of East Garo Hills conforms to ***North Indian Tropical Moist Deciduous Kamprup alluvial Sal forests (3c/c2d (iv) .***

1.6.2. Bamboo forests

In this *Melocana Bamboocoides* is the predominant species with some scattered trees of *Schima wallichii, Gmelina arbores Mallotus* spp. Etc. They occur abundantly in any suitable areas and is distributed all over the district. Predominant species seen are Bambusa Species, Dendrocalamus species ,melocana Species. In the reserved forests they form middle storey of evergreen climax forests. ***T***his type conforms to ***Northern Tropical Semi Evergreen forests and secondary moist bamboo brakes.*** These bamboos form the secondary succession in abandoned jhum lands.

1.6.3. Cane Brakes

Various cane species can be seen in the moist areas of the forests. These canes can be seen near moist areas ,nears nallas,and streams and even in moist forest floor. The four main species found are calamus species, creeping bamboo, Neohouzeaura and palms. The species composition varies according to localities having different site factors.

1.6.4. Grass lands

Grass lands can be seen in the mining areas with patches of evergreen forests on the valleys of hillocks. Saplings of *Schima wallichii* , *Woodfordia fruticosa* ,*Indigofer puldhella* and *Berbaris* Spp. occurrence of species varies depending on aspect altitude, soil depth and moisture availability. Rest of the areas are covered by grasses like sachram spp, Imperta spp ,and broomstick. These grasslands represent retrogated sub-climax vegetation which has come up due to biotic and edaphic factors and have replaced earlier vegetation.

1.6.5. Deforested areas

These comprise of habitations ,grazing lands, fallow and abandoned Jhum lands. The last two types of areas give rise to either

- Open grass lands
- Fully or partially degraded open forests
- Areas colonized by bamboos or euphorbiaceous scrub, depending on the type of jhumming practised earlier on them and on the site conditions.

1.6.6. Euphoribiaceous Scrub forests

These type of Forests can be seen in moist shady areas not colonized by bamboos or cane. In these areas typical association of Macaranga,Mallotus and Trema can be seen.

1.6.7. The Reserve Forest areas under East Garo hills are

SL No	Name of the Reserve Forest	Area on Sq Kms
1	Rongrangre R.F	36.36
2	Songsak R.F	23.34
3	Darugri R.F.	10.88
4	Chima Bangshi R.F.	23.08
5	Dhima R.F	20.72
6	Rajasimla R.F.	18.13
7.	Dilma R.F.	2.13
8	Dambu R.F.	18.13
9	Ildak R.F.	2.59
	Total	**155.36**

1.7. A short note on Nokrek National Park

Nokrek National Park is located in the Garo Hills of Meghalaya, covering an area of 47.46 sq.km. The NP area extends over rugged terrain and constitutes a principal watershed for the three districts of Garo Hills. Nokrek came into prominence after several wild relatives of cultivated citrus (such as *Citrus indica*) were discovered in its rainforests. Nokrek contains a rich variety of animal species specialized for a rainforest existence such as slow loris, Himalayan squirrel, clouded leopard and binturong. It is also one of the important elephant habitats in Meghalaya. The pressures on the area include poaching, occasional timber-felling, illegal NWFP collection including cane, medicinal plants and agar wood and fire hazards from surrounding jhum areas. 128 villages (approximate population of 40,000) have been identified that depend on the NP for various purposes. Dominant land uses in the area are horticulture, shifting cultivation and collection of medicinal plants.

1.8. Grading

Grading of Project on a scale of 1 to 10

Sl No	Heads	Details	Grading
1	Quantitative aspect	Physical	7
		Financial	8
2	Qualitative Aspect	Survival	6
		Health of plantations	7
		Maintenance	7

Sl No	Heads	Details	Grading
		Sustainability	8
3	JFM	Degree of peoples participation	9
		Satisfaction over perceived benefits by the local people	9
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA	7
		Role of FDA in administrative, supervisory and Monitoring mechanism of the project	7
		Flow of funds from FDA to VFCs	9
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs	9

Over all Grading of the project	Outstanding	Very Good	Good	Poor
	---	7.75	---	-------

Chapter II

PROJECT PROFILE

2.1. Project Title

National Afforestation Programme.

2.2. Project Implementing FDA

East Garo Hills Social Forestry Division Forest Development Agency, East Garo Hills District, Williamnagar, Meghalaya, Social Forestry circle, Meghalaya

2.3. Project Location

The area falls under the whole of East Garo hills & North Garo hills District covering the following CDs. Samanda C D Block, Songsak C D Block,Rongjing C.D. Block, Reshu C.D. Block, KharkutaC.D.Block Bajengdoba RLC, Williamnagar RLC, Rongjing RLC, Kharkuta RLC

2.4. Project Cost

Project cost till 31st March 2014 is Rs 549.92.Lakhs. This is an ongoing project.

2.5. Incumbents in office for last Ten years were as shown below

Sl No	Incumbents	Period		Phone
		from	to	
1	Sri T.Deb Roy MFS	15.12.2003	18.08.2008	
2	Sri T.P.Marak MFS	18.08.2008	14.10.2009	
3	Sri T.Wanning MFS	14.10.2009	19.04.2012	
4	Sri D.P.Marak MFS	19.04.2012	12.10.2012	
5	Sri S.K.Khar Budnah MFS	12.10.2012	02.09.2013	53658-220397/09485104806
6	Smti R.K.Sangma MFS	02.09.2013	Till Date	

2.6. Functions of the Division

Social Forestry Division mostly concentrated on Afforestation works in Private and Community land outside RFs besides other activities like Awareness Programme on

forests and environment, celebration of Vanamahotsav, World Environment Day, Recreational Forestry Environment and Ecology etc.

2.7. LIST OF THE JFMCs

Sl. No.	Name of JFMC	Name of RLC	Name of Block
1	Rongap A.simgre	WILLIAMNAGAR RLC	Samanda Block
2	Samanda prapgre	WILLIAMNAGAR RLC	-do-
3	Samanda Doktilgre	WILLIAMNAGAR RLC	-do-
4	Samanda Grenang	WILLIAMNAGAR RLC	-do-
5	Samand Wa.getgre	WILLIAMNAGAR RLC	-do-
6	Do.rakgre	WILLIAMNAGAR RLC	-do-
7	Bansambibra	WILLIAMNAGAR RLC	-do-
8	Mandalgre	WILLIAMNAGAR RLC	-do-
9	Samanda Megapgre	WILLIAMNAGAR RLC	-do-
10	Samanda Patranggre	WILLIAMNAGAR RLC	-do-
11	Samda Rongkem	WILLIAMNAGAR RLC	-do-
12	Dalbot Bollonggre	WILLIAMNAGAR RLC	-do-
13	Gongmagre	WILLIAMNAGAR RLC	-do-
14	Retenggre	WILLIAMNAGAR RLC	-do-
15	Bilgripgre	WILLIAMNAGAR RLC	-do-
16	Akelgre	WILLIAMNAGAR RLC	-do-
17	Chiringgro	WILLIAMNAGAR RLC	-do-
18	Rikwareng	WILLIAMNAGAR RLC	Songsak Block
19	Bolmoram Mongri	WILLIAMNAGAR RLC	-do-
20	Tabil Bonegre Cheran Songgatal		Songsak Block
21	Gabil Wagopgre	BAJENGDOBA RLC	Songsak Block
22	Samkalakgre	-do-	Resubelpara Block
23	Remgre	-do-	-do-
24	Do.kegre	-do-	-do-
25	Remgre-B	-do-	-do-
26	Rem A.mate Busu Dare		-do-
27	Rongronggre		-do-
28	Mejolgre Nokat Chambildam	RONGJENG RLC	Rongjeng Block
29	Imtra A.pal	RONGJENG RLC	Rongjeng Block
30	Upper Nongbak	RONGJENG RLC	-do-
31	Dagal A.pal	RONGJENG RLC	-do-
32	Bolmoram A.dinggre	RONGJENG RLC	-do-
33	Napak A.pal	RONGJENG RLC	Songsak Block
34	Bolmoram A.dapgre	RONGJENG RLC	-do-
35	Samin Songkama	RONGJENG RLC	-do-
36	Matranggre	RONGJENG RLC	-do-

Sl. No.	Name of JFMC	Name of RLC	Name of Block
37	Upper Rongbu	KHARKUTTA RLC	Kharkutta Block
38	Rajasimla (Rangga)	KHARKUTTA RLC	
39	A.dokgre	KHARKUTTA RLC	-do-
40	Norangga	KHARKUTTA RLC	-do-
41	Rangga	KHARKUTTA RLC	-do-
42	Rangket	KHARKUTTA RLC	-do-
43	Remgre Songgitcham	KHARKUTTA RLC	-do-
44	Mansang Bamil	KHARKUTTA RLC	-do-
45	Dilma A' ding	KHARKUTTA RLC	-do-

Chapter III

PROJECT EVALUATION

3.1. Introduction

The East Garo hills district is blessed with favorable climatic, topographic and edaphic conditions characterized by abundant and well distributed rainfall.

When the project was launched and fund sanctioned East Garo Hills was a single district subsequently during 2011 the district has been bifurcated into Two ***Viz*** East Garo Hills & North Garo Hills district. However Forest Development Agency remained the same i.e. East Garo Hills Social Forestry Division FDA.

East Garo Hills Social Forestry Division FDA was formed and registered as a society under Meghalaya societies Act,1983(Meghalaya Act XII of 1983) Reg.No EGH/REG/JDR/18/03/79 OF 2003 DATED 3-12-2003..This Forest development agency has been formed according to the Government of Meghalayas O.O.no FOR.62/2000/239 Dt 9th of September 2003.

3.2. Project areas & Locations

The project areas are located within the East and North Garo Hills districts. The villages & JFMCs selected are within the districts. A list of JFMCs selected during the period 2004 to 2013 has been listed at para 2.7.

3.3. Any previous Project

This is an ongoing project launched during the financial year 2004-05 and is continuing.

3.4. Socio economic profiles of villages etc

All inhabitants of the villages are Scheduled Tribes. The villagers are very poor. The villages have vast land under their command, which are mostly denuded grass/unproductive lands, due to over exploitation of land during earlier years; which cannot be used for any gainful purpose except for forestry plantations. The tract falls under ***a) Tropical Moist Deciduous Forests b)Tropical semi ever green Forests with Bamboo.*** The degraded grass lands are now devoid of any tree cover worth mentioning. There is high degree of pressure on the marginal forest areas and as such this requires immediate attention/restoration.

3.5. Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.6. Project Components

To achieve the objectives, in every selected villages Joint Forest Management Committees were formed by the villagers, from among the village committee members and all the works related to the project were undertaken by these JFMC members.

3.7. Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members. All the related works of the plantation were done by the JFMC members as well as villagers of that particular village.

3.8. Creation of JFMC

Joint forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.9. Implementing Agencies

For implementing the scheme as per Government of Meghalayas O.O. no FOR.62/2000/239 Dt 9th of September 2003; Forest Development Agency was formed in the forest division .

3.10. Micro planning

Micro plans were prepared for each JFMCs after conducting a Participatory Rural appraisal exercise among the JFMC members. Group discussions were conducted to select various interventions and species to be planted, entry point activities to be undertaken etc . Out of 42 JFMCs micro-plans for only 32(Thirty Two) has been prepared.

3.11. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be under taken as entry point activity so that JFMCs become self sustained in future, for maintenance of the assets which has been created.

Under Entry point activity in consultation with the villagers following works was under taken

- Road improvement, including bridge construction and linking the village with the PWD roads.
- Construction of fishery ponds for the villagers for rearing of fish for future income generation.
- Supply of goats for goatery and supply of Pigs for Piggery for alternative income generation.
- Supply of Areca nut , coconut seedlings & Bananna plants as demanded by the villagers
- Provided plastic chairs ,utensils for the JFMCs.
- Supply of CGI sheets to the villagers
- Construction of JFM office buildings

Total Expenditure Incurred for entry point Activity **Rs 88,82,615/-**

3.12. Approved programme of works

In accordance to the fund released approved interventions has been carried out in consultation with the villagers, as envisaged in the micro plans.

3.13. Quantitative Analysis

3.13.1. Classification of area covered/treated

Under the East Garo Hills Social Forestry division FDA all the areas treated so far are community owned degraded forest land, breakup of areas treated under different interventions are as :-

(Area in Ha.)

Category	ANR	AR	Cane	Mix Plant	S. Pasture	Bamboo	Total
Forest Land	--	--		--			--
Community land	855	1200	290	555	330	730	3960
Revenue land	--	--		--			--
Govt. waste land	--	--		--			--
Private land	--	--		--			--
Total	855	1200	290	555	330	730	3960

3.13.2. Physical and financial Achievements

Total physical target for the Forest Development Agency for the last Ten years was 3960 ha. of plantations which has been achieved and an amount of Rs549.92 lakhs was spent for this whole period.

3.13.3. Participatory Rural Appraisal/ Micro planning

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation as well as during the preparation of project at every step JFMC members has been consulted and their suggestion /views has been taken into consideration.

- Till date 32 nos of Micro plans has already prepared.
- Till date expenditure incurred for preparation of micro plans are Rs **5.15 lakh** only.

3.13.4. Joint Forest Management - JFM committee

Under the East Garo Hills Social Forestry Division FDA, altogether 42 (Fourty Two) Joint Forest Management Committees has been initiated in 42 villages till date. All the members

of these committees are Scheduled Tribe out of which percentage of participation by women members is 35.08% only. The composition of these committees is as

- No. of villagers where formation initiated in the Division. : 42
- No. of villagers where formal committees establishment in the Division. : 42
- Total number of committees establishment so far in the project areas : 42
- Total membership in terms of household/families : 1245 (house hold)
- Percentage of women, SCs, STs in the JFM committees : 45%

	Male (nos.)	**Female (nos.)**	**Total (nos.)**
Scheduled Caste	**---**	**---**	**---**
Scheduled Tribe	**5943**	**6770**	**12713**
Others	**---**	**---**	**---**
TOTAL	**5943**	**6770**	**12,713**

Under the East Garo Hills Social Forestry Division FDA in some of the JFMCs, village development fund has been created; which is not at all encouraging. The CEO may take initiative to create Village development fund in all the JFMCs. Joint Forest Management committees may be asked to open an account with the local bank.

3.13.5. Meetings

Forest development Agencies and Joint forest management committees were holding General body and Executive committee meetings regularly as per the records available . Following are the number of meetings held by the FDA & JFMCs.

	FDA Meetings	JFMC Meetings	Remarks
Number of General Body Meetings Held	7(Seven)	36 (Thirty Six)	adequate
Number of executive committee meetings held	28(Twenty Eight)	60 (Sixty)	adequate

3.13.6. Records& Registers

Micro planning for each of the JFMCs has been prepared in consultation with JFMC members. During evaluation the following documents and registers has been found **with the FDA** Cash book.

- Cheque issue registers.
- General body meeting & minutes register.

- Executive body meeting and minutes register.
- Fund sanction register
- Membership register etc.

During evaluation the following documents and registers has been found **with the JFMC**

- Cash book.
- Cheque issue register.
- General body meeting & minutes register.
- Executive body meeting and minutes register.
- Plantation journal 6. Nursery Journal.
- JFMC Membership register.etc.

These were found to be adequate as per forestry norms as of now.

3.13.7. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards.

Fund received year-wise under Awareness Raising, Training and Capacity Building as indicated below. No fund for Training & Capacity Building received by the FDA.

Years	Awareness Raising (Rs in Lakh)	Training & Capacity Building (Rs in Lakh)
2004-05	0.34	-
2005-06	0.35	-
2006-07	0.29	-
2007-08	0.73	-
2008-09	-	-
2009-10	-	-
2010-11	0.54	-
2011-12	0.75	-
2012-13	-	-
2013-14	0.77	-

From the beginning of the project during 2004 till date few staff with JFMC members has been trained by the FDA for better understanding the JFMC model of working.

Training Programme conducted	Accounts, Rural Development & related subjects
A. Staff trained	
Number of Staff trained	40 Persons
Topics covered	Rural Development, Forestry & other related Subjects
B. Community	50 JFMC members
Organizations involved	Forest Department, NEHU, IFAD & Line Departments

3.13.8. Monitoring & Evaluation

Number of Inspection made by :-

1. Chief Conservator of Forests :- 5 Times
2. Conservator of Forests :- 10 times
3. Deputy conservator of Forests :- 165 times

The above officers were monitoring the JFMC plantations & other works regularly during past years in course of their visits to different JFMCs on a regular manner. The expenditure incurred on Monitoring & Evaluation upto 2012-13 is Rs 1,99,000/-

CHAPTER IV

SUMMARY OF EVALUATION

4.1. Introduction

This present study by way of evaluation & monitoring of **East Garo Hills Social Forestry Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** is to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the district. Under this Programme focus is to encourage the rural people for protection & conservation of forests by way of extracting financial as well as tangible and non tangible benefits from forests and at the same time protecting the environment and encouraging the villagers in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and creating afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash& burn (Joom) method of agricultural practice.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

4.2. Financial Status

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05.In **East Garo Hills Social Forestry Division FDA** was entrusted to implement the project. Funds Released and spent by the FDA are:-

Year	Financial Achievement (Rs in lakhs)	
	Fund received	Amount spent
2004-05	34.00	34.00

Year	Financial Achievement (Rs in lakhs)	
2005-06	70.00	70.00
2006-07	70.82	70.82
2007-08	90.46	90.46
2008-09	--	--
2009-10	--	--
2010-11	48.88	48.88
2011-12	53.00	53.00
2012-13	40.63	40.63
2013-14	142.13	142.13
Total	**549.92**	**549.92**

4.3. Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 45 and total nos. of beneficiaries is 4272. Therefore, the representative sample size of the division stands at 22 nos. of JFMCs as 50% and around 854 beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which are incorporated in the study report in complete.

Hence the evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the East Garo Hills Social Forestry Division FDA.

During collection of primary field data many plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following are worth mentioning.

4.3.1. Plantation 1

- Patranggri JFMC plantation.(30 Ha. - ANR. AR. Pasture) under Williamnagar RLC falls under Samanda C&RD Block.
- Year of Plantation:- 2007-08
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, under entry point activity a fishery pond jeep able road connecting PWD road with the village has been constructed, the JFMC members has rendered labour from the JFMC.

Overall observation

Plantations are very good in all respects.

4.3.2. Plantation 2.

- Ram-Amta JFMC plantation 20 Ha. under Bajongdoba RLC falls under Resubelpara C&RD Block.
- Year of Plantation:-2009-10.
- Survival percentage:- 65%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity a fishery pond has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation

Plantations are very good in all respects.

4.3.3. Plantation 3.

- Samkhalakgre JFMC plantation 10 Ha. under Bajongdoba RLC falls under Resubelpara C&RD Block.

- Year of Plantation:- 2005-06.
- Survival percentage:- 75% ; height of plantation is about 3.5 mts.
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: plantation is satisfactory, Proper weeding has been carried out. Under entry point activity a fishery pond road connecting PWD road with the village has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantations are very good in all respects.

4.3.4. Plantation 4.

- Gabil-Wagopgre JFMC plantation 25 Ha , Bajongdoba RLC falls under Songsak C&RD Block.
- Year of Plantation:- 2010-11.
- Survival percentage:- 75%; height of plantation is about 4mts.
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: plantation is satisfactory, Proper weeding has been carried out. Under entry point activity a fishery pond has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantations are very good in all respects.

4.3.5. Plantation 5.

- Dokigre JFMC plantation, under Bajongdoba RLC falls under Resubelpara C&RD Block.
- Year of Plantation:- 2007-08.
- Survival percentage:- 75% ; Height of trees is around 4.5.mts.
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: Plantation is satisfactory, only round weeding has been carried out. Under entry point activity a water harvesting structure cum fishery pond has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantations are well stock and very good in all respects.

4.3.6. Plantation 6.

- Adokgre JFMC plantation 20 Hect, under Kharkuta RLC falls under Kharkutta C &RD Block.
- Year of Plantation:- 2001-11.
- Survival percentage:- 75% .
- Health of the plantation:- Well stock, Height of the plants is about 1 mtr.

Observation: plantation is satisfactory, circular/ round weeding has been carried out.

Overall observation: Plantations are well stock and good in all respects.

4.3.7. Plantation 7

- Upper rongbu JFMC plantation 9 Hect , under Kharkutta RLC falls under kharkutta C&RD Block.
- Year of Plantation:- 2007-08.
- Survival percentage:- 75%
- Health of the plantation:- Well stock, Height of the plants is about 2 mtr.

Observation: Plantation is satisfactory, round weeding has been carried out.

Overall observation: Plantations are well stock and good in all respects.

4.4. Performance and manner of implementation of the project:-

The project was launched during the year 2004 with the fund released by National Afforestation & Eco development Board(NAEB), Government of India, to the East Garo Hills Social Forestry Division Forest Development Agency(WGSFFDA),which was registered as a society as per the provisions of Meghalaya Societies Act 1983(Meghalaya Act XII of 1983)during the year 2003.

As per the guidelines of NAEB till date 42 Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.4.1. Project Beneficiaries:

In the whole of the project area as per the record available with the department till date total JFMC members are 4272 heads out of that 1499 are female /women beneficiaries. All the members are belongs to Scheduled Tribe.

4.4.2. Physical progress:-

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guideline have been achieved. Within the first year itself, as mentioned in the project. Implementation models were developed involving beneficiaries to form JFMCs. To have a better understanding of JFMC model of functioning, many workshops and training programmes have been conducted.

4.5. Financial Progress:-

Financial progress is as expected, as no fund has been released in accordance with work schedule.

Physical and Financial achievement

Year	Physical Achievement		Financial Achievement	
	Target	Achievement	Fund Released	Amount Spent
1	2	3	4	5
2004-05	570 ha.	570ha.	34 lakhs	34 lakhs
2005-06	430 ha.	430 ha.	70 lakhs	70 lakhs
2006-07	500 ha.	500 ha.	70.82 laks	70.82 laks
2007-08	500 ha.	500 ha.	90.46 lakhs	90.46 lakhs
2008-09	--	--	--	--
2009-10	750ha..	750ha..	48.88	48.88
2010-11	450 ha.	450 ha.	53 lakhs	53 lakhs
2011-12	365 ha.	365 ha.	40.63 lakhs	40.63 lakhs
2012-13	395 ha.	395 ha.	142.13 lakhs	142.13 lakhs
Total	**3960 ha.**	**3960ha.**	**549.92 lakhs**	**549.92 Lakhs**

4.6. Impact and assessment of the project:-

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, NAP covered 3960 ha. i.e. 0.17% of Meghalaya state including all the components except Herbs/Shrubs. Being survival rate of the plantations standing at 70% green cover has increased to a significant level as noticed in during the field visit.
- People's livelihood in the area has been influenced by several EPAs like Road improvement, including bridge construction and linking the village with the PWD roads.
- The NAP scheme has brought about many changes through plantation activities in terms of forest cover. As per India State of Forest Report 2013, there has been sufficient increase of forest cover across the districts. The landscape and hillock which were earlier barren and devoid of trees have now been brought under forest cover.
- The greenery and growth of forest trees has also changed the lifestyle of the villagers. Most of the men and boys have ended away with age old practices of using catapult for shooting of birds and small animals. Fish poisoning by using local herbs and bark of cereal tree species has been regulated and altogether stopped in many villages.
- With respect to income generation construction of fishery ponds for the villagers for rearing of fish for future, supply of goats for goatery and supply of pigs for Piggery for alternative income generation, supply of Areca nut, coconut seedlings & Banana plants as demanded by the villagers are to taken into consideration.
- Living standard has also been improved by means supplying CGI sheets to the villagers.
- Construction of JFM office buildings, purchasing of plastic chairs and utensils for the JFMCs has also impacted among the villagers for regular discussion at a common place for meeting to understand their collective needs
- Most of JFMCs are concentrated in Samanda Block (17 nos.) followed by Songsak, Resubelpara, Rongjeng and Kharkutta.
- The quality of work in general as observed in different JFMCs had impacted in the minds of the villagers under programmes although at the initial stage due to lack of know how there was little dissatisfaction.

- Almost all the activities i.e. ANR, AR, Cane, Mixed, Pasture and bamboo plantations were taken up except Herbs/shrubs. Artificial Regeneration was covered (1200 ha.) maximum in the division followed by ANR, Bamboo and other plantations.
- Improve and Increase the quality of Forest cover.
- Preservation and protection of catchment areas.
- Sustainable and Alternative livelihood through NTFPs.
- Reclamation of abandoned jhum cultivation areas.
- Reduction in Forest fires.
- Regeneration of barren lands and Conservation of catchment areas.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest
- Employment Generation and Developmental Activities through EPA.
- Introduction of indigenous fast growing species.
- Involvement of local community enhanced after the programme. The people living under this JFMC were very much ready to take up the huge task of afforestation. They readily gave their lands to carry out the plantation work and so highly cooperative in the all the plantation works carried out under this scheme.
- Not only because of Environmental enrichment through extensive afforestation taken up under this scheme but also were people highly satisfied with the developmental works carried out under NAP
- Employment generation of the local community through different livelihood activities under EPAs also motivated the villagers. They were glad to receive the opportunities through NAP.
- Upliftment of economic conditions of the local community by way of employment generation by means of fishery ponds, supply of goats for goatery and supply of pigs for Piggery, supply of areca nut, coconut seedlings & banana plants taking into consideration of demand by the villagers.
- Local communities are involved in the forest based activities.
- All the beneficiaries surveyed believe that this afforestation programme is lucrative and very suitable for the present circumstances.
- All beneficiaries say that they face a lot of difficulties, as in most of the plantations affected by high degree of cattle grazing, not from the same JFMC but from nearby villages.

4.7. Reason for deficiency:

All JFMC members surveyed believe that non receipt of Government fund in proper time for various works is the main reason, as forestry works are time bound and time taking.

4.8. Observations

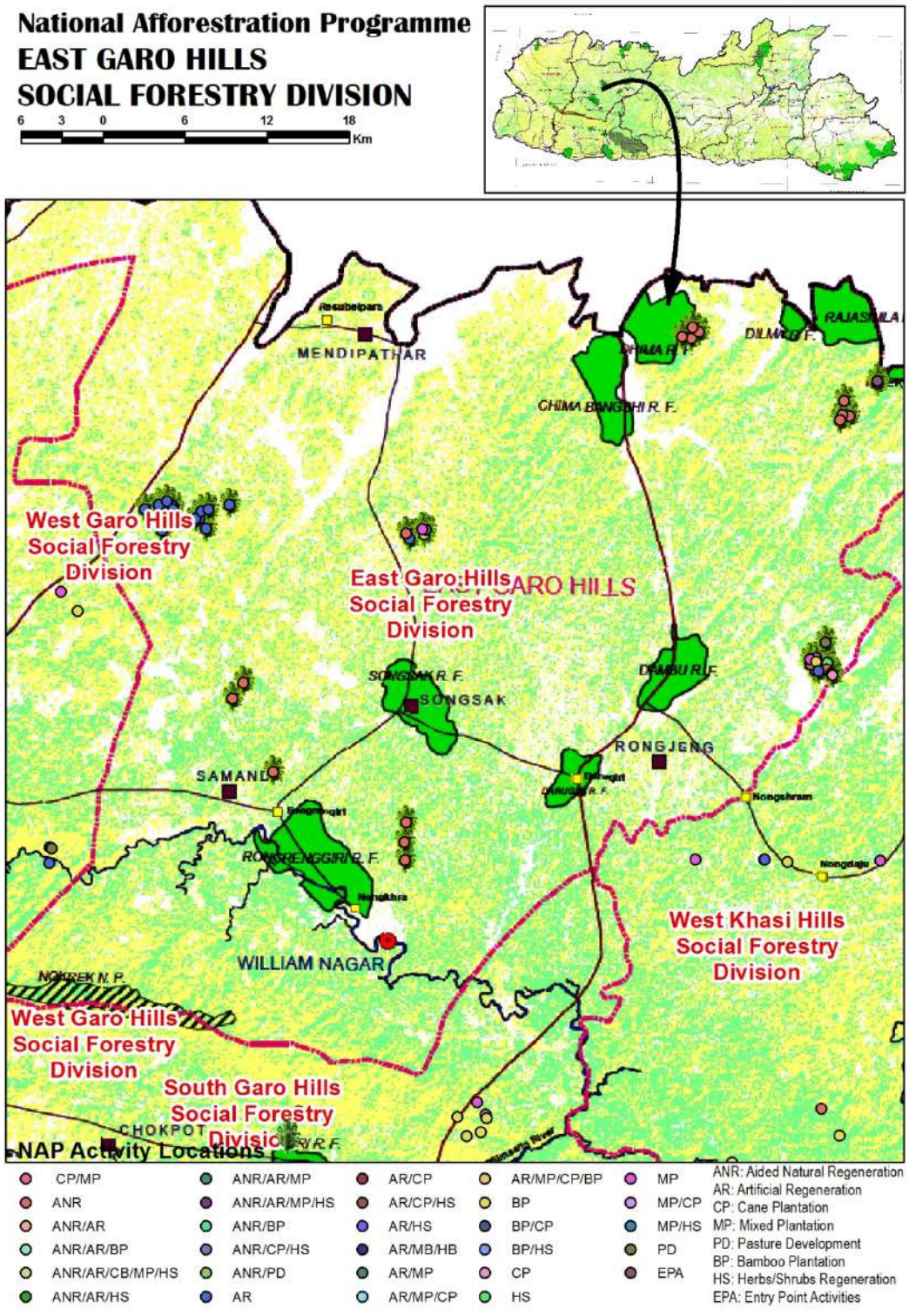
- During evaluation it has been observed that in many of the JFMCs plantations have been done with maintenance. However, CEO informed that due to shortage of fund entry point activities could not be taken up satisfactorily. In many of JFMCs, maintenance of the plantations could be carried out with consistent support of JFMC members. Income generating project/works has been taken up as a result whatever projects have been completed is expected to generate economic benefits to the villager & sustain the JFMCs.
- During the visit to the JFMC villages, group discussion has been held with the villager who has shown strong determination for protection of the forests they have created and assured to protect these forests at any costs.
- During survey it has been observed that in some of the JFMCs '*Village development fund'* has been created. So it is suggested Village development fund may be created to all JFMCs immediately.
- However it is found that number of meetings held are sufficient as per requirements as executive committee meetings are to be held once in every three months and general body meetings are to be held once in a year.
- It is found that regular training was conducted during last 10(Ten) years by the FDA as well as by the Range Level Coordinators. Authorities should conduct more training to the staff as well as to the JFMC members for better understanding and interaction among the rural people and the implementing officers.

4.9. **Suggestions and Recommendations**

- Since the Forestry works are time bound works, so the untimely funding of funds adversely affect the plantation and work and sufficient fund may be provided for fencing and so the funding must be on time.
- Funds may be made available for EPA works and maintenance in order to generate economic benefits to the villagers & sustain JFMCs.
- Village development fund may be created specifically to all JFMCs immediately

- JFMC members may be trained in different profession Viz, Muga, Silk, Eri rearing, Weaving, Tailoring, Pisciculture Apiculture, Food Craft Institute etc.
- Funds may be made available for preparation of micro-plans.
- Special assistance may be give to protect the existing forest by paying some incentives to the Nokma etc.
- JFMC members may be made aware to continue the forestry works voluntarily since it is a time bound works without waiting for the fund for which the payment will be made as & when released in order to avoid the failure of plantation.

4.10. Maps/Photographs



REM-AMATE JFMC EPA WORKS

SAMKALAKGRE JFMC 2005-06 NAP PLANTATION

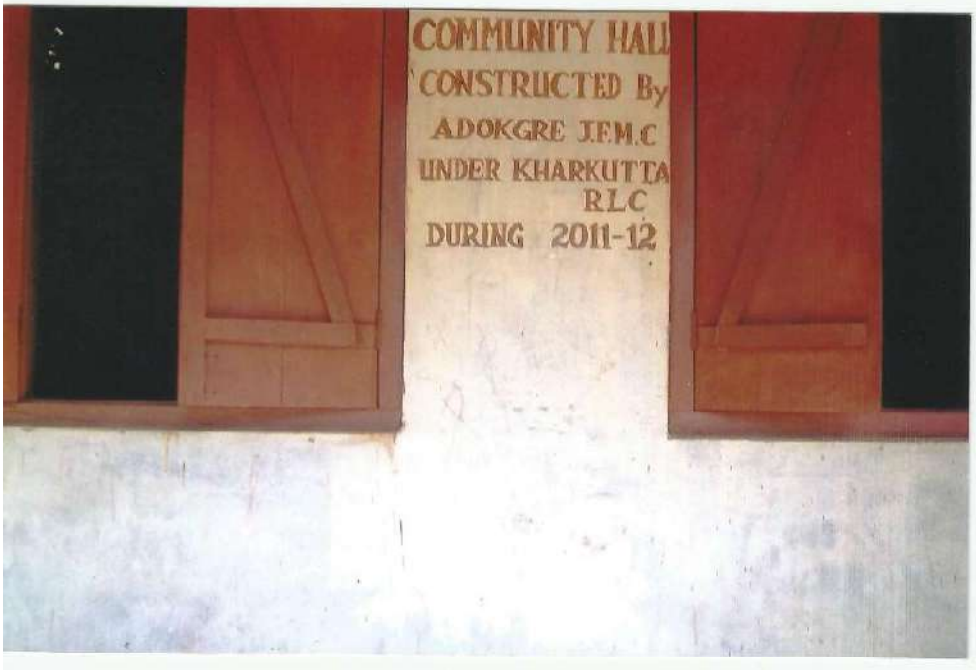
Culvert constructed connecting road to PatranggreJFMC

DOKEGRE JFMC EPA WORKS

DOKEGRE JFMC 2007-08 NAP PLANTATION

BUSUDARE JFMC 2011-12 PLANTATION

2011-12 NAP PLANTATION
BUSUDARE JFMC


COMMUNITY HALL
CONSTRUCTED By
ADOKGRE J.F.M.C
UNDER KHARKUTTA
R.L.C
DURING 2011-12

SAMKALAKGRE JFMC EPA WORKS

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME (NAP)

South Garo Hills Social Forestry Division

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CHAPTER I
INTRODUCTION

1.1. General

The South Garo Hills District lies in the southern part of the state of Meghalaya and was created on 18th June 1992, earlier it was a subdivision with its head quarter at **Baghmara**. This is bounded on the North by the East Garo hills district, on the South by Bangladesh, on the West by South-west Garo Hills district and on the East by West Khasi Hills district. The district is situated between 25° 10' and 25° 35' N latitude and 90° 15'and 90° 0' E longitude. The district covers an area of 1850 Sq. Kms. and population is about 1,00,980.its maximum temperature varies between 30° – 40° degree Celsius during the months of June-July and minimum temperature is around 10 degree Celsius. Rainfall varies from 3410 mm to 3018 mm.Literacy is about 57%.

The district was carved out of West Garo Hills District on 18th June 1992. The South Garo Hills district located in the Southern most part of the state of Meghalaya, has international boundary with Bangladesh, and is blessed with favorable climatic, topographic and edaphic conditions characterized by abundant and well distributed rainfall.

The major part of the district comprises rugged hills, which forms the Northern extremity of the Range dividing the valley of Brahmaputra and Surma. The Tura Range occupies the Northern portion running from West to East where the Nokrek peak (1412mts) is located.

1.2. River system of the district

The river Simsang is flowing through the district. The Simsang rises from the North of Nokrek peak and flows towards South and after passing through South Garo Hills district enters Bangladesh. It is the largest and longest river of Garo Hills. It is navigable to a certain extent only. Other then these, important rivers of the district are Mahadeo Kanai, Maheshkhola ,Rompha, Rongdik,Rongdi, Dareng,Bugai etc. all these Simsang rivers are flowing towards south to Bangladesh.

The major inhabitants of the district are Garos and they are mainly engaged in various agricultural activities including shifting cultivation. They are declared as scheduled tribes.

Moheskhola

This river starts from the east of Balphakram hills, runs through the border of West Khasi Hills and enters Bangladesh.

Maha deo

It starts from Balphakram hills and enters Bangladesh

Kanai

It starts from Balphakram hills and enters Bangladesh

Someswari

This is the largest and the second longest river in the whole State. The river is locally known as Simsang. It starts from Nokrek mountains and runs towards the east, passing through Rongrenggre, Williamnagar the headquarters of East Garo Hills district, Nangalbibra, Siju, Rewak and lastly Baghmara, the headquarter of South Garo Hills district. The upper course of this river is not navigable due to the high number of cataracts and numerous huge stones. However the lower course has many deep pools and falls. They are Mirik, Matma, Kan'chru Suk, Jamiseng, Warisik, Bobra, Goka etc. The chief tributaries are Chibok, Rongdik, Rompa and Ringdi rivers.

Dareng

It starts from south of Nokrek Hills flows through Silkigre and Sibbari village and enters Bangladesh.

Bogai

Also known as Bugi it starts from south of Nokrek Hills and enters Bangladesh.

Tulong

It starts from boroi hills and flows to Bangladesh.

Marshi

It starts from boroi hills and flows to Bangladesh.

Saral and Rokal

It starts from boroi hills and flows to Bangladesh

1.3. Forests of the district

Forest occupies a large part of the Geographical area of the District. A critical analysis on forests of South Garo Hills district gives the following pictures. Reserved forest 91.18 km^2 National parks-sanctuaries- 357.452 km^2 and plantation forest is 4,899 hectares. Life of the local people is very much linked to the forests of the district. The tribal people

enjoy their customary right over the private forests. The Government and the District councils primarily manage the Reserve Forests and community forests respectively.

All the State Government owned Reserve Forests, protected forests and National Parks are having dense Forests; only about 15% of the dense forests grow in private forests and community lands. The second category of forests are open forests and are not very useful because they cannot provide both tangible and intangible benefits to the people. The lands under this category are often prone to soil erosion that leads to gradual denudation of land, besides adverse climatic conditions. The existing forest cover is far less than the average set by the National Forest Policy and most of the areas in the district need urgent attention so far as afforestration is concerned. The problem may be countered only by massive afforestation and protecting the existing forests.

On the basis of rainfall, altitude, temperature the following forest types can be noticed.

1.4. Major forest types seen in the district are described below

1.4.1. Sal Forests

Forests of South Garo Hills are predominantly sal forests with *Gmelina arborea*, *Schima wallichii,etc*. According to Champion and Seth the forests of South Garo Hills conforms to ***North Indian Tropical Moist Deciduous Kamprup alluvial Sal forests (3c/c2d (iv)).***These type of forests can be seen almost all over the areas of the district up to Rongra.

1.4.2. Bamboo forests

In this *Melocana Bamboocoides* is the predominant species with some scattered trees of Schima wallichii, Gmelina arbores Mallotus spp. etc. This type conforms to *Northern Tropical Semi Evergreen forests and secondary moist bamboo brakes.*

1.4.3. Semi evergreen Forests(2B/cla)

The Balphakram national park forests can be termed as ***Northern Tropical Moist Semi evergreen Forests(2B/cla)***

1.4.4. Grass lands

Grasslands of Meghalaya are also not a climax type but are only as a result of removal of original forest cover. The rolling grasslands covering large areas can be seen throughout Balphakram National park areas and along the river banks.

1.4.5. The Reserve Forest areas under South Garo hills are

SL No	Name of the Reserve Forest	Area on Sq Kms
1	Baghmara	43.91
2	Angratoli	30.11
3	Rewak	6.47
4	Emangiri	8.29
5	Gitinggre	2.40
Name of National Parks and wildlife Sanctuaries		
1	Balphakram National Park	352
2	Siju wildlife Sanctuary	5.18

1.5. Grading of project on a scale of 1 to 10

Sl No	Heads	Details	Grading
1	Quantitative aspect	Physical	8
		Financial	8
2	Qualitative Aspect	Survival	7
		Health of plantations	6
		Maintenance	6
		Sustainability	8
3	JFM	Degree of peoples participation	8
		Satisfaction over perceived benefits by the local people	9
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA	8
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project	7
		Flow of funds from FDA to VFCs	9
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs	6

Over all Grading of the project	Out standing	Very Good	Good	Poor
	---	7.58	---	---

CHAPTER II
PROJECT PROFILE

2.1. Project Title

National Afforestation Programme**.**

2.2. Project Implementing FDA: -

South Garo Hills Social Forestry Division Forest

Development Agency, Garo Hills District, Baghmara, Meghalaya Social Forestry circle, Meghalaya.

2.3. Project Location

The area falls under the whole of South Garo Hills District. The Blocks of the district are Rongra C D Block, Baghmara C D Block, Gasuapara C.D. Block & Chokpot C.D Block. The Social Forestry Ranges of the district are Baghmara Range, Khondak Range, Masighat Range.

2.4. Project Cost

Project cost till 31st March 2014 is Rs 626.47 This is ongoing project. Area covered by plantation is 3400 Hect.

2.5. Incumbents in Office for last ten years

Sl No	Incumbents	Period	**Phone**
1	Lt. R. K. Kharpuri. MFS	1st June 2004-1st Sept.2007	
2	Shri. N. C. Chaudhury, MFS	1st September 2007-**1st Oct. 2008**	
3	Shri. T. Deb Roy. MFS	1st October 2008 -1st sept 2011	03639-234235/ 09436306076
4	Shri. T. P Marak, MFS	1st of September 2011 till date	

2.6. Function of the division

Social Forestry Division mostly concentrated on Afforestation works in Private and Community land outside RFs besides other activities like Awareness Programme on

forests and environment, celebration of Vanamahotsav, World Environment Day, Recreational Forestry Environment and Ecology etc.Main function of the division is to raise plantations in abandoned jhum lands and degraded forest lands mostly owned by communities.

2.7. List of JFMCs

Sl. No.	Name of JFMC	Name of Range/RLC
1.	Damukgittim	Masighat Range
2.	Siju-Duramong	-do-
3.	Sanai Agal	-do-
4.	Badri-Rongdong	-do-
5.	Jadigindam	-do-
6.	Tolegre	-do-
7.	Masighat	-do-
8.	Matma gitik	-do-
9.	Renaggittim	-do-
10.	Badri Jaisrugittim	-do-
11.	Badri-Watregittim	-do-
12.	Siju Ariteka	-do-
13.	Jaksomgram	Baghmara Range
14.	Chibegre	-do-
15.	Aruakgre	-do-
16.	Agronggre	-do-
17.	Halwa A'tong	-do-
18.	Halwa Ambeng	-do-
19.	Donala Nokat	-do-
20.	Dosogre	-do-
21.	Rewak	-do-
22.	Kujolgre	Khondok
23.	Meguabagre	-do-
24.	Atisia	-do-
25.	Atisia Nokat	-do-
26.	Cherengpara	-do-
27.	Gandinanggre	-do-
28.	Daldam	-do-
29	Mindikgre	-do-

Chapter III

PROJECT EVALUATION

3.1. Project areas & Locations

The project areas are located within the geographical boundary of south Garo Hills District districts which is subdivided into four blocks. The villages & JFMCs selected are within the districts. A list of JFMCs selected during the period 2004 to 2013-14 has been listed at para 2.7.

3.2. Any previous Project

This is an ongoing project launched during the financial year 2004-05 and is continuing till Date.

3.3. Socio economic profiles of villages etc

This is an ongoing Project . All inhabitants of the villages are scheduled tribes, the villagers are very poor the villages has vast land under their command ,which are mostly denuded grass/unproductive lands, due to over exploitation of land during earlier years; which cannot be used for any gainful purpose except for forestry plantations. All these lands are classified as community lands. Though the tract falls under ***a)Tropical moist deciduous Forests b)Tropical moist evergreen Forests.*** The degraded grass lands are now devoid of any tree cover worth mentioning. There is a high degree of pressure on the marginal forest areas and as such these require immediate attention/restoration.

3.4. Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.5. Project Components

To achieve the objectives, in every selected village Joint Forest Management Committee's were formed by the villagers, from among the village committee members and all the works related to the project were undertaken by these JFMC members.

The main Project components are:

- Mobilisation of village JFMC, and Preparation of Micro-planning in project villages
- Afforestation – following components:
    - Aided Natural Regeneration
    - Artificial Regeneration
    - Bamboo plantation/ Pasture Development/ Silvipasture
- Soils & Moisture Conservation works
- Entry Point Activity (for village development)
- Fencing, Monitoring & Evaluation, Training, Awareness raising, Overheads

3.6. Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members. All the related works of the plantation were done by the JFMC members as well as villagers of those particular village/JFMC members.

3.7. Creation of JFMC

Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.8. Implementing Agencies

For implementing the scheme as per Government of Meghalaya's O.O. No FOR.62/2000/239 Dt 9th September2003 Forest Development Agency was formed in the Forest Division .

3.9. Micro planning

Micro plans were prepared for each JFMC after conducting a Participatory Rural appraisal exercise among the JFMC members ,group discussions and various interventions and species to be planted, entry point activities to be undertaken etc.

3.10. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be under taken as entry point activity so that JFMCs become self sustained in future maintenance of the works which has been under taken. The communities collectively identified entry point activities. The items under Entry Point Activities were:

- Construction of footpath/ Community halls,
- Approach roads,
- Bus waiting shed,
- Check dams,
- Supply of Furniture, Tarpaulins and Cooking utensils etc.

3.11. Approved programme of works

In accordance to the fund released approved interventions must be carried out in consultation with the villagers, as envisaged in the micro plans.

3.12. Quantitative Analysis

3.12.1. Classification of area covered/treated

Under the South Garo Hills social Forestry division FDA all the areas treated so far are community owned degraded forest land .Breakup of areas treated under different interventions are as:-

(Area in Ha.)

Category	ANR	AR	Misc plt.	Bamboo	Silvi Pasture	Cane	Regn Of herbs & shrub	Total
Forest Land	x	x	x	x	x	x	x	x
Community Land	825	1075	425	875	100	100	100	3500
Revenue Land	x	x	x	x	x	x	x	x
Govt. Waste Land	x	x	x	x	x	x	x	x
Private Land	x	x	x	x	x	x	x	x
Total =								3500

3.12.2. Peoples participation

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation as well as during the preparation of project at every step JFM members has been consulted and their suggestion /views has been taken into consideration.

- Till date 29 nos of Micro plans has already prepared for all the 29(Twenty nine) Joint Forest management committees.
- Till date expenditure incurred for preparation of micro plans are Rs **6.22 lakh** only.

3.12.3. Physical & Financial achievement (For the last ten Years)

Sl Nos	Item	Physical (Area in Ha.)		Financial (Rs. In Lakh)	
		Target	Achievement	Target	Achievement
1.	ANR	825	825	99.85	99.85
2.	AR	1075	1075	190.50	190.50
3.	Bamboo Plantation	875	875	74.87	74.87

Sl Nos	Item	Physical (Area in Ha.)		Financial (Rs. In Lakh)	
		Target	Achievement	Target	Achievement
4.	Cane Plantation.	100	100	9.17	9.17
5.	Mixed Plantation	425	425	79.98	79.98
6.	Perennial Herbs & Shrubs	100	100	17.50	17.50
7.	Pasture Development	100	100	8.61	8.61
8.	Awareness	X	X	5.00	5.00
9.	Micro Plan	X	X	6.22	6.22
10	Fencing	X	X	11.37	11.37
11	Monitoring & Evaluation	X	X	5.68	5.68
12	Soil & Moisture conservation	X	X	31.20	31.20
13	EPA	X	X	54.96	54.96
14	Overheads	X	X	31.01	31.01
	Total =	3500	3500	625.47	625.47

3.12.4. Entry Point Activities

During the year : 2004-05 to 2013-14

Name of Village	**Assets created**	**No of assets**	**Expenditure incurred (in Rs)**	**Peoples contribution towards expenses**
Jaksongram	Water supply	5 No	5,70,000/-	In all works people contributed free labour
	School Building renovation	1 No	90,000/-	
	CC Footpath	50 mtrs	1,50,000/-	
	Furniture supply for School/community	Bench 20 No Chair 25 No	85,000/-	
Damukgitim	Sanitary Latrine	2 No	2,50,000/-	labour
	Fishery Pond	1 No	50,000/-	
Dajonggittim	Fishery Pond	2No	2,20,000/-	

Name of Village	**Assets created**	**No of assets**	**Expenditure incurred (in Rs)**	**Peoples contribution towards expenses**
	Sanitary Latrine	2 No	2,20,000/-	
	Water supply	2 No	1,10,000/-	
Ariteka	Sanitary Latrine	1 No	1,20,000/-	labour
Halwa Attong	Fishery Pond	2 No	1,50,000/-	
	Ring well	1 No	1,20,000/-	
Halwa Ambeng	Fishery Pond RCC culvert	2 No 1 No	2,00,000/- 70,000/-	
	CC Footpath	50 mtrs	1,75,000/-	
Matmagittik	Piggery & Guttery	40 No	80,000/-	
	Wooden Bridge	1 No.	1,70,000/-	labour
Tolegre	Piggery & Guttery	40 No	80,000/-	
Dosogre	JFMC Office	1 No	1,25,000/-	
	Chair	30 No	30,000/-	
Rongdong	Water conservation Dam	1 No	2,50,000/-	labour
	Cattle	4 Nos	60,000/-	
Duramong	Rest House	1 No	2,50,000/-	
	Mahila Samity Building repairing	1 No	2,50,000/-	labour
	Approach Road	30 mtrs	1,20,000/-	
Kujolgre	Fishery Pond	1 No	1,00,000/-	
	Foot Bridge	1 No	1,50,000/-	
Daldam	Fishery Pond	2 No	1,50,000/-	
Mindikgre	Wooden Bridge	25 mtr span 1 No	2,00,000/-	
Donala Nokat	Approach Road	30 Mtr.	1,05,000/-	
Atisia Songmong	JFMC Office	1 No.	2,00,000/-	
Agronggre	Water supply	2 Nos	1,31,000/-	

Name of Village	**Assets created**	**No of assets**	**Expenditure incurred (in Rs)**	**Peoples contribution towards expenses**
Gandinangre	Water supply	2 Nos	1,00,000/-	labour
Renagitim	Pigerry & Goatery	40 Nos	80,000/-	
Chibegre	Pigerry & Goatery	40 Nos	80,000/-	
Aruakgre	Pigerry & Goatery	40 Nos	80,000/-	
Masighat	Cattle	4 Nos	60,000/-	
Meguabagre	Fishery	1 No.	70,000/-	labour
Total			54.96 lacs	

3.13. Joint Forest Management - JFM committee

Under the South Garo Hills Social Forestry Division FDA altogether 29 (Twenty nine) Joint Forest Management Committees has been initiated in 29 villages till date, over the whole of South Garo Hills District. Total households in all the JFMCs are 3896 nos. All the members of these committees are scheduled tribe and out of that percentage of women members is 47.71% only. The compositions of these committees are as:-

- No. of villagers where formation initiated in the Division. : 29
- No. of villagers where formal committees establishment in the Division. : 29
- Total number of committees establishment so far in the project areas : 29
- Total membership in terms of household/families :3896 (house hold)
- Percentage of women, SCs, STs in the JFM committees :47.71%

	Male	Female	Total nos.
Scheduled caste	x	x	x
Scheduled Tribe	2037	1859	3896
Others	x	x	x
Total =	2037	1859	3896

Under the South Garo Hills Social Forestry Division FDA in none of the JFMCs, *village development fund* has been created; which is not at all encouraging. The CEO must take initiative to create "village development fund" in all of the JFMCs. Joint Forest Management committees must be asked and made to open an account with the local banks.

3.14. Meetings

Forest development Agencies and Joint forest management committees are holding General body and Executive Body meetings regularly as per the records available . Following are the number of meetings held by the FDA & JFMCs

	FDA Meetings	JFMC Meetings	Remarks
Number of General Body Meetings Held	10 nos.	10 nos.	adequate
Number of Executive Committee Meetings held	118 nos.	118 nos.	adequate

3.15. Records & Register

List of important Registers/Records maintained by and available with JFMCs

- Cash Book = Yes Maintained
- Master rolls (Labour wages register) = Yes Maintained
- Measurement Books= Yes Maintained
- List of Beneficiaries Register= Yes Maintained
- Plantation Journal = Yes Maintained
- Nursery Journal = Yes Maintained
- Minutes of Meeting = Yes Maintained
- Governing & Executive Body Register= Yes Maintained
- Cheque drawn Register= Yes Maintained

The FDA is maintaining the following Register & records and are posted up to date which were found to be adequate as per forestry norms as of now.

- Fund sanction Register = Yes
- Cash Book = Yes
- Cheque Drawn register = Yes
- Minute of Meeting Register = Yes
- VFMC Record Register = Yes
- Bill Register = Yes
- Governing & Executive Body Register = Yes
- Accounts Books (Bank Account) = Yes

3.16. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards.

However, Separate item under Training and Capacity Building was incorporated in the National Afforestation Programme revised Operational Guideline -2009. Training and Capacity Building fund was received by the FDA for the said item during the year 2010-11.

Fund received year-wise under Awareness Raising, Training and Capacity Building

Years	Awareness Raising (Rs in Lakhs)	Training & Capacity Building (Rs in Lakhs)
2004-05	0.25	-
2005-06	0.44	-
2006-07	0.25	-
2007-08	0.69	-
2008-09	0.30	-
2009-10	-	-
2010-11	-	2.78
2011-12	0.57	-
2012-13	-	-
2013-14	0.33	-

Capacity Building includes the training of the members of the JFMC including the Villagers and various awareness activities in the project area by which the total participation was achieved. This helped to built mutual understanding and assistance among the fellow villagers and villagers of the adjoining villages in socio-economic benefit. During the Period of the Project following persons were trained in different fields as shown below:

Training Programme conducted	**Management and Bio diversity**
A. Staffs Trained	
Number of Staffs Trained	44 Nos.
Topics covered	Forestry, Rural Dev. Bamboo Training etc.
B. Community	55 Nos.
Organisations Involved	Forest and Line Department, NEHU

Total expenditure incurred on awareness raising and Training till 20313-14 is Rs 5.61 lakhs

3.17. Monitoring and Evaluation

Constant monitoring is being done by the Divisional Forest Officer, District Monitoring Cell, NGOs of the area, and the Evaluation done by NAEB & other Agencies.

Number of Inspections made by:

- Chief Conservator of Forests : 4 (four)
- Conservator of Forests : 27(twenty seven)
- Deputy Conservator of Forests : 120 (one hundred twenty)
- The above officers were monitoring the works of the JFMC plantations regularly during past years in course of their visits to different JFMCs on a regular manner.

Year wise expenditure incurred on Monitoring & Evaluation for last Ten years:-

Year	Awareness	Monitoring
2004-05	0.25	x
2005-06	0.22	0.10
2006-07	0.47	X
2007-08	0.69	1.00
2008-09	0.60	1.20
2009-10	x	0.48
2010-11	1.24	1.48
2011-12	0.57	1.14
2012-13	0.57	0.67
Total	**4.61**	**6.07**

During 2005-06 Shri. H. K. Marak, Retd. Director of Agriculture, Meghalaya conducted an independent monitoring of the Project. However NAEB conducted Monitoring and evaluation of the project through their representative whose reports never been submitted to the department due to some or other reasons. Therefore findings of any past records could not be mentioned.

CHAPTER IV
SUMMARY OF EVALUATION

4.1. General

The objectives of this present study by way of evaluation & monitoring of **South Garo Hills Social Forestry Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** was to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the district. Under this Programme focus was to encourage the rural people for protection & conservation of forests by way of extracting financial as well as tangible benefits from forests and at the same time protecting the environment and encouraging them in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and undertake afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash& burn (Joom) method of agricultural practice.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

4.2. Financial Status

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05.**South Garo Hills Social Forestry Division FDA** was entrusted to implement the project. Funds released & expenditure incurred by the FDA are:-

Year	Fund Released (Rs in Lakh)	Financial Achievement (Rs in Lakh)
2004-05	31.00	31.00
2005-06	70.00	70.00
2006-07	77.00	77.00
2007-08	100.00	100.00
2008-09	107.00	107.00

Year	Fund Released (Rs in Lakh)	Financial Achievement (Rs in Lakh)
2009-10	-	-
2010-11	84.69	84.69
2011-12	38.00	38.00
2012-13	16.00	16.00
2013-14	94.78	94.78
Total =	**625.47**	**625.47**

4.3. Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 29 and total nos. of beneficiaries is 3896. Therefore, the representative sample size of the division stands at 15 nos. of JFMCs as 50% and around 779 beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

Hence the evaluation is based on collection of both primary as well as secondary data, collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the South Garo Hills Social Forestry Division FDA.

Inspection of Plantations

During collection of primary field data 4 (Four) plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following worth mentioning.

4.3.1. Daldam JFMC, under Khondok RLC falls under Gasuapara Block.

- Year of Plantation :- 2011-12.
- Survival percentage :- 80% as the plantation is very young,
- Health of the plantation :- Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity a fishery pond has been constructed the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all respect.

4.3.2. Kujolgre JFMC, under Khondok RLC falls under Gasuapara Block.

- Year of Plantation :- 2005-06.
- Survival percentage :- 65%- 70%
- Health of the plantation :- Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity many assets has been created, the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all aspects

4.3.3. Gandinangre JFMC, under Khondok RLC falls under Gasuapara Block.

- Year of Plantation :- 20011-12.
- Survival percentage :- 65%-70%
- Health of the plantation :- Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity many assets has been created, the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all aspects.

4.3.4. Dosogre JFMC, under Baghmara RLC falls under Baghmara Block.

- Year of Plantation :- 2011-12.
- Survival percentage :- 75%
- Health of the plantation :- Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity a fishery pond has been constructed by the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all aspects.

4.3.5. Matmagitik JFMC, under Baghmara RLC falls under Baghmara Block.

- Year of Plantation :- 2012-13.
- Survival percentage :- 80%
- Health of the plantation :- Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity a fishery pond has been constructed by the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all aspect.

4.3.6. Jaksongram JFMC, under Baghmara RLC falls under Baghmara Block.

- Year of Plantation :- 2007-08.
- Survival percentage :- 70%
- Health of the plantation :- Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity many assets has been created, the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all aspects

4.3.7. Masighat JFMC, under Masighat RLC falls under Baghmara Block.

- Year of Plantation :- 2012-13.
- Survival percentage :- 75%
- Health of the plantation :- Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity a fishery pond has been constructed the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all aspects.

4.3.8. Balsrigitim JFMC, under Masighat RLC, falls under Baghmara Block :

- Year of Plantation 2011-12, 2012-13
- Survival percentage – 60-70%
- Health of Plantation – Very good as the soil is good and the area receives good annual rainfall.

Observation

Plantation is satisfactory, proper weeding has been carried out by the local people. Under EPA many assets has been created and the members contributed free labour for the purpose.

Overall observation

Plantation is good as found.

4.3.9. Renanggitim JFMC, under Baghmara RLC, falls under Baghmara Block

- Year of Plantation 2010-11.

- Survival percentage – 70%
- Health of Plantation – Very good as the soil is good and the area receives good annual rainfall.

Observation

Plantation is satisfactory, proper weeding has been carried out by the local people. Under EPA piggery/ goatery has been promoted generate income in near future.

Overall observation

Plantation is good as found.

4.3.10. JFMC Central Nursery at Baghmara.

Surveyed the JFMC Nursery at Baghmara, created by JFMC Members having 60 beds of Miscellaneous Spp. grown for future Plantations. Species found are Gamari, Arjun, Acacia, Various Bamboos, Titachamp etc. local Species.

The Nursery is well maintained and seedlings are very healthy.

4.4. Performance and manner of implementation of the project

The project was launched during the year 2004 with the fund released by National Afforestation & Eco development Board(NAEB), Government of India, to the South Garo Hills Social Forestry Division Forest Development Agency (SGHSFFDA),which was registered as a society as per the provisions of Meghalaya Societies Act 1983(Meghalaya Act XII of 1983) during the year 2003.

As per the guidelines of NAEB till date 29 Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.5. Project Beneficiaries

In the whole of the project area as per the record available with the department till date total JFMC members are 3896 heads out of that 1859 are female /women beneficiaries. All the members are Scheduled Tribes.

4.6. Physical progress

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guide line have been achieved. Within the first year itself, as mentioned in the project. Implementation models were developed involving beneficiaries to form JFMCs. To have a better understanding of JFMC model of functioning many more workshops and training programmes may be conducted.

4.7. Financial Progress

Financial Progress is good as expected not very satisfactory as fund has not been released in accordance with the work schedule.

4.8. Physical and Financial achievement

Year	Physical Achievement		Financial Achievement	
	Target	Achievement	Fund Released	Amount Spent
1	2	3	4	5
2004-05	--	--	31,00,000 lakhs	31,00,000 lakhs
2005-06	500 hac	500 hac	70,00,000 lakhs	70,00,000 lakhs
2006-07	500 hac	500 hac	77,00,000 laks	77,00,000 laks
2007-08	500 hac	500 hac	100,00,000 lakhs	100,00,000 lakhs
2008-09	1000 hac	1000 hac	107,00,000 lakhs	107,00,000 lakhs
2009-10	-	-	-	-
2010-11	400 hac	400 hac	84,69,000 lakhs	84,69,000 lakhs
2011-12	250 hac	250 hac	38,00,000 lakhs	38,00,000 lakhs
2012-13	250 hac	250 hac	94,78,000 lakhs	94,78,000 lakhs
2013-14	--	--	24,00,000 Lakhs	24,00,000 Lakhs
Total	**3500 hac**	**3500 hac**	**6,25,47000 lakhs**	**6,25,47000 lakhs**

4.9. Impact and assessment of the project

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, NAP covered 3500 ha. i.e. 0.15 % of Meghalaya state where all types of plantation under NAP was planted. Survival rate of the plantations standing between 60-80% indicating green cover of the areas where plantation found increased at significant level.
- The NAP scheme has brought about many changes through plantation activities in terms of forest cover. As per India State of Forest Report 2013, there has been sufficient increase of forest cover across the districts. The landscape and hillock which were earlier barren and devoid of trees have now been brought under forest cover. The existing woodlands and village forest have been reduced to a great extent. There is lot of improvement in the water regime of different catchment area and valley in which retention period of water along the stream has increased.
- In areas where even single wild animal could no longer be seen can be sighted now in which the birds has started coming, breeding and making their nest on the branches and leaves of the growing forest. Small animal like hare, barking deer, wild bear, pangolin, mongoose, squirrel and other species belonging to avi-fauna, family of reptiles and amphibians are being sighted by the villagers.
- People's livelihood in the area has been influenced by several EPAs like water supply facility, construction of Check dam, footpath, Concrete/wooden Foot Bridge, Approach Road, RCC culverts, sanitary latrine and ring well across 29 villages.
- With respect to income generation, construction of fishery ponds for the villagers for rearing of fish for future, Supply of goats for goatery and supply of Pigs for Piggery for alternative income generation, as demanded by the villagers were taken into consideration.
- Construction & repairing of JFM office buildings, Mahila Samittee Building in three villages has also impacted among the villagers for regular discussion at a common place for meeting to understand their collective needs.
- Most of JFMCs are concentrated in Baghmara Block (14 nos.) followed by Rongara (8 nos.) and Gasuapara Block (7 nos.).
- The quality of work in general as observed in different JFMCs had impacted in the minds of the villagers under programmes although at the initial stage due to lack of know how there was little dissatisfaction.
- Almost all the components i.e. ANR, AR, Cane, Mixed, Pasture and bamboo and Herbs/shrubs plantations were taken up. Artificial Regeneration was covered (1075 ha.) maximum in the division followed by ANR, Mixed Plantation, Cane, Bamboo and others.

- Improve and Increase the quality of Forest cover.
- Preservation and protection of catchment areas.
- Sustainable and Alternative livelihood through NTFPs.
- Reclamation of abandoned jhum cultivation areas.
- Reduction in Forest fires.
- Regeneration of barren lands and Conservation of catchment areas.
- The total numbers of committees established across the division is 29 under which 55 community members were trained on different plantations.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest
- Employment Generation and Developmental Activities through EPA under the programme.
- Employment generation of the local community through different livelihood activities under EPAs also motivated the villagers. They were glad to receive the opportunities through NAP.
- Participation ST and SC community including women in the JFMC was 47.71% of Local communities involved in the forest based activities.
- A total of 3896 households took membership under the programme for upliftment of economic conditions of the communities. By means of construction fishery ponds, Supply of goats for goatery and supply of Pigs for Piggery taking into consideration of demand by the villagers of employment generation situation improved then before under the NAP.
- All the beneficiaries surveyed believe that this afforestation program me is lucrative and very suitable for the present circumstances.
- All beneficiaries say that they face a lot of difficulties as in most of the plantations face high degree of cattle grazing, not from the same JFMC but from nearby villages.

4.10. Reason for deficiency

All JFMC members surveyed , believe that non receipt of Government fund in proper time for various works is the main reason, as forestry works are time bound and time taking.

4.11. Observations

- During evaluation it has been observed that in many of the JFMCs plantations has been done with maintenance works in the villages. However CEO informed that due to shortage of fund some entry point activity works & maintenance have to be done

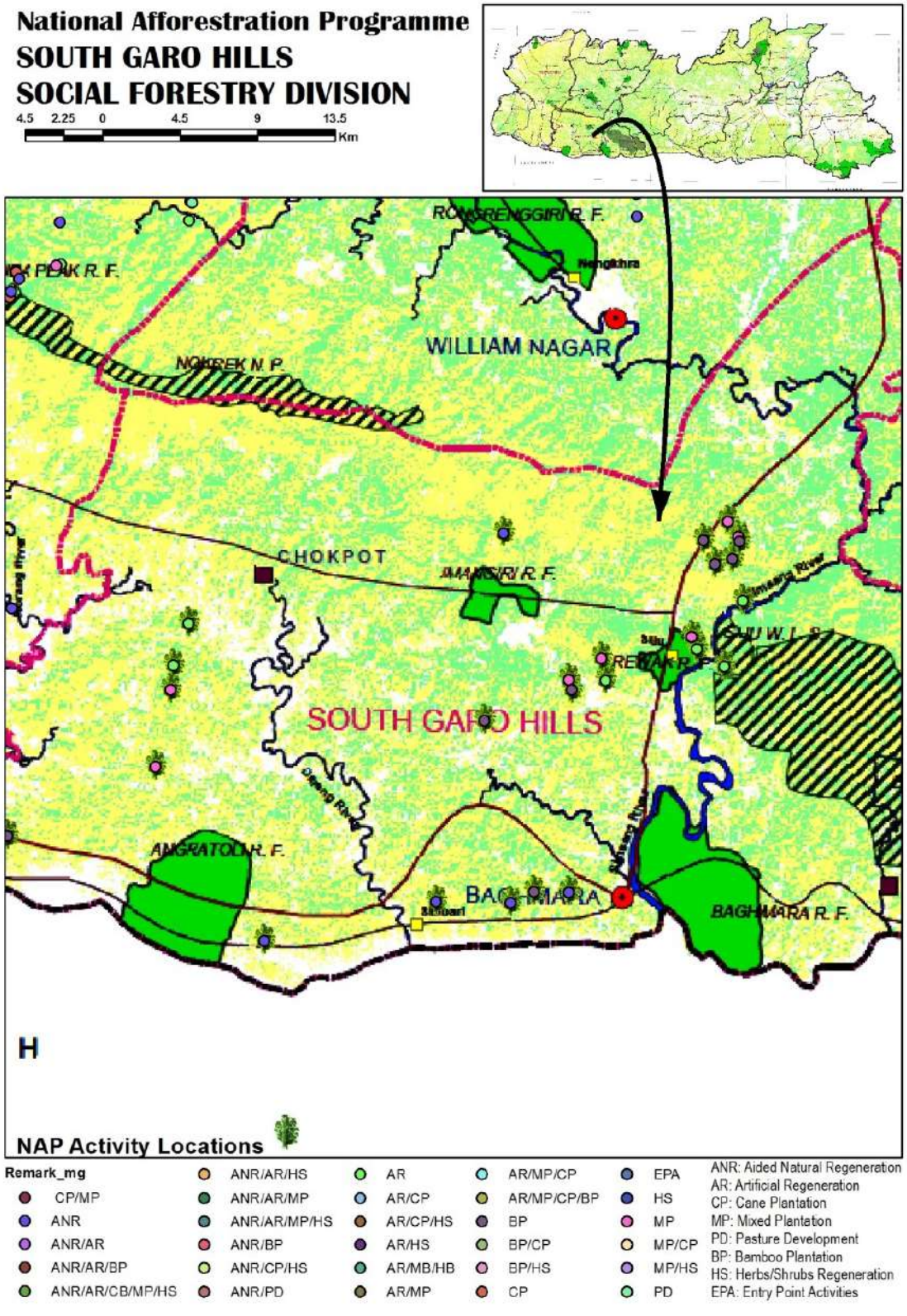
which will be taken up as and when fund is released. Moreover it has been observed that in the JFMCs few income generating project/works have been taken up as a result projects will remain as asset to the JFMCs.

- During the visit to the JFMC villages, group discussion has been held with the villagers who have shown strong determination for protection of the forests they have created and assured to protect these forests at any costs.
- During survey it has been observed that in none of the JFMCs '*Village development fund'* has been created. So it is suggested Village development fund may be created immediately.
- However it is found that number of meetings held are sufficient as per requirements as executive committee meetings are to be held once in every three months and general body meetings are to be held once in a year.
- It is found that regular training was conducted during last 8(eight) years by the FDA as well as by the Range Level Coordinators. Authorities should conduct more training to the staff as well as to the JFMC members for better understanding & interaction among the rural people and the implementing officers.

4.12. Suggestions and Recommendations

- Sufficient fund may be provided for fencing.
- Intensive steps may be taken to motivate people for sustainable conservation of natural resources.
- Suitable members from the JFMCs may be provided opportunities in Forestry Jobs.
- Plantation, planting, weeding and protection money must be released during January. When the money is released during June, by then planting season is almost over in this climatic conditions.
- Some income generating schemes may be taken in every JFMC for their sustainability.
- Some interested JFMC members may be trained in different professions ***viz*** Apiculture, Tailoring, Mat making, floriculture etc.
- Steps may be taken to provide incentive to those Nokmas who are preserving forests in their lands for better protection of forests, soil, and water regime of the district.
- "Village development Fund" must be created in all JFMCs, and Micro-plans must be completed immediately.

4.13. Map/Photographs



Masighat Pltn.

Masighat Nursery

Artificial Regeneration Plantation of Dosogre

Discussion with JFMC members in the Village

With Daldam JFMC members

Field inspection by Monitoring Team with Members of JFMC

Seedlings for Planting

Discussion with monitoring team by the villagers

Chairman of Gandinanggre JFMC

Central Nursery Raised by RLC

Plantations raised by Renanggitm JFMC

Group discussion with Atisia JFMC

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME

West Garo Hills Social Forestry Division

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CHAPTER I

INTRODUCTION

1.1.General

West Garo Hills District is one of the largest districts of Meghalaya located in the western part of the State. The district is situated approximately between the latitudes 90° 30' and 89° 40' E, and the longitudes of 26° and 25° 20' N. The Garo Hills district was divided into two districts, viz. the West Garo Hills district and the East Garo Hills district in October 1976. The erstwhile West Garo Hills district was further divided into two administrative districts of West and South Garo Hills on June 1992. The district headquarter of West Garo Hills is Tura, which is the second largest town in the State after Shillong. Tura, the district Headquarter of West Garo Hills of Meghalaya is located in a beautiful natural surrounding at the foot of Tura Peak (1,412mt.). Tura Township (300mt.) on the National Highway 51.18 is one of the major connecting links to all the towns of the district

1.2.Boundary

The West Garo Hills district lies on the western part of the state of Meghalaya bounded by the East Garo Hills district on the east, the South Garo Hills on the south-east, the Goalpara district of Assam on the north and north-west and Bangladesh on the south.

The population is pre-dominantly inhabited by the Garos, a tribe with a matrilineal society belonging to the Bodo family of the Tibeto-Burman race tribes. Other indigenous inhabitants are the Hajongs, Rabhas, Koches, Rajbansis, Meches, Kacharis and Dalus. The district is also inhabited by Bengalis, Assamese, Nepalese, Marwaries, Biharis and people from other parts of India.

1.3.Topography

The West Garo Hills district is mostly hilly with plains fringing the northern, western and the south-western borders. There are three important mountain ranges in the districts of Garo Hills.

1.4.Tura Range

This is one of the most important mountain ranges in the West Garo Hills. The Tura range is about 50 kms. long and extends in the east-west direction from Tura to Siju in the South Garo Hills district. The mountain peaks that are located in this range are Tura Peak, Nokrek Peak, Meminram Peak, Nengminjok Peak, Chitmang Peak. The highest peak of this range is the Nokrek (1412 m.) lying 13 kms. south-east of Tura. To the west of the Tura range low hill ranges run from north to south, and to the north of the Tura range hill ranges run parallel to it, gradually increasing in height till they meet in the south.

Now the entire Tura range comes under the management of Nokrek National Park. These high ranges are strictly protected as catchment areas right from the time of British Administration in Garo Hills. There is no human habitation in the heart of these ranges which has now became an ideal home to various flora and fauna.

1.5.Arbella Range

Arbella Peak is 999 metres high. It lies on the northern side of Asananggre village on the Tura- Guwahati road. Most of the peaks in this mountain range fall in the East Garo Hills district.

1.6.Ranggira Range

This mountain range lies on the western fringe of the district and ends in Hallidayganj village. The height of this peak is 673 metres.

1.7.River Systems:

The Tura range form watersheds in the West Garo Hills district, from which the rivers flows towards Bangladesh plains in the south and the Brahmaputra valley in the north and the west. The important rivers of the north group are the Kalu, Ringgi and the Didak. The important rivers of the southern group are the Bhogai, Dareng etc. The Tura range is also the source of the Simsang (Someswari) , one of the major rivers of Meghalaya, whose valley is of the most important feature in the South Garo Hills.

Jinjiram

It starts from Derek village and its main tributary starts from Upot Lake. It runs towards the east connecting with Gagua river, then runs through the border of Goalpara towards

Phulbari and reaches Hallidayganj where it enters the Goalpara district. It is the longest river in the Garo Hills districts.

Kalu

Locally this river is called Ganol. Its sources start from Tura peak and runs towards the west through Damalgre, Garobadha and Rangapani before it enters Goalpara district. Its chief tributaries are Dilni and Rongram rivers.

Didak

It stars from Anogre village and runs through East Garo Hills district before it enters into Goalpara district.

Bogai

Locally known as Bugi. Its source starts from the southern side of Nokrek mountains and runs through Dalu village and enters into Mymensingh district in Bangladesh.

Rongai

Starts from Arabela peak and runs through Ringgegre village and then falls into Jinjiram river. Locally known as Ringge river.

Dareng or Nitai

The source is on the southern side of Nokrek mountain. It runs southwards through Silkigre and enters into Bangladesh. It has many famous deep pools like Warima, Rong'ang, Bamon etc. where Bamon is the deepest. The chief tributaries are Kakija, Daji and Rompa.

1.8. Climate

The climate of the district is largely controlled by South–West monsoon and seasonal winds. The West Garo Hills district being relatively lower in altitude to the rest of Meghalaya, experiences a fairly high temperature for most part of the year. The average rainfall is 330 cms. of which more than two-thirds occur during the monsoon, winter being practically dry.

The West Garo hills district & South West Garo Hills district is located in the western most part of the state of Meghalaya and is blessed with favorable climatic , topographic and edaphic conditions characterised by abundant and well distributed rainfall.

1.9.Major Forest Types

The district has mostly dense tropical mixed forest, and a small patch of temperate forest in the higher parts of the Tura range. On the basis of Rainfall, Altitude, Temperature the following forest types can be noticed.

1.10. **Forests** of West Garo Hills

Forests of West Garo Hills are predominantly sal forests with Gmelina arborea, Schima wallichii, etc. According to Champion and Seth the forests of West Garo Hills conforms to North Indian Tropical Moist Deciduous Kamprup alluvial Sal forests (3c/c2d (iv)).

1.11. Bamboo forests

In this Melocana Bamboocoides is the predominant species with some scattered trees of Schima wallichii, Gmelina arbores Mallotus spp. etc. This type conforms to Northern Tropical Semi Evergreen forests and secondary moist bamboo brakes.

1.12. Reserve Forest

Reserve Forest areas under West Garo hills are

SL No	Name of the Reserve Forest	Area on Sq Kms
1	Dibru Hills	15.02
2	Tura peak	4.19
	Total	19.21

1.13. A short note on Nokrek National Park:-

Nokrek National Park (NP) is located in the Garo Hills of Meghalaya, covering an area of 47.46 sq.km. The NP area extends over rugged terrain and constitutes a principal watershed for the three districts of Garo Hills. Nokrek came into prominence after several wild relatives of cultivated citrus (such as *Citrus indica*) were discovered in its rainforests. Nokrek contains a rich variety of animal species specialized for a rainforest existence such as slow loris, Himalayan squirrel, clouded leopard and binturong. It is also one of the important elephant habitats in Meghalaya. The important pressures on the area include poaching, occasional timber-felling, illegal NWFP collection including cane, medicinal plants and agar wood and fire hazards from surrounding jhum areas. 128 villages (approximate population of 40,000) have been identified that depend on the NP for

various purposes. Dominant land uses in the area are horticulture, shifting cultivation and collection of medicinal plants.

1.14. Grading **of Project on a scale of 1 to 10.**

Sl No	Heads	Details	Grading
1	Quantitative Aspect	Physical	7
		Financial	8
2	Qualitative Aspect	Survival	6
		Health of plantations	7
		Maintenance	7
		Sustainability	8
3	JFM	Degree of peoples participation	9
		Satisfaction over perceived benefits by the local people	9
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA	7
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project	7
		Flow of funds from FDA to VFCs	9
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs	9

Over all Grading of the project	Out standing	Very Good	Good	Poor
	---	7.75	---	-------

CHAPTER II

PROJECT PROFILE

2.1.Project Title

National Afforestation Programme.

2.2.Project Implementing FDA

West Garo Hills Social Forestry Division Forest Development Agency

West Garo Hills District, Tura Meghalaya Social Forestry circle, Meghalaya

2.3.Project Location

The area falls under the whole of West Garo Hills & South West Garo Hills District.

Betasingh CD Block, Dadenggre C D Block, Rongram C.D.Block, ZigZag C.D. Block, Gambegre C.D.Block Dilni RLC , Galwang RLC , Rongkai RLC.

2.4.Project Cost, Duration And Area

Project cost till 31st March 2014 is Rs. 673.325 lakhs only and achieved 4715 hac plantation during the project period. This is an ongoing project.

2.5.Incumbency

Sl No	Name of Divisional Forest Officers	FROM	TO	Phone Number
01	Sri. J. Dutta, MFS.	24.02.2004	01.07.2008	
02	Sri. N.C. Choudhury, MFS	01.07.2008	31.08.2009	
03	Smt. M.J.A.Sangma, MFS	31.08.2009	11.07.2014	
04	Sri. R.K.Marak, MFS	11.07.2014	-	09485104808

2.6.Function of the division

Main function of the division is to raise plantations in abandoned jhum lands and degraded forest lands mostly owned by communities outside Reserved Forests and arrange other activities like Awareness Programme on forests and environment, celebration of Vamanahotsav, World Environment Day, Recreational Forestry, Environment and Ecology etc

2.7.List of the JFMC under WGHSFDFDA

Sl. No.	Name of JFMC	Name of Range/RLC
1.	Darechikgre	Tura Beat
2.	Durakantagre	-do-
3.	Jenggitchakgre	-do-
4.	Sasatgre	-do-
5.	Doldigre	-do-
6.	Wakkagre	-do-
7.	Chisimbokgre	-do-
8.	Rangegongang & Chigitchak	-do-
9.	Rongbakgre	-do-
10.	Indikgre	-do-
11.	Agalgre	-do-
12.	Asimgre	-do-
13.	Dajegre	-do-
14.	Kherapara	-do-
15.	Rengsipara	-do-
16.	Adanggre	-do-
17.	Amongpara	-do-
18.	Sosotpara	-do-
19.	Sop-Adinggre	-do-
20.	Durakhalakgre	-do-
21.	Chidekgre	-do-
22.	Timbogre	-do-
23.	Goldengre	-do-
24.	Silsotchigre	-do-
25.	Dapdalgre	-do-
26.	Bibragre	-do-
27.	Salmanpara	Betasing Range
28.	Demdema	-do-
29.	Dangsinpara	-do-
30.	Arenggre	-do-
31.	Jelbongpara	-do-

Sl. No.	Name of JFMC	Name of Range/RLC
32.	Chondonpara	-do-
33.	Marakapara	-do-
34.	Sentapara	-do-
35.	Mellim	-do-
36.	Bangkapara	-do-
37.	Genapara	-do-
38.	Dengnakpara	-do-
39.	Sadolpara	Dadenggre Range
40.	Aguragre	-do-
41.	Chibonggre	-do-
42.	Mongalgre	-do-
43.	Anogre	-do-
44.	Marakapara	-do-

CHAPTER III

PROJECT EVALUATION

3.1.Introduction

The National Afforestation project has been initiated in the state of Meghalaya during the 10th plan period where the other Centrally Sponsored schemes has been discontinued. But instead a scheme has been designed by the Government of India to peoples participation and Community development, thus shouldering the responsibility to Members of the Community also to carry out the afforestation activities to increase the forest areas in a larger scale. Bearing in mind the development opportunities the following interventions are being proposed in the project, considering the project areas are mostly the watershed the intervention should aim that the area remains unexposed. Thus the items of incentives proposed are as follows - ANR, AR, BP, MP, CP, Regeneration Herbs & shrubs, Pasture Development. etc.

The scheme presently emphasizes to uplift the Watershed Catchment areas by means to taking out extensive afforestation programme by the Community , besides the scheme also emphasizes on the Community development like providing the basic needs of the local people viz. Road Footpath, renovation of schools, providing drinking water, Community Hall, Water harvesting devices, Soil & water Conservation activities etc.

The practice of shifting cultivation is still in practice in the remote areas, and with the implementation of such schemes the jhuming may brought down to some extent, since the barren areas are taken up for plantation of economical viable species including medicinal plants and the villagers are being engaged in the nursery and plantation activities.

Date of formation of the FDA and Govt. Notification

The West Garo Hills, Social Forestry Division FDA was formed and registered under Meghalaya Societies Act, 1983 during the year 2003. This forest development agency has been formed according to the Government of Meghalayas O.O. No. FOR.62/2000/239 dated 9/9/2003.

Date of launching of the project in the division

The West Garo Hills, Social Forestry Division FDA ,Tura has been launched the NAP project during the year 2004-05.

When the project was launched and fund sanctioned, West Garo Hills was a single district. Subsequently during 2011 the district has been bifurcated into two ***viz.*** West Garo Hills & South west Garo Hills district. However Forest Development Agency remained the same ***i.e.*** West Garo Hills Social Forestry Division.

3.2.Project areas & Locations

The project areas are located within the West and South-West Garo Hills districts. The villages & JFMCs selected are within the districts. A list of JFMCs selected during the period 2004 to 2014 has been listed above.

3.3.Any previous Project

This is an ongoing project launched during the financial year 2004-05 and is continuing.

3.4.Socio economic profiles

All inhabitants of the villages are Scheduled tribes, the villagers are very poor , the villages has vast land under their command ,which are mostly denuded grass/unproductive lands, due to over exploitation of land during earlier years; which cannot be used for any gainful purpose except for forestry plantations. The tract falls under ***a) Tropical Moist Deciduous Forests b) Tropical semi evergreen Forests with Bamboo.*** The degraded grass lands are now devoid of any tree cover worth mentioning. There is high degree of pressure on the marginal forest areas and as such this requires immediate attention/restoration.

3.5.Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary

responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.6.Project Components

To achieve the objectives, in every selected villages Joint Forest Management Committees were formed by the villagers from the village committee members and all the works related to the project were undertaken by these JFMC members.

3.7.Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members . All the related works of the plantation were done by the JFMC members as well as villagers of that particular village.

3.8.Creation of JFMC

Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.9.Implementing Agencies

For implementing the scheme as per Government of Meghalaya O.O no FOR.62/2000/239 Dt 9th of September 2003; Forest Development Agency was formed in the forest division .

3.10. Micro planning

Micro plans were prepared for each JFMCs after conducting a Participatory Rural appraisal exercise among the JFMC members. Group discussions were conducted to select various interventions and species to be planted, entry point activities to be undertaken etc.

3.11. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be under taken as entry point activity so that JFMCs become self sustained in future, for maintenance of the assets which has been created.

3.12. Approved programme of works

In accordance to the fund released approved interventions has been carried out in consultation with the villagers, as envisaged in the micro plans.

3.13. Quantitative Analysis

3.13.1. Classification of area covered/Treated

Under the West Garo Hills Social Forestry division FDA all the areas treated so far are community owned degraded forest land. Breakup of areas treated under different interventions are as

Category	ANR	AR	Mixed Plantation	Total (in hact)	% of total project area
Forest Land	--	--	--	--	--
Community land	1010	1265	2440	4715	
Revenue land	--	--	--	--	--
Govt. waste land	--	--	--	--	--
Private land	--	--	--	--	--
Total	1010	1265	2440	4715	100%

3.13.2. Physical and financial Achievements

Sl No	Item	Physical (Area in Hac)		Financial(Rs in lakhs)	
		Target	achievement	target	Achievement
1	ANR				
	a. Advance works	850	850	26.12	26.12
	b. creation	850	850	17.40	17.40
	c. Maintenance	850	850	66.50	66.50
	Subtotal	**850**	**850**	**110.02**	**110.02**
2	Artificial regen.				
	a. Advance works	1060	1060	56.14	56.14
	b. creation	1060	1060	29.92	29.92
	c. Maintenance	1060	1060	13.44	13.44
	Subtotal	**1060**	**1060**	**99.5**	**99.5**
3.	Mixed Plant.				
	a. Advance works	555	555	21.43	21.43
	b. creation	555	555	20.60	20.60
	c. Maintenance	555	555	58.80	58.80
	Subtotal	**555**	**555**	**100.83**	**100.83**
4	Soil & moisture conservation			55.88	55.88
5	JFM/ Training/Awareness			3.87	3.87
6	Fencing			17.5	17.5
7	Monitoring & Evaluation			6.74	6.74
8	Improved technologies				
9	Overheads			37.75	37.75
	Total	**2465**	**2465**	**432.09**	**432.09**

3.14. Peoples participation

Participatory Rural Appraisal/ Micro planning:-

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation

as well as during the preparation of project at every step JFM members has been consulted and their suggestion /views has been taken into consideration. The FDA have released the fund to the RLCs for preparation of Micro Plan for each of the JFMCs in consultation with the JFMC members.32 nos of JFMCs have already prepared the Micro Plan.

- Till date 32 nos. of Micro plans has already prepared.
- Till date expenditure incurred for preparation of micro plans are Rs **5.38 lakh** only.

Year		Expenditure incurred	Percentage of Total approved outlay
Starting			
2004-05 } =	2,28,000	1,57,000/-	100%
2006-07 }		71,000/-	-
2007-08 =		-	-
		-	-
2008-09	71,000	71,000/-	100%
2010-11 =	1,03,000	1,03,000/-	100%
	4,02,000	**4,02,000/-**	
2011-12 =		-	-
Till date			
2012-13 =	1,00,000	1,00,000/-	100%
2013-14 =	36,496	36,496/-	23%
Total:-	**5,38,496**	**5,38,496/-**	**60%**

3.15. Entry Point Activities

In total Rs.**95, 56,795.00** lakhs has been spent for creation of different assets.

3.15.1. During the year 2004-05

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
Ranggegonganggre	Spring Chamber	1 no	1,20,000	Nil
Dalanggre	Spring Chamber	1 no		

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
Durakantagre JFMC	-	-	-	”
Sasatgre	Sanitary latrine with water tank & urinal	1 no	60,000	”
Darechikgre	Water Reservoir (RCC)	1 no	60,000	”
Doldigre	Fishery Pond	1 no	1,60,000	”
Indikgre	Fishery Pond	1 no		”
Jenggitchakgre	-	-	-	”
Arenggre	Ringwell	1 no		”
Rongbakgre	Sanitary Latrine	1 no		”
Dasingpara	Repairing of Community Hall	1 no	60,000	”
Salmanpara	-	-		
Demdema	Conservation Pond , Repairing of School	1 no	50,000	”
Total:-			**5,10,000**	

3.15.2. During the year 2005-06

For the year **2005-06** the total EPA expenditure is **Rs. 18, 86,795.00** as mentioned by Meghalaya State forest Development Agency**.**

3.15.3. During the year 2006-07

Name of JFMC/Village	Assets Created	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
Ranggegonganggre Dalanggre	Construction of latrine double unit Renovation of Primary	1 no 1 no	50,000 1,20,000	**Nil**

Name of JFMC/Village	**Assets Created**	**No of Assets**	**Expenditure Incurred (in Rs)**	**Peoples contribution towards expenditure**
	School			
Durakantagre	Renovation & Extension of Primary school at Nengsanggre	1 no	1,30,000	”
Sasatgre	Construction of L.P.School cum-Community Hall at Durakhalakgre		1,50,000	”
Darechikgre	Construction of L.P.School cum-Community Hall	1 no	2,00,000	”
Doldigre	Weaving facility WSHG	1 no	50,000	”
Indikgre	JFMC Office cum – market shed for renting out	1 no	70,000	”
Jenggitchakgre				”
Arenggre				”
Rongbakgre				”
Dangsinpara	Construction of Latrine	1 no	45,000	”
Salmanpara				”
Demdema	Construction of sanitary latrine at Demdema Bazar		45,000	”
Total :-			**8,60,000**	”

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
Sadolpara			-	**Nil**
Marakapara			-	”
Durakantagre			-	”
Kherapara			-	”
Amongpara			-	”
Sosotpara			-	”
Sop-Adinggre			-	”
Indikgre	-		50,000	”
Rongbakgre	-		40,000	”
Marakapara	-		-	”
Doldigre	-		-	”
Genapara	-		-	”
Darechikgre	-		1,10,000	”
Total ;-	-		**2,00,000**	”

3.15.4. During the year 2007-08

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
Sadolpara -do- Agalgre	Construction of Community hall Bench & Desh Construction of Community hall	1 no 1 no	1,40,000 30,000 1,40,000	Nil
Marakapara Durakantagre	Construction of Nokma Bandasal	1 no 1 no	70,000 28,550	Nil

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
	Sanitary latrine			
Amongpara	-	-	1,65,350	Nil
Sosotpara	-	-	1,30,710	Nil
Indikgre	-	-	99,635	Nil
Kherapara	-	-	2,16,050	Nil
Darechikgre	-	-	1,51,055	Nil
Sop-Adinggre	-	-	34,280	Nil
Rongbakgre	-	-	25,710	Nil
Marakapara	-	-	17,140	Nil
Doldigre	-	-	25,710	Nil
Genapara	-	-	25,710	Nil
Total :-	**-**	**-**	**13,00,000/-**	

3.15.5. During the year 2009-10

In total Rs. 28,00,000.00 lakhs has been spent for creation of different assets for the year 2009-10. There was not expenditure on EPA for the year 2008-09 and 2012-13.

3.15.6. During the Year 2010-11

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
Sadolpara JFMC location Marakapara	Construction of Community Hall Construction of Nokma Bandasal	1 no 1no	2,50,000 75,000	
Mongalgre	-do-	1 no	2,50,000	
Sadolpara	VIP Bandasal	1no	1,50,000	
Bugakolgre	Construction of Nokma Bandasal	1no	75,000	
Arenggre JFMC	Construction of sanitary Toilet	1 no	1,15,000	
-do-	Construction of Ringwell	1no	80,000	
-do-	Distribution of Plastic Chairs	80 nos	24,000	
Chondonpara JFMC	Construction of sanitary Toilet	1 no	1,15,000	

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
-do-	Improvement of Link Road	-	80,000	
-do-	Renovation of UP School	1no	66,000	
Salmanpara JFMC & Godalgre	Construction of Nokma Bandasal	1no	1,10,000	
Godalgre, Chondon-Nokat,Salmanpara & ponchapara	Distribution of Plastic Chairs @270/-		50,000	
Chondon-Nokat & Ponchapara	Construction of Nokma Kachari	2nos	1,00,000	
Ponchapara	Renovation of Waiting shed	1no	20,000	
Dangsinpara	Construction of Nokma Kachari	1no	40,000	
Jenggitchakgre JFMC	Construction of CC footpath	1no	65,000	
-do-	Construction of Water Tank	1no	18,000	
-do-	Cost of Plastic Chairs		36,000	
-do-	Cost of Sewing machine	2 nos	24,000	
Jonangpara	Construction of Pit latrine	3 nos	15,000	
Rejanggre	-do-	1no	40,000	
Daluagre	-do-	1no	40,000	
Achapara	-do-	1no	40,000	
Bolori market	-do-	1no	40,000	
Dabelagre	Renovation of Community Hall	1no	25,000	
Rongbretgre	Renovation of English school	1no	32,000	
Rakmanpara	White Washing of Community hall	1no	5,000	
Amongpara JFMC	Construction of Pit latrine	1no	18,000	
-do-	Renovation of LP School	1no	80,000	
-do-	Cost of Plastic		22,000	

Name of JFMC/Village	**Assets Created under EPA**	**No of Assets**	**Expenditure Incurred (in Rs)**	**Peoples contribution towards expenditure**
	Chairs			
Rimrangpara	Construction of Pit latrine	1no	40,000	
Kherapara JFMC	Cost of Plastic Chairs		25,000	
Anggalanggre	Renovation of LP School	2no	20,000	
Anangpara to Sandagre	Construction of Culvert & road		50,000	
Jongbu Ading	Construction of Pit latrine	1no	40,000	
Jongbu Chiring	-do-	1no	40,000	
Posengagre	Renovation of waiting shed	1no	25,000	
Makalpara	Renovation of Community Hall	1no	20,000	
Sosotpara JFMC	Renovation of LP School	1no	50,000	
-do-	Construction of Pit latrine	1no	27,000	
-do-	Cost of Plastic Chairs		23,000	
Sop-Adinggre JFMC	Construction of Pit latrine	1no	40,000	
-do-	Construction of Conservation Pond	1no	50,000	
-do-	Cost of Plastic Chairs		20,000	
Babadam Road	Construction of waiting Shed	1no	70,000	
Darechikgre JFMC	Construction of Katcha Road	1no	30,000	
-do-	Construction of Water tank	1no	40,000	
-d-	Cost of Plastic Chairs		10,000	
Darechikgre & Duragre UP School	Construction of Latrine	2nos	80,000	
Total of EPA			**28,00,000/-**	

3.15.7. During the Year 2011-12

Name of JFMC/Village	Assets Created under EPA	No of Assets	Expenditure Incurred (in Rs)	Peoples contribution towards expenditure
Chibonggre JFMC	Construction of Checkdam	1 no	1,00,000	
Mongalgre	Construction of Fishery pond	3 no	2,40,000	
-do-	Distribution of Plastic Chairs @ Rs. 400/-	100nos	40,000	
Marakapara JFMC	Purchasing of Rice Mill Machine	1no	40,000	
Rongkakgre	Construction Fishery Pond	1 no	40,000	
Subtotal			**8,60,000**	
Amongpara JFMC a) Babugre	Construction of Spring Chamber Fishery Tank	1 no 1 no	80,000 60,000	
Sosotpara JFMC a) Mibonpara b) Saropagre	Construction of Spring Chamber Fishery Tank	1 no 1 no	60,000 60,000	
Sop-Adinggre JFMC	Construction of Fishery pond Distribution of Plastic Chairs @ Rs. 400/-	1 no 100 nos	60,000 40,000	
Jenggitchakgre JFMC a) Singbandagre b) Gambegre	Construction of Fishery pond Distribution of Plastic Chairs @ Rs. 400/- Construction of Spring Chamber	1no 50 nos 1 no	60,000 20,000 60,000	
Kherapara JFMC a) Musigre b) Gonchudare c) Ganipara	 Fishery Tank Fishery Tank Fishery Tank	 1 no 1 no 1 no	 53,500 53,500 53,000	
Darechikgre JFMC	Construction of Fishery Thank Distribution of Plastic Chairs @ Rs. 400/-	2 no 50 nos	1,20,000 20,000	

Name of JFMC/Village	**Assets Created under EPA**	**No of Assets**	**Expenditure Incurred (in Rs)**	**Peoples contribution towards expenditure**
Doldigre JFMC				
a) Suringgre	Construction of Fishery pond	1 no	1,00,000	
	Distribution of Plastic Chairs	50nos	20,000	
b) Teksragre	@ Rs. 400/-	1 no	60,000	
c) Dondagre		1 no	40,000	
d) Rongalgre	Construction of Fishery pond	1 no	60,000	
	Construction of Fishery pond			
	Construction of Fishery pond			
Sub Total:-			**10,80,000**	
Jelbongpara JFMC	Vehicle (Second hand Mahindra Pickup/New Tata Magic)	1 no	3,60,000	
Arenggre JFMC				
a) Ponchapara	Construction of Fair Price Shop/Rice Mill	1 no	60,000	
b) Chondon Nokat	Ten House Materials			
	a) Cooking Utensils	10 nos	20,500	
	b) Kadhai	5 nos	7,500	
	c) Tarpolin	1 no	5,000	
	d) Plastic Chairs @ 350/-	20 nos	7,000	
Sub Total:-			**4,60,000**	
TOTAL			**20,00,000**	
G. Total			**95,56,795/-**	

3.16. Joint Forest Management - JFM committee

Under the West Garo Hills Social Forestry Division FDA altogether 42 (forty two) Joint Forest Management Committees has been initiated in 42 villages till date, over the whole of West Garo hills & South West Garo Hills districts. Total households in all the JFMCs are 4272 nos. All the members of these committees are Scheduled tribes and out of that percentage of women members is 35.08% only. The composition of these committees are as:-

- No. of villages where formation initiated in the Division. : 42
- No. of villages where formal committees establishment in the Division. : 42
- Total number of committees establishment so far in the project areas : 42
- Total membership in terms of household/families : 4272 (house hold)
- Percentage of women, SCs, STs in the JFM committees :35.08%

	Male	**Female**	**Total**
Scheduled Caste	**---**	**---**	**---**
Scheduled Tribes	**2773**	**1499**	**4272**
Others	**---**	**---**	**---**
TOTAL	**2773**	**1499**	**4272**

- Under the West Garo Hills Social Forestry Division FDA in none of the JFMCs, village development fund has been created; which is not at all encouraging. The CEO must take initiative to create Village development fund in all the JFMCs. Joint Forest Management Committees must be asked and made to open an account with the local banks.
- Forest development Agencies and Joint Forest Management Committees were holding General body and Executive committee meetings regularly as per the records available.

Following are the number of meetings held by the FDA & JFMCs

Meetings	**FDA Meetings**	**JFMC Meetings**	**Remarks**
Number of General Body Meetings Held	7(Seven)	27 (twenty seven)	adequate
Number of executive committee meetings held	26(Twenty Six)	63 (sixty three)	adequate

3.17. Records & Registers

Micro planning for each of the JFMCs has been prepared in consultation with JFMC members. During evaluation the following documents and registers has been found **with the FDA**

- Cash book
- cheque issue register
- General body meeting & minutes register
- Executive body meeting and minutes register.
- Fund sanction register
- Membership register etc.

During evaluation the following documents and registers has been found **with the JFMC** which were found to be adequate as per forestry norms.

- Cash book
- cheque issue register
- General body meeting & minutes register
- Executive body meeting and minutes register**.**
- Plantation journal
- Nursery Journal
- JFMC Membership register.etc..

3.18. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards.

However, Separate item under Training and Capacity Building was incorporated in the National Afforestation Programme revised Operational Guideline -2009. Training and Capacity Building Fund was received by the FDA for the said item during the year 2010-11.

Fund received year-wise under Awareness Raising, Training and Capacity Building

Years	Awareness Raising (Rs in Lakhs)	Training & Capacity Building (Rs in Lakhs)
2004-05	0.47	-
2005-06	0.50	-
2006-07	0.17	-
2007-08	0.92	-
2008-09	0.35	-

Years	Awareness Raising (Rs in Lakhs)	Training & Capacity Building (Rs in Lakhs)
2009-10	-	-
2010-11	0.52	2.59
2011-12	0.67	-
2012-13	-	-
2013-14	0.80	-

From the beginning of the project during 2004 till date field staff along with JFMC members has also been trained by the FDA for better understanding the JFMC model of working.

Training Programme conducted	**Accounts, Rural Development & related subjects**
A. Staff trained	
Number of Staff trained	53 Persons
Topics covered	Rural Development, Forestry,& other related Subjects
B. Community	989 JFMC members
Organisations involved	Forest Department, NEHU,IFAD & Line Departments

Expenditure incurred on Training was 259000 lakhs only for the year 2010 -11 in the division.

3.19. Monitoring & Evaluation

Number of Inspection made by:-

- Chief Conservator of Forests :- 2 Times
- Conservator of Forests :- 11 times
- Deputy conservator of Forests :- 121 times

The above officers were monitoring the JFMC plantations & other works regularly during past years in course of their visits to different JFMCs on a regular manner.

3.19.1. Year wise expenditure incurred on Monitoring & Evaluation :-

M&E expenditure for five years stands at Rs**4,67,496/-** as mentioned in the following table were incurred for Monitoring and Evaluation. No expenditure incurred on M&E for the four year i.e. 2007-08, 2008-09, 2009-10 and 2011-12.

2005-06	2006-07	2010-11	2012-13	2013-14	Total
114000	114000	1,03,000	1,00,000	36,496	4,67,496

CHAPTER IV

SUMMARY OF EVALUATION

4.1.General

The objective of the present study by way of evaluation & monitoring of **West Garo Hills Social Forestry Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** is to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the district. Under this Programme focus is to encourage the rural people for protection & conservation of forests by way of extracting financial as well as tangible& non tangible benefits from forests and at the same time protecting the environment and encouraging the villagers in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and creating afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash & burn (Jhum) method of agricultural practice.

4.2.Introduction

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05.In West Garo Hills district **West Garo Hills Social Forestry Division FDA** was entrusted to implement the project. Funds Released & spent by the FDA are:-

Year	**Financial achievement (in Rs)**	
	Fund released	**Spent**
2004-05	38,00,000	38,00,000
2005-06	84,00,000	82,98,000
2006-07	60,00,000	61,54,500
Sub total	**1,82,00,000** **52,500 Interest**	**1,82,52,500**

2007-08 ,,	33,00,000 50,00,000 **83,00,000**	33,00,000 50,00,000 **83,00,000**
2008-09	90,00,000	90,00,000
2009-10	Nil	Nil
2010-11	1,00,38,000	1,00,38,000
2011-12	50,00,000	50,00,000
2012-13	89,13,000 17,29,000 **1,06,42,000**	89,13,000 17,29,000 **1,06,42,000**
2013-14	61,00,000	61,00,000
Total	**6,73,32,500**	**6,73,32,500**

4.3.Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and

carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

4.4. Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 44 and total nos. of beneficiaries is 4272. Therefore, the representative sample size of the division stands at 21 nos. of JFMCs as 50% and around 854 nos. of beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

Hence the evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the West Garo Hills Social Forestry Division FDA.

During collection of primary field data many plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following worth mentioning.

4.4.1. Plantation 1

- **Sadolpara JFMC Plantation under Dadenggre RLC, Dadenggre Block** Visited 15 hact of miscellaneous plantation with teak, Ghamari etc, plantation is good, growth is good weeding has been done well.

Overall observation

Plantation is good in all respects. Saplings are healthy.

- Visited 35 ha. artificial regeneration area, planted with teak,
  Year of creation 2012-13,

Condition of plantation is good, weeding has been done well, growth of plantation is good. Also met chairman of JFMC Sri Nipjen Sangma and discussed about activities of the JFMC and asked for creation of Village development Fund.

Overall observation

Plantation is satisfactory.

4.4.2. Plantation 2

Dansinghpara JFMC under Betasing RLC under Zigzag block - Visited 10 hac. artificial regeneration area, created during 2012-13.Plantation is good. growth of planted seedling are good.

Overall observation

Plantations are very good in all respects.

4.4.3. Plantation 3

Arenggre JFMC under Betasing RLC, Betasing Block - Inspected 15 Hect of artificial regeneration area. Where area has been planted with teak and sal seedlings. Weeding has been done well.

Overall observation

Plantations are very good in all respects.

4.4.4. Plantation 4

Rongalgre JFMC under Tura Beat RLC - Visited teak plantation of 15 hact, year of creation 2011-12 growth is good twak saplings are healthy requires protection against grazing & fire.

4.4.5. Plantation 5

Chondonpara JFMC under Betasing RLC - visited 35 ha. Artificial Regeneration area where the area has been planted with Teak, Ghamar etc plants. Weeding is continuing.

Overall observation

Plantations are very good in all respects**.**

4.4.6. Plantation 6

Jenggitchakgre JFMC under Tura Beat RLC - visited teak plantation area 15 ha. growth of plantation is good, requires protection against fire and grazing.

Overall observation

Plantations are very good in all respects

4.4.7. Plantation 7

Chibongre JFMC under Tura Beat RLC - inspected 25 ha. Aided Natural Regeneration area under Chibongre JFMC. The plantation is well stocked with Sal. Poma, Tita champ etc trees. This requires protection.

Overall observation

Plantation is good in all respects.

4.4.8. Plantation 8

Dondagre JFMC under Tura Beat RLC - Artificial Regeneration 10 ha. plantation is well stocked with Teak, Gamari 75% survival percentage created during 2012-13 .

Overall observation

Plantation is good in all respects

4.4.9. Plantation 9

Rongalgre JFMC under Tura Beat RLC - mixed plantation 15 ha. plantation is well stocked with Teak, gamari 76% survival percentage created during 2010-11.

Overall observation

Plantation is good in all respects

4.4.10. Plantation 10

Dengnakpara JFMC under Betasing RLC - Artificial Regeneration 20 ha. plantation is well stocked with Teak, gamari, Neam & Titachap etc 70% survival percentage created during 2012-13.

Overall observation

Plantation is good in all respects

4.4.11. Plantation 11

Anogre JFMC under Dadenggre RLC - 16 ha. Mixed plantation is well stocked with Gamari, Titachap & Teak etc 72% survival percentage created during 2012-13.

Overall observation

Plantation is good in all respects

4.5. Performance and manner of implementation of the project

The project was launched during the year 2004 with the fund released by National Afforestation & Eco development Board(NAEB), Government of India, to the West Garo Hills Social Forestry Division Forest Development Agency(WGSFFDA),which was registered as a society as per the provisions of Meghalaya Societies Act 1983(Meghalaya Act XII of 1983) during the year 2003.

As per the guidelines of NAEB till date 42 Joint forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.5.1. Project Beneficiaries

In the whole of the project area as per the record available with the department till date total JFMC members are 4272 heads out of that 1499 are female /women beneficiaries. All the members are Scheduled Tribes.

4.5.2. Physical progress

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guide line have been achieved. Within the first year itself, as mentioned in the project. Implementation models were developed involving beneficiaries to form JFMCs. To have a better understanding of JFMC model of functioning, many workshops and training programmes have been conducted.

4.5.3. Financial Progress

Financial progress is as expected, as fund has been released in accordance with work schedule.

4.5.4. Physical and Financial achievement

Year	Physical Achievement		Financial Achievement	
	Target	Achievement	Fund Released	Amount Spent
1	2	3	4	5
2004-05	600 hac	600 hac	38,00,000 lakhs	38,00,000 lakhs
2005-06	600 hac	600 hac	84,00,000 lakhs	82,98,500 lakhs
2006-07	550 hac	550 hac	60,00,000 laks	61,54,000 lakhs
2007-08	700 hac	700 hac	83,00,000 lakhs	83,00,000 lakhs
2008-09	200 hac	200 hac	90,00,000 lakhs	90,00,000 lakhs
2009-10	-	-	-	-
2010-11	700 hac	700 hac	1,00,38,000 lakhs	1,00,38,000 lakhs
2011-12	500 hac	500 hac	50,00,000 lakhs	50,00,000 lakhs
2012-13	365 hac	365 hac	1,06,42,000 lakhs	1,06,42000 lakhs
2013-14	500Hac	500Hac	61,00,00.00 Lakhs	61,00,00.00Lakhs
Total	**4715 hac**	**4715 hac**	**6,73,32,500 lakhs**	**6,73,32,500 lakhs**

4.6.Impact and assessment of the project:-

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, NAP covered 2465 ha. i.e. 0.11 % of the Meghalaya state respectively under which three kinds of plantation was taken up. Being survival rate of the plantations standing at 70-75% it is found that green cover has retained and increased to significant level.
- Entry point activities in the form of construction, renovation and repairing across the villages have made availability of water sources. Constructions of Spring Chamber, Check dam, Water Reservoir (RCC), Ringwell, Conservation Ponds are significant for making sufficient sources of water. Sanitary latrine and urinal with water tank are important drives towards cleanliness and caring steps towards the environment of the villages.
- A total of 42 JFMC were formed across the division under three RLCs i.e. Dadenggre, Tura and Betasing Range. Most of JFMCs are concentrated in Betasing Block (12 nos.) followed by Rongram and Gambegre with 11 nos. and Dadenggre and Zikzak with 3 nos. and Rongram Block with 3 nos.
- Out of major 7 components i.e. ANR, AR and Mixed were taken up under the programme in the Division. Artificial Regeneration was covered (1060 ha.) maximum in the division followed by ANR and Mixed Plantation.
- The landscape and hillock which were earlier barren and devoid of trees have now been brought under forest cover. The existing woodlands and village forest have been reduced to a great extent. There is lot of improvement in the water regime of different catchment area and valley in which retention period of water along the stream has increased.
- The quality of work in general as observed in different JFMCs had impacted in the minds of the villagers under the programmes although at the initial stage due to lack of know how there was little dissatisfaction.
- Reduction in Forest fires.
- Regeneration of barren lands and conservation of catchment areas, preservation and protection of catchment areas, sustainable and alternative livelihood through NTFPs are important impact noticed after the NAP.
- Reclamation of abandoned jhum cultivation areas.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest.
- About 32 Micro plans prepared under the Division conducting Participatory Rural Appraisal for various interventions and EPAs under which 4272 households participated. A total of

35.08% of women participated. Further, 989 community members under JFMSs were trained on forest development and maintenance related topics.

- For social wellbeing and upliftment of the local communities development of infrastructure for education had been stressed under EPAs. Under that repairing of School - renovation of Primary School, renovation & extension of Primary school, construction of L.P. School cum-Community Hall, repairing of Community Hall etc. were significant and impacted directly as well as indirectly the livelihood of villagers.
- With respect to income generation, Fishery Pond, Weaving facility WSHG, JFMC Office cum –market shed for renting out at market place are important EPAs has impacted directly to the villagers economy.
- All the beneficiaries surveyed believe that this afforestation programme is lucrative and very suitable for the present circumstances.
- All beneficiaries say that they face a lot of difficulties, as in most of the plantations affected by high degree of cattle grazing, not from the same JFMC but from nearby villages.

4.7.Reason for deficiency

All JFMC members surveyed believe that non receipt of Government fund in proper time for various works is the main reason, as forestry works are time bound and time taking.

4.8.Observations

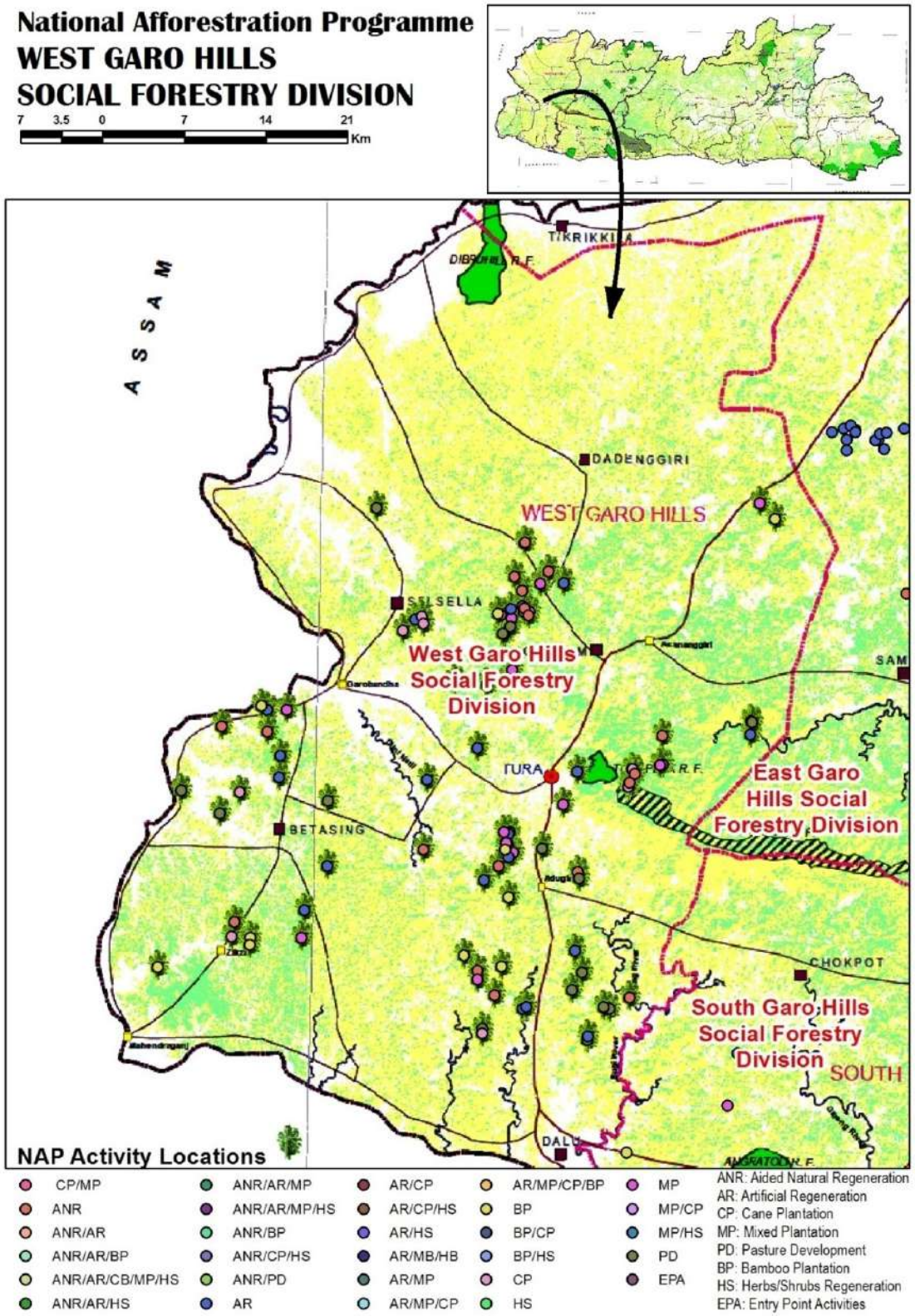
- During evaluation it has been observed that in many of the JFMCs plantations has been done with maintenance works. However, CEO informed that due to shortage of fund few entry point activity works & maintenance could be done and rest works will be taken up as when fund is released with support from JFMC members. Moreover it has been observed that in the JFMCs, few income generating project/works has been taken up which will remain as assets to the JFMCs.
- During the visit to the JFMC villages, group discussion has been held with the villager who has shown strong determination for protection of the forests they have created and assured to protect these forests at any costs.
- During survey it has been observed that in none of the JFMCs '*Village development fund'* has been created. So it is suggested Village development fund may be created immediately.

- However it is found that number of meetings held are sufficient as per requirements as executive committee meetings are to be held once in every three months and general body meetings are to be held once in a year.
- It is found that regular training was conducted during last 10(Ten) years by the FDA as well as by the Range Level Coordinators. Authorities should conduct more training to the staff as well as to the JFMC members for better understanding & interaction among the rural people and the implementing officers.

4.9.Suggestions and recommendations

- Timely release of fund. Delay of fund release severely affects the plantation. Weeding protection and interest of the communities towards conservation.
- Project Outlay of funds and sanction differs every year which also hampers the work
- Committed liabilities need to be release immediately.
- Sanction amount for plantation is always not as per proposal submitted.
- Sufficient funds for awareness programmers, overhead, researched etc.
- Sufficient funds for ensuring continued support from the local communities and Garo Hills Autonomous District Council for creating assets like School, Buildings, Halls, Water drinking facilities etc.

4.10. Maps / Photographs



Bamboo plantation under Sadolpara JFMC

JFMC office at Sadolpara JFMC

Irrigation Dam under Rongbakgre JFMC

Discussion with the villagers of Chondon para

Plantation under Rongbakgre JFMC

Artificial Regeneration Plantation

EPA (Mongalgre) 2012-13 Fishery Pond

NAP 2013-14 ANR-8ha
Mogalgre

NAP 2012-13
Anogre 16ha MP

Plantation at Chandanpara

Plantation at Chandanpara

EPA Works at Betasingh JFMC

Fishery Pond at Arenggre Joint Forest Management Committee Under SMC

Construction of Sanitary Toilet at Arenggre Joint Forest Management Committee Under EPA

Taksragre teak Plantation (Jenggitchakgre JFMC)

15 hact artificial regn. Area ,Arenggre JFMC

Rongalgre teak plantation

DIRECTORATE OF PROGRAMME
IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON
NATIONAL AFFORESTATION PROGRAMME (NAP)

Jaintia Hills Social Forestry Division

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CHAPTER I

INTRODUCTION

1.1. General

Jaintia hills district with headquarter at Jowai is the eastern most district of the state of Meghalaya lying between the latitude 24° 58'N and 26° 3' N and longitude 91° 59'E and 92° 51' E having an area of 3,819 Sq Km.

1.2.Location of the District

The tract was known as "Jaintia Hills" since 1835 when the area came under British Rule. It was called so, to differentiate it from the plains belt of the Jaintia kingdom which was spread up to present Bangladesh. The capital of the kingdom was at Jaintiapur which is at present under Bangladesh territory. The people of the district are better known as "Syntengs" or "Pnars".

The district is bounded in the North by Karbi-Anglong (Earlier known as Mikir Hills) District of Assam, in the East by North Cachar hills and Cachar districts of Assam, in the South by Bangladesh and in the West by East Khasi Hills district of Meghalaya.

The total geographical area of Jaintia Hills District is 3819 Sq. Km. Jaintia Hills teritorial Division comprises of three patches of Reserve Forest viz, Saipung Reserve, Narpuh Block – I and Narpuh Block – II. Besides these Reserve Forest there is no forest of any other category, falling under the jurisdiction of this Division. All the reserved forest lies adjacent to the District boundary which also forms the inter-state boundary on the east and international boundary on the south. Saipung and Narpuh Block – I is bounded by Bangladesh on the south.

In general the terrain is rugged, comprised entirely of hills with deep gorges and narrow valleys along which flow numerous turbulent streams that drain into two major rivers in Saipung Reserve and three others in Narpuh Reserve.

The population of the district is 2,99,108 (males 1,49,891 and Females 1,49,217),percentage of literacy is about 51.9% as per 2001 census. Jaintias are traditionally Hindus. They reckon their descendance through female lines and follow matrilineal system of heredity.

1.3.River system of the district

Like most of the rivers of the state the rivers of the district are fed by rains and so they are flooded during rains but carry lean discharge during winter.

The major rivers in Saipung Reserve viz. river Kopili and river Khynriam flow eastward gradually turning north to Assam. In Narpuh Reserve, River Lukha dividing Block – I & II flows westward gradually turning south to the Surma Valley in Bangladesh. This drainage pattern is due to alignment of the hill ranges which is roughly east – west.

The river *Myntdu* originates near Jowai town and almost encircling the town it flows to the plains of Surma valley. At plains it is known as *Hari.* The river *Wah Prang* is a tributary of *Myntdu*.

1.3.1. Rivers flowing to Surma

The river ***Myngngot*** which is known as *Umngot* by Khasis forms a natural boundary between Khasi and Jaintia Hills in the south. The river originates from Khasi Hills and after passing through rugged hills it enters in the plains of surma valley near Dawki.

The river *Wah Lukha* originates from South of Saipung village and after traversing through rugged hills it enters surma valley near Umkiang .It is one of the very few rivers that splits into two and forms two separate rivers *Wah Lukha* and *Wah Simlieng.*

1.4.Rivers flowing to Brahmaputra

The river *Kopili* with its tributary *Myntang* and *Mynriang* originates from the northern slopes of Saipung hills and flows to Bramhaputra.

1.5.Climate

The district is having mostly warmer climate**.** Altitude varies from 100m to1600m AMSL Average rainfall is about 200 mm to 500 mm. Humidity is about 80%-86%.Average temperature is 24 to 18 degree centigrade during summer and 10-6 degree centigrade during winter.

1.6.Major Forest Types

On the basis of Rainfall, Altitude, Temperature several forest types can be noticed.

1.6.1. Forests of Jaintia Hills

Forests of Jaintia Hills are predominantly Evergreen forests with Castanopsis armata Eleocarpus ragosus, Gynocardia odorata, Terminalis citrine and vitex Spp. etc in the top canopy. According to Champion and Seth the forests of Jaintia Hills conforms to Cachar Tropical Moist Evergreen forests (1B/C3).

1.6.2. Sub tropical pine Forests

This type of forests can be seen around Jowai Jarin , Raliang and adjoining areas to Shillong plateau. According to Champion and Seth the forests of Jaintia Hills adjoining to Jowai plateau conforms to ***Khasi Subtropical pine Forests (8B/C2).***

1.6.3. Bamboo Forests

They occur abundantly in any suitable areas and is distributed all over the district. Predominant species seen are Bambusa Species, Dendrocalamus species,Melocana Species. In the reserved forests they form middle storey of evergreen climax forests.

1.6.4. Cane Brakes

Various cane species can be seen in Saipung reserved forests. They occur extensively in the western and south western portion of the Saipung R.F. These canes can be seen near moist areas ,near nallas, and streams and even in moist forest floor. The four main species found are calamus species, creeping bamboo, Neohouzeaura and palms. The species composition varies according to localities having different site factors.

1.6.5. **Grass lands**

Savannah type grass lands can be seen in the mining areas of Sutnga, Khliehriat, Saipung and around Amlarem towards the south, with patches of evergreen forests on the valleys of hillocks. Saplings of schima wallichii ,woodfordia fruticosa, Indigofera pulchella and Berbaris Spp. Occurrence of species varies depending on aspect, altitude, soil depth and moisture availability. Rest of the areas are covered by grasses like saccharum spp, Imperata spp.,and broomstick. These grasslands represent retrograded sub climax vegetation which has come up due to biotic and edaphic factors and have replaced earlier vegetation.

1.6.6. **Deforested areas**

These comprise of habitations, grazing lands, fallow and abandoned Jhum lands. The last two types of areas give rise to either open grass lands or fully or partially degraded open forests**,** areas colonized by bamboos or euphorbiaceous scrub, depending on the type of jhumming practiced earlier on them and on the site conditions.

1.6.7. **Euphoribiaceous Scrub forests**

Euphoribiaceous Scrub forests can be seen in moist shady areas not colonized by bamboos or cane,in these areas typical association of Macaranga,Mallotus and Trema can be seen.

1.6.8. **Bamboo Forest**

Bamboo Growths can be seen in low areas in the bottom of the hill slopes, flat lands and areas adjoining to Nallahs and streams where drainage is poor and soil is moist.Species seen are Melocana Bambusoides and bambusa tulda. These bamboos forms the secondary succession in abandoned jhum lands.

1.7. The Reserve Forest areas

The highest elevation areas are found in the major portion of the Saipung Reserve and northern portion of the Narpuh Block – I and Block – II Reserve. Here the elevations range from 1050mts. to about 1550mts. The Jakersingh Maryngksih ridge forming a part of the western boundary of Saipung Reserve contains the highest peaks, the most

notable being Maryngksih Peak which, at 1601mts, is the highest point in the District. The lower elevation areas are bound in the remaining middle and southern portion of Narpuh Block – I & II Reserve. Here the hills are smaller and lower than in Saipung Reserve, but they have slopes that are much steeper and frequently precipitous. The general elevation of these hills is below 1000mts. The lowest lying areas are along the southern boundary of Narpuh Block – I Reserve. They comprise of the bottom of hill slopes and consist of river banks and low lying areas adjoining the plains of Bangladesh. The elevation here is 200 mts and below.

SL No	Name of the Reserve Forest	Area in Sq Km
1	Saipung	150.00
2	Narpuh Block -I	62.46
3	Narpuh Block - II	98.75
	Total	311.21

1.7. Grading of project on a scale of 1 to 10.

Sl No	Heads	Details	Grading
1	Quantitative Aspect	Physical	8
		Financial	6
2	Qualitative Aspect	Survival	7
		Health of plantations	8
		Maintenance	7
		Sustainability	8
3	JFM	Degree of peoples participation	6
		Satisfaction over perceived benefits by the local people	8
4	FDA Mechanism	Composition of general & Executive Bodies of	7

Sl No	Heads	Details	Grading
		the FDA	
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project	8
		Flow of funds from FDA to VFCs	8
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs	8

Over all Grading of the project	Out standing	Very Good	Good	Poor
	---	7.41	-------	-------

CHAPTER II
PROJECT PROFILE

2.1.Project Title

National Afforestation Programme.

2.2.Project Implementing FDA

Jaintia Hills Social Forestry Division Forest Development Agency.

East & West Jaintia Hills District, Jowai, Meghalaya. Social Forestry Circle, Meghalaya.

2.3.Project Location

The area falls under the whole of East & West Jaintia Hills District. Thadlaskein C D Block, Khliehriat C & RD Block, Saipung C.D. Block.

Range, Amlarem Range, Khliehriat Range.

2.4.Project Cost

Project cost till 31st March 2014 is Rs 520.54 lakhs. This is an ongoing project.

2.5.Functions of the Division

The main function of the Division is to create forest in denuded community lands of the district and at the same time create awareness among the masses about importance of forests and environment.

2.6.Incumbents in the Office

Sl.No.	Name & Designation	Period	Phone Number
1	Sri T.Kharlukhi MFS	11-12-2003 to 26-7-2007	
2	Sri D Challam MFS	26-07-2007 to 7-02-2012	
3	Sri W.S.MannarMFS	7-02-2012 to 16-08-2013	
4	Sri J.M. Posongap MFS	16-08-2013 till date	9863095851

2.7.List of JFMCs

Sl. No.	Name of JFMC	Name of Range/RLC
1.	Ialong	Jowai
2.	Sohmynting	-do-

Sl. No.	Name of JFMC	Name of Range/RLC
3.	Mukhla	-do-
4.	Khlieh Tyrshi	-do-
5.	Morapushai	-do-
6.	Wahiajer-B	-do-
7.	Wahiajer-C	-do-
8.	Ummulong	-do-
9.	Larnai	-do-
10.	Wahiajer	-do-
11.	Wahiajer-D	-do-
12.	Pdengshakap	Amlarem
13.	Trangblang	-do-
14.	Satpator	-do-
15.	Mustem	-do-
16.	Kudengrim	-do-
17.	Namdong	Namdong
18.	Rtiang	-do-
19.	Kdiap	-do-
20.	Rakabah	-do-
21.	Kdiap-B	-do-
22.	Wahsahsngi	-do-
23.	Bambthong	-do-
24.	Umladang	-do-
25.	Mukhap	Shangpung
26.	Mulieh	-do-
27.	Nangbah-A	-do-
28.	Moulhoi	Khliehriat
29.	Demthring	-do-
30.	Khliehriat East	-do-
31.	Tluh	-do-
32.	Tongseng	-do-

Chapter III

PROJECT EVALUATION

3.1.Introduction

The Jaintia Hills district is located in the eastern part of the state of Meghalaya and is blessed with favorable climatic , topographic and edaphic conditions, characterized by abundant and well distributed rainfall. When the project was launched and fund sanctioned Jaintia Hills was one district. Subsequently during 2011 the district was bifurcated into two viz. East Jaintia Hills & West Jaintia Hills district. However Forest division & FDA remained the same i.e. Jaintia Hills Social Forestry Division FDA. The Project was started during the year 2004-05 by the state. The Jaintia Hills Social Forestry division FDA was created under Societies Act, during 2004 and a detailed project proposal was submitted by the FDA for restoring degraded forest land under its jurisdiction during 2003 . Subsequently the proposal was accepted by the state Government and then by the National Afforestation and Eco-development Board, which sanctioned the project proposal and fund was released during 2004.

Jaintia Hills Social Forestry Division FDA was formed and registered as a society under Meghalaya societies Act,1983(Meghalaya Act XII of 1983) during 21st December 2006.This Forest development agency has been formed according to the Government of Meghalaya vide O.O.no FOR. 62/2000/239 dated 9th September 2003.

3.2.Project areas & Locations

The project areas are located within the East and West Jaintia Hills districts. The villages /JFMCs selected are within the districts. A list of JFMCs selected during the period 2004 to 2013 has been listed.

3.3.Previous Project

This is an ongoing project launched during the financial year 2004-05 and is continuing.

3.4.Socio economic profiles

Inhabitants of the villages belong to scheduled tribes. The economic condition of the villagers are poor. The villages has vast land under their command ,which are mostly denuded grass/unproductive lands, due to over exploitation of land during earlier years

and which cannot be used for any gainful purpose except for forestry plantations. The tract falls under ***a) Cachar Tropical Moist Evergreen Forests. b) Sub tropical pine Forests c)*** **Grass lands.** The degraded grass lands are now devoid of any tree cover worth mentioning. There is high degree of pressure on the marginal forest areas and as such these requires immediate attention/restoration.

3.5.Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.6. Project Components

To achieve the objectives, Joint Forest Management Committees in every selected villages were formed by the villagers, from among the Village Committee Members and all the works related to the project were undertaken by these JFMCs.

3.7. Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members. All the related works of the plantation were done by the JFMC members as well as villagers of that particular village.

3.8. Creation of JFMC

Joint Forest Management Committees have been formed in accordance with the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.9. Implementing Agencies

As per Government of Meghalaya's O.O. No FOR.62/ 2000/239 Dt 9th September2003 Forest Development Agency was formed in the Forest Division and they would carry out the work for successful implementation of the project.

3.10. Micro planning

Micro plans were prepared for each JFMC after conducting a Participatory Rural appraisal exercise among the JFMC members. Various interventions and species to be planted, entry point activities to be undertaken was selected after group discussion with the JFMC members.

3.11. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be undertaken as

entry point activity so that JFMCs become self sustained in future maintenance of the works which has been undertaken.

3.12. Approved programme of works

In accordance to the fund released, approved interventions must be carried out in consultation with the villagers as envisaged in the micro plan.

3.13. Quantitative Analysis

3.13.1. Classification of area covered/treated

Under the Jaintia Hills social Forestry division FDA all the areas treated so far are community owned degraded forest land :-

Category	ANR	AR	Silvi Pasture	Total
Forest Land	--	--	--	--
Community land	900 Ha	1470 Ha	100 Ha	2470 Ha
Revenue land	--	--	--	--
Govt. waste land	--	--	--	--
Private land	--	--	--	--
Total	900 Ha	1470 Ha	100 Ha	2470 Ha

3.13.2. Physical and financial Achievements

Physical and financial Achievements for the year 2004-05 to Year 2011-12 as under -

	Year 2004-05	**Physical (in ha.)**		**Financial (in Rs.)**	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(a) Advanced Work	150	150	5.88	5.88
	(b) Creation				
	(c) Maintenance				
	Sub Total	**150**	**150**	**5.88**	**5.88**
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work	200	200	12.6	12.6
	(b) Creation				
	(c) Maintenance				

	Year 2004-05	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
	Sub Total	**200**	**200**	**12.6**	**12.6**
3	Pasture Development Silvipasture(400 /ha)				
	(a) Advanced Work	100	100	3.92	3.92
	(b) Creation				
	(c) Maintenance				
	Sub Total	**100**	**100**	**3.92**	**3.92**
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	(a) Advanced Work	30	30	1.89	1.89
	(b) Creation				
	(c) Maintenance				
	Sub Total	**30**	**30**	**1.89**	**1.89**
5	Micro Planning			1.5	0.7
6	Entry Point Activities			12	
7	Soil and Moisure Conservation			5.5	
8	Awareness			0.28	0.21
9	Fencing			2	
10	Monitoring & Evaluation				1.74
11	Over Heads			2.43	
	Sub Total	**0**	**0**	**23.71**	**2.65**
	Grand Total	**480**	**480**	**48.00**	**26.94**

	Year 2005-06	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(a) Advanced Work	150	150	5.88	5.88
	(b) Creation	150	150	4.2	4.2
	(c) Maintenance				
	Sub Total	**300**	**300**	**10.08**	**10.08**
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work	200	200	12.6	12.6
	(b) Creation	200	200	9.8	9.8
	(c) Maintenance				
	Sub Total	**400**	**400**	**22.4**	**22.4**
3	Pasture Development Silvipasture(400 /ha)				
	(a) Advanced Work	70	70	2.74	2.74
	(b) Creation	100	100	2.24	2.24
	(c) Maintenance				

	Year 2005-06	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
	Sub Total	**170**	**170**	**4.98**	**4.98**
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	(a) Advanced Work	30	30	1.47	1.47
	(b) Creation				
	(c) Maintenance				
	Sub Total	**30**	**30**	**1.47**	**1.47**
5	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
6	Micro Planning			1.02	0.96
7	Entry Point Activities			22	17.25
8	Soil and Moisure Conservation			11.5	
9	Awareness			0.42	0.15
10	Fencing			3.5	
11	Monitoring & Evaluation			0.86	
12	Over Heads			4.58	2.09
	Sub Total	**0**	**0**	**43.88**	**20.45**
	Grand Total	**900**	**900**	**82.81**	**59.38**

	Year 2006-07	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(a) Advanced Work				
	(b) Creation	150	150	4.2	4.2
	(c) Maintenance	150	150	1.47	1.47
	Sub Total	**300**	**300**	**5.67**	**5.67**
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work				
	(b) Creation	200	200	9.8	9.8
	(c) Maintenance	200	200	4.2	4.2
	Sub Total	**400**	**400**	**14**	**14**
3	Pasture Development Silvipasture(400 /ha)				
	(a) Advanced Work				
	(b) Creation	70		1.56	
	(c) Maintenance	100	70	1.4	1.56
	1st Year		100		1.4
	Sub Total	**170**	**170**	**2.96**	**2.96**
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	(a) Advanced Work				
	(b) Creation				

	Year 2006-07	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
	(c) Maintenance	30	30	0.63	0.63
	Sub Total	**30**	**30**	**0.63**	**0.63**
5	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
	(a) Advanced Work				
	(b) Creation				
	(c) Maintenance				
	Sub Total	**0**	**0**	**0**	**0**
6	Micro Planning			0.06	
7	Entry Point Activities			11.55	5.25
8	Soil and Moisure Conservation			12.97	3.08
9	Awareness			0.5	
10	Fencing			1.32	
11	Improved Technology				0.11
12	Monitoring & Evaluation			1.72	2.49
13	Over Heads			4.18	
14	Committed Liabilitites				
	Sub Total	**0**	**0**	**32.3**	**20.41**
	Grand Total	**900**	**900**	**55.56**	**43.67**

	Year 2007-08				
	Items	**Physical (in ha.)**		**Financial (in Rs.)**	
1	Aided Natural Regeneration (200 /ha)	**Target**	**Achievement**	**Target**	**Achievement**
	(a) Advanced Work	200	500	7.84	19.2
	(b) Creation	300	300	8.4	8.4
	(c) Maintenance				
	1st Year	150	110	1.47	1.08
	2nd Year	150	115	1.05	0.81
	Sub Total	800	1025	18.76	29.49
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work	200	300	12.6	14.31
	(b) Creation	100	100	4.9	4.9
	(c) Maintenance				
	1st Year	200	135	4.2	2.84
	2nd Year	200	145		1.83
	3rd Year			2.52	
	Sub Total	700	680	24.22	23.88
3	Pasture Development Silvipasture(400 /ha)				
	(a) Advanced Work				
	(b) Creation				

	Year 2007-08				
	Items	**Physical (in ha.)**		**Financial (in Rs.)**	
	(c) Maintenance				
	1st Year	70	50	0.98	0.7
	2nd Year	100	70	1.12	0.78
	Sub Total	170	120	2.1	1.48
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	(a) Advanced Work				
	(b) Creation				
	(c) Maintenance				
	2nd Year	30	20	0.38	0.25
	Sub Total	30	20	0.38	0.25
5	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
	(a) Advanced Work	20	50	1.68	3.72
	(b) Creation	30	30	1.68	1.68
	(c) Maintenance				
	Sub Total	50	80	3.36	5.4
6	Micro Planning			0.8	0.41
7	Entry Point Activities			10.57	
8	Soil and Moisure Conservation			15.66	0.71
9	Awareness			1.14	0.21
10	Fencing			3.1	1.03
11	Monitoring & Evaluation			2.58	
12	Over Heads			**7.04**	**2.14**
	Sub Total	0	0	40.89	4.5
	Grand Total	**1750**	**1925**	**89.71**	**65.00**

	Year 2008-09	**Physical (in ha.)**		**Financial (in Rs.)**	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(a) Advanced Work	100	200	11.76	7.84
	(b) Creation	500	500	14	10.04
	(c) Maintenance				
	1st Year	450	320	4.41	2.32
	2nd Year	300	225	2.1	1.58
	3rd Year	150	100	0.63	0.48
	Sub Total	**1500**	**1345**	**32.9**	**22.26**
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work	100	300	18.9	12.61
	(b) Creation	300	250	14.7	11.45

	Year 2008-09	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
	(c) Maintenance				
	1st Year	300	135	6.3	2.84
	2nd Year	400	280	5.04	3.53
	3rd Year	435	345	1.68	1.22
	Sub Total	**1535**	**1310**	**46.62**	**31.65**
3	Pasture Development Silvipasture(400 /ha)				
	(c) Maintenance				
	1st Year		50	0.98	0.7
	2nd Year	170	120	1.9	1.34
	3rd Year	100	70	0.84	0.59
	Sub Total	**270**	**240**	**3.72**	**2.63**
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	(c) Maintenance				
	2nd Year	30	20	0.38	0.25
	3rd Year	30	20	0.25	0.17
	Sub Total	**60**	**40**	**0.63**	**0.42**
5	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
	(a) Advanced Work	20	20	3.36	1.68
	(b) Creation	50	40	2.8	2.24
	(c) Maintenance				
	1st Year	30	10	0.63	0.12
	Sub Total	**100**	**70**	**6.79**	**4.04**
6	Micro Planning			1.37	4.04
7	Entry Point Activities			12.97	0.37
8	Soil and Moisure Conservation			1.92	4.91
9	Awareness			1.42	8.45
10	Fencing				0.2
11	Improved Technology				1.34
12	Monitoring & Evaluation			3.15	1.18
13	Over Heads			9.88	2.88
	Sub Total	**0**	**0**	**30.71**	**23.37**
	Grand Total	**3465**	**3005**	**121.37**	**84.37**

		Physical (in ha.)		Financial (in Rs.)	
	2009-10	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(a) Advanced Work	100	100	3.92	3.92
	(b) Creation	200	200	5.6	5.6

		Physical (in ha.)		Financial (in Rs.)	
	2009-10	**Target**	**Achievement**	**Target**	**Achievement**
	(c) Maintenance				
	1st Year	300	300	2.94	2.94
	2nd Year	150	150	1.05	0.77
	3rd Year	150	150	0.63	0.48
	Sub Total	**900**	**900**	**14.14**	**13.71**
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work	100	100	6.3	6.3
	(b) Creation	200	200	9.8	9.8
	(c) Maintenance				
	1st Year	100	100	2.1	2.1
	2nd Year	200	200	2.52	1.701
	3rd Year	200	200	1.68	1.22
	Sub Total	**800**	**800**	**22.4**	**21.121**
3	Pasture Development Silvipasture(400 /ha)				
	(c) Maintenance				
	2nd Year	70	70	0.78	0.56
	3rd Year	100	100	0.84	0.588
	Sub Total	**170**	**170**	**1.62**	**1.148**
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	(c) Maintenance				
	2nd Year	30			
	3rd Year		30	0.25	0.168
	Sub Total	**30**	**30**	**0.25**	**0.168**
5	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
	(a) Advanced Work	20	20	1.68	1.68
	(b) Creation	20	20	1.12	1.12
	(c) Maintenance	30	30	0.63	0.63
	Sub Total	**70**	**70**	**3.43**	**3.43**
6	Micro Planning			0.57	0.57
7	Entry Point Activities			2.4	2.2
8	Soil and Moisure Conservation			4.26	4.26
9	Awareness			0.28	0.28
10	Fencing			1.42	1.42
11	Monitoring & Evaluation			0.57	0.57
12	Over Heads			2.84	2.8
	Sub Total	**0**	**0**	**12.34**	**12.1**
	Grand Total	**1970**	**1970**	**54.18**	**51.68**

	Year 2010-11	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(c) Maintenance				
	1st Year	100	100	1.4	1.4
	2nd Year	200	200	2	2
	3rd Year	300	300	1.08	1.08
	4th Year	150	150	0.6	0.6
	Sub Total	**750**	**750**	**5.08**	**4.48**
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work	120	120	10.8	10.8
	(b) Creation				
	(c) Maintenance				
	1st Year	100	100	3	3
	2nd Year	220		3.6	3.6
	3rd Year	100		1.2	1.2
	4th Year	200		1.6	1.6
	Sub Total	**740**	**220**	**20.2**	**20.2**
3	Pasture Development Silvipasture(400 /ha)				
	(c) Maintenance				
	4th Year	70	70	0.84	0.84
	Sub Total	**70**	**70**	**0.84**	**0.84**
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	(a) Advanced Work				
	(b) Creation				
	(c) Maintenance				
	Sub Total	**0**	**0**	**0**	**0**
5	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
	(c) Maintenance				
	1st Year	20	20	0.6	0.6
	2nd Year	20	20	0.36	0.36
	3rd Year	30	30	0.36	0.36
	Sub Total	**70**	**70**	**1.32**	**1.32**
6	Micro Planning			0.47	0.47
7	Entry Point Activities			4.8	4.8
8	Soil and Moisure Conservation			3.51	3.51
9	Awareness			0.23	0.23
10	Fencing			1.17	1.17
11	Monitoring & Evaluation			0.23	0.23
12	Over Heads			2.34	2.34
13	Committed Liabilitites				21.9

	Year 2010-11	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
	Sub Total	0	0	12.28	34.18
	Grand Total	**1630**	**1110**	**39.72**	**61.02**

	Year 2011-12	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(a) Advanced Work	50		1.56	
	(c) Maintenance				
	2nd Year	100	100	2.1	2.1
	3rd Year	200	200	4	4
	Sub Total	**350**	**300**	**7.66**	**6.1**
2	Artificial Regeneration (1100 /ha)				
	(a) Advanced Work	100		8.08	
	(b) Creation	120		7.08	3.61
	(c) Maintenance				
	2nd Year	100			2.81
	3rd Year	200			5.4
	Sub Total	**520**	**0**	**15.16**	**11.82**
3	Pasture Development Silvipasture(400 /ha)				
	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
	(c) Maintenance				
	2nd Year	20			
	3rd Year	20			
	Sub Total	**40**	**0**	**0**	**0**
4	Soil and Moisure Conservation			1.26	1.26
5	Committed Liabilitites			68.3	36.4
	Sub Total	0	0	69.56	37.66
	Grand Total				

	Year 2012-13	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
1	Aided Natural Regeneration (200 /ha)				
	(a) Advanced Work	100	100	6.25	1.88
	(b) Creation	50	50	1.7	1.7
	(c) Maintenance				
	1st Year	150	150	7.95	3.58
	2nd Year	150	150	20.6	6.07

	Year 2012-13	Physical (in ha.)		Financial (in Rs.)	
	Items	**Target**	**Achievement**	**Target**	**Achievement**
	3rd Year	100	100	5.7	5.33
	4th Year	120	120	3.97	3.97
	Sub Total	**670**	**670**	**46.17**	**22.53**
2	Artificial Regeneration (1100 /ha)				
3	Pasture Development Silvipasture(400 /ha)				
4	Mixed Plantation of trees having MFP and Medicinal Values (1100 /ha)				
5	Regen. of Parential Herbs & Shrubs of Medicinal Values(1100 /ha)				
6	Micro Planning				0.96
7	Entry Point Activities				0.52
8	Soil and Moisure Conservation				3.67
9	Awareness				0.52
10	Fencing				0.15
12	Monitoring & Evaluation				0.68
13	Over Heads				3.42
14	Committed Liabilitites				**0.15**
	Sub Total	**0**	**0**	**0**	**10.07**
	Grand Total	**670**	**670**	**46.17**	**32.6**

For the year 2012-13

Sl No	Item	Physical (Area in Hac)		Financial(Rs in lakhs)	
		Target	**Achievement**	**Target**	**Achievement**
1	ANR				
	a. Advance works	200	75	6.25	1.88
	b. creation	50	50	1.70	1.70
	c. Maintenance	100	100	2.00	2.00
	Subtotal	350	225	9.95	5.58
2	Artificial regen.				
	a. Advance works	255	138	20.60	6.07
	b. creation	100	100	5.70	5.33
	c. Maintenance	320	320	6.67	6.67
	Subtotal	575	458	33.17	18.07
3.	Perennial herbs & shrubs.				
	a. Advance works	--	--	--	--
	b. creation	--	--	--	--
	c. Maintenance	20	20	0.40	0.40

Sl No	Item	Physical (Area in Hac)		Financial(Rs in lakhs)	
		Target	**Achievement**	**Target**	**Achievement**
	Subtotal	20	20	0.40	0.40
4	Soil & moisture conservation			3.86	3.86
5	JFM/ Training/Awareness			0.51	0.51
6	Fencing			0.14	0.14
7	Monitoring & Evaluation			0.21	0.21
8	Improved technologies			--	--
9	Overheads			0.38	0.38
	Total			58.37	34.73

Adequacy of the planting stock

Planting stock raised in Nurseries is adequate for the plantations

3.14. Peoples participation

3.14.1. Participatory Rural Appraisal/ Micro planning:-

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation as well as during the preparation of project, at every step JFM members has been consulted and their suggestion /views has been taken into consideration. Financial Achievement of against the micro plan are found as under -

Years	**Rs in Lakhs**
2004-05	0.7
2005-06	0.96
2006-07	0.06
2007-08	0.41
2008-09	0.37
2009-10	0.57
2010-11	0.47
2011-12	NIL
2012-13	0.96

3.14.2. **Entry point activities**

Activity-wise break-up against the year 2004-05 to 2009-10 of the Division are not available with the office.

During 2010-11

Name of village	Assets created	No of assets	Expenditure incurred	Peoples contribution towards expend.
Damthring	C.C.Foot path	300 r mts	3.40 lakhs	In all these works people constructed by rendering free labour
Bamtkong	Tables & chairs	65 pairs	1.60 lakhs	
Umladong	C.C. drinking water tank	One number (20mtsX50mts)	1.60 lakhs	

During 2011-12

Name of village	**Assets created**	**No of assets**	**Expenditure incurred**	**Peoples contribution towards expend.**
Kudengrim	Work is yet to be completed			

During 2012-13

Name of village	Assets created	No of assets	Expenditure incurred	Peoples contribution towards expend.
Kudengrim	Money released			Work could not be done due to heavy rain
Pedengshakap	-do-			
Larnai	-do-			

3.14.3. **Joint Forest Management**

JFM committee

Under the Jaintia Hills Social Forestry Division FDA altogether 28 (Twenty eight) Joint Forest Management Committees has been formed in 28 villages till date, over the whole of east & west Jaintia Hills districts. In all these villages forest committees have been formed. Total households in all the JFMCs are 5734 nos. All the members of these committees are Scheduled Tribe and out of that percentage of women members is 35% only. The composition of these committees are as:-

- No. of villagers where formation initiated in the Division - 28
- No. of villagers where formal committees establishment in the Division - 28
- Total number of committees establishment so far in the project areas - 28
- Total membership in terms of household/families - 5734 (house hold)
- Percentage of women, in the JFM committees - 34.98%

	Male	**Female**	**Total nos.**
Scheduled Caste	---	---	---
Scheduled Tribe	3728	2006	5734
Others	---	---	---
TOTAL	3728	2006	5734

Under the Jaintia Hills Social Forestry division FDA in none of the JFMCs village development fund has been created which is not at all encouraging. The CEO must take initiative to create Village development fund in all of the JFMCs. Joint Forest Management committees must be asked and made to open an account with the local banks.

3.14.4. **Meetings**

Forest development Agencies and Joint forest management committees were holding General body and executive committee meetings regularly as per the records available with them and minutes adopted. Following are the number of meetings held by the FDA

Meetings	FDA meetings	JFMC meetings	Remarks
Number of General Body meetings held	6(six)	53 (Fifty three)	adequate
Number of executive committee meetings held	10 (Ten)	26 (twenty Six)	adequate

3.15. Records & Registers

Micro planning for each of the JFMCs has been prepared in consultation with JFMC members. During evaluation the following documents and registers has been found **with the FDA**

- Cash book.
- Cheque issue registers.
- General body meeting & minutes register.
- Executive body meeting and minutes register.
- Fund sanction register
- Membership register etc.

During evaluation the following documents and registers has been found with the JFMC

- Cash book .
- Cheque issue register.
- General body meeting & minutes register.
- Executive body meeting and minutes register.
- Plantation journal 6. Nursery Journal.
- JFMC Membership register.etc.

These were found to be adequate as per forestry norms as of now.

3.16. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards.

Fund received unde Awareness Raising are indicated below –

Years	Awareness Raising (Rs in Lakhs)	Training & Capacity Building (Rs in Lakhs)
2004-05	0.28	-
2005-06	0.35	-
2006-07	0.29	-
2007-08	1.14	-
2008-09	0.28	-
2009-10	-	-
2010-11	0.23	-
2011-12	0.32	-
2012-13	-	-
2013-14	0.36	-

Field staff and community members trained during the period of the project in different field are as below

Training Programme conducted	**Management & Biodiversity conservation**
A. Staff trained	
Number of Staff trained	22 (Twenty Two)
Topics covered	Role of JFMCs, National resources etc
B. Community	
Number Trained	19 (Nineteen)
Topics Covered	Soil& water conservation, Plantation technique, Fire protection works, weeding etc
C. Organisations involved	North Eastern Hill University & Forest department Forest deptt and other line deptt.

Year wise expenditure incurred on Training for the years 2004 to 2013 as under -

Year	Expenditure (in Lakhs)
2004-05	0.21
2005-06	0.15
2006-07	3.08
2007-08	0.21
2008-09	0.2

Year	Expenditure (in Lakhs)
2009-10	0.28
2010-11	0.23
2011-12	NIL
2012-13	0.51

3.17. Monitoring & Evaluation

Number of Inspection made by :-

- Chief Conservator of Forests :- 2 (Two) times during last three years.
- Conservator of Forests : 7(Seven)times during last three years.
- Deputy conservator of Forests :- 24(Twenty four) times during last Three years.

The above officers were monitoring the works of the JFMC plantations regularly during last three years in course of their visits to different JFMCs on a regular manner.

Year	Rs in Lakhs
2004-05	1.74
2005-06	0.86
2006-07	2.49
2007-08	2.58
2008-09	1.18
2009-10	0.57
2010-11	0.23
2012-13	0.21

Independent agency was involved in the monitoring of the Project since inception of the project. However NAEB conducted monitoring and evaluation of the project through their representative whose reports were not submitted to the department due to some or other reasons. Sri T. Deb Roy retired DFO also conducted monitoring during earlier years.

CHAPTER IV

SUMMARY OF EVALUATION

4.1.Introduction

The present assignment by way of evaluation & monitoring of **Jaintia hills Social Forestry Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** is to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation and inprovement of forests of the district. Under this Programme focus is to encourage the rural population for protection & conservation of forests by way of extracting financial as well as tangible benefits from forests and at the same time protecting the environment and encouraging them in afforestration works.

For this purpose approach adopted was to set up village committees by the villagers themselves and creating afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash& burn (Jhum) method of agricultural practice.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

4.2. Financial Status

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05.In Jaintia Hills district, **Jaintia Hills Social Forestry Division FDA** was entrusted to implement the project. Funds released and spent by the FDA are:-

Sl no	Letter no. and date	Amount
1	No. CS-NAP(NE)/17/2004-05, Dated 14.06.2004	Rs. 30.00 Lakh
2	No. CS-NAP(NE)/17/2005-06, Dated 16.06.2005	Rs.60.00 Lakh
3	No. CS-NAP(NE)/17/2006-07, Dated 16.10.2006	Rs.40.00 Lakh
4	No. CSS-FDA/109/2006-07, Dated 22.03.2007	Rs.25.00 Lakh
5	No. CS-NAP(NE)/53/2007-08, Dated 19.11.2007	Rs.40.00 Lakh
6	No. CS-NEP(NE)/120/2007-08, Dated 23.03.2008	Rs.49.71 Lakh
7	No. MEF(NAEB):1-93/2007-B-IV, Dated 17.07.2008	Rs.83.00 Lakh
8	MFS/NAP/pt-4/2010-11, Dated 04.02.2011	Rs.47.00 Lakh
9	SF/E/FDA/07-08/2011-12/03, DATED12.04.2011	Rs.46.31 Lakh
10	No.MEF(NAEB):1-8/2011-B-IV, Dated 01.03.2012	Rs.25.00 Lakh
11	No.MEF(NAEB):1-4/2012-B-IV, Dated 28.06.2012	Rs. 8.00 Lakh
12	No.MEF(NAEB):1-4/2012-B-IV, Dated 22.02.2013	Rs.26.13 Lakh
13	No.MEF(NAEB):1-4/2012-B-IV, Dated 21.03.2013	Rs.11.39 Lakh
14	No.MEF(NAEB):1-4/2012-B-IV, Dated 11.07.2013	Rs. 29.00 Lakh
	Total	Rs. 520.54 Lakh

4.3.Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 32 and total nos. of beneficiaries is 5734. Therefore, the representative sample size of the division stands at 16 nos. of JFMCs as 50% and around 1147 nos. of beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and

weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

Hence the evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the Jaintia Hills Social Forestry Division FDA.

During collection of primary field data 10 (Ten) plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following worth mentioning.

4.3.1. **Under Namdong RLC(Thadlaskein Block)**

- Name of JFMC Namdong JFMC.
- Area: 40 Hect.
- Year of creation:-2011-12.
- Species planted are:- Pinus kesiya, chickrasia tabularis,Gmelina arborea,silver oak,Acatia auriculiformis etc
- Average Height 90 cms.
- Survival percentage: 60%

Overall observation

Plantation is very good; weeding has been done by scrapping the earth.

4.3.2. **Under Khlerihat RLC (Thadlaskein Block)**

- Name of JFMC Demthring JFMC.
- Area: 40 Hect.
- Year of creation:-2010-11.

- Species planted are:-*Exbucklandia poplina, Chickrasia tabularis,Ghamari,Silver oak,Acacia auriculiformis* etc
- Average Height 60 cms.
- Survival percentage: 60%

Overall observation:

Plantation is very good, weeding has been done by scrapping the earth.Under entry point activity a massive water tank has been constructed which fulfils the water needs of the village. Here manual labour for the construction of the water harvesting structure has been contributed by the villagers.

4.3.3. **Under Amlarem RLC (Amlarem Block)**

- Name of JFMC Kadalgrim JFMC.
- Area:-250 Hect.
- Year of creation:-2012-13.
- Species planted are:- *Exbucklandia poplina, Chickrasia tabularis, Ghamari, silver oak, Acatia auriculiformi,* etc
- Average Height 40 cms.
- Survival percentage: 70%

Overall observation

Plantation is very good, weeding has been done by scrapping the earth.Under entry point activity a Fishery pond is under construction where manual labour is contributed by the JFMC members.

4.3.4. **Under Amlarem RLC (Amlarem Block)**

- Name of JFMC :-Satpator JFMC.
- Area:-50 Hect.
- Year of creation:-2008-09.
- Species planted are: ,Ghamari, silver oak, *Acacia auriculiformis, Emblica officinalis* etc
- Average Height :-2mts

- Survival percentage: 60%

Overall observation:

Plantation is very good, weeding could not be done due to fund constraint. Under entry point activity a water harvesting structure, a deep cemented drain has been constructed for 70 mts and a store house for the village has been constructed .

4.3.5. **Under Jowai RLC (Thadlaskein Block)**

- Name of JFMC :-Mukhla JFMC.
- Area:-50 Hect.
- Year of creation:-2007-08.
- Species planted are: Alder Spp,Poma,Ex bauklendia etc
- Average Height :-2mts
- Survival percentage: 60%

Overall observation

Plantation is very good, weeding could not be done. Under entry point activity a water harvesting structure & a check Dam has been created.

4.3.6. **Name of JFMC :-Khliehtyrshi JFMC.**

- Area:-50 Hect.
- Year of creation:-2007-08.
- Species planted are: Quarcus Spp,Poma & Alder etc
- Average Height :-2mts
- Survival percentage: 60%

Overall observation:

Plantation is very good, weeding could not be done.Under entry point activity a VIP gallery at the village play ground was constructed.

4.3.7. **Name of JFMC :-Umulong JFMC.**

- Area:-50 Hect.
- Year of creation:-2009-10.
- Species planted are: Quarcus Spp, Poma & Alder, etc

- Average Height :-1.26 mts
- Survival percentage: 60%

Overall observation

Plantation is very good, weeding could not be done due to fund constraint.Under entry point activity a children park & water harvesting structure was executed.

4.3.8. **Name of JFMC :-Wahjiar-A JFMC.**

- Area:-59 Hect.
- Year of creation:-2007-08.
- Species planted are: Pinus Kesiya Poma & Alder, etc
- Average Height :-1.76 mts
- Survival percentage: 69%

Overall observation

Plantation is very good, weeding could not be done.Under entry point activity a public toilet has been constructed for the villagers and drinking water harvesting structure has been constructed.

4.3.9. **Name of JFMC :-Waijiar -B JFMC.**

- Area:-60 Hect.
- Year of creation:-2008-09.
- Species planted are: Quarcus Spp, Poma & Alder,Exbucklindia etc
- Average Height :-1.82 mts
- Survival percentage: 71%

Overall observation

Plantation is very good, weeding not done. Under entry point activity a leveling and making football play ground & water harvesting structure was done.

4.3.10. **Name of JFMC :-Waijiar -C JFMC.**

- Area:-60 Hect.
- Year of creation:-2008-09.(ANR)
- Species planted are: Quarcus Spp, Poma & Alder,Exbucklindia, Michelia champaka etc

- Average Height :-1.82 mts
- Survival percentage: 75%

Overall observation

Plantation is very good, weeding not done. Under entry point activity making a RCC seating gallary around village football play ground was carried out.

4.3.11. **Name of JFMC :-Waijiar -D JFMC.**

- Area:-60 Hact.ANR
- Year of creation:-2008-09.
- Species planted are: Quarcus Spp, Poma & Alder,Exbucklindia etc
- Average Height :-1.85 mts
- Survival percentage: 73%

Overall observation

Plantation is very good, weeding not done. Under entry point activity Construction of gravel foot path for 150 mts was executed.

4.3.12. **Name of JFMC :-Ialong JFMC.**

- Area:-50 Hact. ANR
- Year of creation:-2005-06.
- Species planted are: Quarcus Spp, Poma & Alder, Exbucklindia, schima wallichii etc
- Average Height :-3.9 mts
- Survival percentage: 81%

Overall observation

Plantation is very good, weeding not required. Under entry point activity Construction of a burning ghat of Non Christians/Niamtreys was done.

4.3.13. **Name of JFMC :-Larnai JFMC.**

- Area:-50 Hact. (AR)
- Year of creation:-2012-13.
- Species planted are: Quarcus Spp, Poma & Alder,Exbucklindia,Champa etc
- Average Height :-0.9 mts

- Survival percentage: 72%

Overall observation

Plantation is very good, weeding not done due to fund constraint .Under entry point activity a Fish pond, water hervesting structure and a check dam has been constructed.

4.4.Performance and manner of implementation of the project

The project was launched during the year 2004 with the fund released by National Afforestation & Eco Development Board(NAEB), Government of India, to the Jaintia Hills Social Forestry Division Forest Development Agency(JHSFDFDA),which was registered as a Society as per the provisions of Meghalaya Societies Act 1983(Meghalaya Act XII of 1983)during the year 2004.

As per the guidelines of NAEB till date, 28 Joint forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.4.1. Project Beneficiaries

In the whole of the project area as per the record available with the department till date total JFMC members are 5734 heads, out of that 2006 are female /women beneficiaries.

4.5. Physical progress

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guide line have been achieved. Within the first year itself as mentioned in the project implementation models were developed involving beneficiaries to form JFMCs.To have a better understanding of JFMC model of functioning many workshops and training programmes were conducted in the FDA where many of the beneficiaries participated. Some of the beneficiaries participated in various state level workshops also.

4.6. Financial Progress

Financial progress is as expected not very satisfactory as no fund has been released in accordance with work schedule. However it is observed fund utilisation is also not satisfactory.

4.7. Physical and Financial achievement

Financial Year		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	**Total**
No. of JFMCs		4	5	5	6	7	3	-	-	1	3	28
Physical	Target (in Ha.)	480	900		430	420	220	120	150	250	260	**2750**
	Achievement (in Ha.)	480	480	420	430	420	200	120	150	250	--	**2470**
Financial	Fund received (in lakhs)	48	60	65	89.71	83.00	-	93.12	25.00	45.52	29.00	**490.35**
	Fund utilized (in lakhs)	26.94	60.00	65	89.71	83.00	--	93.12	25.00	45.52	28.67	**490.02**

4.8. Impact and assessment of the project:-

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, the programme covered 2470 ha. i.e. 0.11% of Meghalaya state. The survival rate of most of the plantations investigated found between 60-70% indicated increases in green cover at significant level.
- Construction of gravel foot path, Construction of Cemented Foot path, Concrete drinking water tank, Fishery pond, Water Harvesting Structure, Check Dam, Construction of a burning ghat of Non-Christians etc. are major EPAs those impacted by solving the livelihood issue related to easy movement and storage of water of the villagers.
- Distribution of Tables & chairs, VIP gallery at the village play ground, children park & football play ground, RCC seating gallary around village football play ground, public toilet etc. are EPAs for improvement of peoples living standard and lifestyle in general.

- Aided Natural Regeneration, Artificial Regeneration and pasture development activities were covered under the division where Artificial Regeneration was covered maximum area with 1470 ha followed by ANR and Pasture Development.
- The greenery and growth of forest trees has also changed the lifecycle of the villagers. Most of the men and boys have ended away with age old practices of using catapult for shooting of birds and small animal. Fish poisoning by using local herbs and bark of cereal tree species has been regulated and altogether stopped in many villages.
- A total of 32 JFMCs were constituted to execute the programme and delivery of quality work in general as observed in different JFMCs had impacted in the minds of the villagers.
- Performance of JFMCs has been found satisfactory but the untimely release of fund has become a major obstacle as the plantation works/activities cannot be carried out on time.
- NAP has been widely accepted by the people as it is jointly implemented by the Department and the community through the constitution of JFMCs in both physical & financial aspect.
- Employment generation by engaging the villagers in nursery & plantation activities.
- Improved and Increased the quality of Forest cover.
- Preservation and protection of catchment areas.
- Reclamation of abandoned jhum cultivation areas.
- Regeneration of barren lands and Conservation of catchment areas.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest
- Protection, Conservation of forest through active involvement of the people.
- Impacted the mindset of the villagers through development activities under EPA & Soil moisture conservation works..
- Employment generation of the local community through different livelihood activities under EPAs also motivated the villagers. They were glad to receive the opportunities through NAP.
- Ecological restoration and environmental conservation and eco development activities.
- Local communities are involved in the forest based activities.

- All the beneficiaries surveyed believe that this afforestation programme is lucrative and very suitable for the present circumstances for ther state.
- All beneficiaries informed that they face a lot of difficulties in maintenance of Plantations, as most of the plantations face high degree of cattle grazing.(not from the same JFMC but from nearby villages.)

4.9. Reason for deficiency

All JFMC members surveyed believe that non receipt of Government fund in proper time for the proper works is the main reason, as forestry works are time bound and time taking.

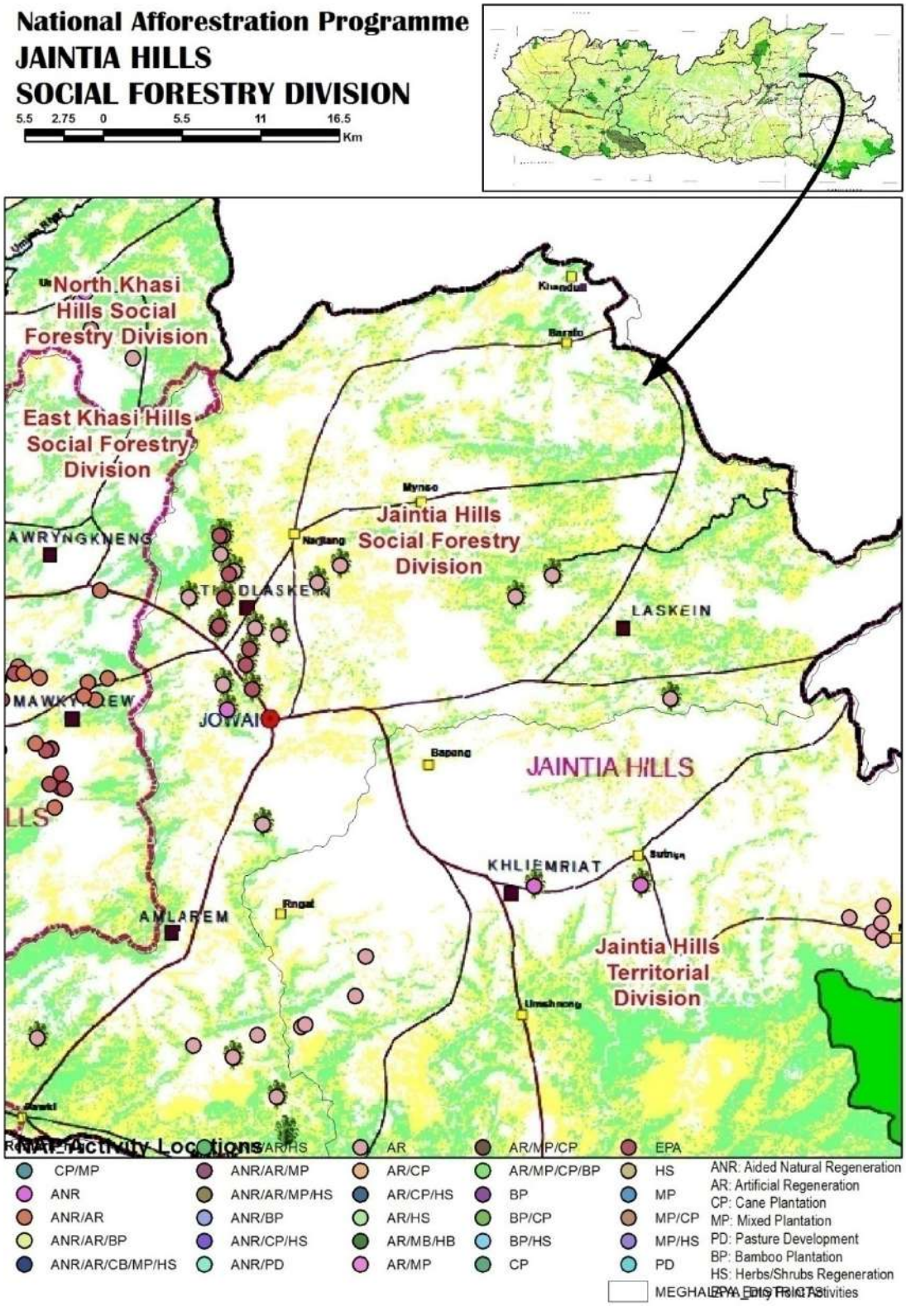
4.10. Observations

- During evaluation it has been observed that in many of the JFMCs, plantations have been done with maintenance and entry point activities. However, CEO informed that due to shortage of fund few entry point activity works could be done and other activities will be taken up as and when fund is released. Moreover it has been observed that in the JFMCs no income generating project/works has been taken up as a result whatever projects has been taken up will remain as a burden to the JFMCs.
- During the visit to the JFMC villages, group discussion has been held with the villagers who have shown strong determination for protection of the forests they have created in such refractory areas and assured to protect these forests at any costs.
- During survey it has been observed that none of the JFMCs Village development fund has been created. So it is suggested Village development fund may be created immediately.
- However it is found that number of meetings held are far below the normal requirements as executive committee meetings are to be held once in every three months and general body meetings are to be held once in a year, reason being non receipt of fund from the NAEB regularly.
- It is observed that the FDA was released Rs 490.35 lakhs was released to FDA for executing different works but they could spent only 490.02 lakhs.

4.11. Suggestions and Recommendations:-

- Sufficient fund should be provided for fencing.
- Intensive steps may be taken to motivate people for sustainable conservation of natural resources.
- Suitable members from the JFMCs may be provided opportunities in Forestry Jobs.
- Plantation, planting, weeding and protection money may be released during January by the Govt. to the FDA. When the money is released during June, by then planting season is almost over in this climatic conditions.
- Some income generating schemes like fishery, piggery, dairy etc may be taken in every JFMC for their sustainability.
- Some interested JFMC members may be trained in different professions viz. Apiculture, Tailoring, Mat making, Floriculture etc.
- Government should take steps to protect the existing forests by paying some incentives to the Nokmas, Syiems and Dollois as and where applicable.

4.12. Map/Photographs



Fishing pond at Larnai JFMC

Water storage structure at Damtring JFMC

Miscellaneous plantation under Bomthrong JFMC

Miscellaneous plantation under Umladang JFMC

Miscellaneous plantation under Umladang JFMC

Water Harvesting structure at Larnai JFMC

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME (NAP)

Jaintia Hills Territorial Division

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CHAPTER I

INTRODUCTION

1.1. General

Jaintia hills district with headquarter at Jowai is the eastern most district of the state of Meghalaya lying between the latitude 24° 58'N and 26° 3' N and longitude 91° 59'E and 92° 51' E having an area of 3,819 Sq Kms.

1.2. Location of the District

The tract was known as "Jaintia Hills" since 1835 when the area came under British Rule. It was called so, to differentiate it from the plains belt of the Jaintia Kingdom which was spread up to present Bangladesh. The capital of the kingdom was at Jaintiapur which is at present under Bangladesh territory. The people of the district are better known as "Syntengs" or "Pnars".

1.3. Boundary & Population

The district is bounded in the North by Karbi-Anglong (Earlier known as Mikir Hills) District of Assam, in the East by North Cachar hills and Cachar districts of Assam, in the South by Bangladesh and in the West by East Khasi Hills district of Meghalaya.

The total geographical area of Jaintia Hills District is 3819 Sq. Km. Jaintia Hills teritorial Division comprises of three patches of Reserve Forest viz, Saipung Reserve, Narpuh Block – I and Narpuh Block – II. Besides these Reserve Forest there is no forest of any other category, falling under the jurisdiction of this Division. All the reserved forest lies adjacent to the District boundary which also forms the inter-state boundary on the east and international boundary on the south. Saipung and Narpuh Block – I is bounded by Bangladesh on the south.

In general the terrain is rugged, comprised entirely of hills with deep gorges and narrow valleys along which flow numerous turbulent streams that drain into two major rivers in Saipung Reserve and three others in Narpuh Reserve.

The population of the district is 2,99,108 (males 1,49,891 and females 1,49,217),percentage of literacy is about 51.9% as per 2001 census. Jaintias are traditionally Hindus. They reckon their descendance through female lines and follow matrilineal system of heredity.

1.4. River system of the district

Like most of the rivers of the state the rivers of the district are fed by rains and so they are flooded during rains but carry lean discharge during winter.

The major rivers in Saipung Reserve viz. river Kopili and river Khynriam flow eastward gradually turning north towards Assam. In Narpuh Reserve, River Lukha dividing Block – I & II flows westward gradually turning south to the Surma Valley in Bangladesh. This drainage pattern is due to alignment of the hill ranges which is roughly east – west.

1.4.1. Rivers flowing to Surma

The river *Myntdu* originates near Jowai town and almost encircling the town it flows to the plains of Surma valley. At plains it is known as *Hari.* The river *Wah Prang* is a tributary of *Myntdu*.

The river ***Myngngot*** which is known as *Umngot* by Khasis forms a natural boundary between Khasi and Jaintia Hills in the south. The river originates from Khasi Hills and after passing through rugged hills it enters in the plains of Surma valley near Dawki.

The river *Wah Lukha* originates from South of Saipung village and after traversing through rugged hills it enters Surma valley near Umkiang .It is one of the very few rivers that splits into two and forms two separate rivers *Wah Lukha* and *Wah Simlieng.*

1.4.2. Rivers flowing to Brahmaputra

The river *Kopili* with its tributary *Myntang* and *Mynriang* originates from the northern slopes of Saipung hills and flows to Brahmaputra.

1.5. Climate

The district is having mostly warmer climate**.** Altitude varies from 100m to1600m AMSL Average rainfall is about 200 mm to 500 mm. Humidity is about 80%-86%.Average

temperature is 24 to 18 degree centigrade during summer and 10-6 degree centigrade during winter.

1.6. Major forest types seen in the district

On the basis of Rainfall, Altitude, Temperature the following forest types can be noticed

1.6.1. Forests of Jaintia Hills

are predominantly Evergreen forests with Castanopsis armata, Eleocarpus ragosus, Gynocardia odorata, Terminalis citrine and vitex Spp. etc in the top canopy. According to Champion and Seth the forests of Jaintia Hills conforms to Cachar Tropical Moist Evergreen forests (1B/C3).

1.6.2. Sub tropical pine Forests

This type of forests can be seen around Jowai, Jarin , Raliang and adjoining areas to Shillong Plateau. According to Champion and Seth the forests of Jaintia Hills adjoining to Jowai plateau conforms to ***Khasi Subtropical pine Forests (8B/C2).***

1.6.3. Bamboo Forests

They occur abundantly in any suitable areas and is distributed all over the district. Predominant species seen are Bambusa Species, Dendrocalamus species,Melocana Species.In the reserved forests they form middle storey of evergreen climex forests.

1.6.4. Cane Brakes

Various cane species can be seen in Saipung reserved forests. They occur extensively in the western and south western portion of the Saipung R.F. These canes can be seen near moist areas ,near nallas, and streams and even in moist forest floor. The four main species found are calamus species, creeping bamboo, Neohouzeaura and palms. The species composition varies according to localities having different site factors.

1.6.5. Grass lands

Savannah type grass lands can be seen in the mining areas of Sutnga, Khliehriat, Saipung and around Amlarem towards the south, with patches of evergreen forests on the valleys of hillocks. Saplings of schima wallichii ,woodfordia fruticosa,Indigofera pulchella and

Berbaris Spp. occurrence of species varies depending on aspect, altitude, soil depth and moisture availability. Rest of the areas are covered by grasses like saccharum spp, Imperata spp.,and broomstick. These grasslands represent retro gated sub climax vegetation which has come up due to biotic and adaphic factors and have replaced earlier vegetation.

1.6.6. Deforested areas

These comprise of habitations, grazing lands, fallow and abandoned Jhum lands. The last two types of areas give rise to either open grass lands **or** fully or partially degraded open forests **,** areas colonized by bamboos or euphorbiaceous scrub, depending on the type of jhumming practiced earlier on them and on the site conditions.

1.6.7. Scrub forests

Euphoribiaceous Scrub forests can be seen in moist shady areas not colonized by bamboos or cane,in these areas typical association of Macaranga,Mallotus and Trema can be seen.

1.6.8. Bamboo

Bamboo Growths can be seen in low areas in the bottom of the hill slopes, flat lands and areas adjoining to Nallahs and streams where drainage is poor and soil is moist.Species seen are Melocana Bambusoides and bambusa tulda. These bamboos forms the secondary succession in abandoned jhum lands

1.7. The Reserve Forest areas

The highest elevation areas are found in the major portion of the Saipung Reserve and northern portion of the Narpuh Block – I and Narpuh Block – II Reserve. Here the elevations range from 1050mts. to about 1550mts. The Jakersingh Maryngksih ridge forming a part of the western boundary of Saipung Reserve contains the highest peaks, the most notable being Maryngksih Peak which, at 1601mts, is the highest point in the District. The lower elevation areas are found in the remaining middle and southern portion of Narpuh Block – I & Narpuh Block II Reserve. Here the hills are smaller and lower than in Saipung Reserve, but they have slopes that are much steeper and frequently precipitous. The general elevation of these hills is below 1000mts. The lowest lying areas are along the southern boundary of Narpuh Block – I Reserve. They comprise of the bottom of hill

slopes and consist of river banks and low lying areas adjoining the plains of Bangladesh. The elevation here is 200 mts. and below.

SL No	Name of the Reserve Forest	Area in Sq Km
1	Saipung	150.00
2	Narpuh Block -I	62.46
3	Narpuh Block - II	98.75
	Total	311.21

1.8. GRADING OF PROJECT ON A SCALE OF 1 TO 10

Sl No	**Heads**	**Details**			**Grading**
1	Quantitative Aspect	Physical			6
		Financial			7
2	Qualitative Aspect	Survival			8
		Health of plantations			7
		Maintenance			7
		Sustainability			6
3	JFM	Degree of peoples participation			8
		Satisfaction over perceived benefits by the local people			8
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA			6
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project			6
		Flow of funds from FDA to VFCs			6
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs			6
Over all Grading of the project		Out standing	Very Good	Good	Poor
		---	6.75	---	-------

CHAPTER II

PROJECT PROFILE

2.1. Project Title

National Afforestation Programme.

2.2. Project Implementing FDA:

Jaintia Hills Territorial Division Forest Development Agency

East & West Jaintia Hills District, Jowai, Meghalaya Territorial Circle, Meghalaya

2.3. Project Location

The area falls under the whole of East & West Jaintia Hills District.

Thadlaskein C D Block, Khliehriat C & RD Block, Saipung C.D. Block, Amlarem C & RD Block, Laskein Block.

Jowai Range, Pessaduar Range,Saipung Range,Umkiang Range.

2.4. Project Cost-

Project cost till 31st March 2014 is Rs 208.12 This is an ongoing project.

2.5. Functions of the Division :-

The main function of the Division is Protection of Reserve Forests, Check & Control Movement of Forest Produce, Control Illegalities and Collection of Royalty on Forest Produce.

2.6. Incumbents in the Office

Sl.No.	Name & Designation	Period	
1	Shri. K.S.Lyngdoh, I.F.S.	27.09.07 – 07.10.10	
2	Shri. Rajaram Singh, I.F.S.	07.10.10 – 26.08.11	
3	Shri. J.M.Pohsngap, M.F.S.	26.08.11 – 15.05.12	
4	Shri. P.K.Agrahari, I.F.S.	15.05.12 – 16.08.13	03652-223709
5	Shri. W.S.Manner, I.F.S.	16.08.13 -	09856546910

2.7. List of JFMCs under JHTFDA

Sl. No.	Name of JFMC	Name of Range/RLC
1.	Saipung A	Saipung
2.	Saipung B	-do-
3.	Evergreen Colony	-do-
4.	Thuruk	-do-
5.	Jongria	-do-
6.	Tuidam	-do-
7.	Lummaichang	-do-
8.	Saphak	-do-
9.	Kulpui	-do-
10.	Saron	-do-
11.	Bamkhosngi	-do-
12.	Moulhoi	-do-
13.	Saiboul	-do-
14.	Tuinar	-do-
15.	Lummaichang B	-do-
16.	Kur Shangpung Iapmala	Passadwar
17.	Amtasam	-do-
18.	Kur Bareh	-do-
19.	Suchen Mulieh	-do-

CHAPTER III

PROJECT EVALUATION

3.1. Introduction

The Jaintia Hills District is located in the eastern part of the state of Meghalaya and is blessed with favorable climatic, topographic and edaphic conditions characterized by abundant and well distributed rainfall. When the project was launched and fund sanctioned Jaintia Hills was a single district. Subsequently during 2011 the district has been bifurcated into Two ***Viz*** East Jaintia Hills and west Jaintia Hills district. However Forest division & FDA remained the same ***ie*** Jaintia Hills Territorial Division FDA. The National Afforestation Programme Project was started during the year 2004-05 by the state of Meghalaya. However Jaintia Hills (T) Division started implementing the project from the year 2008-09.

3.2. Project areas & Locations

When the project was sanctioned Jaintia Hills was a single district. The district was bifurcated into two later. Thus Jaintia hills (T) division is implementing the project in both the districts of East and West Jaintia Hills districts. The project areas are located within the East and West Jaintia Hills districts. The villages and JFMCs selected are within the districts. A list of JFMCs selected during the period 2008 to 2013.

3.3. Any previous Project

This is an ongoing project launched during the financial year 2004-05 in other divisions but started in Jaintia Hills(T) division from 2008-09 and is continuing.

3.4. Socio- economic profiles of villages

All inhabitants of the villages are scheduled tribes. The villagers are poor. The villages have vast land under their command ,which are mostly denuded grass/unproductive lands, due to over exploitation of land during earlier years which now cannot be used for any gainful purpose except for forestry plantations. The tract falls under ***a)Cachar Tropical Moist Evergreen Forests. b) Sub tropical pine Forests c)*****Grass lands.** These degraded grass lands are now devoid of any tree cover worth mentioning. There is a high degree of pressure on the marginal forest areas and as such these require immediate attention/restoration.

3.5. Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.6. Project Components

To achieve the objectives, in every selected village Joint Forest Management Committee was formed by the villagers, from among the village committee members and all the works related to the project were undertaken by these JFMC members.

3.7. Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members . All the related works of the plantation were done by the JFMC members as well as villagers of that particular village.

3.8. Creation of JFMC

Joint forest Management Committees has been formed in accordance with the Government of Meghalaya's O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.9. Implementing Agencies

For implementing the scheme as per Government of Meghalaya O.O. no FOR.62/2000/239 dated 9th September 2003; Forest Development Agency was formed in the Forest Division .

3.10. Micro planning

Micro plans were prepared for each JFMCs after conducting a Participatory Rural Appraisal (PRA) exercise among the JFMC members, group discussions and various interventions and species to be planted. Entry point activities to be undertaken were selected after a thorough discussion with JFMC members.

3.10. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be undertaken as entry point activity so that JFMC become self sustained in future maintenance of the works which has been under taken.

3.11. Approved programme of works

In accordance with the fund released, approved interventions were carried out in consultation with the villagers, as envisaged in the micro plan.

3.12. Quantitative Analysis

3.12.1. Classification of area covered/treated

Under the Jaintia Hills Territorial division FDA all the areas treated so far are community owned degraded forest land .Breakup of areas treated under different interventions are as

Category	ANR	AR	Mixed Plantation	Total	% of total project area
Forest Land	--	--	--	--	--
Community land	150Ha	800Ha	100Ha	1050Ha	
Revenue land	--	--	--	--	--
Govt. waste land	--	--	--	--	--
Private land	--	--	--	--	--
Total	150Ha	800Ha	100Ha	1050Ha	

3.12.2. Physical and financial Achievements

Sl. No	Components	Physical Progress (Ha.)						Financial Progress (Rs. in Lakh)			
		Target		Achievement				Outlay	Released	Utilization	% Utilization
		Advance	Creation	Advance	%	Creation	%				
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	Aided Natural Regeneration	150	150	150	100	150	100	17.85	16.03	16.03	
2	Artificial Regeneration	820	800	800	97.56	800	100	151.29	137.3329	135.278	
3	Pasture Development										
4	Bamboo Plantation										
5	Cane Plantation										
6	Mixed Plantation	100	100	100	100	100	100	18.52	16.21718	16.134	
7	Regeneration of Perennial shrubs and herbs of Medicinal values										
8	SMC							17.31	15.36	15.36	
9	Awareness							1.16	1.03	0.26	
10	Micro Planning							2.31	1.80	1.80	
11	Fencing							5.77	5.77	5.77	
12	Monitoring & Evaluation							2.31	1.67	1.67	
13	Improved Technology							-			
14	Entry Point Activities							13.00	7.00	7.00	
15	Overheads							11.53	8.05	8.05	
16	Training & Capacity Building							2.15	-	-	
	Total							**243.2**	**210.26**	**208.12**	

3.13. .Peoples Participation

3.13.1. Participatory Rural Appraisal/ Micro planning

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation as well as during the preparation of project at every step JFM members has been consulted and their suggestion/views has been taken into consideration.

- Till date 13 nos of Micro plans has already prepared and another 6 nos are in the process of preparation.
- Till date expenditure incurred for preparation of micro plans are Rs **2,83,000**/- only.

3.13.2. Entry point activities:-

Name of village	Assets created	No of assets	Expenditure incurred	Peoples contribution towards expend.
Saipung -A	Water reservoir	1(one)	0.21 lakhs	In all these works people contributed free labour
Saipung-B	Check dam	1(one)	0.21 lakhs	
Evergreen JFMC	Waiting shed	One number (2mtsX2.50mts)	0.21 lakhs	
Kulpui			0.21 lakhs	labour
Saron			0.21 lakhs	labour
Bamkhosni			0.21 lakhs	labour
Lummaichang			0.21 lakhs	labour
Thruk			0.21 lakhs	labour
Saibol			0.21 lakhs	labour
Saphak			0.21 lakhs	labour
Moulhol			0.21 lakhs	labour
Thuidam			0.21 lakhs	labour
Jongira			0.21Lakhs	labour
Lummaichang-B	Church bell	One	0.10 lakhs	labour

3.13.3. Joint Forest Management - JFM committee

Under the Jaintia Hills Territorial Division FDA altogether 19 (Ninteen) Joint Forest Management Committees has been initiated in 19 villages till date, over the whole of East & West Jaintia Hills districts. Out of all these villages 19(Nineteen) forest committees has been formed .Total households in all the JFMCs are 1021 nos. All the members of these committees are scheduled tribes and out of that percentage of women members is 34.02% only. The compositions of these committees are given below

- No. of villagers where formation initiated in the Division. 19
- No. of villagers where formal committees establishment in the Division.- 19
- Total number of committees establishment so far in the project areas - 19
- Total membership in terms of household/families - 1021(House holds)
- Percentage of women, SCs, STs in the JFM committees - 33.98%

	Male	**Female**	**Total nos.**
Scheduled caste	**---**	**---**	**---**
Scheduled Tribe	**674**	**347**	**1021**
Others	**---**	**---**	**---**
TOTAL	**674**	**347**	**1021**

Under the Jaintia Hills Territorial Division FDA in none of the JFMCs, *village development fund* has been created, which is not encouraging. The CEO may take initiative to create village development fund in all the JFMCs. Joint Forest Management committees may be asked to open an account with the local bank.

3.13.4. Meetings

Forest Development Agency and Joint Forest Management Committees were not holding General body and Executive committee meetings regularly as per the records available . Following are the number of meetings held by the FDA & JFMCs.

Meetings	**FDA Meetings**	**JFMC Meetings**	**Remarks**
Number of General Body Meetings Held	1(One)	16(Sixteen)	adequate
Number of executive committee meetings held	6(Six)	16 (Sixteen)	adequate

3.14. Records & Registers

Micro planning for 13 JFMCs has been prepared in consultation with JFMC members, another 6 micro plans are to be prepared. During evaluation the following documents and registers has been found **with the FDA**

- Cash book.
- Cheque issue registers.
- General body meeting & minutes register.
- Executive body meeting and minutes register.
- Fund sanction register
- Membership register etc.

During evaluation the following documents and registers has been found **with the JFMC**

- Cash book .
- Cheque issue register.
- General body meeting & minutes register.
- Executive body meeting and minutes register.
- Plantation journal 6. Nursery Journal.
- JFMC Membership register etc.

During Evaluation it has been found that Memorandum of understanding has been signed with all the JFMCs by the implementing Agency .As far as maintenance of various records are concerned it has been found that JFMCs and Range Level Coordinators are maintaining sufficient records as envisioned in the project norm and which were found to be adequate.

3.15. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards for all the FDA in the state of Meghalaya. However, Jaintia Hills Territorial Division was formed during 2007-08 and so awareness raising fund received from 2008-09 as indicated below. Fund received only for conducting awareness raising programme which also included training of staff and JFMC members.

Fund received year-wise under Awareness Raising, Training and Capacity Building

Years	Awareness Raising (Rs in Lakhs)	Training & Capacity Building (Rs in Lakhs)
2007-08	-	-
2008-09	0.39	-
2009-10	-	-
2010-11	0.77	-
2011-12	-	-
2012-13	-	-
2013-14	-	-

From the beginning of the project till end of the project, few field staff members had been trained by FDA as the NAP started lately i.e. during 2008-09. Training for the all the JFMC members were imparted in the 16 meetings conducted by FDA from time to time.

3.16. Monitoring & Evaluation

Number of Inspection made by senior officials:-

- Conservator of Forests – 2 times
- Deputy conservator of Forests/ACF - 24 times

Independent Evaluation was taken up during the year 2013 and its report has been taken into consideration during this evaluation also. The findings of past records wherever available have been taken into consideration during preparation of this report.

CHAPTER IV

SUMMARY OF EVALUATION

4.1. Introduction

This present study by way of evaluation & monitoring of **Jaintia hills Territorial Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** is to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the district. Under this Programme focus is to encourage the rural people for protection & conservation of forests by way of extracting financial as well as tangible benefits from forests and at the same time protecting the environment and encouraging them in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and creating afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash& burn (Joom) method of agricultural practice.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

4.2. Financial status

This project was sanctioned by National Afforestation & Eco development Board in the year 2006-07.In Jaintia Hills district **Jaintia Hills Territorial Division FDA** was also entrusted to implement the project. Funds Received by the FDA & its expenditure are

Year	Financial achievement	
	Receipt (Rs.)	Expenditure (Rs.)
2008-09	46,85,000.00	46,85,000.00

Year	Financial achievement	
	Receipt (Rs.)	Expenditure (Rs.)
2009-10	56,00,000.00	--
2010-11	28,88,000.00	23,83,800.00
2011-12	49,32,000.00	1,00,43,652.00
2012-13	15,00,000.00	14,44,803.00
2013-14	14,21,000.00	22,54,395.00
Total	**2,10,26,000.00**	**2,08,11,623.00**

4.3. Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 19 and total nos. of beneficiaries is 1021. Therefore, the representative sample size of the division stands at 10 nos. of JFMCs as 50% and around 204 nos. of beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

This evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets, with group discussion with the JFMC members, Field staff as well as, in depth discussion with the field officers. Secondary data has been collected from the Jaintia Hills Territorial Division FDA.

During collection of primary field data many plantation sites and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of which the following are worth mentioning.

4.3.1. Lummaichag JFMC

Under saipung RLC

- Year of plantation visited : 2012-13
- Species planted: *Pooma,Terminalia arjuna, Terminalia belerica* etc and miscellaneous species which were raised in the nursery.
- Average height of the plants: about 47 cms which is quite satisfactory
- Survival percentage is 81%.

Overall observation

Plantation is very good and plants are healthy.

4.3.2. Saipung-B JFMC

- Inspected year :2008-09
- Plantation type: Miscellaneous Species.
- Area of plantation: 38.5 ha.
- Survival percentage: 82%.
- Average height of plants: 43 cms which is satisfactory.

Overall observation:

Plantation is satisfactory, proper weeding has been done.

Plantation is very good and plants are healthy.

4.3.3. Tunar JFMC

Under Saipung RLC

- Inspected year :2008-09
- Plantation type: miscellaneous plantation of
- Area of plantation : 38.5 ha,
- Survival percentage: 78%.and
- Condition of plant: Growth of plants is very good

Overall observation

Plantation is very good and plants are healthy.

4.3.4. Saipung –A JFMC

- Inspected year :2012-13

- Plantation type: miscellaneous plantation of
- Area of plantation : 38.5 ha, raised in abandoned grass lands
- Survival percentage: 75%.and
- Condition of plant: Growth of plants is very good

Overall observation:

Plantation is very good in all respects, weeding could be done though there is fund constraint by motivating the JFMC members.

4.3.5. Evergreen JFMC

- Inspected year :2008-09
- Plantation type: Miscellaneous Species.
- Area of plantation: 38.5 ha.
- Survival percentage: 82%.
- Average height of plants: 43 cms which is satisfactory

Overall observation

Plantation's growth is very good and encouraging.

4.3.6. Amtasam JFMC Under Pessaduar RLC

- Inspected year :2008-09
- Plantation type: Miscellaneous Species like *Ex- Bucklandia, Schima wallichii*
- Area of plantation: 50 ha.
- Survival percentage: 70%.
- Average height of plants: 30 cms
- Condition of the seedlings: Good and healthy.

Overall observation:

Plantations are very good in all aspects, weeding could be done though there is fund constrain by motivating the JFMC members.

4.4. Performance and Implementation of the project

The project was launched during the year 2006 with the fund released by National Afforestation & Eco Development Board(NAEB), Government of India, to the Jaintia

Hills Territorial Division Forest Development Agency(JHTDFDA),which was registered as a society.

As per the Guidelines of NAEB till date 19 Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.4.1. Project Beneficiaries

In the whole of the project area as per the record available with the department till date total JFMC members are 1021 heads out of which 347 are female/women beneficiaries. All the members are Schedule Tribes. Percentage of women member is 33.98%.

4.5. Physical progress

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guideline have been achieved. Within the first year itself as mentioned in the project. Implementation models were developed involving beneficiaries to form JFMCs. To have a better understanding of JFMC model of working, sufficient workshops and training programmes could have been conducted.

4.6. Financial Progress:-

Financial progress is as expected, as no fund has been released in accordance with work schedule.

4.7. Physical and Financial achievement

Financial Year		**2008-09 to 2013-14**
No. of JFMCs		19
Area of Afforestation under NAP	Target	1070
	Achievement	1050
Financial Progress	Fund received (in lakhs)	210.26
	Fund utilized (in lakhs)	208.12

4.8. Impact and assessment of the project

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- In Saipung Reserve, areas to the extent of 5 Sq. Km are annually taken up for shifting paddy cultivation. The location keeps changing every year and is generally confined to the area claimed by encroachers in the eastern half. Of late the increasing number of households inside and outside the Saipung Reserve Forest (near boundaries) who practice jhumming in reserve forest areas has increased the frequency of jhumming in these areas, making them unable to recuperate and support fresh cultivation. This has compelled the clearing of fresh forest areas for cultivation and has also increased the extent of abandoned jhum lands which has extended up to 55 Sq.Kms in the eastern half of Saipung Reserve.

  After implementation of the projects some household have shifted from the Reserve Forests and have abandoned the area. At present jhumming in the Reserve Forests have decreased to certain extent.
- Under the Division, the programme covered 1050 ha. which is 0.5% of Meghalaya where three components i.e. Aided Natural Regeneration (150 ha), Artificial Regeneration (800 ha.) and Mixed Plantation (100 ha.) were taken up except rest components i.e. Cane, Bamboo, Pature Development and Herbs/Shrubs. Survival rate of the plantations have been observed as at 70 - 80% indicating increase in green cover at significant level.
- A total of 19 JFMCs formed under the prograemme in three blocks i.e. Sipung, Khlieriat and Amlarem. Maximum nos. of JFMCs formed in Saipung Block (15 nos.) followed by Khlieriat Block (3 nos.) and Amlarem Block (1 no.).
- The major Entry Point Activities covered under the division are Water reservoir, Check dam and Waiting shed.
- The quality of work in general as observed in different JFMCs had impacted in the minds of the villagers under programmes although at the initial stage due to lack of know how there was little dissatisfaction.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest
- Preservation and protection of catchment areas.

- Sustainable and Alternative livelihood through NTFPs.
- Reclamation of abandoned jhum cultivation areas.
- Involvement of local community enhanced after the programme. The people living under this JFMC were very much ready to take up the huge task of afforestation that has been proved by free labour service delivered in asset creation under EPA works.
- Peoples readily gave their lands to carry out the plantation work and so highly cooperative in the all the plantation works carried out under this scheme.
- The schemes have created enormous positive impact on the society by way of the availability of bus waiting shed, water harvesting structure and accrued income from the plantation works carried out accordingly.
- The scheme has been instrumental uplifting the socio-economic conditions of the village and as such it is also looking forward that new projects be implemented in our area with an aim to enforce close co-ordination with the forest Dept. and several other stake holders
- All the beneficiaries surveyed believe that this afforestation programme is attractive and very suitable for the present circumstances.
- All beneficiaries expressed that they face a lot of difficulties as in most of the plantations face high degree of cattle grazing (not from the same JFMC but from nearby villages.)
- In areas where even single wild animal could no longer be seen can be sighted now in which the birds has started coming, breeding and making their nest on the branches and leaves of the growing forest. Small animal like hare, barking deer, wild bear, pangolin, mongoose, squirrel and other species belonging to avi-fauna, family of reptiles and amphibians are being sighted by the villagers.

4.9. Reason for deficiency

All JFMC members surveyed ,believed that non receipt of Government fund in proper time is the main reason for slow progress for various works, as forestry works are time bound and time taking.

4.10. Observations

- During evaluation it has been observed that in many of the JFMCs plantations have been done with many maintenance works. .However CEO informed that due to shortage of fund few entry point activity works & maintenance could be done and other works will be taken up as and when fund will be released. Moreover it has been observed that in the JFMCs several income generating project/works has been taken up as a result of which whatever projects has been taken up will remain as asset to the JFMCs.

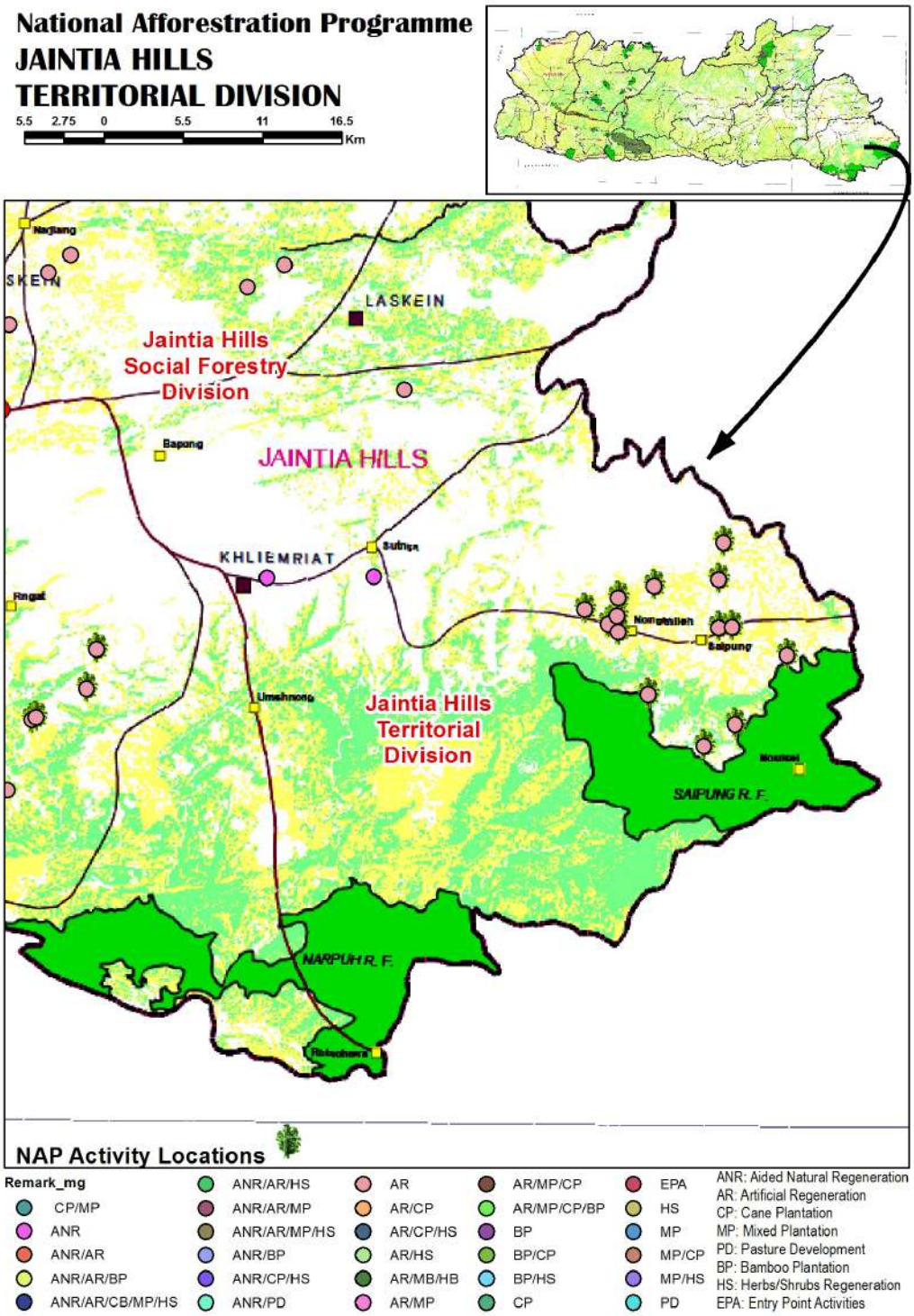
- During the visit to the JFMC villages, group discussion has been held with the villagers who has shown strong determination for protection of the forests they have created and assured to protect these forests at any costs.

4.11. Suggestions and recommendations

During survey it has been observed that in none of the JFMCs '*Village development fund'* has been created. So it is suggested that Village development fund may be created immediately.

- Sufficient fund may be provided for fencing.
- Intensive steps may be taken to motivate people for sustainable conservation of natural resources.
- Suitable members from the JFMCs may be provided opportunities in Forestry Jobs.
- Plantation, planting weeding and protection money may be released during January. When the money is released during June, by then planting season is almost over in our climatic conditions.
- Some income generating schemes may be taken in every JFMC for their sustainability.
- Some interested JFMC members may be trained in different professions viz., apiculture, mat making, floriculture, tailoring, etc.

4.12. Map/ Photographs



Plantation at Lungmaicham J.F.M.C.

Interaction with J.F.M.C. Chairman

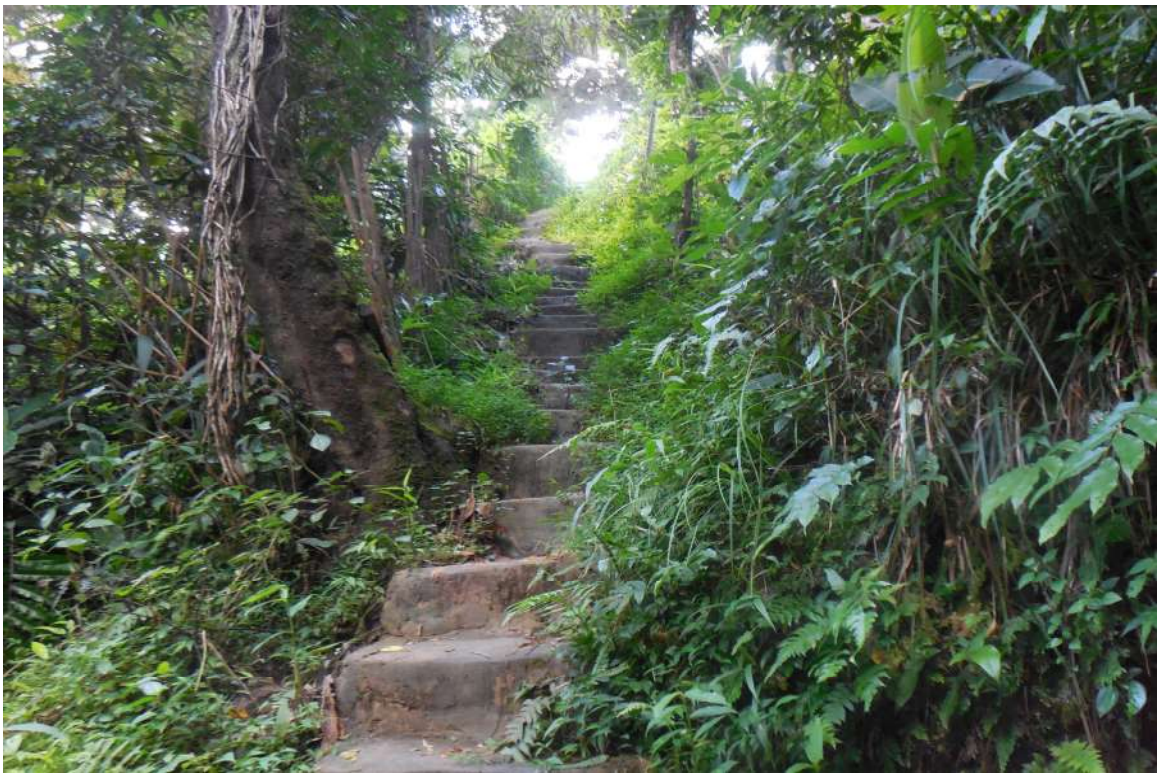
Plantation at Saipung B J.F.M.C.

Ghamar seedling at Saipung A JFMC

Plantation at Saipung B J.F.M.C.

Water Harvesting Structure at Saipung –B JFMC (EPA)

Ghamar seedlings at Saipung-B JFMC



Footpath (EPA)

Nursery at Saipung JFMC

Seedlings at Saipung-B JFMC

Nursery at Jowai

Plantation on a refractory site at Amtasam JFMC

Bus shed Under EPA By Evergreen JFMC At Saipung

Seedling at Saipung A JFMC

Refractory plantation site at Amtasam JFMC Amlarem Block

Refractory plantation site at Amtasam JFMC Amlarem Block

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME (NAP)

East Khasi Hills Social Forestry Division

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CHAPTER I
INTRODUCTION

1.1. Name of the Division

Social Forestry Division, East Khasi Hills,(EKH) Shillong `.

1.2. Geographical boundary of the Division

The district is bounded on the north by Ri- Bhoi/North Khasi Hills District, on the west by West Khasi Hills district, on the south by Bangladesh and on the east by West Jaintia Hills district. District headquarter is at **Shillon**g.Total population of the district is 8,24,059 **(2011 Census)- with male to female ratio of: 1000:1008 .** Local inhabitants of the district are Khasis, Other than this the district is also inhabited by Bengalis, Assamese, Nepalese, Marwaries, Biharis and people from other parts of India

1.3. Climate

The climate of the district is largely controlled by South–West monsoon and seasonal winds. The East Khasi Hills district having rugged hills and being in higher altitude in Meghalaya, experiences a pleasant temperature during most part of the year. The average rainfall is very high. Cherrapunjee & Mawsynram having record of highest rainfall in the world is in East Khasi Hills district. More than two-thirds of total rainfall occur during the monsoon, winter being practically dry. The district is blessed with favorable climatic , topographic and edaphic conditions characterised by abundant and well distributed rainfall.

1.4. River system and mountain ranges

The important rivers and tributaries in East Khasi Hills District are Wah Rashi, Umngot, Umtangphar, Umkhen, Umsor, Umiew and Umpynjngithuli, Umkhrah, Umshyrpi Umiam, Umkhen, Umtrew, Umlam, etc. These originate from this District and have their tributaries also which flow towards Bangladesh and Assam. Hence, these rivers & tributaries are the sources of life for the 'Community Land' and clan lands in the district. These hilly terrains are subjected to shifting cultivation and wet cultivation where paddy is mostly grown. Due to increase in population the jhum cycle has fallen to 3 to 5 years. For these reasons The National Afforestation Programme (NAP) is being executed which comprises of ANR (Aided Natural

Regeneration), AR (Artificial Regeneration), Bamboo Plantation (BP) & Pasture development (PD).

It is envisaged that implementation of the project will arrest further degradation of forest cover which shall subsequently help to rejuvenate and replenish the forest resources under pressure of unsustainable utilization in the district.

Mountain ranges: Shillong Peak, Diengiei Peak and Rapleng.

1.5. Forests of the district

The forest occupies a large part of the Geographical area of the District. A critical analysis on forests of East Khasi Hills district gives the following pictures. Reserved forests 6.40 km^2 Protected Forests 12.25 sq Km . Life of the local people are very much linked to the forests of the district. The tribal people enjoy their customary right over the private forests. The Government and the District councils primarily manage the Reserve Forests and community forests respectively. Most of the people in the district of East Khasi Hills sustain their livelihood on agriculture and forest resources. It has been observed that the degree of pressure on forest resources is very high.

All the State Government owned, Reserve Forests, protected forests are having dense Forests; only about 15% of the dense forests grow in private forests and community lands. The second category of forests are open forests and are not very useful because they cannot provide both tangible and intangible benefits to the people. The lands under this category are often prone to soil erosion that leads to gradual denudation of land, besides adverse climatic conditions. The existing forest cover is far less than the average set by the National Forest policy and most of the areas in the district need urgent attention, so far as afforestration is concerned. The problem may be countered only by massive afforestation and protecting the existing forests.

1.6. Forest Types of the District

According to Champion and Seth the forests of East Khasi Hills conforms five types of forest.

1.6.1. North Indian tropical semi evergreen Forests:

These forests occur mainly on the Southernn slopes of the district. Principal species of these forests are *Terminalia, Artocarpus Albizia, Michelia, Amora, toona*

Duabanga,Vitex Lagerstroemia Schima sp*., Myrica, Ligustrum, Melia azederach, Albizia, Ilex, Rhododendron, Castanopsis, Artocarpus chaplasa*. Fruit trees, shrubs and ground vegetation trees having medicinal values like Cinnamomum etc. Vegetation is mostly broad leaved but the higher part of the above reserved forest are mostly dominated by Khasi pine(Pinus kesiya).

1.6.2. Moist deciduous forests (3C/C3b)

These type of forests can be seen in the high rainfall areas of the district towards the north. These forests are charaterised by the presence of *Terminalia tomentosa, Mallotus Philippensis ,Emblica officinalis, careya arborea etc.*

1.6.3. Sub tropical pine Forests

These type of forests can be seen around Shillong plateau & in higher regions of the district. According to Champion and Seth the forests of North khasi Hills adjoining to Sumer towards the west and north, this conforms to ***Khasi Subtropical pine Forests (8B/C2).***

1.6.4. Bamboo forests

These type of forests occur throughout all the low lying areas of the district. Various types of bamboo seen in these forests are *Melocana bambusoides, Dendrocalamus spp.*

1.6.5. Grass lands

This type of forests occur on patches on riverine soils and also areas affected by Mining, shifting cultivation or fire where the primary forest has been destroyed due to biotic disturbances.

1.7. Reserved Forest

Reserved forests within the District, their area and vegetation composition etc. in detail.

Sl. No	Name of reserved forest /Protected forest	Area
1	Riat Khwan RF	3.91 sq.km
2	Shyrwat RF	0.44 sq.km
3	Riat Laban RF	2.05 sq.km

Sl. No	Name of reserved forest /Protected forest	Area
	Total RF	**6.40** sq.km
1	Upper Shillong PF	7.66 sq km
2	Short Round PF	1.13 sq km
3	Laitkor PF	3.25 sq km
4	Green Block No 2 –	0.21 sq km
	Total of protected Forests	**12.25 sq km**
	Grand Total	**18.65 Sqkm**

1.8. Grading of project on a scale of 1 to 10

Sl. No	Heads	Details	Grading
1	Quantitative aspect	Physical	8
		Financial	7
2	Qualitative Aspect	Survival	7
		Health of plantations	6
		Maintenance	6
		Sustainability	5
3	JFM	Degree of peoples participation	8
		Satisfaction over perceived benefits by the local people	8
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA	8
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project	7
		Flow of funds from FDA to VFCs/JFMCs	9
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs	6

Over all Grading of the project	Out standing	Very Good	Good	Poor
	---	7.08	---	------

CHAPTER II
PROJECT PROFILE

2.1. Project Title:-

National Afforestation Programme under NLCPR.

2.2. Project Implementing FDA

East Khasi Hills Social Forestry Division Forest Development Agency.

Social Forestry Circle, Meghalaya.

2.3. Project Location

The area falls under the whole of East Khasi Hills District. The Social Forestry Ranges of the Division are

- Shillong Urban Beat
- Cherrapunjee RLC
- Mawsynram RLC
- Pynursla RLC
- Mawkynrew RLC and
- Mylliem RLC

2.4. Project Cost

Project cost upto 31st March2014 is Rs 471.96 lakhs. area covered is 3045 hect.

Duration	Area	Cost(Rs in Lakhs)	
		Fund Release	Expenditure incurred
1	2	5	6
2004-2005	Advance works-600Ha	35.00	35.00
2005-2006	Advance Work -400 Ha Creation – 600 Ha	70.00	70.00
2006-2007	Advance Works –375 Ha Creation -400 Ha Maintenance - 600	45.00 +21.00 66.00	66.00
2007-2008	Advance Works – 450 Ha Creation -375 Ha Maintenance – 1000 Ha	65.00 +21.81 85.81	85.81

Duration	Area	Cost(Rs in Lakhs)	
		Fund Release	Expenditure incurred
2008-2009	Advance Works – NIl Creation -450 Ha Maintenance – 1375 Ha	20.96	20.96
2009-2010	Advance Works – 100 Ha Creation -450 Ha Maintenance – 1375 Ha	48.49	48.49
2010-2011	Advance Work- 140 Ha Creation - 100 Ha Maintenance -1215 Ha	28.88	28.88
2011-2012	Advance Work -380 Ha Creation -140 Ha Maintenance -100 Ha	28.30	28.30
2012- 13	Advance Works -600 Ha Creation - 380 Ha Maintenance - 240 Ha	42.00	42.00
2013-14	Advance Works – 610 Ha Creation - 600 Ha Maintenance - 380 Ha	46.44	46.44
TOTAL (2004 – 05 to 2013 -14)		471.88	471.88

The district is having eight Blocks

	Name of C D Blocks		**Name of C D Blocks**
1	Mylliem C.D.Block	5	Laitkroh C.D.Block
2	Mawryngkneng C.D.Block	6	Mawphlang C.D.Block
3	Pynursla C.D.Block	7	Mawsynram C.D.Block
4	Shella-Bholaganj C.D. Block	8	Mawkynrew C.D.Block

2.5. Incumbents in Office for the last ten years

Sl No	**Name of incumbents**	**Period**	**Phone**
1	Shri A. Lyngdoh, IFS	22.12.2003– 22.12.2004	
2	Shri C.P. Shullai, IFS	23.12.2004 – 17.9.2008	
3	Shri P.H.S. Bonney, IFS	17.9.2008 – 28.4.2011	
4	Shri P.S. Nongbri, IFS	28.4.2011 – 20.4.2012	
5	Shri S.A. Nongsiej,IFS	20.4.2012 till date	0364-22591482/94361183

			74

2.6. Function of the Division

Social Forestry Division mostly concentrated on Afforestation works in Private and Community land outside RFs besides other activities like Awareness Programme on forests and environment, celebration of Vanamahotsav, World Environment Day, Recreational Forestry, Environment and Ecology etc.

2.7. List Of The JFMCs Under East Khasi Hills Social Forestry Division

Sl. No.	Name of JFMC	Name of Range/RLC
1.	Kut	Shillong Urban Beat
2.	Pingwait	-do-
3.	Laitmynsang	-do-
4.	Mawber	-do-
5.	Rngibah	-do-
6.	Mawlyngot I & II	Shillong Range
7.	Umsaw	-do-
8.	Mawphlang Mawkohmon & Mawnongrum	Mylliem Range
9.	Nongpathaw	-do-
10.	Wahlang Mawsniang	-do-
11.	Laitkroh	-do-
12.	Lyngkhoi I & II	-do-
13.	Madan Bitaw I & II	-do-
14.	Nongumlong	-do-
15.	Sohiong I & II	-do-
16.	Nongkseh	-do-
17.	Mawsniang	-do-
18.	Laitnongrem	-do-
19.	Laitarted	-do-
20.	Nongwah	Mawsynram Range
21.	Wahmawpat	-do-
22.	Lawbah	-do-

Sl. No.	Name of JFMC	Name of Range/RLC
23.	Nongkriah	-do-
24.	Phlangsynnei	-do-
25.	Mawsadang	-do-
26.	Laitmawsiang	-do-
27.	Umsawmat	-do-
28.	Mynring	Pynursla Range
29.	Lyting Lyngdoh	-do-
30.	Siat Bakon	-do-
31.	Pongtung	-do-
32.	Mawshun	-do-
33.	Mawlam	-do-
34.	Myllat	-do-
35.	Nongmadan Shatsngi	-do-
36.	Rangthylliang	-do-
37.	Urksew	-do-
38.	Nongjrong I & II	Mawkynrew Range
39.	Kharang I & II	-do-
40.	Jatah (Lakadong) I & II	-do-
41.	Synniasya	-do-
42.	Jongksha	-do-
43.	Pdengshnong	Cherrapunjee Range
44.	Mawkma	-do-
45.	Laitkynsew	-do-
46.	Laitlyndop	-do-
47.	Swer	-do-
48.	Synrang Sohnoh	-do-

CHAPTER III

PROJECT EVALUATION

3.1. Introduction

The East Khasi Hills district is located in the Southern part of the state of Meghalaya, with international boundary with Bangladesh.

The National Afforestation Programme (NAP), being implemented by the East Khasi Hills Social Forestry Division FDA, Shillong aims at supporting and accelerating the ongoing process of devolving forest protection, management and development functions to decentralized institutions of Joint Forest Management Committee (JFMC) at the village level, and Forest Development Agency (FDA) at the district level; with regard to management of forest resources and improving the productivity of the forest with people's participation. The main focus is for improvement of livelihood of the forest-fringe communities, especially the rural poor.

The present evaluation study of the NAP implemented by the East Khasi Hills Social Forestry Division FDA, Shillong has been prepared based on the guideline/format laid down under GOI MOEF letter D. O . No. 25-1.1/99-B-11 Dt.31-05-2002. This study deals with the Aided Natural Regeneration (ANR) component of NAP, initiated by the East Khasi Hills FDA in 6 villages in the year 2009-10 through JFMCs. During the year 2004-08, a total of 24 villages were covered through JFMCs. Major activities envisaged under the National Afforestation programme were awareness raising programme, creation of plantation and entry point activities, identification of sites and choice of species for planting, raising of nurseries, Micro planning for treatment of the area. Pit digging and preparation of planting platforms, soil and moisture conversation measures and live fencing. This study is an important step to encourage the local people in management and conversation of forest resources on a sustainable basis.

3.2. Project areas & Locations

The project areas are located within the geographical boundary of East Khasi Hills District which is subdivided into eight blocks. The villages and JFMCs selected are within the district. A list of JFMCs selected during the period 2004 to 2013 has been listed in the previous chapter.

3.3. Any previous Project

This is an on-going project launched during the financial year 2004-05 and is continuing.

3.4. Socio economic profiles of villages

This is an on-going Project .Majority of the inhabitants of the villages belongs to Scheduled tribes, depending mostly for their livelihood on agriculture and seasonal labourer. The villagers are very poor , the villages has vast land under their command, which are mostly denuded of grass and unproductive lands over resulting para exploitation of land during earlier years; these cannot be used for any gainful purpose except for forestry plantations. All these lands are classified as community lands. The tract falls under ***a)North Indian Tropical semi evergreen Forests b)Tropical moist deciduous Forests ,c) Khasi Subtropical pine Forests (8B/C2)*** **d)Bamboo forests e)Grass lands.** The grass lands are now devoid of any tree cover worth mentioning. There is a high degree of pressure on the marginal forest areas and as such these require immediate attention/restoration.

3.5. Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to

open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.6. Project Components

To achieve the objectives, in every selected village Joint Forest Management Committee's were formed by the villagers, from among the village committee members and all the works related to the project were undertaken by these JFMC members.

The main Project components are:

- Mobilisation of village JFMC, and Preparation of Micro-planning in project villages
- Afforestation – following components:
    - Aided Natural Regeneration
    - Artificial Regeneration
    - Bamboo plantation/ Pasture Development/ Silvipasture
- Soils & Moisture Conservation works
- Entry Point Activity (for village development)
- Fencing, Monitoring & Evaluation, Training, Awareness raising, Overheads

3.7. Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members. All the related works of the plantation were done by the JFMC members as well as villagers of that particular village/JFMC member. The main strategy of East Khasi Hills SFD FDA to achieve the stated objective of NAP is by.

- FDA is the confederation of JMFCs in the forest division. FDAs are registered either with the Forest Department or under statutory provisions.
- The district-level officers of relevant line departments of the state Govt. are members of FDA.

- The recent experience with present institutional framework of FDA at the forest division level and JFMC at the village level is encouraging.
- The institution of FDAs and JMFCs are highly innovative resources transfer mechanism whereby the Govt of India channelizes funds directly to the grass root level implementing agency for the activities.
- The structure of FDAs and JMFCs also caters to the gender concerns, whereby women membership to the extent of 50% has been made mandatory in these bodies.
- Training of FDA and JMFC members has been organized by the EKH SFD FDA.

3.8. Creation of JFMC

Joint forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme. The JFMCs have been constituted comprising of the local people as members. The chairman of respective JFMC was selected from among the members by the villagers themselves. The JFMCs were registered in the office of the Conservator of Forests (Social Forestry & Environment) who is also the Chairman of the East Khasi Hills FDA.

3.9. Implementing Agencies

For implementing the scheme as per Government of Meghalaya's OO No FOR.62/ 2000/239 Dt 9th September2003 the Forest Development Agency was formed in the Forest Divisions. The Forest Development Agency was first registered with the Registrar of societies, as per Meghalaya Societies Act 12 0f 1983 vide registration No. E.16(RS)30/2001/573 of 2004.

3.10. Micro planning

Micro plans were prepared for each JFMC after conducting a Participatory Rural appraisal exercise among the JFMC members. Group discussions were made to select various interventions and species to be planted, entry point activities to be undertaken etc.

3.11. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be under taken as entry point activity so that JFMCs become self sustained in future maintenance of the works which has been under taken. The communities collectively identified entry point activities. The items under Entry Point Activities were:

- Construction of footpath/ Community halls,
- Approach roads,
- Bus waiting shed,
- Check dams,
- Supply of Furniture, Tarpaulins and Cooking utensils etc.

3.12. Approved programme of works

In accordance to the fund released approved interventions must be carried out in consultation with the villagers, as envisaged in the micro plans.

3.12.1. Quantitative Analysis

Classification of area covered/Treated

Under the East Khasi Hill Social Forestry Division FDA all the areas treated so far are community owned degraded forest land .Break up of areas treated under different interventions are as:-

Category	ANR	AR	Silvi pasture	Bamboo	Cane	Mixed	Regeneration of perennial herbs/shrubs	Total (Area in Hact)	% of total project area
Forest land									
Community land	1532	1238	75	150	--	--	50	3045	100%
Revenue land									
Govt land									
Private land									
Others									
Total	1532	1238	75	150	--	--	50	3045	**100%**

3.12.2. Physical and financial Achievements

For the year last ten years:-(2004 – 2014)

SL. NO.	Item	Physical (Area in Ha)		Financial (Rs. In lakhs)	
		Target	Achievement	Fund Release	Achievement
1	ANR				
	a. Advance works	700	X	47.21	47.21
	b. Creation	600	600	33.96	33.96
	c. Maintenance	1720	1720	19.34	19.34
	Subtotal	2320	2320	100.51	100.51
2	Artificial regen				
	a. advance works	470	X	84.57	84.57
	b. creation	470	470	41.38	41.38
	c. Maintenance	1450	1450	34.26	34.26
	Subtotal	1920	1920	160.22	160.22
3	Perennial herbs & shrubs				
	a. Advance works	50	X	5.85	5.85
	b. Creation				
	c. Maintenance				
	Subtotal	50	X	5.85	5.85
4	Soil & moisture conservation			27.04	27.04
5	JFM/Training/Awareness			1.79	1.79
6	Fencing			9.17	9.17
7	Monitoring & Evaluation			.96	.96
8	Improvement technologies			X	X
9	Overhead			20.67	20.67
	Total	4240	4240	326.21	326.21

3.13. Peoples Participation

3.13.1. Participatory Rural Appraisal/ Micro planning

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species,area for the plantation as well as during the preparation of project at every step JFM members has been consulted and their suggestion /views has been taken into consideration.

- Till date 52nos of Micro plans has already prepared for all the 52(Fifty Two)Joint forest management committees.
- Till date expenditure incurred for preparation of micro plans are **Rs3.44**lakhs only.

Year-Wise Expenditure (Rs. in lakh) incurred on Micro planning activities

Year	Expenditure incurred	%age of total approved outlay
2004-05 till 31.03.2014	3.44 lacs	63.70%
Total	**3.44 lacs**	**63.70%**

3.13.2. Entry Point Activities

Total Expenditure under Entry Point Activities is 39,74,130.00

Assets have been created under entry point activities in different villages for years between 2004 -2008 are as follows -

Sl. No.	NAME OF village/JFMC 2004-08	Assets created under FDA and No. of Assets	Expenditure Incurred (In Rs)	People's Contribution towards expenditure
1	2	3	4	
1	Mawlyngot	Construction of Community Hall(1), Check Dam-cum-Fishery Pond(1)Plastic Chairs (100), Foot path (2), Retaining Wall (1)	168000.00	
2	Kut	Construction of Community Hall(1), Check Dam (5), Drinking Water Wall/Slab(2)	291830.00	
3	Pingwait	Check Dam-cum-Fishery Pond(2)Washing Platform(1),Retaining Wall(1)	267350.00	
4	Laitmynsang	Playground(1),Check Dam-cum-Water Reservior(2)	48000.00	The Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes
5	Pdengshnong	Children's Park (1),Footpath & Drains (1), Water conservation dam cum fish Pond(1)	111970.00	
6	Mawkma	Chairs and tables for community hall (1) Water conservation dam cum Fish Pond(2)	12000.00	
7	Umsawmat	Construction of community (1), Footpath(2), Check Dam (2),Fishery Pond (1)	293060.00	
8	Laitmawsiang	Construction of community (1), Footpath(1), Drinking water conservation (2)	120540.00	
9	Nongwah	Entry Point activities	48000.00	

Sl. No.	NAME OF village/JFMC 2004-08	Assets created under FDA and No. of Assets	Expenditure Incurred (In Rs)	People's Contribution towards expenditure
10	Mynring	Construction of Community Hall(1) Footpath (1) Drinking water Connection (200 Mtrs), Play Ground (1)	69480.00	wherever physical work was required
11	Mawshun	Fishery Pond(1), Washing Floor (1), Water reservoir (1), Check dam (1)	48000.00	
12	Mawlam	Washing Platform (1)	26960.00	
13	Nongjrong	Play ground (1), Water reservoir (1), Retaining wall (1), Check Dam (1)	107550.00	
14	Kharang	Check Dam-cum-Water Reservoir (1)	26960.00	
15	Mawphlang	Footpath(12), Furnishing of office of U Lyngdoh (1),Construction of Community Hall (1),Construction of JFMC office-cum-Library(1),Washing Platform(7),Check Dam(3), Construction of Toilet(1), Construction of View point at Children's Park(1)	249490.00	
16	Nongpathaw	Provision of Desk and Benches at Promary School(1), provision of PA system (1), Check Dam(1)	48000.00	
	Total		**19,37,190/-**	

Assets have been created under entry point activities in different villages for years between 2008 -2009 are as follows -

Sl. No.	NAME OF village/JFMC 2008-09	Assets created under FDA and No. of Assets	Expenditure Incurred (In Rs)	People's Contribution towards expenditure
1	**2**	**3**	**4**	
1	Mawlyngot I	Construction of footpath towards	204900.00	The

Sl. No.	NAME OF village/JFMC 2008-09	Assets created under FDA and No. of Assets	Expenditure Incurred (In Rs)	People's Contribution towards expenditure
		Check dam		Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes wherever physical work was required
2	Mawlyngot II	Entry Point Activities	40440.00	
3	Kut	Extension of Community Hall	177580.00	
4	Pingwait	Check Dam	170750.00	
5	Laitmynsang	Levelling of Play ground	40440.00	
6	Mawber	Nil	Nil	
7	Rngibah	Nil	Nil	
8	Pdengshnong	Footpath & Drains	129770.00	
9	Mawkma I	Chairs and tables for community hall	10100.00	
10	Mawkma II	Nil	Nil	
11	Umsawmat	Construction of Footpath, Check Dam	163920.00	
12	Laitmawsiang	Construction of Footpath	68300.00	
13	Nongwah	Fishery Pond	3990.00	
14	Wahmawpat	Nil	Nil	
15	Lawbah	Nil	Nil	
16	Mynring	Extension of Community Hall	81960.00	
17	Mawshun	Repairing of School building	3990.00	
18	Mawlam	Nil	Nil	
19	Nongjrong I	Leveling of Play ground	75130.00	
20	Nongjrong II	Entry Point Activities	3990.00	
21	Kharang	Nil	Nil	
22	Mawphlang	Footpath	293690.00	
23	Nongpathaw	Repairing of Check Dam	3990.00	
24	Laitkroh	Nil	Nil	
25	Wahlang	Nil	Nil	
	Total		**14,72,940/-**	

Assets have been created under entry point activities in different villages for years between 2009 -2010 are as follows -

Sl. No.	NAME OF village/JFMC 2009-10	Assets created under FDA and No. of Assets	Expenditure Incurred (In Rs)	People's Contribution towards expenditure
1	2	3	4	5
1	Malyngot I	Nil	Nil	The Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes wherever physical work was required
2	Mawlyngot II	Nil	Nil	
3	Umsaw	Footpath, Check – dam, Chairs and tables	60000.00	
4	Kut	Nil	Nil	
5	Pingwait	Nil	Nil	
6	Laitmynsang	Nil	Nil	
7	Mawber	Nil	Nil	
8	Rngibah	Nil	Nil	
9	Pdengshnong	Nil	Nil	
10	Mawkma I	Nil	Nil	
11	Mawkma II	Nil	Nil	
12	Laitlyndop	Nil	Nil	
13	Laitkynsew	Nil	Nil	
14	Umsawmat	Nil	Nil	
15	Laitmawsiang	Nil	Nil	
16	Nongwah	Nil	Nil	
17	Wahmawpat	Nil	Nil	
18	Lawbah	Nil	Nil	
19	Mynring	Nil	Nil	
20	Mawshun	Nil	Nil	
21	Mawlam	Nil	Nil	
22	Nongjrong I	Nil	Nil	
	Nongjrong II	Nil	Nil	
23	Kharang I	Nil	Nil	
24	Kharang II	Nil	Nil	
25	Jatah (Lakadong)	Nil	Nil	
26	Mawphlang	Nil	Nil	
27	Nongpathaw	Nil	Nil	
28	Laitkroh	Nil	Nil	
	Total		**60,000/-**	

Assets have been created under entry point activities in different villages for years between 2010 -2011 are as follows -

Sl. No.	**NAME OF village/JFMC 2010-11**	**Assets created under FDA and No. of Assets**	**Expenditure Incurred (In Rs)**	**People's Contribution towards expenditure**
1	Laitlyndop	Rest House of village Community path		
2	Pongtung JFMC	Construction of Bath room	1,12,000.00	The Communities have made physical contribution in terms of free manual labour wherever physical work was required
3	Jatah II	Construction of Gallary	1,12,000.00	
4	Lyngkhoi	Construction of Community Hall	1,00,000.00	
5	Nongwah III	Construction of Community Hall	1,00,000.00	
	Total		4,24,000/-	

Assets have been created under entry point activities in different villages for years between 2011 -2012 are as follows -

Sl. No.	**NAME OF village/JFMC 2011-12**	**Assets created under FDA and No. of Assets**	**Expenditure Incurred (In Rs)**	**People's Contribution towards expenditure**
1	Umsaw JFMC	Construction of footpath	80,000.00	The Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes wherever physical work was required
	Total		**Rs 80,000.00**	

3.14. Joint Forest Management - JFM Committee

- No. of villagers where formation initiated in the Division. : 52
- No. of villagers where formal committees establishment in the Division. : 52
- Total number of committees establishment so far in the project areas : 52
- Total membership in terms of household/families : 8819 (house hold)
- Percentage of women, SCs, STs in the JFM committees :45%

	Male (adults)	Female (adults)	Total nos.
Scheduled Caste	Nil	Nil	Nil
Scheduled Tribe	11822	13452	25274
Others	Nil	Nil	Nil
TOTAL	**11822**	**13452**	**25274**

3.14.1. Establishment of village development fund

So far only no JFMC is having Village development fund, However JFMCs are in the process of having Village development fund as it was discussed during the FDA meetings both general and Executive Body meeting, the chairman EKHSFD,FDA, Shillong during the meetings must stress, that each JFMC should have a separate Village development fund. It is expected that from the next financial year all the operating JFMC will have Village development fund.

3.14.2. Meetings

Meetings	JFMC Meetings	FDA Meetings
Number of General Body Meetings held	10 nos.	9 times
Number of Executive Body Meetings held	32 times	Four meetings held in a year at a gap of every 3 months

3.14.3. Overheads expenditure

The expenditure incurred on holding the meeting mentioned above were made from the budget-sub head "Overhead Expenditure" .The following table shows the amount incurred over the period 2008-09 to 2013-14. An amount of Rs 7450/- was incurred as overhead before 2008-09 due to shortage of fund received.

Year-Wise Expenditure (RS. in lakh) incurred on Overheads

2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
13.17	**4.30**	**0.21**	**3.38917**	**6.40**	**0.3523**	**27.82147**

3.15. Records and Register

- **List of important Registers/Records maintained by and available with JFMCs**
  - Cash Book = Yes Maintained
  - Master rolls (Labour wages)register) = Yes Maintained
  - Measurement Books = Yes Maintained
  - List of Beneficiaries Register = Yes Maintained
  - Plantation Journal = Yes Maintained
  - Nursery Journal = Yes Maintained
  - Minutes of Meeting = Yes Maintained
  - Governing & Executive Body Register = Yes Maintained
  - Cheque drawn Register = Yes Maintained

The FDA is maintaining the following Register & records and are posted up to date

- Fund sanction Register = Yes
- Cash Book = Yes
- Cheque Drawn register = Yes
- Minute of Meeting Register = Yes
- VFMC Record Register = Yes
- Bill Register = Yes
- Governing & Executive Body Register = Yes
- Accounts Books (Bank Account) = Yes

3.16. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards.

However, Separate item under Training and Capacity Building was incorporated in the National Afforestation Programme revised Operational Guideline -2009. Training and

Capacity Building fund was received by the FDA for the said item during the year 2010-11.

Fund received year-wise under Awareness Raising, Training and Capacity Building

Years	Awareness Raising (Rs in Lakhs)	Training & Capacity Building (Rs in Lakhs)
2004-05	0.30	-
2005-06	0.45	-
2006-07	0.23	-
2007-08	0.34	-
2008-09	-	-
2009-10	0.25	-
2010-11	0.26	1.33
2011-12	0.41	-
2012-13	-	-
2013-14	0.83	-

Training for JFMC/Community Participation conducted between 2009 - 2014 is as under

Training programmes conducted	**Management and Bio-diversity conservation**
A. Staff Trained	45 (Forty-five)
Number of staff Trained	60(Sixty)
Topics Covered	Improved Technology, Account and Forestry, protection of Forest from Fire and grazing , Micro Planning, Account and Book Keeping, Exposure trip to Agartala and Sikkim
Organization involved	JFMC Member Secretary, Resource persons from NEHU, Soil, Agriculture, Horticulture, Fishery, Veterinary, NESAC Chartered Accountant and Forest official of the State Forest Department of Meghalaya, and Regional office, MOEF Shillong.
B. Community	30(Thirty)
Number trained	**250(**Two hundred fifty**)**
Topics Covered	Conservation of soil & Forest, Biodiversity, Ecology, Protection of forests from fire, grazing, Accounts, Exposure trips role of FDA and JFMC, Soil and Water Conservation, Nursery and planting, etc.
Organization involved	JFMC Member Secretary, Resources Persons from the North

Training programmes conducted	**Management and Bio-diversity conservation**
(trainers)	Eastern Hill University, Soil Conservation Department, Agriculture, Horticulture, Fishery, Veterinary, NESAC, Chartered Accountant and the Forest Officials of the State Forest Department, Meghalaya and Regional Office.

Expenditure incurred on awareness raising and capacity building activities for last ten years is Rs 3.07 lakhs and Rs 1.33 lakhs respectively. More training programmes be initiated to know about various forests products, and their techno-economic feasibility. They also expressed the need to learn different method and technique for plantation, monitoring etc.

3.17. Monitoring and Evaluation

Number of inspections by:

- Chief Conservator of Forests = 10 (Ten) times
- Conservator of Forests = 40 (Forty)times
- Deputy Conservator of Forests = 120 (One hundred & twenty) times

Expenditure incurred on Monitoring & Evaluation for last five years is Rs 2, 25,165/-.

Monitoring was done occasionally through independent agency, since inception of the project. Observations those also agencies have also been taken into consideration in this evaluation.

CHAPTER IV

SUMMARY OF EVALUATION

4.1. Introduction

This present study by way of evaluation & monitoring of **East Khasi Hills Social Forestry Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** was to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the district. Under this Programme focus was to encourage the rural people for protection and conservation of forests by way of extracting financial as well as tangible benefits from forests and at the same time protecting the environment and encouraging them in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and undertake afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash & burn (Jhoom) method of agricultural practice.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

4.2. Status of fund and Expenditure

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05. East **Khasi Hills Social Forestry Division FDA** was entrusted to implement the project. Funds released & spent by the FDA are:-

Year	Financial achievement (in lakhs)	
	Fund Released	**Spent**

Year	Financial achievement (in lakhs)	
2004-05	35.00	35.00
2005-06	70.00	70.00
2006-07	66.00	66.00
2007-08	85.81	85.81
2008-09	20.96	20.96
2009-10	48.49	48.49
2010-11	28.88	28.88
2011-12	28.30	28.30
2012-13	42.00	42.00
2013-14	46.52	46.52
Total	**471.96**	**471.96**

4.3. Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 48 and total nos. of beneficiaries is 8819. Therefore, the representative sample size of the division stands at 24 nos. of JFMCs as 50% and around 1764 nos. of beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

Hence, the evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the East Khasi Hills Social Forestry Division FDA.

4.4. Inspection of plantations

During collection of primary field data many plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following worth mentioning.

4.4.1. Plantation 1

- Mawphlang JFMC plantation. 30Ha.AR. under Mylliem RLC , Mylliem C&RD Block
- Year of Plantation:- 2004-05
- Survival percentage:- 80% ; Height of plants is about 6.5mts
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year. Under EPA a check dam has been constructed on river Lyngirong.

  Observation

  Plantation is satisfactory, JFMC members are rendering labour from the JFMC.

  Overall Observation

  Plantation is very good in all respects.

4.4.2. Plantation 2.

- Umsawmat JFMC plantation (AR) 40Ha, UNDER Mawsynram RLC . Mawsynram C &RD Block.
- Year of Plantation:-2005-06.; Species planted is *P.petula & P kesiya* with its associates.
- Survival percentage:- 70% ; Average height is about 3.5 Mts
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

  Observation: Plantation is satisfactory. JFMC members are rendering labour from the JFMC as and when required.

  Overall observation

  Plantation is very good in all respects.

4.4.3. Plantation 3.

- Nongwoh JFMC plantation 15Ha ,UNDER Mawsynram RLC falls under Mawsynram C&RD Block.

- Year of Plantation:- 2009-10.
- Survival percentage:- 75% ; Average height is about 3.1 Mts.
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory; JFMC members are rendering labour from the JFMC as and when required. Under EPA Check dams has been provided.

Overall observation

Plantation is very good in all respects.

4.4.4. Plantation 4.

- Wahlang JFMC plantation 15 Hact, under Mylliem RLC falls under, Mawphlang C&RD Block.
- Year of Plantation:- 2008-09.
- Survival percentage:- 70% ; Average height is about 3.60 Mts
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation:

Plantation is satisfactory, the JFMC members are rendering labour from the JFMC as and when required.

Overall observation:

Plantation is very good in all respects.

4.4.5. Plantation 5.

- Kut JFMC plantation 60 Ha (ANR) & 5 ha (AR) ,under Mylliem RLC
- Year of Plantation:- 2005-06.(Pinus Kesiya, Schima Khasiana Bucklandia, Quercus Spp.)
- Survival percentage:- 80% . Average height is about 2.98 mts.
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation:

Plantation is satisfactory; the JFMC members are rendering labour from the JFMC. Under EPA SMC Two washing platform , community hall & drinking water hole has been made.

Overall observation:

Plantation is very good in all respects.

4.4.6. Plantation 6.

- Syniasya JFMC plantation 40 Ha (ANR), 35 hact (AR) under Mawkynrew RLC ; Mawkynrew C.D Block. Species planted are (Pinus Kesiya, Schima Khasiana Bucklandia Quercus Spp.)
- Year of Plantation: - 2011-12.
- Survival percentage:- 70% ; Average height is about 1 mt
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation:

Plantation is satisfactory, Proper weeding has been carried out by the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantation is very good in all respects.

4.4.7. Plantation 7.

- Madanbitaw JFMC plantation 40 Ha(AR) 35ha(ANR), under Mylliem RLC. Mawphlang C&RD Block
- Year of Plantation:- 2011-12. Species planted are.(P. Kesiya ,Schima Khasiana Bucklandia, Quarcus Spp.)
- Survival percentage:- 70% . Average height is about 2.60 mts
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation:

Plantation is satisfactory JFMC members are rendering labour from the JFMC. Under EPA a power tiller has been supplied& a community hall has been constructed.

Overall observation

Plantation is very good in all respects.

4.4.8. Plantation 8.

- Laitmynsang JFMC plantation 27 Ha , under Mawkenrew RLC ; Mawkynrew CD Block.
- Year of Plantation:- 2007-08. Species planted are.(P. Kesiya ,Schima Khasiana Bucklandia ,Quarcus Spp.)
- Survival percentage:- 70% . Average height is about 2.60 mts
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year. Average height is about 2.5mts.

Observation:

Plantation is satisfactory, Under entry point & SMC 2nos of washing platform & Two number of drinking water hole has been made.

Overall observation:

Plantation is very good in all respects.

4.4.9. Plantation 9.

- Jatah JFMC plantation 30 Ha(ANR)10 hac(AR), under Mawkynrew RLC , Mawkynrew CD Block
- Year of Plantation:- 2007-08. Species planted are (Pinus Kesiya, Schima Khasiana Bucklandia, Quercus Spp.)
- Survival percentage:- 80% Average height is about 2,5 mts

Health of the plantation

Very good as the soil is good and the area receives very good rainfall during the year. Under entry point & SMC 3nos of washing platform & sitting gallery and utensils has been supplied/ constructed.

Observation

Plantation is satisfactory.

Overall observation

Plantation is very good in all respects.

4.5. Performance and manner of implementation

The project was launched during the year 2004 with the fund released by National Afforestation & Eco development Board(NAEB), Government of India, to the East Khasi Hills Social Forestry Division Forest Development Agency, which was registered With The Register of socities as a society as per the provisions of

Meghalaya Societies Act 1983(Meghalaya Act XII of 1983)vide registration number E.16(RS)30/2001/573.During the year 2003.

As per the Guidelines of NAEB till date 52 Joint forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.5.1. Project Beneficiaries

In the whole of the project area as per the record available with the department till date total JFMC members are **25,274** heads out of that **13452** are female /women beneficiaries. All the members are Scheduled Tribes.

4.5.2. Physical progress

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guide line have been achieved., as mentioned in the project. Implementation models were developed involving beneficiaries to form JFMCs. To have a better understanding of JFMC model of functioning many more workshops and training programmes may be conducted.

4.5.3. Financial Progress

Financial progress is as expected, as no fund has been released in accordance with work schedule.

Physical and Financial achievement 2004-05 to 2013-14

Year	Project cost (in Lakhs)		Target Area (in Hac)	Achievement Area (in Ha.)
	Amount Released/Sanctioned	Amount spent/utilized		
2004-05	35.00	35.00	600	600
2005-06	70.00	70.00	400	400
2006-07	66.00	66.00	375	375
2007-08	85.81	85.81	450	450
2008-09	20.96	20.96	--	--
2009-10	48.49	48.49	100	100
2010-11	28.88	28.88	140	140
2011-12	28.30	28.30	380	380
2012-13	42.00	42.00	600	600
2013-14	46.52	46.52	--	--
Total	**471.96**	**471.96**	**3045**	**3045**

4.6. Impact and assessment of the project

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, the programme covered 3045 ha. of area which is 0.13% of Meghalaya state. All the components of NAP were considered except mixed plantation and pasture development. Being survival rate of the plantations standing at 70 – 80 %, it is found that green cover has increased to a significant level because of plantation activities.
- Several livelihood issues of the fringe villagers are taken care of through Entry Point Activities through construction, repairing, renovation, providing facilities and infrastructures related to accessibility, shortage / storage of water, school shed, public conveniences, playground etc.
- Construction of Washing Platform, Check Dam-cum-Fishery Pond, Check Dam-cum-Water Reservoir, Fishery Pond, Retaining Wall, Drinking Water Wall/Slab, Footpath & Drains, Drinking water conservation, , Toilet, are important Entry Point Activities impacted in livelihood of the villagers in several ways related to accessibility of drinking water, washing water, storage of water and sanitation.
- Construction of Community Hall, Furnishing of office, Plastic Chairs and tables for community hall, Construction of JFMC office-cum-Library, Provision of Desk and Benches at Primary School, Foot path, Playground, Children's Park, View point at Children's Park are important Entry Point Activities impacted in livelihood of the villagers related to development of infrastructure towards education, community and accessibility.
- A total of 52 JFMCs formed under the division across nine blocks in the division. Most of the JFMCs formed in Pynursla, Mawkynrew and Mawsynram Block with 13 nos., 12 nos. and 9 nos. and JFMCs in other blocks formed within the range from 5 nos. (in Mawphlang Block) to 1 nos. (in Sohryngkham Block)
- Plantation activities i.e. Aided Natural Regeneration, Artificial Regeneration, Cane plantation, Herbs/shrubs plantation and bamboo plantations were taken up except mixed plantation and Pasture development. Artificial Regeneration was covered (1200 ha.) maximum in the division followed by ANR, Bamboo and so on.
- The NAP scheme has brought about many changes through plantation activities in terms of forest cover. As per India State of Forest Report 2013, there has been sufficient increase of forest cover across the districts.

- The landscape and hillock which were earlier barren and devoid of trees have now been brought under forest cover. The existing woodlands and village forest have been reduced to a great extent. There is lot of improvement in the water regime of different catchment area and valley in which retention period of water along the stream has increased.
- Under programme 52 Micro plans prepared in the division in which the quality of work by JFMCs had impacted in the minds of the villagers although at the initial stage due to lack of know how there was little dissatisfaction.
- Improve and Increase the quality of Forest cover.
- Employment Generation and Developmental Activities through EPA.
- Preservation and protection of catchment areas.
- Sustainable and Alternative livelihood through NTFPs.
- Reclamation of abandoned jhum cultivation areas.
- Reduction in Forest fires.
- Regeneration of barren lands and Conservation of catchment areas.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest
- People have become aware about the tangible benefits of the forest in the form of food, fodder, fuel and minor forest produce. Furthermore the ecological importance of forest in soil and water conservation, clean environment, agriculture, horticulture etc. have been clearly understood and appreciated by the people.
- The Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes wherever physical work was required
- Involvement of local community enhanced after the programme. The people living under this JFMC were very much ready to take up the huge task of afforestation. They readily gave their lands to carry out the plantation work and so highly cooperative in the all the plantation works carried out under this scheme.
- People have become more aware about the importance of the Conservation of the Forest and the Environment and their role in the preservation and conservation of forest and environment. People have understood that it is not only the job of the Government in preservation and conservation of forest and Environment, but it is also their duty to do so.

- The Government and peoples relation has been improved tremendously and these scheme has helped to develop a positive attitude in the mind of the people towards the Government which is necessary foundation of successful implementations of other schemes in the future.
- Awareness among the villages towards the importance of Conservation of forest and its biodiversity has developed a mindset of careful use of forest resources.
- The Programme created employment opportunity for the jobless and help to uplift their livelihood through various awareness programme with clean environment campaign among the villagers.
- All the beneficiaries surveyed believe that this afforestation programme is lucrative and very suitable for the present circumstances.
- All beneficiaries say that they face a lot of difficulties as in most of the plantations face high degree of cattle grazing, not from the same JFMC but from nearby villages.

4.7. Reason for deficiency:

All JFMC members surveyed , believe that non receipt of Government fund in **proper time** for various works is the main reason, as forestry works are time bound and time taking.

4.8. Constraints

- Skill development training on income generating activities should be conducted for the field staff and JFMCs members.
- Plantation period should be increased to five years as three years maintenance is too short a period and seedlings are still very small in the field. Besides Continuous support should be given to the JFMCs for effective management of plantation areas.
- One of the major constraints of functioning of NAP scheme is the erratic fund release from the Ministry; which result in failure of plantations.
- Incidence of Forest fire is also responsible for failure of plantations.

4.9. Observations:-

During evaluation it has been observed that in many of the JFMCs plantations has been done along with maintenance. However that due to shortage of fund few entry point activity & maintenance works could be done and rest works will be taken up as and when fund is released. Moreover it has been observed that in the JFMCs, income generating

project/works has been taken up as a result whatever projects has been taken up remains as Assets to the JFMCs.

- During the visit to the JFMC villages, group discussion was held with the villagers who have shown strong determination for protection of the forests they have created and assured to protect these forests at any costs.
- During survey it has been observed that in many of the JFMCs 'Village development fund has not been created. So it is suggested village development fund may be created immediately.
- It is considered that number of meetings held are sufficient as per requirements as executive committee meetings are to be held once in every three months and general body meetings are to be held once in a year.
- It is found that regular training was conducted during last 10(Ten) years by the FDA as well as by the Range Level Coordinators. Authorities should conduct more training to the staff as well as to the JFMC members for better understanding & interaction among the rural people and the implementing officers.

4.10. Suggestions and recommendation

- Sufficient fund may be provided to motivate people for sustainable conservation of natural resources.
- Suitable members from the JFMCs may be provided opportunities in Forestry Jobs.
- Plantation, planting weeding and protection money may be released in proper time (January). When the money is released during June, by then planting season is almost over in the climatic conditions.
- Some income generating schemes may be taken in every JFMC for their sustainability.
- Interested JFMC members may be trained in different professions ***viz*** Apiculture, Tailoring, Mat making, floriculture etc.
- Government may take steps to protect the existing forests by paying incentives to the Nokmas, Syims and Dollois as & where applicable.

4.11. Map/Photographs

Power tiller at Madanbitaw JFMC

Washing Platform At Lyngkhoi JFMC

Washing Platform At Lyngkhoi JFMC

Culvert & washing platform at Wahlang JFMC

Discussion with Madanbitaw JFMC members

Foot path & water storage tank at Laitmawsiang JFMC

Plantation at Mawphlang JFMC

Power tiller at Lynkhoi JFMC

Plantation at Umsawmat JFMC

Pine Plantation at Nongwah JFMC

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME

North Khasi Hills Social Forestry Division

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CHAPTER I

Introduction

1.1. General.

Ri Bhoi District is one of the youngest Districts of Meghalaya which came into existence and assumed the hierarchical status of the District on the 4th June 1992 by upgrading the former Civil Sub-Division. The District was carved out from the erstwhile East Khasi Hills District and lies between North Latitudes 25° 15' and 26°15' and between East Longitudes 91° 45' and 92° 15'.

1.2. Geographical boundary.

The District is bounded on the North by the Kamrup, Morigoan and Nagoan Districts of Assam , on the East by the Karbi Anglong District of Assam, on the South by East Khasi Hills & West Khasi Hills Districts and on the West by the West Khasi District. **Nongpoh** is the District Headquarter. Ri-Bhoi District contains an area of 2448.00 Sq.kms.

1.3. Climate.

The climate of the district is largely controlled by South–West monsoon and seasonal winds. The Ri Bhoi district is hilly, experiences a pleasant temperature during most part of the year. The average rainfall is very high. More than two-thirds of total rainfall occur during the monsoon, winter being practically dry. The district is blessed with favourable climatic, topographic and edaphic conditions characterised by abundant and well distributed rainfall.

1.4. Forest Type

According to Champion and Seth the forests of North Khasi Hills conforms to.

1.5. North Indian tropical semi evergreen Forests: (2B/ISI).

These forests occur mainly on the Northern slopes of the district. Principal species of these forests are *Terminalia, Artocarpus Albezzia, Michelia, Amooora, toona Duabanga, Vitex Largerostomia Etc.*

1.6. Moist deciduous forests (3C/C3b)

These types of forests can be seen in the high rainfall areas of the district towards the west and north. These forests are characterised by the presence of *Terminalia tomentosa, Mallotus Philipensis ,Emblica officinalis, Carea arborea etc.*

1.7. Khasi hills Sal Forests(3C/C1a (ii))

These type of forests occur mainly in pure patches or in association with other species like *Schima wallichii, Adina cordifolia Lagerostomia parvifloria,Dillenea pentagina, Terminalea bellerica, emblica officinal etc.*

1.8. Sub tropical pine Forests

This type of forests can be seen around Sumer to Umsning. According to Champion and Seth the forests of North khasi Hills adjoining to Sumer towards the west and north, this conforms to ***Khasi Subtropical pine Forests (8B/C2).***

1.9. Bamboo Forests

These type of forests occur throughout all the low laying areas of the district. Various types of bamboo seen in these forests are *Melocana Bambosoides, dendrocalamus spp.*

1.10. Grass lands

This type of forests occur on patches on riverside soils and also areas affected by shifting cultivation or fire where the primary forest has been destroyed due to biotic disturbances.

1.11. Jurisdiction

The forest occupies a large part of the Geographical area of the District. A critical analysis on forests of North Khasi Hills district gives the following pictures. Reserved forests 126.35 km2 National parks-sanctuaries- 29 sq kms. Life of the local people are very much linked to the forests of the district. The tribal people enjoy their customary right over the private forests. The Government and the District councils primarily manage the Reserve Forests and community forests respectively.

All the State Government owned, Reserve Forests, protected forests and National Parks are having dense Forests; only about 15% of the dense forests grow in private forests and community lands. The second category of forests are open forests and are not very useful because they cannot provide both tangible and intangible benefits to the people. The lands under this category are often prone to soil erosion that leads to gradual denudation of land, besides adverse climatic conditions. The existing forest cover is far less than the average set by the National Forest policy and most of the areas in the district need urgent attention so far as afforestration is concerned. The problem may be countered only by massive afforestation and protecting the existing forests.

The Vegetation of Ri-Bhoi district can be divided in tropical evergreen type with more of deciduous species towards the higher elevation areas in the North .As one proceeds towards the south the deciduous species diminish and being replaced by more ever green species.

1.12. The Reserve Forest areas under North Khasi hills or Ri-Bhoi district.

SL No	Name of the Reserve Forest	Area in Sq Kms
1	Nongkhyllem	125.91
2	Umsaw	0.44
3	Total	126.35

1.13. Nongkhyllem Sanctuary:

Nongkhyllem Wildlife Sanctuary extends over an area of 29 sq.km in Ri Bhoi district of Meghalaya. The Forest and Environmental Department of Meghalaya is currently in the process of acquiring more land to increase the total area of the Sanctuary. The area is dominated by tropical mixed evergreen vegetation in addition to tropical semi-evergreen forest, mixed deciduous forest and sal forest. Due to its rich variety of flora and fauna, Nongkhyllem is considered as one of the few remaining islands and last refuge of the once-abundant rainforest wealth of Meghalaya. Nongkhyllem WLS falls in an area identified as a global biodiversity hotspot and forms a part of the Eastern Himalayan Endemic Bird Area. Rare and endangered bird species such as the rufous-necked hornbill, peacock pheasant and Manipur bush quail still exist here. Endangered mammal species such as Himalayan black bear, hoolock gibbon and

capped langur are also present in the area. There are eight villages located in the buffer zone of Nongkhyllem, having a human population of 1750. The major threat to the wildlife of the sanctuary is community-hunting in which people from several villages get together for hunting purposes. Illegal poaching of animals for trade purposes and collection of rare plants and animals for sale is also common and difficult to control. Commercially valuable non-wood forest produce such as bamboo, broomsticks and medicinal plants is collected from the forests. Fires occasionally spread from surrounding areas to the sanctuary when annual burning is carried out in surrounding grasslands.

1.14. Grading of Project on a Scale of 1 to 10

Sl No	Heads	Details			Grading
1	Quantitative aspect	Physical			8
		Financial			8
2	Qualitative Aspect	Survival			7
		Health of plantations			6
		Maintenance			6
		Sustainability			8
3	JFM	Degree of peoples participation			8
		Satisfaction over perceived benefits by the local people			9
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA			8
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project			7
		Flow of funds from FDA to VFCs			9
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs			6
Over all Grading of the project		Out standing	Very Good	Good	Poor
		-----	7.58	------	-----

CHAPTER II
PROJECT PROFILE

2.1. Project Title

National Afforestation Programme.

2.2. Project Implementing FDA

North Khasi Hills Social Forestry Division

Forest Development Agency Ri-Bhoi District, Nongpoh, Meghalaya.

Social Forestry Circle, Meghalaya.

2.3. Project Location

The area falls under the whole of RiBhoi District.The Blocks of the district are UmsningC D Block, Jirang C D Block&Umling C.D.Block .The Social Forestry Ranges of the district are Nongpoh Range, Byrnihat Range,Umsning& Kyrdemkulai Range,

2.4. Project Cost and Area

Project cost till 31 March 2014 is Rs **592.70** lakhsand an area of 3480 Hect has been planted. This is ongoing project.

2.5. Incumbents in office for last 10 years

Sl No	Name	Period	Phone Number
1	Sri P.S.Nongbri MFS	1st June 2000 to 29th June 2008	
2	Sri B. Shangdiar IFS	30th June 2008 to 2nd September 2013	
3	Sri S. Khar budnah MFS	3rdSeptember 2013 till date	9436162854 0368-291064

2.6. Function of the division

Main function of the division is to raise plantations in abandoned jhum lands and degraded forest lands mostly owned by communities and arrange awareness programme.

2.7. List of the JFMCs

Sl. No	Name of the JFMC	Village	Estd. On	Plantations (Ha)	Block	Name of RLC
1	Nartap	Nartap	2005-06	61	Umsning C&RD Block	Nongpoh
2	Sohlaitrim	Sohlaitrim	2005-06	73	Umsning C&RD Block	Nongpoh
3	Umrang-langkru	Umrang-langkru	2005-06	123	Umsning C&RD Block	Nongpoh
4	Umkei	Umkei	2005-06	74	Umsning C&RD Block	Umsning
5	Thad	Thad	2005-06	91	Umsning C&RD Block	Umsning
6	Jair	Jair	2005-06	89	Umsning C&RD Block	Umsning
7	Umtngam	Umtngam	2005-06	162	Umsning C&RD Block	Kyrdemkulai
8	Mawbsein	Mawbsein	2005-06	63	Umsning C&RD Block	Kyrdemkulai
9	Umbang Sumer	Umbang Sumer	2005-06	40	Umsning C&RD Block	Kyrdemkulai
10	Umsohma	Umsohma	2005-06	55	Umling C&RD Block	Byrnihat
11	Pahamsohbar	Pahamsohbar	2005-06	40	Umling C&RD Block	Byrnihat
12	Pyngker-A	Pyngker-A	2005-06	30	Umling C&RD Block	Byrnihat
13	Wahsynon	Wahsynon	2005-06	70	Jirang C&RD Block	Byrnihat
14	Umsohpanan	Umsohpanan	2005-06	114	Jirang C&RD Block	Byrnihat
15	Umsylliang	Umsylliang	2005-06	80	Jirang C&RD Block	Byrnihat
16	Umtrai	Umtrai	2005-06	59	Umsning C&RD Block	Umsning
17	Umsyai	Umsyai	2005-06	108	Umsning C&RD Block	Umsning
18	Umlaper	Umlaper	2005-06	43	Umsning C&RD Block	Umsning
19	Umkon	Umkon	2006-07	40	Umling C&RD Block	Nongpoh
20	Umden	Umden	2006-07	17	Umling C&RD Block	Nongpoh
21	Purduwa	Purduwa	2006-07	16	Umling C&RD Block	Nongpoh
22	KulhiaMarmai	KulhiaMarma	2006-07	57	Umling	Nongpoh

Sl. No	Name of the JFMC	Village	Estd. On	Plantations (Ha)	Block	Name of RLC
	n	in			C&RD Block	
23	Umsaw-Nongbri	Umsaw-Nongbri	2006-07	18	Umling C&RD Block	Nongpoh
24	Umpathaw	Umpathaw	2006-07	18	Umling C&RD Block	Nongpoh
25	Lumwortoh	Lumwortoh	2006-07	10	Umling C&RD Block	Nongpoh
26	Umshit	Umshit	2006-07	34	Umling C&RD Block	Nongpoh
27	Mawphrew	Mawphrew	2006-07	10	Umling C&RD Block	Nongpoh
28	UmjariMathan	UmjariMathan	2006-07	10	Umling C&RD Block	Nongpoh
29	Umklai	Umklai	2006-07	10	Umling C&RD Block	Nongpoh
30	Diwon	Diwon	2006-07	26	Umling C&RD Block	Nongpoh
31	Umta	Umta	2006-07	38	Umling C&RD Block	Nongpoh
32	Lumkya	Lumkya	2006-07	16	Umling C&RD Block	Nongpoh
33	Umdohkha	Umdohkha	2006-07	10	Umling C&RD Block	Nongpoh
34	Mawpyrhut	Mawpyrhut	2006-07	25	Umsning C&RD Block	Umsning
35	MawhatiPdeng	MawhatiPdeng	2006-07	33	Umsning C&RD Block	Umsning
36	Mawtari	Mawtari	2006-07	18	Umsning C&RD Block	Umsning
37	Pomlatara	Pomlatara	2006-07	91	Umsning C&RD Block	Umsning
38	Kdoh-Hati	Kdoh-Hati	2006-07	14	Umsning C&RD Block	Umsning
39	Sohliya	Sohliya	2006-07	32	Umsning C&RD Block	Umsning
40	Bambudai	Bambudai	2006-07	48	Umsning C&RD Block	Umsning
41	Thaiang-Umlatara	Thaiang-Umlatara	2006-07	10	Umsning C&RD Block	Umsning
42	Mawlyngkhung	Mawlyngkhung	2006-07	39	Umsning C&RD Block	Umsning
43	Raitong	Raitong	2006-07	15	Umsning C&RD Block	Umsning
44	Sonidan	Sonidan	2006-07	41	Umsning C&RD Block	Umsning

Sl. No	Name of the JFMC	Village	Estd. On	Plantations (Ha)	Block	Name of RLC
45	Korhadem	Korhadem	2006-07	30	Umsning C&RD Block	Umsning
46	Mawlaho	Mawlaho	2006-07	60	Umsning C&RD Block	Umsning
47	Mawker	Mawker	2006-07	10	Umsning C&RD Block	Umsning
48	Umlamphlang	Umlamphlang	2006-07	10	Umsning C&RD Block	Umsning
49	Mawshang	Mawshang	2006-07	10	Umsning C&RD Block	Umsning
50	Umket	Umket	2006-07	83	Umsning C&RD Block	Kyrdemkulai
51	Umpohwin	Umpohwin	2006-07	18	Umsning C&RD Block	Kyrdemkulai
52	Mawbri	Mawbri	2006-07	55	Umsning C&RD Block	Kyrdemkulai
53	Mawtneng	Mawtneng	2006-07	46	Umsning C&RD Block	Kyrdemkulai
54	Pynthor	Pynthor	2006-07	47	Umsning C&RD Block	Kyrdemkulai
55	Mawrathud	Mawrathud	2006-07	54	Umsning C&RD Block	Kyrdemkulai
56	Umtham	Umtham	2006-07	15	Umsning C&RD Block	Kyrdemkulai
57	Bariduwa	Bariduwa	2006-07	35	Umling C&RD Block	Byrnihat
58	Sohkhwai	Sohkhwai	2006-07	10	Jirang C&RD Block	Byrnihat
59	Umsen	Umsen	2006-07	20	Jirang C&RD Block	Byrnihat
60	Umsohpai	Umsohpai	2006-07	15	Jirang C&RD Block	Byrnihat
61	Centre Village	Centre Village	2006-07	30	Jirang C&RD Block	Byrnihat
62	Jribasai	Jribasai	2006-07	15	Jirang C&RD Block	Byrnihat
63	NongrimJirang	NongrimJirang	2006-07	15	Jirang C&RD Block	Byrnihat
64	PahamUmshru	PahamUmshru	2006-07	20	Jirang C&RD Block	Byrnihat
65	Iosohksang	Iosohksang	2006-07	10	Jirang C&RD Block	Byrnihat
66	Umlakro	Umlakro	2006-07	40	Jirang C&RD Block	Byrnihat
67	Old Jirang	Old Jirang	2006-07	25	Jirang C&RD	Byrnihat

Sl. No	Name of the JFMC	Village	Estd. On	Plantations (Ha)	Block	Name of RLC
					Block	
68	Gonpati	Gonpati	2006-07	10	Jirang C&RD Block	Byrnihat
69	Mawpat Io Mawroh	Mawpat Io Mawroh	2006-07	20	Jirang C&RD Block	Byrnihat
70	Umdap	Umdap	2008-09	45	Umling C&RD Block	Byrnihat
71	Jermanai	Jermanai	2008-09	65	Umling C&RD Block	Nongpoh
72	Umshru	Umshru	2010-11	30	Jirang C&RD Block	Byrnihat
73	Mawskei	Mawskei	2011-12	91	Jirang C&RD Block	Byrnihat
74	Nonglum	Nonglum	2011-12	34	Jirang C&RD Block	Byrnihat
75	Nonglyngdoh	Nonglyngdoh	2011-12	96	Umling C&RD Block	Nongpoh
76	Mawrong	Mawrong	2011-12	101	Umsning C&RD Block	Umsning
77	Mawlyngngai	Mawlyngngai	2011-12	74	Umsning C&RD Block	Umsning
78	UmlingLambrang	UmlingLambrang	2011-12	110	Umling C&RD Block	Byrnihat
79	Mawkangi	Mawkangi	2012-13	30	Umsning C&RD Block	Nongpoh
80	Iamkhon	Iamkhon	2012-13	30	Umsning C&RD Block	Umsning
	Total			**3480 Ha**		

Chapter III

PROJECT EVALUATION

3.1. Introduction:-

The Ri-Bho district which is located in the Northern part of the state of Meghalaya, with interstate boundary with Assam, is blessed with favourable climatic, topographic and edaphic conditions characterized by abundant and well distributed rainfall.

On the basis of rainfall, altitude, temperature the following forest types can be noticed

- **Tropical moist deciduous with Sal**: Found in Northern and western slopes of the district.
- **Tropical Moist Evergreen Forests**: they occupy the Southern and South-eastern slopes.
- **Sub-Tropical Pine Forest**: they occupy the upper Eastern region.

North Khasi Hills Social Forestry Division FDA was formed and registered as a society under Meghalaya societies Act,1983(Meghalaya Act XII of 1983) during the year 2003.This Forest development agencies has been formed according to the Government of Meghalayas O.O.no FOR 62/2000/239 Dated9th of September 2003.

3.2. Project areas & Locations:-

The project areas are located within the geographical boundary of Ri-Bhoi District districts which is subdivided into four blocks. The villages and JFMCs selected are within the districts. A list of JFMCs selected during the period 2004 to 2013 has been listed above.

3.3. Any previous Project:-

This is an on-going project launched during the financial year 2004-05 and is continuing till date.

3.4. Socio Economic Profiles of villages

This is an on-going Project .Majority of the inhabitants of the villages belong to Scheduled tribes, depending mostly for their livelihood on agriculture and seasonal

labour. The villagers are poor , the villages has vast land under their command ,which are mostly denuded grass and unproductive lands, due to over exploitation of land during earlier years; which cannot be used for any gainful purpose except for forestry plantations. All these lands are classified as community lands. Though the tract falls under

- ***Tropical moist deciduous Forests .***
- ***Tropical moist evergreen Forests.***

The degraded grass lands are now devoid of any tree cover worth mentioning. There is a high degree of pressure on the marginal forest areas and as such these require immediate attention/restoration.

3.5. Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring

activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.6. Project Components

To achieve the objectives, in every selected villages Joint Forest Management Committees were formed by the villagers, from among the village committee members and all the works related to the project were undertaken by these JFMC members.

3.7. Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members. All the related works of the plantation were done by the JFMC members as well as villagers of that particular village/JFMC members.

3.8. Creation of JFMC

Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.9. Implementing Agencies

For implementing the scheme as per Government of Meghalaya's OO NoFOR.62/2000/239 Dt 9th September2003 Forest Development Agency was formed in the Forest Division .The Forest Development Agency was first registered vide JR/TRBSFD,FDA-7/04 of2004 dated 1st March 2004.

3.10. Micro planning

Micro plans were prepared for each JFMC after conducting a Participatory Rural appraisal exercise among the JFMC members ,group discussions and various interventions and species to be planted, entry point activities to be undertaken etc.

3.11. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be under taken as entry point activity so that JFMCs become self sustained in future maintenance of the works which has been under taken.

3.12. Approved Programme of works

In accordance to the fund released approved interventions must be carried out in consultation with the villagers, as envisaged in the micro plans

3.13. Quantitative Analysis

Under the North Khasi Hill Social Forestry Division FDA all the areas treated so far are community owned degraded forest land .Breakup of areas treated under different interventions are as under

Category	ANR	AR	REGN	PASTURE	BAMBOO	TOTAL	% of total project area
Forest Land	--	--		--		--	--
Community land	1350 Ha	1050 Ha	315 Ha	515 Ha	250 Ha	3480 Ha	
Revenue land							
Govt. waste land	--	--		--		--	--
Private land	--	--		--		--	--
Total	1350 Ha	1050 Ha	315 Ha	515 Ha	250 Ha	3480 Ha	

3.14. Physical and Financial Achievements during the year 2013-14 :-

SL.NO	Items	Physical (in ha)				Financial (Rs. In lakhs)			
		Target for the year	Achieved till last quarter	Achievement in the quarter	Total Achievement (4+5)	Outlay for the year	Expenditure till last quarter	Expenditure in the quarter	Total Expenditure (8+9)
1	2	3	4	5	6	7	8	9	10
1	Aided Natural Regeneration (200 plants/ha)								
	a. Advance Work	75	37		37	2.34	1.16	-	**1.16**
	b. Creation	50	100		100	1.70	1.70	-	**1.70**
	c. Maintenance	300	600		600	7.00	6.53	-	**6.53**
	Sub-total	**425**	**737**		**737**	**11.04**	**9.39**	**-**	**9.39**
2	Artificial Regeneration (1100 plants/ha)								
	a. Advance Work	180	113		113	14.54	9.13	-	**9.13**
	b. Creation	150	300		300	8.85	8.85	-	**8.85**
	c. Maintenance	300	600		600	9.00	9.38	-	**9.38**
	Sub-total	**630**	**1013**		**1013**	**32.39**	**27.36**	**-**	**27.36**
3	Pasture Development Silvipasture (400 plants/ha)								
	a. Advance Work	50	30		30	2.03	1.22	-	**1.22**
	b. Creation	40	80		80	1.58	1.58	-	**1.58**
	c. Maintenance	125	250		250	3.00	2.97	-	**2.97**
	Sub-total	**215**	**360**		**360**	**6.61**	**5.77**	**-**	**5.77**
4	Bamboo Plantation (625 plants/ha)								
	a. Advance Work	-	-	-	-	-	-	-	-
	b. Creation	-	-	-	-	-	-	-	-
	c. Maintenance	-	-	-	-	-	-	-	-
	Sub-total	**-**	-	**-**	**-**	**-**	-	**-**	-

SL.NO	Items	Physical (in ha)				Financial (Rs. In lakhs)			
		Target for the year	Achieved till last quarter	Achievement in the quarter	Total Achievement (4+5)	Outlay for the year	Expenditure till last quarter	Expenditure in the quarter	Total Expenditure (8+9)
Carried over		**1270**	**2110**		**2110**	**50.04**	**42.52**	**-**	**42.52**
1	**2**	**3**	4	**5**	**6**	**7**	**8**	**9**	**10**
Brought Forward		**1270**	**2110**		**2110**	**50.04**	**42.52**		**42.52**
5	Regeneration of Perennial Herbs & Shrubs of Medicinal Value (2000 plants/ha)								
	a. Advance Work	30	30		30	3.51	3.50	-	**3.50**
	b. Creation	40	80		80	3.08	3.08	-	**3.08**
	c. Maintenance	75	150		150	2.00	1.95	-	**1.95**
	Sub-total	**145**	**260**		**260**	**8.59**	**8.53**	**-**	**8.53**
	Total of Works	**1415**	**2370**		**2370**	**58.63**	**51.05**	**-**	**51.05**
6	Soil and Moisture Conservation	-	-	-	-	8.77	-	-	
7	Awareness	-	-	-	-	0.58	-	-	
8	Entry Point Activities	-	-	-	-	11.20	5.60		**5.60**
9	Micro Planning	-	-	-	-	1.17	-	-	
10	Fencing	-	-	-	-	2.92	2.10	-	**2.10**
11	Monitoring and Evaluation	-	-	-	-	1.17	0.30	-	**0.30**
12	Improved Technologies	-	-	-	-	-	-	-	
13	Overheads	-	-	-	-	5.85	2.97	1.46	**4.43**
14	Constitution of JFMC	-	-	-	-	-	-	-	
15	Micro Plan	-	-	-	-	-	-	-	
16	Value addition	-	-	-	-	-	-	-	
17	Training capacity building	-	-	-	-	-	-	-	
	Total	**-**	**-**	**-**	**-**	**31.66**	**10.97**	**1.46**	**12.43**
	Grand Total	**1415**	**2370**		**2370**	**90.29**	**62.02**	**1.46**	**63.48**

SL.NO	Items	Physical (in ha)				Financial (Rs. In lakhs)			
		Target for the year	Achieved till last quarter	Achievement in the quarter	Total Achievement (4+5)	Outlay for the year	Expenditure till last quarter	Expenditure in the quarter	Total Expenditure (8+9)
18	Funds received till date	-	-	-	-	-	-	-	-
19	Funds required for next quarter	-	-	-	-	-	-	-	-

3.15. Physical and Financial Achievements

Physical and Financial Achievements during the year 2005-06 to 2012-13 are as under -

Year	Achievement	
2005-06	**Physical (in ha.)**	**Financial (in Lakhs)**
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work	200	8.54
(b) Creation	200	5.6
(c) Maintenance		
(d) Committed Liability		
Sub Total	**400**	**14.14**
AR (1100 /ha)		
(a) Advanced Work	200	13.29
(b) Creation	200	9.8
(c) Maintenance		
(d) Committed Liability		
Sub Total	**400**	**23.09**
PDS (400 /ha)		
(a) Advanced Work	100	4.27
(b) Creation	100	2.24
(c) Maintenance		
(d) Committed Liability		
Sub Total	**200**	**6.51**
BP (1100 /ha)		
(a) Advanced Work	50	2.45
(b) Creation	100	2.24
(c) Maintenance		
Sub Total	**150**	**4.69**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work	50	0.18
(b) Creation	50	2.8
(c) Maintenance		
(d) Committed Liability		2.98
Sub Total	**100**	**5.96**
Soil and Moisure Conservation	550	13.25
Awareness	550	0.6
Entry Point Activities	550	24.4
Micro Planning	550	1.3
Fencing	550	4.5

Year	Achievement	
2005-06	**Physical (in ha.)**	**Financial (in Lakhs)**
Monitoring & Evaluation	550	1.1
Improved Technology	550	
Over Heads	550	6.29
Constitution of JFMC		
Value Addition		
Capacity Building		
Sub Total	**4400**	**51.44**
Grand Total	**5650**	**105.83**

Year	Achievement	
2006-07	**Physical (in ha.)**	**Financial (in Lakhs)**
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work		5.6
(b) Creation	200	1.96
(c) Maintenance	200	
(d) Committed Liability		
Sub Total	**400**	**7.56**
AR (1100 /ha)		
(a) Advanced Work	200	
(b) Creation	200	9.8
(c) Maintenance		4.2
(d) Committed Liability		
Sub Total	**400**	**14**
PDS (400 /ha)		
(a) Advanced Work		
(b) Creation	100	2.24
(c) Maintenance	100	1.4
(d) Committed Liability		
Sub Total	**200**	**3.64**
BP (1100 /ha)		
(a) Advanced Work	50	
(b) Creation	100	1.12
(c) Maintenance		0.98
Sub Total	**150**	**2.1**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work		

Year	Achievement	
2006-07	**Physical (in ha.)**	**Financial (in Lakhs)**
(b) Creation	50	1.05
(c) Maintenance	50	
(d) Committed Liability		
Sub Total	**100**	**1.05**
Soil and Moisure Conservation		1.53
Awareness		0.14
Entry Point Activities		10.4
Micro Planning		
Fencing		1.01
Monitoring & Evaluation		1.1
Improved Technology		
Over Heads		2.83
Constitution of JFMC		
Value Addition		
Capacity Building		
Sub Total	**0**	**17.01**
Grand Total	**1250**	**45.36**

Year	Achievement	
2007-08	**Physical (in ha.)**	**Financial (in Lakhs)**
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work	100	15.28
(b) Creation	400	6
(c) Maintenance		3.36
(d) Committed Liability		
Sub Total	**500**	**24.64**
AR (1100 /ha)		
(a) Advanced Work	50	8.79
(b) Creation	100	3.2
(c) Maintenance		6.72
(d) Committed Liability		
Sub Total	**150**	**18.71**
PDS (400 /ha)		
(a) Advanced Work	50	3.27
(b) Creation	50	0.77
(c) Maintenance		2.4

Year	Achievement	
2007-08	**Physical (in ha.)**	**Financial (in Lakhs)**
(d) Committed Liability		
Sub Total	**100**	**6.44**
BP (1100 /ha)		
(a) Advanced Work	50	3.71
(b) Creation	50	0.8
(c) Maintenance		1.05
Sub Total	**100**	**5.56**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work	50	7.91
(b) Creation	50	1.89
(c) Maintenance		0.63
(d) Committed Liability		
Sub Total	**100**	**10.43**
Soil and Moisure Conservation	950	2.85
Awareness	950	0.52
Entry Point Activities	950	8.55
Micro Planning	950	1.3
Fencing	950	2.58
Monitoring & Evaluation	950	0.97
Improved Technology	950	
Over Heads		6.04
Constitution of JFMC		
Value Addition		
Capacity Building		
Sub Total	**6650**	**22.81**
Grand Total	**7600**	**88.59**

Year	Achievement	
2008-09	**Physical (in ha.)**	**Financial (in Lakhs)**
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work	100	2.93
(b) Creation	500	6.96
(c) Maintenance	400	6.16
(d) Committed Liability		
Sub Total	**1000**	**16.05**
AR (1100 /ha)		

Year	Achievement	
2008-09	**Physical (in ha.)**	**Financial (in Lakhs)**
(a) Advanced Work	50	2.495
(b) Creation	150	2.98
(c) Maintenance	400	6.3
(d) Committed Liability		
Sub Total	**600**	**11.775**
PDS (400 /ha)	50	
(a) Advanced Work	50	1.715
(b) Creation	250	0.915
(c) Maintenance	600	2.66
(d) Committed Liability		
Sub Total	**900**	**5.29**
BP (1100 /ha)		
(a) Advanced Work		0.495
(b) Creation	50	0.92
(c) Maintenance	200	1.19
Sub Total	**250**	**2.605**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work	50	3.505
(b) Creation	100	2.375
(c) Maintenance	50	1.47
(d) Committed Liability		
Sub Total	**200**	**7.35**
Soil and Moisure Conservation		6.32
Awareness		
Entry Point Activities		6.5
Micro Planning		
Fencing		0.75
Monitoring & Evaluation	2400	
Improved Technology		2.85
Over Heads	2400	2.08
Constitution of JFMC		
Value Addition		
Capacity Building		
Sub Total	**4800**	**18.5**
Grand Total	**7750**	**61.57**

Year	Achievement

2009-10	Physical (in ha.)	Financial (in Lakhs)
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work	50	1.03
(b) Creation	100	2.15
(c) Maintenance	900	5.18
(d) Committed Liability		
Sub Total	**1050**	**8.36**
AR (1100 /ha)		
(a) Advanced Work	50	1.62
(b) Creation	50	1.62
(c) Maintenance	550	5
(d) Committed Liability		
Sub Total	**650**	**8.24**
PDS (400 /ha)		
(a) Advanced Work	25	0.52
(b) Creation	50	0.81
(c) Maintenance	250	2.94
(d) Committed Liability		
Sub Total	**325**	**4.27**
BP (1100 /ha)		
(a) Advanced Work		
(b) Creation		
(c) Maintenance	250	1.34
Sub Total	**250**	**1.34**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work	25	1.19
(b) Creation	50	2.1
(c) Maintenance	150	2.1
(d) Committed Liability		
Sub Total	**225**	**5.39**
Soil and Moisure Conservation	250	1.38
Awareness	400	0.05
Entry Point Activities	250	2.5
Micro Planning	400	0.34
Fencing		0.87
Monitoring & Evaluation	2500	0.05
Improved Technology		
Over Heads	2500	0.87
Constitution of JFMC		

Year	Achievement	
2009-10	**Physical (in ha.)**	**Financial (in Lakhs)**
Value Addition		
Capacity Building		
Sub Total	**6300**	**6.06**
Grand Total	**8800**	**33.66**

Year	Achievement	
2010-11	**Physical (in ha.)**	**Financial (in Lakhs)**
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work		
(b) Creation	50	1.75
(c) Maintenance	800	4.5
(d) Committed Liability		
Sub Total	**850**	**6.25**
AR (1100 /ha)		
(a) Advanced Work		
(b) Creation		2.9
(c) Maintenance		4.5
(d) Committed Liability		
Sub Total	**0**	**7.4**
PDS (400 /ha)		
(a) Advanced Work		
(b) Creation	25	0.65
(c) Maintenance	250	2.4
(d) Committed Liability		
Sub Total	**275**	**3.05**
BP (1100 /ha)		
(a) Advanced Work		
(b) Creation		
(c) Maintenance	150	0.7
Sub Total	**150**	**0.7**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work		
(b) Creation	25	1.5
(c) Maintenance	150	2.25
(d) Committed Liability		
Sub Total	**175**	**3.75**

Year	Achievement	
2010-11	**Physical (in ha.)**	**Financial (in Lakhs)**
Soil and Moisure Conservation		1.49
Awareness	150	0.06
Entry Point Activities		3
Micro Planning		
Fencing	2150	0.41
Monitoring & Evaluation		0.83
Improved Technology	1900	
Over Heads	1900	3.57
Constitution of JFMC		
Value Addition		
Capacity Building		
Sub Total	**6100**	**9.36**
Grand Total	**7550**	**30.51**

Year	Achievement	
2011-12	**Physical (in ha.)**	**Financial (in Lakhs)**
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work	200	9.9
(b) Creation	150	5.35
(c) Maintenance	250	6.29
(d) Committed Liability		
Sub Total	**600**	**21.54**
AR (1100 /ha)		
(a) Advanced Work	100	7
(b) Creation	50	3.55
(c) Maintenance	150	5.09
(d) Committed Liability		
Sub Total	**300**	**15.64**
PDS (400 /ha)		
(a) Advanced Work	50	2.8
(b) Creation	0	2.12
(c) Maintenance	125	2.12
(d) Committed Liability		
Sub Total	**175**	**7.04**
BP (1100 /ha)		
(a) Advanced Work	0	0

Year	Achievement	
2011-12	**Physical (in ha.)**	**Financial (in Lakhs)**
(b) Creation	0	0
(c) Maintenance	50	0.58
Sub Total	**50**	**0.58**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work		
(b) Creation		0.5
(c) Maintenance	125	
(d) Committed Liability		
Sub Total	**125**	**0.5**
Soil and Moisure Conservation		5.12
Awareness		0.65
Entry Point Activities		8
Micro Planning		1.96
Fencing		0
Monitoring & Evaluation		1
Improved Technology		0
Over Heads		2.8
Constitution of JFMC		0.3
Value Addition		2.1
Capacity Building		0.05
Sub Total	**0**	**21.98**
Grand Total	**1250**	**67.28**

Year	Achievement	
2012-13	**Physical (in ha.)**	**Financial (in Lakhs)**
Aided Natural Regeneration (200 /ha)		
(a) Advanced Work	13	1.15
(b) Creation	100	3.41
(c) Maintenance	300	6.61
(d) Committed Liability		0.87
Sub Total	**413**	**12.04**
AR (1100 /ha)		
(a) Advanced Work	37	5.54
(b) Creation	200	11.8
(c) Maintenance	150	4.41
(d) Committed Liability		11.11

Year	Achievement	
2012-13	Physical (in ha.)	Financial (in Lakhs)
Sub Total	**387**	**32.86**
PDS (400 /ha)		
(a) Advanced Work	10	1.25
(b) Creation	50	1.97
(c) Maintenance	100	2.83
(d) Committed Liability		1.18
Sub Total	**160**	**7.23**
BP (1100 /ha)		
(a) Advanced Work		
(b) Creation		
(c) Maintenance		
Sub Total	**0**	**0**
Reg of Perenial herbs (1100 /ha)		
(a) Advanced Work	10	2.77
(b) Creation	50	3.85
(c) Maintenance	50	1.73
(d) Committed Liability		4.25
Sub Total	**110**	**12.6**
Soil and Moisure Conservation		1.2
Awareness		
Entry Point Activities		3
Micro Planning		
Fencing		
Monitoring & Evaluation		
Improved Technology		
Over Heads		
Constitution of JFMC		1.58
Value Addition		
Capacity Building		
Sub Total	**0**	**5.78**
Grand Total	**1070**	**70.51**

3.16. Peoples participation

Participatory Rural Appraisal/ Micro planning:-

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation

as well as during the preparation of project at every step JFM members has been consulted and their suggestion /views has been taken into consideration.

- Till date 29(Twenty nine) nos of Micro plans has already prepared for all the 78 Joint forest management committees.
- Till date expenditure incurred for preparation of micro plans are **Rs4.82**lakhs only.

Entry point activities:-

Expenditure on EPAs from the year 2004-05 to 2010-11 under different Range Office and JFMCs as found as under -

Range/ Beat : JFMCs name	Year-wise	Amount (Rs)
Nongpoh Range: Nartap, Sohlaitrim, Umrang-langkru, Umkon, Umden, Purduwa, KulhiaMarmain, Umsaw-, Nongbri, Umpathaw, Lumwortoh, Umshit, Mawphrew, UmjariMathan, Umklai, Diwon, Umta, Lumkya, Umdohkha, Jermanai, Nonglyngdoh, Mawkangi	2004-05	60000
	2005-06	287170
	2006-07	172720
	2007-08	281999
	2008-09	160000
	2009-10	10000
	2010-11	48456
Sub Total		1020345
Umsning Range : Umkei, Thad, Jair, Umtrai, Umsyai, Umlaper, Mawpyrhut, MawhatiPdeng, Mawtari, Pomlatara, Kdoh-Hati, Sohliya, Bambudai, Thaiang-Umlatara, Mawlyngkhung, Raitong, Sonidan, Korhadem, Mawlaho, Mawker, Umlamphlang, Mawshang, Mawrong, Mawlyngngai, Iamkhon	2004-05	60000
	2005-06	387170
	2006-07	161810
	2007-08	63000
	2008-09	117564
	2009-10	29000
	2010-11	45000
Sub Total		863544
Byrnihat Range: Umsohma, Pahamsohbar, Pyngker-A, Wahsynon, Umsohpanan, Umsylliang, Bariduwa, Sohkhwai, Umsen, Umsohpai, Centre Village, Jribasai, NongrimJirang, PahamUmshru, osohksang, Umlakro, Old Jirang, Gonpati, Mawpat Io Mawroh, Umdap, Umshru, Mawskei, Nonglum, UmlingLambrang	2004-05	40000
	2005-06	272090
	2006-07	23430
	2007-08	60000
	2008-09	75000
	2009-10	45000
	2010-11	85000
Sub Total		600520
Kyrdemkhulai Range: Umtngam, Mawbsein, Umbang Sumer, Umket, Umpohwin, Mawbri, Mawtneng, Pynthor, Mawrathud, Umtham	2004-05	60000
	2005-06	342780
	2006-07	74200
	2007-08	153400

Range/ Beat : JFMCs name	Year-wise	Amount (Rs)
	2008-09	111000
	2009-10	100000
	2010-11	40000
Sub Total		881380
Umsiang Beat: Umsyai, Umtrai, Umlapar, Mawlaho, Pomlatara, Umlamphang, Mawker, Thaiang Umlatara, Mawshang, Korhadem, Sonidan, Korhadem	2004-05	60000
	2005-06	388000
	2006-07	128000
	2007-08	123000
	2008-09	113000
	2009-10	40000
	2010-11	
Sub Total		852000
Jirang Beat: Wahsynon, Umsohpanan, Umshyliang, Jribsai, Central Village, Nongrim Jirang, Pahamumshru, Lewsohkhang, Umlakro, Old Jirang, Gonpati, Mawpat,	2004-05	60000
	2005-06	424780
	2006-07	136020
	2007-08	160000
	2008-09	125000
	2009-10	60000
	2010-11	160000
Sub Total		1125800

Total Expenditure incurred till 31st March 2014 is Rs. 60.43lakhs only.

Sl No	Name of JFMC	Year	Amt Sanction	Assets Created	No. of asset	Expenditure incurred	People contribution
1	2	3	4	5	6	7	8
1	Mawhatipdeng	2011-12	25,000	Materials for renting	36	Rs. 25,000	
2	Mawpyrhut	2011-12	25,000	Materials for renting	155	Rs. 25,000	
3	Mawrathud	2011-12	35,000	Materials for renting	83	Rs. 35,000	
4	Pynthor	2011-12	10,000	Chairs	50	Rs. 10,000	
5	Umket	2011-12	10,000	Chairs	95	Rs. 19,000	
6	Mawtneng	2011-12	10,000	Chairs	50	Rs. 10,000	

Sl No	Name of JFMC	Year	Amt Sanction	Assets Created	No. of asset	Expenditure incurred	People contribution
7	Umdap	2011-12	12,914	P.A.System	1 set	Rs. 12,914	
8	Umshru	2011-12	75,000	Foothpath	1	Rs. 75,000	labour
9	Umlakro	2011-12	25,000	Foothpath	1	Rs. 25,000	labour
10	Mawbri	2011-12	10,000	Chairs	50	Rs. 10,000	
11	Mawlyngai	2011-12	20,000	Materials for renting	110	Rs. 20,000	
12	Mawrong	2011-12	30,000	P.A.System	1 set	Rs. 30,000	
13	Mawskei	2011-12	40,000	Foothpath	1	Rs. 40,000	labour
14	Nonglum	2011-12	20,000	Foothpath	1	Rs. 20,000	labour
15	Pomlatara	2011-12	28,600	School benches & desk	26	Rs. 28,600	
16	Umlinglambrang	2011-12	30,000	Materials for renting	56	Rs. 30,000	
17	Nonglyngdoh	2011-12	40,000	Footh path	1	Rs. 40,000	labour
18	Pomlatara	2011-12	30,000	Foothpath	1	Rs. 30,000	labour
19	Pynthor	2012-13	20,000	Chairs and tables	77	Rs. 20,000	
20	Mawbri	2012-13	20,000	Chairs	80	Rs. 20,000	
21	Umlinglambrang	2012-13	60,000	Foothpath		Rs. 60,000	labour
22	Umdap	2012-13	55,000	P.A.System	1 set	Rs. 55,000	
23	Nonglyngdoh	2012-13	80,000	Foothpath	1	Rs. 80,000	labour
24	Pomlatara	2012-13	60,000	Foothpath	1	Rs. 60,000	labour
25	Nonglum	2012-13	40,000	Foothpath	1	Rs. 40,000	labour
26	Mawlyngai	2012-13	40,000	P.A.System	1 set	Rs. 40,000	
27	Mawrong	2012-13	40,000	Foothpath	1	Rs. 40,000	labour
28	Mawskei	2012-13	20,000	Sanitary trolley	1	Rs. 20,000	
29	Umsohpanan	2012-13	10,000	chairs	40	Rs. 10,000	

Sl No	Name of JFMC	Year	Amt Sanction	Assets Created	No. of asset	Expenditure incurred	People contribution
30	Mawlyngkhung	2012-13	20,000	Computer	1	Rs. 20,000	

3.17. Joint Forest Management

JFM committee: -Under the North Khasi Hills Social Forestry Division FDA altogether 80 (eighty) Joint Forest Management Committees has been initiated in 80 villages till date, over the whole of Ri-Bhoi District. Total households in all the JFMCs are **8,740** nos. All the members of these committees are Scheduled tribe and out of that percentage of women members is 47.71% only. The compositions of these committees are as

- No of villages where formation was initiated in the FDA :- 80
- No of villages where formal committees established in the FDA :- 80
- Total number of committees established so far in the project areas :- 80
- Total membership in terms of household/families 8740 households/families
- Percentage of women members :- 47.71%

	Male	Female	Total
Scheduled caste	**---**	**---**	**---**
Scheduled Tribe	**4,570**	**4,170**	**8,740**
Others	**---**	**---**	**---**
TOTAL	**4,570**	**4,170**	**8,740**

- Under the North Khasi Hills Social Forestry Division FDA, in none of the JFMCs, *Village development fund* has been created; which is not at all encouraging. The CEO must take initiative to create "village development

fund" in all of the JFMCs. Joint Forest Management committees must be asked and made to open an account with the local banks.

3.18. Meeting

Forest development Agencies and Joint forest management committees are holding General body and Executive Body meetings regularly as per the records available. Following are the number of meetings held by the FDA & JFMCs

	FDA Meetings	JFMC Meetings	Remarks
Number of General Body Meetings Held	1	75	adequate
Number of executive committee meetings held	4	131	adequate

3.19.

3.20. Records & Registers

List of important Registers/Records maintained by and available with JFMCs

- Cash Book = Yes Maintained
- Master rolls (Labour wages)register) = Yes Maintained
- Measurement Books= Yes Maintained
- List of Beneficiaries Register= Yes Maintained
- Plantation Journal = Yes Maintained
- Nursery Journal = Yes Maintained
- Minutes of Meeting = Yes Maintained
- Governing & Executive Body Register= Yes Maintained
- Cheque drawn Register= Yes Maintained

List of important Registers/Records maintained by and available with FDAs

- Fund sanction Register =Yes
- Cash Book= Yes
- Cheque Drawn register= Yes
- Minute of Meeting Register= Yes
- YFMC Record Register= Yes
- Bill Register= Yes
- Governing & Executive Body Register= Yes

- Accounts Books (Bank Account)= Yes

3.21. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards.

Fund received under Awareness Raising are indicated below.

Years	Awareness Raising (in Rs Lakh)	Training & Capacity Building (in Rs Lakh)
2004-05	0.46	-
2005-06	0.50	-
2006-07	0.14	-
2007-08	0.36	-
2008-09	0.24	-
2009-10	0.17	-
2010-11	0.33	-
2011-12	0.52	-
2012-13	-	-
2013-14	0.58	

From the beginning of the project during 2004, 8 field staff and 13 JFMC members has been trained by the FDA for better understanding the JFMC model of working under different topics with the help of several organizations.

Training Programme conducted for Forest Official/ Staff	
A. Staff trained	
Number of Staff trained	38 Staffs
Topics covered	Micro-planning, Book keeping, G.P.S. technique, Forestry, Accountancy, Rural Development,
Organisations involved	By Forest officials, North Eastern Hill University, National Afforestation Environment Boardand other line Departments

Training Programme conducted for J.F.M.C.s Chairman, Members etc	
A. Community	
Number Trained	60
Topics Covered	Forest fires protection, Ecotourism, Forestry & Afforestations, JFMC matters, Community and Rural Development.
Organisations involved	Forest Officials, NEHU & Other Line Dept.

Year wise expenditure incurred on Awareness raising & Capacity Building for the year 2004-05 to 2010-11 is as under-

Sl no.	Years	Amount (in Lakhs)
1	2004-05	23000
2	2005-06	46760
3	2006-07	33546
4	2007-08	29480
5	2008-09	16556
6	2010-11	2930
	Total	152272

3.22. Monitoring & Evaluation:-

Number of Inspection made by:-

1. Chief Conservator of Forests :- 2
2. Conservator of Forests :- 25
3. Deputy conservator of Forests:- 111

The above officers were monitoring the works of the JFMC plantations regularly during past years in course of their visits to different JFMCs on a regular manner.

Year wise expenditure incurred on Monitoring & Evaluation for last three years:-

Year	Expenditure (Rs)	Year	Expenditure (Rs)
2004-05	x	2009-10	0.05
2005-06	x	2010-11	x

Year	Expenditure (Rs)
2006-07	x
2007-08	0.97
2008-09	0.45

Year	Expenditure (Rs)
2011-12	1.00
2012-13	x
2013-14	x

During 2006-07 Shri. Bijoy Sangma, Empanelled Evaluator, NAEB (MoEF – GOI) conducted an independent monitoring of the Project. Again Shri.Bijoy Sangma, Empanelled Evaluator, NAEB (MoEF – GOI) in 2009-10, conducted Monitoring and Evaluation of the project .

Chapter IV

Summary of Evaluation

3.23. General

This present study by way of evaluation & monitoring of **North Khasi Hills Social Forestry Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** is to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the district. Under this Programme focus is to encourage the rural people for protection & conservation of forests by way of extracting financial as well as tangible benefits from forests and at the same time protecting the environment and encouraging them in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and undertake afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash& burn (Jhoom) method of agricultural practice.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

3.24. Financial Status

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05. Funds sanctioned and received by the FDA are:-

Year	Fund released (Rs)	Achievement (Rs)
2004-05	39,00,000	37,21,680
2005-06	84,00,000	83,06,212

Year	Fund released (Rs)	Achievement (Rs)
2006-07	50,00,000	51,44,632
2007-08	87,10,000	88,72,696
2008-09	73,26,000	30,96,410
2009-10	25,20,000	64,47,644
2010-11	28,88,000	32,03,259
2011-12	68,73,000	70,78,178
2012-13	79,13,000	70,50,448
2013-14	60,01,000	63,48,000
Total	**5,95,30,000**	**5,92,70,159**

3.25. Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 80 and total nos. of beneficiaries is 8740. Therefore, the representative sample size of the division stands at 40 nos. of JFMCs as 50% and around 1748 nos. of beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

Hence the evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the North Khasi Hills Social Forestry Division FDA.

3.26. Inspection and observation

During collection of primary field data many plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following worth mentioning.

3.27. Plantation 1

- Umlinglambrang JFMC plantation.(30Hect.ANR.AR.Past) under Byrnihat RLC falls under Umling C & RD Block.
- Year of Plantation:- 2011-12
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: plantation is satisfactory, Proper weeding has been carried out. Under entry point activity a fishery pond has been constructed by the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantations are very good in all aspects.

3.28. Plantation 2

- Baridua JFMC plantation 20Ha , UNDER Byrnihat RLC falls under Umling C&RD Block.
- Year of Plantation:-2009-10.
- Survival percentage:- 65%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: plantation is satisfactory, Proper weeding has been carried out. Under entry point activity a fishery pond has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantation is good in all aspects.

3.29. Plantation 3

- Baridua JFMC plantation 10Ha , UNDER Byrnihat RLC falls under Umling C&RD Block.
- Year of Plantation:- 2005-06.
- Survival percentage:- 75%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: plantation is satisfactory, Proper weeding has been carried out. Under entry point activity a fishery pond has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantation is good in all aspects.

3.30. Plantation 4

- Umdap JFMC plantation 25 Ha , Under Byrnihat RLC falls under Umling C&RD Block.
- Year of Plantation:- 2010-11.
- Survival percentage:- 75%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: plantation is satisfactory, Proper weeding has been carried out. Under entry point activity a fishery pond has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantation is good in all aspects.

3.31. Plantation 5

- Mawlyngai JFMC plantation 9 Ha , underUmsningRLC falls under Umsning C&RD Block.
- Year of Plantation:- 2013-14.
- Survival percentage:- 75%

- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation: plantation is satisfactory, Only round weeding has been carried out. Under entry point activity a water harvesting structure cum fishery pond has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantations are well stock and good in all aspects.

3.32. Plantation 6

- Mawlyngai JFMC plantation 20 Ha , underUmsning RLC falls under Umsning C&RD Block.
- Year of Plantation:- 2011-12.
- Survival percentage:- 75%
- Health of the plantation

Well stock, Height of the plants is about 3 mtr.

Observation: plantation is satisfactory, round weeding has been carried out.

Overall observation:

Plantations are well stock and very good in all aspects.

3.33. Plantation 7

- Mawtneng JFMC plantation 9 Ha, under Kyrdemkulai RLC falls under Umsning C&RD Block.
- Year of Plantation:- 2012-13.
- Survival percentage:- 75%
- Health of the plantation

Well stock, Height of the plants is about 2 mtr.

Observation: plantation is satisfactory, round weeding has been carried out.

Overall observation:

Plantation is well stock and good in all aspects.

3.34. Plantation 8

- Mawtneng JFMC plantation 10 Ha , under Kyrdemkulai RLC falls under Umsning C&RD Block.
- Year of Plantation:- 2011-12.
- Survival percentage:- 75%
- Health of the plantation

Well stock, Height of the plants is about 3mtr

Observation: plantation is satisfactory, complete weeding has been carried out.

Overall observation:

Plantation is well stock and good in all aspects.

3.35. Performance and manner of implementation of the project

The project was launched during the year 2004 with the fund released by National Afforestation & Eco development Board(NAEB), Government of India, to the North Khasi Hills Social Forestry Division Forest Development Agency,which was registered as a society as per the provisions of Meghalaya Societies Act 1983(Meghalaya Act XII of 1983).During the year 2003.

As per the Guidelines of NAEB till date 80 Joint forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.36. Project Beneficiaries

In the whole of the project area as per the record available with the department till date total JFMC members are **8,740** heads out of that **4,170** are female /women beneficiaries. All the members are Scheduled Tribes.

3.37. Physical progress

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guide line have been achieved. Within the first year itself, as mentioned in the project. Implementation models were developed involving

beneficiaries to form JFMCs. To have a better understanding of JFMC model of functioning many more workshops and training programmes may be conducted.

Financial Year		**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	Total
No. of JFMCs		18	-	51	-	2	1	-	6	-	-	**78 nos**
Physical	**Target**		650	550	650	300	250	150	250	400	280	**3480 Ha**
	Achievement		650	550	650	300	250	150	250	400	280	**3480 Ha**
Financial	**Fund received (in lakhs)**	39.00	84.00	50.00	87.10	73.26	25.20	28.88	68.73	79.13	60	**595.30**
	Fund utilized (in lakhs)	37.22	83.06	51.44	88.73	30.96	64.48	32.03	70.78	70.50	63.48	**592.70**

3.38. Impact and assessment of the project :-

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, NAP covered 3480 ha. area i.e. 0.15% of Meghalaya state including all the components except mixed plantation and herbs/shrubs regeneration. Green cover has been observed at a significant level indicated by survival rate of the plantations at 70 – 80 %.

- Under Entry point activities several assets created which includes Materials for renting, purchase and distribution of School benches & desk, chairs and tables, purchase of Public Address System, Computer, etc.
- Construction related activities in some JFMCs includes Footpath and Sanitary trolley
- A total of 80 JFMCs formed under the division across three blocks i.e. Umsning, Umling and Jirang Blocks in the division. Most of the JFMCs constituted in Umsning followed by Umling and Jirang.
- Plantation activities i.e. Aided Natural Regeneration, Artificial Regeneration, Cane plantation, Pasture development and bamboo plantations were taken up except mixed plantation and herbs/ shrubs regeneration.
- Aided Natural Regeneration was covered (1350 ha.) maximum in the division followed by Artificial Regeneration, Bamboo plantation and other activities.
- Under programme 29 Micro plans prepared in the division in which the quality of work by JFMCs had impacted in the minds of the villagers although at the initial stage due to lack of know how there was little dissatisfaction.
- Improve and Increase the quality of Forest cover, Preservation and protection of catchment areas, Sustainable and Alternative livelihood through NTFPs, Reclamation of abandoned jhum cultivation areas, Reduction in Forest fires, Regeneration of barren lands and Conservation of catchment areas are few of the major benefits availed by the villagers under JFMCs for better livelihood.
- The landscape and hillock which were earlier barren and devoid of trees have now been brought under forest cover. The existing woodlands and village forest have been reduced to a great extent. There is lot of improvement in the water regime of different catchment area and valley in which retention period of water along the stream has increased.
- Awareness about environmental protection became strong by means of tangible benefits like fuel wood, fodder, timber etc., intangible benefits like aesthetic value, clean air, etc.
- People have become aware about the tangible benefits of the forest in the form of food, fodder, fuel and minor forest produce. Furthermore the ecological importance of forest

in soil and water conservation, clean environment, agriculture, horticulture etc. have been clearly understood and appreciated by the people.

- In areas where even single wild animal could no longer be seen can be sighted now in which the birds has started coming, breeding and making their nest on the branches and leaves of the growing forest. Small animal like hare, barking deer, wild bear, pangolin, mongoose, squirrel and other species belonging to avi-fauna, family of reptiles and amphibians are being sighted by the villagers.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest
- The Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes wherever physical work was required
- Involvement of local community enhanced after the programme. The people living under this JFMC were very much ready to take up the huge task of afforestation. They readily gave their lands to carry out the plantation work and so highly cooperative in the all the plantation works carried out under this scheme.
- Income generating activities through EPA & SMC has helped in the economic condition of the society.
- Employment generation through engagement in various plantation works and protection.
- The Government and peoples relation has been improved tremendously and these scheme has helped to develop a positive attitude in the mind of the people towards the Government which is necessary foundation of successful implementations of other schemes in the future.
- Awareness among the villages towards the importance of conservation of forest and its biodiversity has developed a mindset of careful use of forest resources.
- All the beneficiaries surveyed believe that this afforestation programmes are lucrative and very suitable for the present circumstances for our state.
- All beneficiaries say that they face a lot of difficulties due to high degree of cattle grazing, (not from the same JFMC but from nearby villages).

3.39. Reason for deficiency:

All JFMC members surveyed , believe that non receipt of Government fund in proper time for various works is the main reason, as forestry works are time bound and time taking.

3.40. Constraints

- Skill development training on income generating activities should be conducted for the field staff and JFMCs members.
- Plantation period should be increased to five years as three years maintenance is too short a period and seedlings are still very small in the field. Besides Continuous support should be given to the JFMCs for effective management of plantation areas.
- . One of the major constraints of functioning of NAP scheme is the erratic fund release from the Ministry; which result in failure of plantations.
- Incidence of Forest fire is also responsible for failure of plantations.

3.41. Observations

- During evaluation it has been observed that in many of the JFMCs plantations has been done but with few maintenance works. However, due to shortage of fund few entry point activity works and maintenance could be done and other pending works will done as and when fund is released.
- During the visit to the JFMC villages, group discussion has been held with the villagers who has shown strong determination for protection of the forests they have created and assured to protect these forests at any costs.
- During survey it has been observed that in none of the JFMCs '*Village development fund'* has been created. So it is suggested Village development fund may be created immediately.
- However it is found that number of meetings held are sufficient as per requirements as executive committee meetings are to be held once in every three months and general body meetings are to be held once in a year.
- It is found that regular training was conducted during last 8(eight) years by the FDA as well as by the Range Level Coordinators. Authorities should conduct more training to the staff as well as to the JFMC members for better understanding & interaction among the rural people and the implementing officers.

3.42. Suggestions and Recommendations:-

- Sufficient fund should be provided for sustainable conservation of natural resources.
- Suitable members from the JFMCs may be provided opportunities in Forestry Jobs.
- Plantation, planting weeding and protection money may be released during January. When the money is released during June, by then planting season is almost over in our climatic conditions.
- Some income generating schemes may be taken in every JFMC for their sustainability.
- Some interested JFMC members may be trained in different professions viz Apiculture, Tailoring, Mat making, floriculture etc.

4.1. Map/Photographs

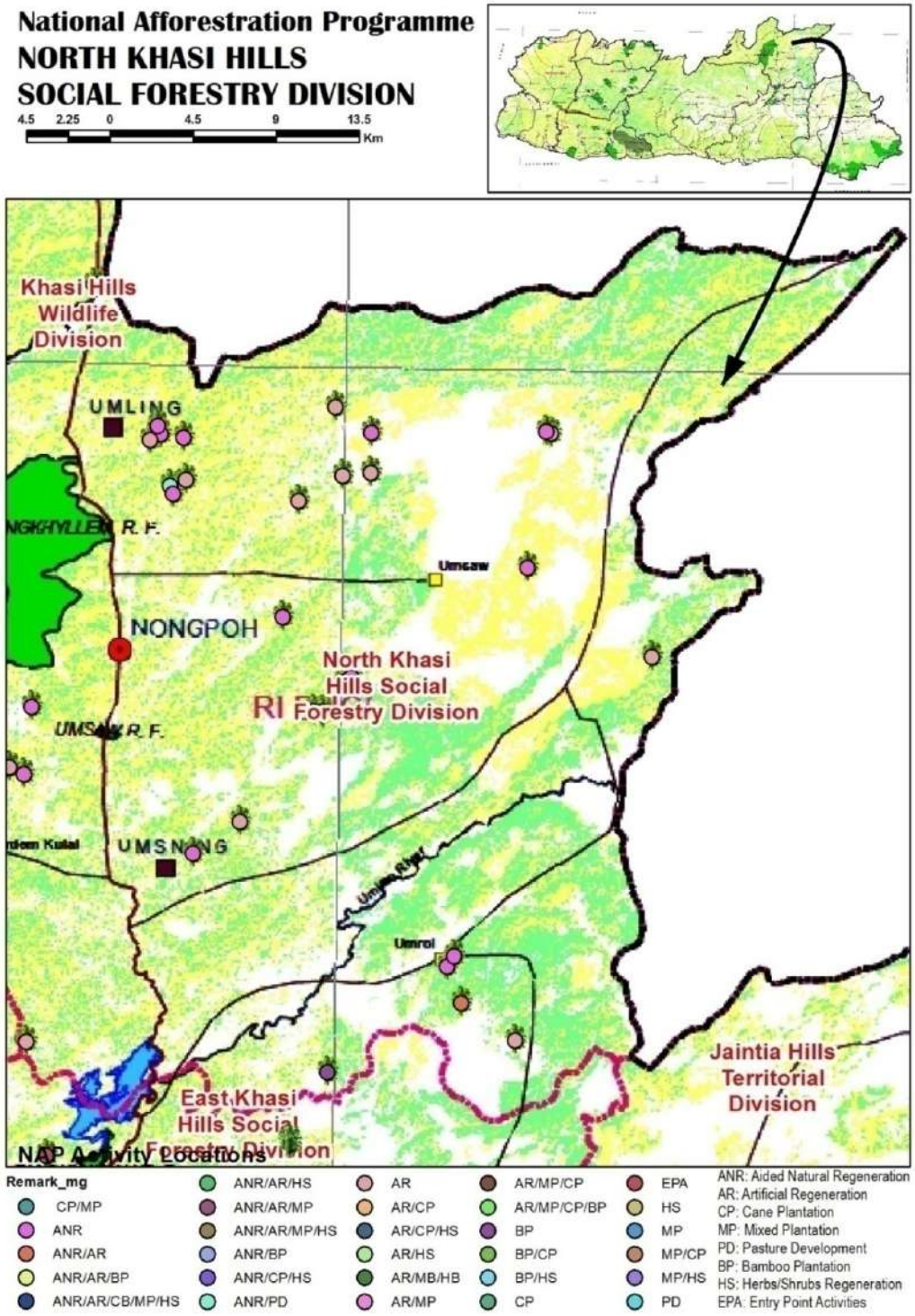

Photo 1. JFMC plantation at Baridua20Ha (2009-10)

2.JFMC plantation at Baridua 10 Ha (2005-06)

JFMC plantation at Umdap 2010-11 plantation,25 Ha(Ar- 5, ANR-10, Regn-5, Past-5)

JFMC plantation at Mawlyngai 2013-14 plantation, 9 Ha(ANR-4, Past-5)

ANR Plantation at Mawteng JFMC

At Mawlanghai JFMC

ANR Plantation under Mawlynghai JFMC

With Chairman & Members at the Mawtneng JFMC plantation 2012-13

(AR -4 Ha , Pasture -5 Ha.)

JFMC plantation at Mawtneng 2011-12 plantation, 10 Ha(ANR-10)

Water Harvesting Structure cum Fishing Pond at Mawlyngai JFMC, created under EPA, SMC.

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME (NAP)

West Khasi Hills Social Forestry Division

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CHAPTER I

INTRODUCTION

1.1. Boundary of the Division

West Khasi Hills, one of the districts of Meghalaya is the biggest district in the state with an area of 5247 sq. km. As per 2001 census, the district has a population of 2,94,115. The district lies between 25◦10' and 25◦51' North latitude and 90◦ 45' and 91◦ 52' East longitude. The altitudinal zonation of the area ranges from 200 metres to 1800 metres.

The district which forms the central part of the state is an imposing plateau with rolling grasslands, hills and river valleys. The northern section of the plateau has an undulating topography with a series of hills rising to almost the same height, extending northwards to slope gradually, merging with the plains of Assam. This zone ranges from 300 metres to 600 metres altitude. The central zone is also known as the Central Highland where Mawthadraishan Peak (1893 metres) being next only to Shillong peak lies in this zone. The elevation in this portion (Central highland) ranges from 600 metres to 1200 metres. The southern face of the plateau is marked by deep gorges and abrupt slopes. In the southern zone, the altitudinal zonation ranges from 200 metres to 400 metres.

The district has been blessed abundantly with pleasant climate, picturesque, landscape, breathtaking topography, natural resources and rich biodiversity.

1.2. Organisation and Function of the Division

Presently the West Khasi Hills Social Forestry Division FDA is administered and controlled by the Divisional Forest Officer with Headquarter at Nongstoin. The Extent of the division is limited to the administrative boundary of the district of West Khasi Hills and South West Khasi Hills. The onus of implementation of all of forestation schemes and projects and all programmes ancillary to afforestation within the jurisdiction of the district is vested to this Division. The Division takes up plantation in the private and community lands with consent /permission of the land owners and a MOU is made thereafter. In addition the division takes up various awareness

programmes to promote awareness among public/people about the need to plant trees and to conserve forests. By its existence, the forest cover in the district has reasonably increased not only because of creation of plantations but due to creation of awareness among the public by organizing awareness programmes from time to time throughout the district. Though survival of planted seedlings are not always up to the mark, but allowing the naturally regenerating useful local species to grow and subsequent maintenance by the department has fully stocked such areas taken up by the department for project implementation. By taking over these areas from the people, further deterioration of soil and vegetation growing over them has been checked considerably. By that the overall objectives of the schemes and programmes has been achieved.

1.3. Reserve Forest within the Division:

The State Forest Department does not own any big chunk of forest area in the district except a small area of 31(thirty one) hectares at Nongumiang acquired by the department and notified as Reserved Forest on 8th September 2003 vide. Notification No. FOR.118/92/124 under Section 17 of the Meghalaya Forest Regulation (Application Amendment) Act, 1973.

The existing forest areas are mostly community and privately owned. There are also certain portions, which are owned by the clan members. The forest area of about 1640 sq. km. is looked after by the District Council. These forest areas over the years have been subjected to unscientific management and as a result most of these areas have become almost barren. All JFMCs under Nongstoin FDA are for rehabilitation of the abandoned barren lands and degraded forest areas in concentrated areas of the community land of the selected JFMC considered on sub-watersheds, Development Block, Forest Ranges, Villages etc. in association with villagers.

1.4. Vegetation and Composition

The District is endowed with rich flora and fauna. The project areas are normally gentle slope, medium hillock running mostly north- south direction with medium valley in between the hillocks. Originally the watershed areas are tropical wet evergreen forests in some areas and others are tropical semi- evergreen. The vegetation found in the watershed areas are mainly moist deciduous evergreen and semi evergreen species

which comprises of the *Khasi pines* in the higher altitude areas and *Terminalia spp, Amorora wallichi, Artocarpus chaplasa, Duabanga grandiflora, Titachap, Gamari* and *Schima wallichii* etc in the lower reaches. Orchids and pitcher plants are also found in many pockets. However, with the passage of time, owing to the deforestation process, many of such species are depleting.

By and large the people of the district are economically poor and depend entirely on wood as only source of fuel, timbers, fodder, fruits, medicines raw materials and poles for construction of dwelling house, thus the existing forest areas can not suffice the total wood/fodder requirement for the local people.

1.5. Forest Types of the District

According to Champion and Seth the forests of West Khasi Hills conforms to.

1.5.1. North Indian tropical semi evergreen Forests

These forests occur mainly on the Northern slopes of the district. Principal species of these forests are *Terminalia, Artocarpus Albezzia, Michelia, Amooora, toona Duabanga,Vitex Lagerostomia Etc.*

1.5.2. Moist deciduous forests (3C/C3b)

These type of forests can be seen in the high rainfall areas of the district towards the west and north. These forests are cherterised by the presence of *Terminalia tomentosa, Mallotus Philipensis ,Emblica officinalis, carea arborea etc.*

1.5.3. Khasi hills Sal Forests(3C/C1a (ii))

These type of forests occur mainly in pure patches or in association with other species like *Schima wallichii, Adina cordifolia Lagerostomia parvifloria,Dillenea pentagina,terminalea bellerica, emblica officinal etc.*

1.5.4. Sub tropical pine Forests

This type of forests can be seen around Sumer to Umsining. According to Champion and Seth the forests of North khasi Hills adjoining to Sumer towards the west and north, this conforms to ***Khasi Subtropical pine Forests (8B/C2).***

1.5.5. Bamboo forests

These type of forests occur throughout all the low laying areas of the district. Various types of bamboo seen in these forests are *Melocana Bambosoides, dendrocalamus spp.*

1.5.6. Grass lands

This type of forests occur on patches on riverside soils and also areas affected by shifting cultivation or fire where the primary forest has been destroyed due to biotic disturbances.

1.6. Grading of project on a scale of 1 to 10

Sl No	Heads	Details	Grading
1	Quantitative aspect	Physical	8
		Financial	8
2	Qualitative Aspect	Survival	8
		Health of plantations	9
		Maintenance	8
		Sustainability	9
3	JFM	Degree of peoples participation	8
		Satisfaction over perceived benefits by the local people	8
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA	8
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project	7
		Flow of funds from FDA to VFCs/JFMCs	9
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs	6

Over all Grading of the project	Out standing	Very Good	Good	Poor
	---	8.00	---	-------

CHAPTER II

PROJECT PROFILE

2.1. Project Title

National Afforestation Programme.

2.2. Project Implementing FDA

West Khasi Hills Social Forestry Division Forest Development Agency.

Social Forestry Circle, Meghalaya

2.3. Project Location

The area falls under the whole of West Khasi Hills & South West Khasi Hills, District. The Social Forestry Ranges of the Division are Nongstoin RLC, Nongstoin Urban RLC, Riangdo RLC Mairang RLC and Mawkyrwat RLC

2.4. Project Cost and Area

Project cost till 31st March 2014 is Rs **1149.19** lakhs. and area covere 5962 hect

2.5. Blocks under the division

No	Name of district/Blocks	No	Name of district/Blocks
A	***West khasi Hills district***	*B*	***South West Khasi Hills District***
1	Mawshynrut	1	Mawkyrwat
2	Nongstoin	2	Ranikor
3	Mairang		
4	Mawthadraishan		

2.6. Incumbents in Office for the last ten years:

Sl No	Name	Period	Phone
1	Shri. T .Kharlukhi MFS	15.10.1998 to 2.12.2003	
2	Shri. S.A Nongsiej MFS	2.12.2003 to 24.04.2012	
3	Shri.T.Wanniang MFS	24.04.2012 till date	9436702620

2.7. **Function of the Division**

Social Forestry Division mostly concentrated on Afforestation works in Private and Community land outside Reserved Forests besides other activities like Awareness Programme on forests and environment, celebration of Vanamahotsav, World Environment Day, Recreational Forestry Environment and Ecology etc

2.8. **List of the JFMCs**

Sl No	Name of JFMC	Year of creation	Name of Range/RLC	Total population	Total no of household	Area brought under JFM plantation
1	2	3	4	5	6	7
1	Rongrin- Umdang	2004	Riangdo	1556	251	252
2	Nongriangka	2004	Riangdo	112	18	115
3	Nongsohlait	2004	Urban Beat Nongsto	285	46	167
4	Lai kynja-Rangblang	2004	Mawkyrwat	1630	263	231
5	Marshillong	2004	do	1806	282	121
6	Pynden Sakwang	2004	do	645	104	66
7	Mawten	2004	do	2164	349	70
8	Nonglang	2004	do	1953	315	206
9	Phudjaud Rangthong	2004	do	642	103	305
10	Mawlangren	2004	Mairang	948	153	131
11	Tiehnongbah	2004	do	645	104	346
12	Mawpen	2004	do	576	93	109
13	Umniangriang	2004	do	403	65	191
14	Patharlyndan	2006	do	1116	180	207
15	Mawkawah	2006	Nongstoin	1178	190	60
16	Mawkhrang	2006	Riangdo	132	21	111
17	Steplanglur	2006	Urban Beat Nongstoin	295	42	155
18	Diengsyiang	2006	do	140	23	183
19	Mawmarang	2006	do	294	45	25
20	Camino-Mawblang	2006	do	130	20	77
21	Umjarain	2006	Mawkyrwat	1172	189	166
22	Sangshong	2006	Mairang	640	100	53
23	Mawlumkhri	2006	do	496	80	80
24	Lawsiej	2006	do	397	60	147
25	Domtwa-Nongshilliang	2006	do	464	80	113

Sl No	Name of JFMC	Year of creation	Name of Range/RLC	Total population	Total no of household	Area brought under JFM plantation
26	RI sakwang	2006	Mawkyrwat	1465	294	93
27	Mawlangwir	2006	do	2176	351	53
28	Rangthong Nongbah	2006	do	880	142	182
29	Nongkhusba	2006	Urban Beat Nongstoin	95	20	63
30	Mawtynrong	2006	Nongstoin	190	35	25
31	Mawmarin	2006	do	330	55	30
32	Nonglanglieh	2006	do	210	30	276
33	Teimang	2006	do	109	40	73
34	Nongmawlein	2006	Riangdo	234	47	79
35	Nongryniaw	2006	do	280	37	30
36	Umdein	2006	do	153	24	87
37	Nongmawsmai	2006	do	189	35	65
38	Riangtheit	2006	do	68	10	116
39	Nongsohma	2011	Mairang	1115	195	108
40	Mawpat	2011	do	222	38	92
41	Nongshillong Domkseh/Khartein	2011	do	520	100	137
42	Nonglamjew	2011	Nongstoin	192	65	62
43	Nongmiangkain	2011	do	145	36	74
44	Miangshang	2011	Urban Beat Nongstoin	340	37	170
45	Rangmaw	2011	Mawkyrwat	281	306	30
46	Langumshing	2011	Riangdo	340	43	38
47	Nongmawkhar	2011	do	314	40	33
48	Nongrathaw	2011	do	432	75	64
49	Dagong	2012	do	110	17	82
50	Riangsih	2012	do	150	25	48
51	Wahblei	2012	do	259	35	129
52	Porla	2012	do	123	23	52
53	Mawdiangkper	2013	Urban Beat Nongstoin	135	27	29
	Total			**30881**	**5358**	**5962**

CHAPTER III

PROJECT EVALUATION

3.1. Introduction

The West Khasi Hills district is located in the central part of the state of Meghalaya, with interstate boundary with Assam. West Khasi Hills Social Forestry Division FDA was formed and registered as a society under Meghalaya societies Act,1983(Meghalaya Act XII of 1983) during the year 2003.This Forest development agencies has been formed according to the Government of Meghalayas O.O.no FOR 62/2000/239 Dated 9th of September 2003.

3.2. Project areas & Locations

The project areas are located within the geographical boundary of Ri-Bhoi District which is subdivided into four blocks. The villages & JFMCs selected are within the districts. A list of JFMCs selected during the period 2004 to 2013 has been listed at para 2.3.

3.3. Any previous Project

This is an on-going project lunched during the financial year 2004-05 and is continuing.

3.4. Socio economic profiles of villages

This is an on-going Project .Majority of the inhabitants of the villages belongs to Scheduled tribes, depending mostly for their lively hood on agriculture and seasonal labour. The villagers are very poor , the villages has vast land under their command, which are mostly denuded grass and unproductive lands; resulting from over exploitation of land during earlier years; these cannot be used for any gainful purpose except for forestry plantations. All these lands are classified as community lands. The tract falls under ***a)North Indian Tropical semi evergreen Forests b)Tropical moist deciduous Forests ,c) Khasi Subtropical pine Forests (8B/C2).d)*** **Khasi hills Sal Forests(3C/C1a (ii))e)Bamboo forests f)Grass lands.** The grass lands are now devoid

of any tree cover worth mentioning. There is a high degree of pressure on the marginal forest areas and as such these require immediate attention/restoration.

3.5. Objectives

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.6. Project Components

To achieve the objectives, in every selected village Joint Forest Management Committee's were formed by the villagers, from among the village committee members and all the works related to the project were undertaken by these JFMC members.

3.7. Strategies adopted

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members. All the related works of the plantation were done by the JFMC members as well as villagers of that particular village/JFMC members.

FDA is the confederation of JMFCs in the forest division. FDAs are registered either with the Forest Department or under statutory provisions.The district-level officers of relevant line departments of the state Govt. are members of FDA.

The recent experience with present institutional framework of FDA at the forest division level and JFMC at the village level is encouraging. The institution of FDAs and JMFCs are highly innovative resources transfer mechanism whereby the Govt of India channelizes funds directly to the grass root level implementing agency for the activities.

The structure of FDAs and JMFCs also caters to the gender concerns, whereby women membership to the extent of 50% has been made mandatory in these bodies. Training of FDA and JMFC members has been organized by the WKHSFDFDA.

3.8. Creation of JFMC

Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.9. Implementing Agencies

For implementing the scheme as per Government of Meghalaya O.O. No FOR.62/ 2000/239 Dt 9th September2003 Forest Development Agency was formed in the Forest Division .The Forest Development Agency was first registered vide JR/TRBSFD, FDA-7/04 of 2004 dated 1st March 2004.

3.10. Micro planning

Micro plans were prepared for each JFMC after conducting a Participatory Rural appraisal exercise among the JFMC members. Group discussions were made to select various interventions and species to be planted, entry point activities to be undertaken etc.

3.11. Entry Point activity

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be under taken as entry point activity so that JFMCs become self sustained in future maintenance of the works which has been under taken. Various Entry Point activities are

- Construction of footpath/ Community halls,
- Approach roads,
- Bus waiting shed,
- Check dams,
- Supply of Furniture, Tarpaulins and Cooking utensils etc.

3.12. Approved programme of works

In accordance to the fund released approved interventions must be carried out in consultation with the villagers, as envisaged in the micro plans.

3.13. Quantitative Analysis

3.13.1. Classification of area covered/treated

Under the West Khasi Hill Social Forestry Division FDA all the areas treated so far are community owned degraded forest land .Break up of areas treated under different interventions are as:-

(Area in Ha.)

Category	ANR	AR	Silvi pasture	Bamboo	Cane	Mixed	Regeneration of perennial herbs/ shrubs	Total
Forest land								
Community land	1712	2655	-	265	225	810	295	5962
Revenue land								

Category	ANR	AR	Silvi pasture	Bamboo	Cane	Mixed	Regeneration of perennial herbs/ shrubs	Total
Govt waste land								
Private land								
Others								
Total	**1712**	**2655**	**-**	**265**	**225**	**810**	**295**	**5962**

3.13.2. Physical and Financial Achievements

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05 **West Khasi Hills Social Forestry Division FDA** was entrusted to implement the project

Duration of the project	**Project cost (in Lakhs)**			**Area (in Ha.)**
	Amount Approved by NAEB	**Amount Released/Sanctioned**	**Amount spent/utilized**	
2004-05	47.00	38.00	38.00	600
2005-06	60.64	80.00	80.00	500
2006-07	35.12	84.76	84.76	750
2007-08	129.18	50.00	50.00	300
2008-09	200.08	150.00	150.00	900
2009-10	139.30	95.00	95.00	150
2010-11	326.95	237.27	237.27	1200
2011-12	305.13	141.00	141.00	600
2012-13	312.61	185.16	185.16	522
2013-14	169.87	88.00	88.00	440
Total		1149.19	1149.19	5962

3.14. Peoples participation

3.14.1. Participatory Rural Appraisal/ Micro planning

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation as well as during the preparation of project at every step JFM members has been consulted and their suggestion /views has been taken into consideration.

- Till date 28 nos. of Micro plans has already prepared for all the 53 (Fifty Three) Joint forest management committees.
- Till date expenditure incurred for preparation of micro plans are Rs5.022 lakhs only.

Year-Wise Expenditure incurred on Micro planning activities

Year	Amount in Lakhs
2008-09	1.522
2009-10	0.43
2010-11	0.57
2011-12	nil
2012-13	2.50
2013-14	-
Total	5.022

3.14.2. Entry point activities:-

RLC-wise EPA expenditures from the year 2004 to 2008have been furnished as under

EPA & AWARENESS EXPENDITURE UNDER RIANGDO RLC

Year	RLC	EPA Amount	Nature of Work	Awareness Programme
2004-05		NIL		10000
2005-06	Umdang	220090	Construction of Jeepable road for 1100 rm to Riangka	
		199045	Construction of Community Hall at Umdang	
	Sub-total	**419135**		
2006-07	Nongriangka	91000	Construction of Roat at Nongriangka	
		42600	Construction of culvert at Nongrianka	
	Umdang	60500	Complete construction of Community Hall at Umdang	
		60000	Construction of Approach road at Umdang	
		25000	Cost of Plastic chair at Undang	
	Sub-total	**279100**		
2007-08	Nongriangka	20000	Construction of culvert at Nongrianka	
2008-09	Umdang	347000	Construction of Football playground at Undang	
		91400	Construction of culvert and Retaining wall on approach road from Mawkhrang to Nongshyiap	
	Sub-total	**458400**		
	Grand Total	**1156635**		

EPA & AWARENESS EXPENDITURE UNDER NONGSTOIN RLC

Year	NAME OF JFMC	EPA Amount	Nature of Work	Awareness Programme
2007-08	Teinmang	9200	Chair - 40 nos.	
		5000	Sospon - 5 piece	
		5800	Hondi	

		20000		
		30000	Plastic Chair -120	
	Sub-total	**70000**		
	Mawmarin	24000	Honda Generator - 1 no.	
		3000	Cooking utensils - 2 nos.	
		3000	Ordinary Cups - 4 sets	
	Sub-total	**30000**		
	Mawtynrong	20000	Plastic Chair -100	
		3000	Tarpulin 6m x 4 m- 2 nos.	
		400	Poly buckets - 2 nos	
		1200	Table - 1 no.	
	Sub-total	**24600**		
2008-09	Mawkawah	15520	Denson 300 R - 1 no.	
		6220	MDM 28 W - 1 set	
		850	Hond held Mikes - 1 piece	
		3110	Reflex Horns (53 cm) 1 set	
		3110	MSC 40T - 1 piece	
		1650	Denson 904 T - 1 piece	
		2500	MSC 20T - 1 piece	
		350	Table stand PS33 - 1 piece	
		1420	Spring type table stand - 1 piece	
		49800	Portable genset FXY 2000 AC	
		480	Carrying Charges	
	Sub-total	**85010**		
	Grand Total	**189610**		

EPA & AWARENESS EXPENDITURE UNDER MAWKYRWAT RLC

Year		EPA Amount	Nature of Work	Awareness Programme
2007-08	Nonglang	113010	Construction of footpath at Nonglang	
		145480	Construction of footpath at Nonglang	
	Sub-total	**258490**		
	Phadjaud Rangthong	142050	Construction of footpath at Phadjaud Rangthong	
		106980	Construction of footpath atPhadjaud Rangthong	
	Sub-total	**249030**		
2008-09	Nonglang	30180	Construction of footpath at Nonglang	
	Phadjaud Rangthong	146691	Construction of footpath atPhadjaud Rangthong	
	Marshillong	127575	Construction of footpath at Marshillong	
	Mawten	100000	Construction of footpath at Mawten	
	Pynden Sakwang	67960	Construction of footpath at Pynden Sakwang	
	Sub-total	**472406**		
	Grand Total	**979926**		

EPA & AWARENESS EXPENDITURE UNDER NONGSHILLONG BEAT

5	NAME OF JFMC	EPA Amount	Nature of Work	Awareness Programme
2004-05	Mawlengren	24215	Repairing of LP School	
		20800	Construction of footpath	
		42000	Construction of Drinking Well	
	Tiehnongbah	29500	Repairing of LP School	
		18000	Purchase of Moulded Chair	
	Sub-Total	**134515**		
2005-06	Tiehnongbah	45000	Purchase of Rice Mill	
		5035	Construction of Shed (Rice Mill)	
		50000	Construction of Washing Platform	
	Sub-Total	**100035**		
2006-07	Mawlengren	**24000**	Purchase of Chair	
2007-08	Tiehnongbah & Mawlengren	248985	Purchase of Maruti Van	
		14950	Purchase of PA System	
		8690	Repairing of Community Hall	
		89975	Purchase of Chair	
		60870	Purchase of Decolyte Almirah and Sungat Chair	
	Sub-Total	**423470**		
	Grand Total	**682020**		

EPA & AWARENESS EXPENDITURE UNDER MAIRABG RLC

Year		EPA Amount	Nature of Work	Awareness Programme
2004-05	Umniangriang	157030	Construction of Community Hall	
		25000	Chair Cost	
	Mawpen	2100	Repairing of Rice Mill	
	Sub Total	**118000**		
2005-06	Mawpen	25000	Chair Cost	
		2000	Carrying Charges of Chair	
		25575	Construction of Footpath	
		52575		
				1000
		7900	Repairing of Rice Mill	
		30000	New Rice Mill	
		5000	Charrying/Fittng charge of Rice Mill	
	Sub Total	**42900**		
2008-09	Umniangriang	210000	Cost of GC Sheet	
		5650	Charrying Charges of GC Sheet	
		215650		
	Mawpen	24000	Cost of Plastic Tarpaulin 10 x 6	
		20000	Chair cost - 80 nos.	

		44000		
	Patharlyndan	120181	Cost of Power Tile	
		5818	Carrying charges of Power Tiler	
		49875	Cost of Chair	
	Sub Total	**175874**		
	Grand Total	648999		

EPA & AWARENESS EXPENDITURE UNDER URBAN BEAT

Year		EPA Amount	Nature of Work	Awareness Programme
2004-05	Nongsohlait	89330	Construction of Drinking Water Well	
		19000	Purchase of Chair, Clothes & tables	
2005-06		**108330**		
		130000	Construction of Community Hall	
		90000	Purchase of Utensils	
		220000		
2007-08	Nongsohlait	30000	Construction of Community Hall	
		25000	Repairing of Drinking Well	
		6000	Repairing of Camp Hut and fencing	
		61000		
				5150
	Steplanglur	65000	Purchase of Utensils	
		35000	Cost of Plastic Chair	
		55000	Construction of Washing Planks	
		155000		
2008-09	Mawmahrang	17000	Construction of Dam	
		8000	Construction of Water Harvesting structure	
		25000		
	Diengsyiang	30000	Cost of Chairs	
		5000	Carrrying Charges of Chairs	
		35000		
	Mawblang	30000	Construction of Churches	
	Nongkhusba	30000	Construction of Drinking Water Well	
	Sub Total	**60000**		
	Grand Total	819330		

Total Expenditure incurred during last five years is Rs. 83.87 lakhs **only.**

List of Entry Point activities (2008-09 to 2012-13)

Sl.No	**Name of JFMC**	**Asset created Under FDA**	**Expenditure (in Rs.)**	**Total expenditure (In Rs.)**	**Wages**
2008-2009					
1	Umdang	Construction of playground at Mawkhap	347000/-	Rs 3,47,000/-	Labour has been

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
		Umdang of 7200sq mt			provided by the JFMC members
2	Mawkhrang	Construction of culvert at Mawkhrang-Nongshyiap approach road 8mt length x 4mt width x 2mt Height Purchased of plastic chairs 120nos	91400/-	Rs 91,400/-	Labour has been provided by the JFMC members.
3	Teinmang	Purchase nof generator E.B.K. 1000 Fr.No 1106099. Purchased of plastic chairs 100 no.	3000/- 21000/-	24000/-	
4	Mawtynrong	Purchase Tarpolin 6mx4m 2No. Purchased Poly buckets 2nos Purchased Table 1no Purchased Tarpulin 1 pc. Purchased Cleaning Utensil 4 pc. Purchased cooking utensil 2 nos. Purchased Plastic chairs 20 pc. Purchased dining table. Purchased of suspon 5 pc. Purchased Handi Purchased chairs 40nos.	20000/- 3000/- 400/- 1200/- 6000/- 2000/- 2000/- 6000/-	Rs 50,900/	

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
5	Nonglanglieh	Purchased Generator set Carrying charges Purchased Godrej 2 nos. Purchased of Horn generator set. Purchased cooking utensil (Big Size) 2nos Purchased ordinary cup 4 set. Purchased Tarpulin 1pc. Syntex 100 liters Cooking utensil 2 pc.	1500/- 5000/- 5800/- 9200/- 24890/- 110/- 30000/- 24000/-	Rs 75,000/-	
6	Mawmarin	Chairs 10 pc.	3000/- 3000/ 600/- 7000/- 5000/- 3000/-	Rs 45,600/-	
7	Umniangriang	GI Sheet Check dam.	Rs 215650/- Rs 202450/-	Rs 4,18,100/-	Labour has been provided by the JFMC members.
8	Mawpen	Chairs 80 no., tarpolin, repairing of community hall Check dam	Rs 147985/- Rs 95469/-	Rs 2,43,454/-	Labour has been provided by the JFMC members.
9	Patharlyndan	Power tiller and chairs. Harvesting Dam	Rs 196000/- Rs 120160/-	Rs 3,16,160/-	Labour has been provided by the JFMC

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
					members.
10	Mawlumkhri	Chairs 140 no.	Rs 50000/-	Rs 50,000/-	--
11	Lawsiej	Chairs 140 no.	Rs 50000/-	Rs 50,000/-	---
12	Sangshong	Chairs 80 nos.	Rs 30000/-	Rs 30,000/-	--
13	Tiehnongbah	Ambulance, Washing place, contour bunding and mulching.	Rs 248985/- Rs 179510/-	Rs 4,28,495/-	Labour has been provided by the JFMC members.
14	Mawlangren	Chairs, almira, PA System, repaired of community hall Contour bunding, mulching and check dam.	Rs 174485/- Rs 103079/-	Rs2,77,564/-	Labour has been provided by the JFMC members.
2009-2010			**Rs 24,47,673/-**		
1	Mawkhrang	Construction of culvert at Mawkhrang-Nongshyiap approach road 9mt length x 6mt width x 2.5mt Height	101900/-	Rs 1,01,900/-	Labour has been provided by the JFMC members.
2	Nongmawlein	Construction of culvert at Myndo-Nongmawlein approach road 10mt length x 6mt width x 1.5mt Height	36000/-	Rs 36000/-	Labour has been provided by the JFMC members.
3	Nongrynniaw	Repair of existing approach road from Nongrynniaw to plantation area.	30000/-	Rs 30000/-	Labour has been provided by the JFMC members.
4	Umdein	Construction of check dam(Incomplete) 16mt x 3mt x 4mt	22,500/-	Rs 22,500/-	Labour has been provided by the

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
					JFMC members.
5		Construction of Fishing pond	30000/-	Rs 30,000/-	Labour has been provided by the JFMC members.
6	Domtwa - nongshilliang	Repairing of school building.	Rs 35000/-	Rs,35,000/-	Labour has been provided by the JFMC members.
2010-2011			**Rs 2,55,400/-**		
1	Mawkhrang	Reparing of existing road to Nongshyiap	13300/-	13,300/-	Labour has been provided by the JFMC members.
2	Nongrynniaw	Construction of washing platform	20000/-	Rs 20,000/-	Labour has been provided by the JFMC members.
3 4	Riangtheit Nonglanglieh	Purchased of plastic chairs 100Nos Purchased of syntax 4pc Purchased of Bucket 8pc Purchased of plate Purchased of cups Purchased of tea spoon Purchased of spoon aluminium 4pc Cleaning utensil 4pc. Big spoon 4pc Dian 4 pc Chairs 100 Nos Tarpaulin 4 pc Glass 10 pc	25000/- 30000/- 6000/- 12000/- 10000/- 166/- 14000/-	Rs 25,000/- Rs 1,25,166/-	Labour has been provided by the JFMC members.

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
5	Nongmiangkain	Table 4pc Purchased of syntax 4 pc. Purchased of Godrej 1 pc. Purchased of chairs 40 pc. Purchased of water Purlin 2pc. Purchased of pot big 4 pc. Spoon 3 pc. Bucket 4pc Cleaning Utensil Plate 20 pcv Steel Almirah Gen/Sel Honda EN.1435460 frc 11028791.	3000/- 600/- 4000/- 22000/- 6000/- 5000/- 12400/- 24000/- 8300/- 12000/- 12000/- 14800/- 14700/- 2000/- 7000/- 1500/- 22700/-	Rs 1,19,000/-	Labour has been provided by the JFMC members.
6	Mawlumkhri	Check dam for drinking water	Rs 16650/-	Rs16,650/-	Labour by JFMC Members
7	Lawsiej	checkdam	Rs 17543/-	Rs17,543/-	Labour by JFMC Members
8	Sangshong	Earthen pond	Rs 9990/-	Rs 9990/-	Labour by JFMC Members
9	Tiehnongbah	Strengthening the harvesting dam	Rs 59940/-	Rs 59,940/-	Labour has been provided by the JFMC members.
10	Mawlangren	Earthen pond	Rs 36297/-	Rs 36297/-	Labour by JFMC Members
11	Domtwa - nongshilliang	Drinking well	Rs 12548/-	Rs 12548/-	Labour by JFMC Members
12	Umniangriang	Fish pond	Rs 55278/-	Rs 55278/-	Labour by JFMC

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
					Members
13	Mawpen	Check dam cum washing place	Rs 34632/-	Rs 34632/-	Labour by JFMC Members
2011-2012			**Rs 5,45,344/-**		
1	Nongmawlein	Construction of culvert	42000/-	Rs 42,000/-	
2	Umdein	Construction of small check-dam	40000/-	Rs 40,000/-	
3	Nongmawsmai	Construction of Retaining wall	45000/-	45,000/-	
4	Langumshing	Construction of Community Hall	75000/-	Rs 75,000/-	Labour has been provided by the JFMC members.
5	Nonglamjew	Rice Mill(Hulfer)500Kg capacity p/kg complete with BHP diesel engine 1no	78000/-	Rs 18,16,859/-	
		P/s solar PV. Typsum 75wt 1nos			
		P/s solar PV. Typsum 3wt 2nos	5400/-		
		P/s solar PV. Typsum 40wt 2nos	4400/-		
		5% VAT			
		Multiple awitch board extension Value !no	6000/-		
		VAT 13.5%			
		Alvj Amplifire DPA 7707 Sw 1no.	790/-		
		Horn Vaist SVH 40xT 2nos.	2595/-		
		Alvj micro pH 100xn 1no.	405/-		
		Alvj mike Std Table DCT 1 no.	8200/-		
		Alvj speaker box Asc 20 T2 no.	5600/-		
		Sugar foot sewing Machine@ 7400/each 2nos.	1100/-		
		Coil wire @ 1400/- 2 nos	600/-		
		P/s M/Pluck @ 40 each.	4200/-		
		P/s cel bolty @ 20/each 2nos.	22200/-		
		Coin wire 2.51 no.			

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
		13.5% Vat Bolty luminous let 500 13.5% Vat P/S luminous bolty LETT500 @ 11000 (2nos) 13.5% Vat P/S luminous 675 Va 2nos @3500. P/S luminous 875 Va 1nos @4400. 13.5% Vat. Construction of Rice Mill Shed	2800/- 160/- 200/- 1800/- 858/- 11000/- 1485/- 22000/- 2970/- 7000/- 4400/- 570/- 1422926		Labour has been provided by the JFMC members.
6	Umniangriang	Repaired of school building Contour bunding	Rs 9000/- Rs 7500/-	Rs 16,500/-	Labour by JFMC Members
7	Patharlyndan	Community hall Contour bunding and mulching	Rs 187665/- Rs 97434/-	Rs 2,85,099/-	Labour by JFMC Members
8	Mawlumkhri	Repairing of school building. Contour bunding	Rs 35000/- Rs 26000/-	Rs61,000/-	Labour by JFMC Members
9	Lawsiej	Repairing of school building, Harvesting dam	Rs 35000/- Rs 26000	Rs 61,000/-	Labour by JFMC Members
10	Sangshong	Repair of school building, Contour bunding	Rs 21000/- Rs 15600/-	Rs 36,600/-	Labour by JFMC Members
11	Nongsohma	Landscaping, Checkdam	Rs 244999/- Rs 101499/-	Rs 3,46,498/-	Labour by JFMC Members
12	Mawpat	Chairs 290 nos., Drinking well	Rs 102666/- Rs 42533/-	Rs 1,45,199/-	Labour by JFMC Members
13	Tiehnongbah	Purchase of copies, pens, pencils for student and repair of community hall, Check dam	Rs 176166/- Rs 78733/-	Rs 2,54,899/-	Labour by JFMC Members
14	Mawlangren	Bee drum and bee queen 40 nos.	Rs 62999/-		Labour by JFMC

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
		Washing place.	Rs 26100/-	Rs 89,099/-	Members
15	Domtwa - nongshilliang	Chairs, cooking utensil and foot path. Checkdam & washing.	Rs 193166/- Rs 106933/-	Rs 3,00,099/-	Labour by JFMC Members
16	Khartein	Chairs 290 nos. Check dam.	Rs 102666/- Rs 42533/-	Rs 1,45,199/-	Labour by JFMC Members
2012-2013					**Rs 34,50,051/-**
1	Umdein	Purchase of painting sprayer machine	45000/-	Rs 45,000/-	Labour by JFMC Members
2	Nongmawsmai	Purchase of Rubber Stump (for Rubber plantation)	55000/-	Rs 55000/-	Labour by JFMC members
3	Riangtheit	Purchase of Power Tiller (Kamco ER-90)	165000/-	Rs,1,65,000/-	Labour by JFMC Members
4	Nongrathaw	Purchase of Power Tiller (Kamco ER-90)	165000/-	Rs,1,65,000/-	Labour by JFMC Members
5	Mawkhar	Construction of washing platform	57100/-	Rs 57,100/-	Labour by JFMC members
6	Langumshing	Construction of Community Hall	12600/-		Labour by JFMC members
7	Porla	Construction of washing platform	40000/-	Rs 40,000/-	Labour by JFMC members
8	Wahblei	Construction of Piggery & Orange orchard	60000/-	Rs 60,000/-	Labour
9	Patharlyndan	Washing place	Rs 40000/-	Rs 40000/-	Labour
10	Mawlumkhri	Cooking utensil, repairing of community hall Check dam cum washing place	Rs 75000/- Rs 52000/-	Rs 1,27,000/-	Labour by JFMC Members
11	Lawsiej	Foot path, Check dam for drinking purpose	Rs 100000/- Rs 64000/-	Rs 1,64,000/-	Labour by JFMC Members
12	Sangshong	Chairs 160 nos. Drinking well.	Rs 50000/- Rs 48000/-	Rs 98,000/-	Labour by JFMC

Sl.No	Name of JFMC	Asset created Under FDA	Expenditure (in Rs.)	Total expenditure (In Rs.)	Wages
					Members
13	Nongsohma	Chairs 70 nos., Drinking well	Rs 25000/- Rs 36000/-	Rs,61,000/-	Labour by JFMC Members
14	Mawpat	Cooking utensil, Check dam.	Rs 50000/- Rs 100000/-	Rs 1,50,000/-	Labour
15	Tiehnongbah	Generator , Drinking well	Rs 70000/- Rs 50000/-	Rs 1,20,000/-	Labour
16	Mawlangren	Drinking well	Rs 25000/-	Rs 25,000/-	Labour
17	Domtwa - nongshilliang	Rice mill, Drinking well.	Rs 30000/- Rs 25000/-	Rs 55,000/-	LABOUR
18	Khartein	Tarpolin, cooking utensils and foot path. Drinking well.	Rs 200000/- Rs 50000/-	Rs 2,50,000/-	Labour
				16,89,700/-	

3.15. Joint Forest Management

In Meghalaya as well as in West Khasi Hills Social Forestry Division Forest Development Agency, Nongstoin, the role of the JFMC is very important in protecting and managing the forest resources as most of the people are dependent on forest as their source of their revenue and livelihood. During the visit, it is notice that the restriction on the misuse or abuse of forest is possible by local communities in cooperation with the Forest Development agency and active involvement of the local people if alternative activities are adapted. It is to note that during FDA Meeting or JFMC meeting it was clearly spelled out that the money on Entry point activities should be use by the JFMCs on Income generating activities and most of the members agreed to use the money on entry point activities for creating Income generating activities in their respective JFMCs.The villagers of the visited areas revealed their optimism regarding the opportunities provided by the programme. It is also noticed that most of the villagers came forward willingly to adopt the policy of restrictions on the use of forest resources.

Many informal and semi-structured discussions and meetings held with the villagers as well as members of JFMC of the Nongstoin Forest Development Agency, which revealed their perception regarding restrictions on the use of forest resources and

willingness to work together with Forest development Agency. The interview included informal discussion on family profile, educational backgrounds, and income generating activities gradually moving on to the experience with the FDA staff. The villagers also stated that forest is the main source for their livelihood and it was very important for them to receive strong support from the government to start activities for economy generation. They recommended new training programmes be initiated to know about various forests products, and their techno-economic feasibility. They also expressed the need to learn different method and technique for plantation, monitoring etc

JFM committee

- No of villages where formation was initiated in the FDA :- 53
- No of villages where formal committees established in the FDA :-53
- Total number of committees established so far in the project areas :- 53
- Total membership in terms of household/families :- 5358 Households/families
- Percentage of women members :- 50.02%

Category	Male	Female	Total nos.
Scheduled Caste	-	-	-
Scheduled Tribe	15434	15447	30881
Others	-	-	-
Total	15434	15447	30881

- **Establishment of Village Development Fund**

Only Marshillong JFMC has its Village Development Fund whereas the others JFMCs are in the process of generating Village Development Fund that was revealed during the FDA meetings. In the General and Executive Body meeting, Chairman of WKHSFD, FDA, Nongstoin emphasized on having a separate Village Development Fund for each JFMCs. It is expected that from the next financial year all the JFMC will have operating Village development fund.

People's participation is found to be satisfactory; they have co-operate in the following manner ensuring all round success of the project.

Social fencing was done in vulnerable areas.

Stray cattle (Domestic Livestock) were not allowed to graze inside the plantation areas.

All stake holders were co-operative in protection of plantation.

3.15.1. Other Support Activities

Besides the support given under entry point activities to the villagers, there is no other remarkable support activities rendered to them other than giving them casual employment when provisions available although there is no separate fund allocation for the purpose in the scheme.

3.15.2. Meetings

Meetings	JFMC Meetings	FDA Meetings
Number of General Body Meetings held	10 nos.	9 times
Number of Executive Body Meetings held	32 nos.	Four meetings held in a year at a gap of every 3 months

3.15.3. Expenditure

Overheads expenditure: The expenditure incurred on holding the meeting mentioned above were made from the budget-sub head "Overhead Expenditure". The following table shows the amount incurred over the period 2008-09 to 2013-14. Expenditure before 2008-09 is not available with divisional office.

Year-Wise Expenditure (Rs. in lakh) incurred on Overheads

2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
13.17	**4.30**	**0.21**	**3.38917**	**6.40**	**0.3523**	**27.82147**

3.16. Records and Registers

List of important Registers/Records maintained by and available with JFMCs

- Cash Book = Yes Maintained
- Master rolls (Labour wages)register) = Yes Maintained
- Measurement Books = Yes Maintained
- List of Beneficiaries Register = Yes Maintained

- Plantation Journal = Yes Maintained
- Nursery Journal = Yes Maintained
- Minutes of Meeting = Yes Maintained
- Governing & Executive Body Register = Yes Maintained
- Cheque drawn Register = Yes Maintained

List of important Registers/Records maintained by and available with FDAs

- Fund sanction Register = Yes
- Cash Book = Yes
- Cheque Drawn register = Yes
- Minute of Meeting Register = Yes
- VFMC Record Register = Yes
- Bill Register = Yes
- Governing & Executive Body Register = Yes
- Accounts Books (Bank Account) = Yes

3.17. Awareness Raising

Fund under Awareness Raising Programme which included Training and Capacity Building for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards.

However, Separate item under Training and Capacity Building was incorporated in the National Afforestation Programme revised Operational Guideline -2009. Training and Capacity Building fund was received by the FDA for the said item during the year 2010-11.

Fund received year-wise under Awareness Raising, Training and Capacity Building

Years	Awareness Raising (Rs in Lakhs)	Training &Capacity Building (Rs in Lakhs)
2004-05	0.47	-
2005-06	0.50	-
2006-07	0.14	-
2007-08	0.59	-
2008-09	0.83	-
2009-10	0.46	-
2010-11	2.40	5.00

Years	Awareness Raising (Rs in Lakhs)	Training &Capacity Building (Rs in Lakhs)
2011-12	1.36	-
2012-13	-	-
2013-14	1.10	-

Training and capacity building is being conducted from time to time to the staffs and members of the JFMC. The table shown below is the training conducted so far.

Trainings conducted	**Nos. of Trainings / Beneficiaries Details**
Staff Number Trained	40 numbers
Topics covered	Techniques of raising plantation of different species, their maintenance and protection etc and Value addition of bamboo
Community:	JFMC Members
Number Trained	84 numbers
Topics Covered	i. Role of JFMCs Natural Resources Management, Biodiversity Conservation, soil & Water Conservation, Nursery & Plantation techniques including protection of plantatations. ii. Topics under National Bamboo Mission (plantation & value addition of Bamboo etc)
Organisation involved (Trainers)	Forest Official, Officials from DIC, IFAD, BSI, CBTC Guwahati and Director in-charge Meghalaya Khadi and Handicraft Development Corporation, Shillong.

Expenditure on training as recorded for the year 2011-12 at Rs 4.60 lakhs.

3.18. Monitoring and Evaluation

The project is being monitored from times to times by Internal Agency as well as Independent evaluator.

Number of inspection by :

- Chief Conservator of Forests – 4 times
- Conservator of Forests - 6 times
- Deputy Conservator of Forests – once every month

- Range Forest Officers – The Range Officers visits the field works frequently in the field

Year-wise Expenditure incurred on Monitoring & Evaluation (Rs. In Lakhs)

Year-wise expenditure before year 2008-09 are not maintained with the divisional office except the years mentioned in the table below-

2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
1.84	**1.49**	**0.44**	**-**	**1.90**	**-**	**5.67 Lakhs**

Independent Agencies

The Officials from NEHU, also monitored the projects. They maintained their inspection reports. Besides the Door Darshan Kendra Shillong have done the coverage of the activities under NAP implemented by this FDA.

Independent Evaluators

The Project is also being monitored by two (2) Independent evaluators Shri.Dilip Sarma, Consultant ,O/O Project Engineers, No 5, Uriabasti Road, Padumpukhri, Ujanbazar, Gauhati, Assam-781001 for the period 2004-05 to 2007-08, report has been submitted as the First Report. and for the period 2008-09 to 2012-13 (November) by Shri.N.C Choudhury MFS (Rtd),report was submitted as second concurrent Evaluation of projects under National Afforestation Programme (NAP) schemes being implemented through Forest Development Agency(FDA), West Khasi Hills, Meghalaya, Nongstoin.

3.19. **Accounts.**

The Accounts of the FDA, RLCs and JFMCs have been done by Kiron Joshi & Associates, Chartered Accountants, up to March 2012.

CHAPTER IV

SUMMARY OF EVALUATION

4.1. Introduction

This present study by way of evaluation & monitoring of **West Khasi Hills Social Forestry Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** is to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the district. Under this Programme focus is to encourage the rural people for protection & conservation of forests by way of extracting financial as well as tangible benefits from forests and at the same time protecting the environment and encouraging them in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and undertake afforestation works in the nearby denuded community fallow/forest lands of the villages.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash & burn (Jhoom) method of agricultural practice.

4.2. Status of Fund and Expenditure

This project was sanctioned by National Afforestation & Eco development Board in the year 2004-05 **West Khasi Hills Social Forestry Division FDA** was entrusted to implement the project.

Duration of the project	Project cost (in Lakhs)			Area (in Ha.)
	Amount Approved by NAEB	Amount Released/Sanctioned	Amount spent/utilized	
2004-05	47.00	38.00	38.00	600
2005-06	60.64	80.00	80.00	500
2006-07	35.12	84.76	84.76	750
2007-08	129.18	50.00	50.00	300
2008-09	200.08	150.00	150.00	900
2009-10	139.30	95.00	95.00	150
2010-11	326.95	237.27	237.27	1200
2011-12	305.13	141.00	141.00	600
2012-13	312.61	185.16	185.16	522
2013-14	169.87	88.00	88.00	440
Total		1149.19	1149.19	5962

4.3. Methodology adopted for Evaluation

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 53 and total nos. of beneficiaries is 5358. Therefore, the representative sample size of the division stands at 27 nos. of JFMCs as 50% and around 1072 beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

Hence evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the West Khasi Hills Social Forestry Division FDA.

4.4. Inspection and observation

During collection of primary field data many plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following worth mentioning.

4.4.1. Plantation 1

- Phudjaud - Rangthong JFMC plantation. 64Ha .AR. under Mawkyrwat RLC
- Year of Plantation:- 2012-13
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.Average height is about 1 Mts

Observation

Plantation is satisfactory, Proper weeding has been carried out., JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all respect.

4.4.2. Plantation2

- Pyden sakwang JFMC plantation 42Ha, under Mawkrwat RLC .
- Year of Plantation:-2007-08.
- Survival percentage:- 65%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year. year. Average height is about 1.5 Mts

Observation

Plantation is satisfactory, Proper weeding has been carried out by. JFMC members by rendering labour from the JFMC as and when required.

Overall observation

Plantation is good in all respect.

4.4.3. Plantation 3

- Re Sakwang JFMC plantation 15Ha, under Mawkyrwat RLC.
- Year of Plantation:- 2009-10.
- Survival percentage:- 75%

- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year. . Average height is about 1.2 Mts.

Observation

Plantation is satisfactory, Proper weeding has been carried out JFMC members by rendering labour from the JFMC as and when required.

Overall observation

Plantation is good in all respect.

4.4.4. Plantation 4

- Marshilong JFMC plantation 15 Hact, under Mawkyrwat RLC falls under
- Year of Plantation:- 2005-06.
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory,Proper weeding has been carried out. the JFMC members by rendering labour from the JFMC as and when required.

Overall observation

Plantation is good in all respect.

4.4.5. Plantation 5

- Steplangur JFMC plantation 95 Hect ,Under Nongstoin Urban beat RLC
- Year of Plantation:- 2006-07.
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.Average height is about 2.98 mts.

Observation:

Plantation is satisfactory, Proper weeding has been carried out. the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all respect.

4.4.6. Plantation 6

- Nongsohlait JFMC plantation 50 Ha ,under Nongstoin Urban beat RLC
- Year of Plantation:- 2004-05.
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.Average height is about 2.48 mts.

Observation

Plantation is satisfactory, Proper weeding has been carried out by the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all respect.

4.4.7. Plantation 7

- Unding JFMC plantation 43 Ha, under Reaingdoh RLC.
- Year of Plantation:- 2009-10.
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.Average height is about 2.60 mts.

Observation

Plantation is satisfactory, Proper weeding has been carried out by the JFMC members by rendering labour from the JFMC.

Overall observation

Plantation is good in all respect.

4.4.8. Plantation 8

- Mawlangren JFMC plantation 27 Ha, under Mairang RLC
- Year of Plantation:- 2010-11.
- Survival percentage:- 70%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year. Average height is about 1.01 mts.

Observation

Plantation is satisfactory,proper weeding has been carried out. Under entry point fourty numbers of Bee raring boxes has been provided, the JFMC members are rendering labour from the JFMC.

Overall observation

Plantation is good in all respect.

4.4.9. Plantation 9

- Tiehnongbah JFMC plantation 300 Ha, under Mairang RLC ,Species planted are *Pinus kesiya* along with its associates.
  - Year of Plantation:- 2004-05.
  - Survival percentage:- 75%
  - Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year. Average height is about 6,5 mts.

Observation

Plantation is satisfactory, Proper weeding has been carried out. Under entry point an ambulance has been provided, the JFMC members are rendering labour from the JFMC.

Overall observation

Plantation is good in all respect.

4.5. Performance and manner of implementation

As per the Guidelines of NAEB till date 53 Joint forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.5.1. Project Beneficiaries

In the whole of the project area as per the record available with the department till date total JFMC members are **8,740** heads out of that **4,170** are female /women beneficiaries. All the members are Scheduled Tribes.

4.6. Physical progress

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guide line have been achieved.

4.7. Financial Progress

The fund should be released as per approved work programme, fund should be released in time as plantation are time bound works.

Physical and financial achievement:-

Durauration Of the project	Project cost (in Lakhs)			Area (in Ha.)
	Amount Approved by NAEB	Amount Released/Sanctioned	Amount spent/utilized	
2004-05	47.00	38.00	38.00	600
2005-06	60.64	80.00	80.00	500
2006-07	35.12	84.76	84.76	750
2007-08	129.18	50.00	50.00	300
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2011-12	305.13	141.00	141.00	600
2012-13	312.61	185.16	185.16	522
2013-14	169.87	88.00	88.00	440
Total		1149.19	1149.19	5962

4.8. Impact and assessment of the project

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, A total area of 5962 ha of degraded areas has brought under NAP schemes and plantations which is 0.26% of Meghalaya. All the components i.e. ANR, AR, Cane, Bamboo, Mixed Plantations and Herbs/Shrubs were done except pasture plantation. Survival rate of the plantations standing at 60 – 75 % of the investigated sites indicated green cover has increased to a significant level. It is seen to some extent that there is increase and improvement in generation of forest where good treatment of plantation done and subsequent proper protection is rendered.
- To make a better livelihood of the villagers Entry Point Activities played an important role. Entry point activities includes several asset creation like Construction of

footpath/ Community halls, Approach roads, Bus waiting shed, Check dams, Supply of Furniture, Tarpaulins and Cooking utensils etc.

- The quality of work in general as observed in different JFMCs is good and satisfactory. The selection of species are in consonance with the local needs and the overall works on entry point activities carried out in different JFMCs are of good standard and are commendable.
- A total of 53 JFMCs formed under the division across six Range/ RLCs i.e. Mairang, Mawkyrwat Nongstoin Riangdo Urban Beat Nongsto and Urban Beat Nongstoin. Most of the JFMCs constituted in Riangdo (15 nos.) followed by Mairang (12 nos.), Mawkyrwat (11 nos.) and Nongstoin (7 nos.) .
- Plantation of different models and the entry point activities that has been implemented in the project areas have been benefitted to the local people. Problem of drinking water have been eased in some places, construction of footpath have improved road connectivity to some extent.
- The greenery and growth of forest trees has also changed the lifestyle of the villagers. Most of the men and boys have ended away with age old practices of using catapult for shooting of birds and small animal. Fish poisoning by using local herbs and bark of cereal tree species has been regulated and altogether stopped in many villages.
- The peoples of the district are primarily dependent on Forest resources for their livelihood and energy. The participation of the people whether in the selection of species, the entry point activities and organizing awareness programme from time to time, which received proactive support from the public and motivating people to participate in the project.
- Plantation activities i.e. Aided Natural Regeneration (1712 ha.), Artificial Regeneration (2655 ha.), Cane plantation (225 ha.), mixed plantation (810 ha.), bamboo plantations (265 ha.) and herbs/ shrubs regeneration (295 ha.) and were taken up except Pasture development under programme 28 Micro plans prepared in the division. The Project area covers all the degraded areas under 53 JFMCs within the jurisdiction of the West Khasi Hills , Social Forestry division, Forest Development Agency, Nongstoin.
- Rehabilitation of problem land is done in the Shifting Cultivation areas, where some improve technology is done during nursery stage by construction of Vermi Compost bins and agro Net Shade, besides purchase of quality needs used foe bio fertilizer, chemical treatment of soil wherever necessary. Manuring and elaborate Soil

and Moisture Conservation works and special planting technique, one year old seedling is planted in the plantation sites, also vacancy filling is taken up in all plantation centre.

- The implementing Agency with JFMCs and villagers has taken all possible care in planting species which are suitable for growth in the respective areas considering soil condition, moisture content and conductive climatic aspects adopting adequately technique of plantations and subsequent maintenance
- Preservation and protection of catchment areas, Sustainable and Alternative livelihood through NTFPs, Reclamation of abandoned jhum cultivation areas and regeneration of barren lands and Conservation of catchment areas have impacted the village forest under the Division.
- The villagers are dependent on the forest resources as their main source of income by interacting of timber, charcoal burning, jhum cultivation etc.
- Some income generating activities have been given to the local people like fishery ponds, apiculture, piggery etc. in which to some extent have reduce the dependent on forest resources and the pressure on the forests by the people.
- People have become aware about the tangible benefits of the forest in the form of food, fodder, fuel and minor forest produce. Furthermore the ecological importance of forest in soil and water conservation, clean environment, agriculture, horticulture etc. have been clearly understood and appreciated by the people.
- The Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes wherever physical work was required
- The construction of School buildings, Community Halls, JFMC office building, Check dams, supply of furniture, Utensils, Generators, ambulance etc. have improved the bondage and co-operation between the Community member, and the Forest Development Agency.
- The species planted are in consonance with local needs and it will in future cater to various demands like building material, fuel, fodder, Medicinal plants, apart from meeting a score of requirement for live to thrive.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest

- Some of the direct and indirect benefits under NAP are awareness about environmental protection, tangible benefits like fuel wood, fodder, timber etc. and intangible benefits like aesthetic value, clean air, etc.
- Income generating activities through EPA & SMC has help in the economic condition of the society.
- All the beneficiaries surveyed believe that this afforestation programme is lucrative and very suitable for the present circumstances.
- All beneficiaries say that they face a lot of difficulties as in most of the plantations face high degree of cattle grazing, not from the same JFMC but from nearby villages.

4.9. Reason for deficiency

All JFMC members surveyed believe that non receipt of Government fund in **proper time** for various works is the main reason, as forestry works are time bound and time taking.

4.10. Constraints

- Field staffs and Joint Forest Management Committee (JFMC) members need skill development training on income generating activities which should be conducted by expert in the field.
- Maintenance of plantation should be increased to five years and more as three years maintenance is too short and seedlings are still very small in the field.
- Funds need to be sanctioned in time.
- There are instances of forest fire in the plantation especially where no more maintenance money is there. However, through awareness programme on the bad effect of forest fire, many Joint Forest Management Committee (JFMC) members have taken care of the plantation.
- All vacant posts in the Division, especially Field staffs should be filled up immediately.

4.11. Observations

- Fund should be given as per approved work programme and maintenance should be increased to five years. Efforts have been made by the Forest Development

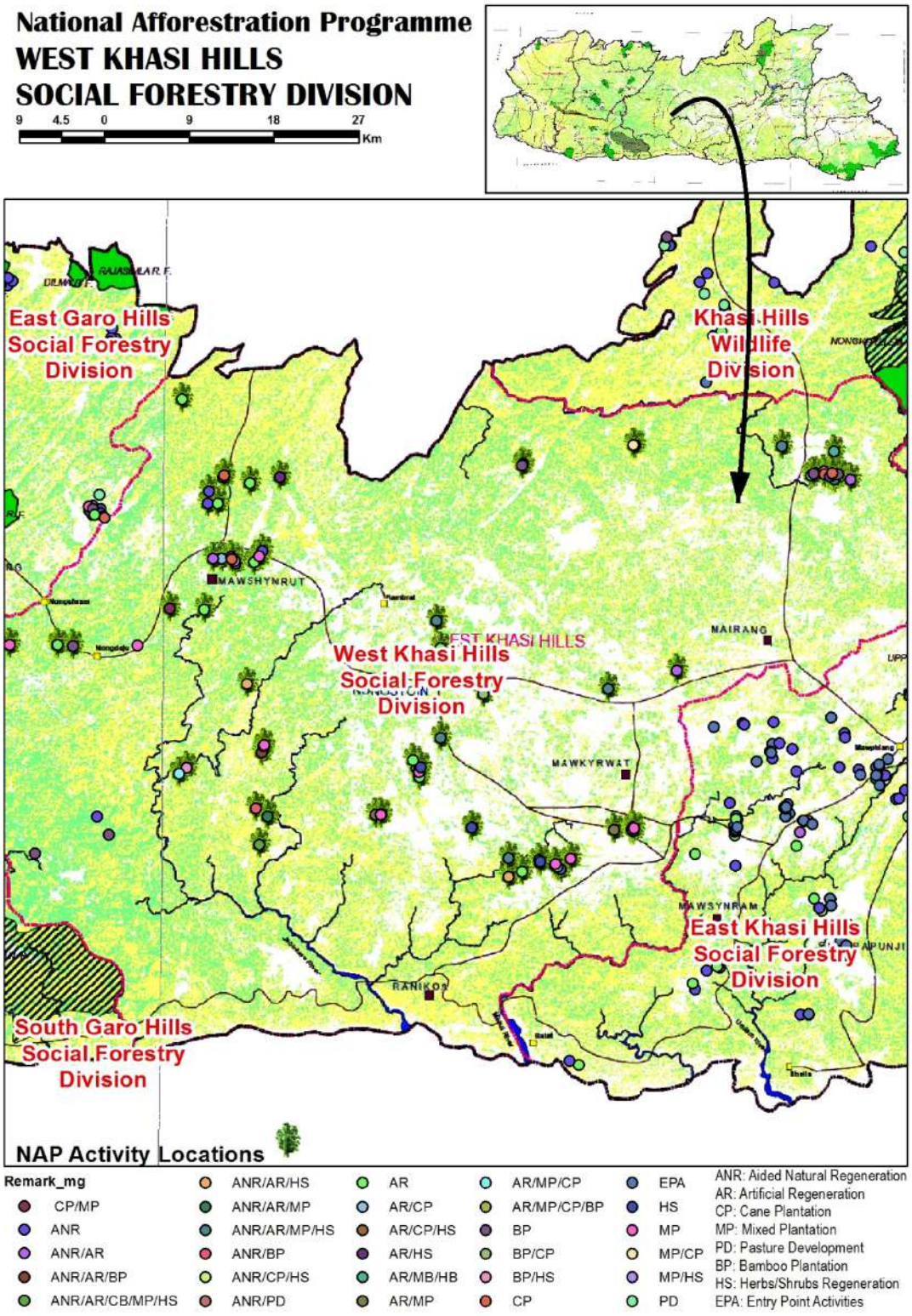
Agency (FDA) and RLC to make people understand to create income generating activities in the Joint Forest Management Committees (JFMC) for getting future income.

- Efforts have been made to understand the members of Joint Forest Management Committee (JFMC) to create Village Development Fund. It is hoped that from the next financial year all Joint Forest Management Committee (JFMC) will be able to have Village Development Fund.
- Regular training for the field staffs and Joint Forest Management Committee (JFMC) Member is very important to update their knowledge in the field.

4.12. Suggestion and recommendation

- Fund for fencing should be given as per state norms for raising plantation outside reserve Forest.
- It will boost the morale of the Joint Forest Management Committee (JFMC) members if opportunities are given in lower rank Forestry job to suitable JFMC members.
- Fund should be released in time.
- From next financial year effort will be made to create income generating activates in each Joint Forest Management Committee (JFMC) through entry point activities.
- Joint Forest Management Committee (JFMC) member should be trained in different professions by expert in the field of Apiculture. Tailoring, Mat making, Floriculture etc. The Forest Development Agency (FDA) will try to select and sent them for training course.
- There are still good forests, like village reserve forest, Sacred Groves and even private forest for which of Government may pay incentives; it will be help in protection of the existing Forest in the District.

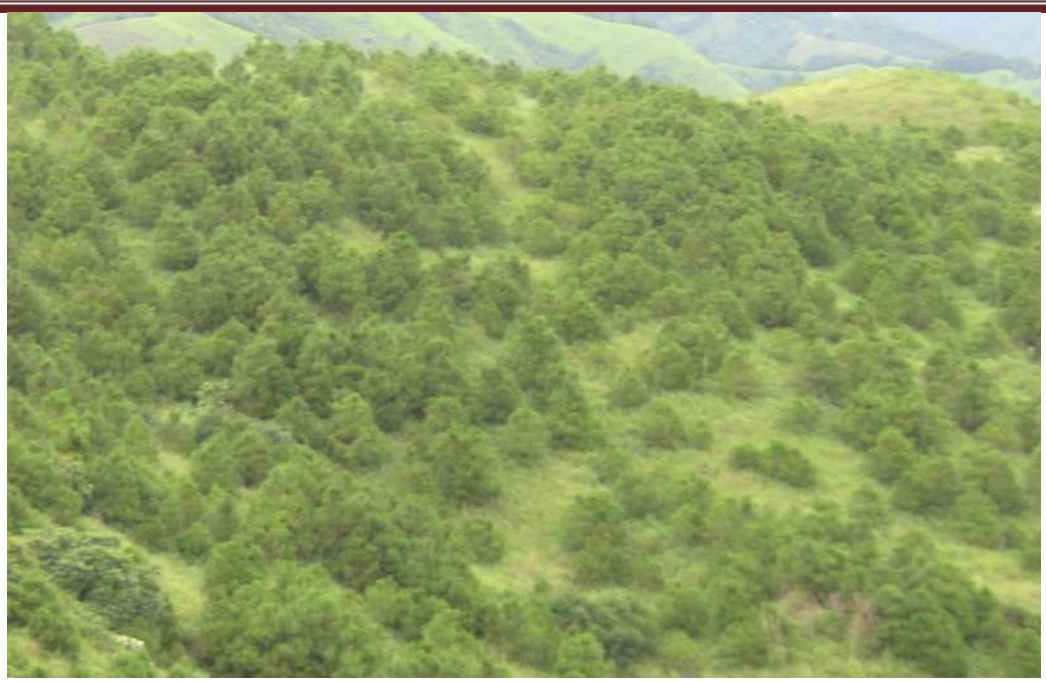
4.11. **Maps /Photographs**



Quality planting material

Quality planting materials at central nursery, mawiaban

Preparation of nursery beds at JFMC area



Plantation at Phudjaud-Rangthong

Plantation at Phudjaud- Rangthong JFMC

Plantation at Pydensakwang JFMC

Plantation at Ri Sakwang JFMC

Culvert connecting the footpath at Risakwang JFMC Under EPA

Chairs, tables, cooking utensils, tarpaulins etc

Small check dam cum washing place at Phudjaud Rangthong JFMC Under EPA

Small check dam cum washing place at Phudjaud Rangthong JFMC Under EPA

Footpath constructed by JFMC Members

Public Latrine

Plantation at Phudjaud- Rangthong JFMC

Plantation at Marshillong JFMC

Plantation at Marshillong JFMC area

Nursery at Rongrin- Umdang

Water Check Dam at Marshillong JFMC

Footpath at Marshillong JFMC

Small check dam cum washing place at Pynden sakwang JFMC

Cane nursery

Patharlyndan JFMC

Cane plantation

Plantation Patharlyndan JFMC during 2011-12

Community hall at Patharlyndan

Plantation at Steplangur JFMC

Fishery pond at Sohlait JFMC

Water harvesting structure at Steplanglur JFMC

Small check dam sholait JFMC

40 such Honey bee Boxes Supplied To the Mawlangren JFMC

Ambulance supplied to Tiehnongbah JFMC

Pine plantation at Steplanglur JFMC of ,95 ha.

AR Works: Umniangriang (Before)

AR Works: Umniangriang (After)

AR Works: Step Langlur JFMC (Before)

AR Works: Step Langlur JFMC (After)

AR Works: Pynden Sakwang JFMC (Before)

AR Works: Pynden Sakwang JFMC (After)

DIRECTORATE OF PROGRAMME IMPLEMENTATION & EVALUATION

EVALUATION STUDY ON NATIONAL AFFORESTATION PROGRAMME (NAP)

Khasi Hills Wildlife Division

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CHAPTER I

INTRODUCTION

1.1. General

Khasi Hills Wildlife Division, Shillong is covering the area of the whole of East Khasi Hills, West Khasi Hills, South West Khasi Hills and Ri-Bhoi Hills District, whose area is 10,443 sq km. The present composition of the JFMC have been selected to give an equitable distribution under the different Ranges covering such villages which have shown interest in implementation of the project through Joint Forest Management mechanism.

All the project areas under this division fall under the community land covering an area of 7,731 sq km (approx) and the whole project area is outside the jurisdiction of Territorial & Wildlife Project Areas.

Most of the population in the project villages consists of poor people as per land holding hence most of the farmers are marginal farmers. Both land holding as well as land tilling is conventional, modern technology is hardly used.

1.2. Forests of Khasi Hills

The forest cover in East Khasi Hills, West Khasi Hills and Ri-Bhoi District as per the State of forest report 2005 are as under

District	Geographical area (Km²)	Dense Forest	Open Forest	Scrub Forest
East Khasi Hills	2800	Nil	1234	643
West Khasi Hills	5247	1	2300	1554
Ri-Bhoi	2376	95	1230	768

Since the division covers geographical areas of East, West, South-West & Ri-Bhoi districts of the State, all the forest areas of these four districts are under its working jurisdiction.

1.3. Forest Types of the District

According to Champion and Seth the forests of Khasi Hills Wildlife Division conforms to the following.

1.3.1. **North Indian tropical semi evergreen Forests (2B/ISI)**

These forests occur mainly on the Northern slopes of the district. Principal species of these forests are *Terminalia, Artocarpus Albezzia, Michelia, Amooora, Toona, Duabanga,Vitex Lagerostomia Etc.*

1.3.2. **Moist deciduous forests (3C/C3b)**

These type of forests can be seen in the high rainfall areas of the district towards the west and north. These forests are characterised by the presence of *Terminalia tomentosa, Mallotus Philipensis , Emblica officinalis, carea arborea etc.*

1.3.3. **Khasi Hills Sal Forests (3C/C1a - ii)**

These type of forests occur mainly in pure patches or in association with other species like *Schima wallichii, Adina cordifolia Lagerostomia parvifloria,Dillenea pentagina,terminalea bellerica, emblica officinal etc*

1.3.4. **Sub tropical pine Forests**

This type of forests can be seen around Sumer to Umsning. According to Champion and Seth the forests of North Khasi Hills adjoining to Sumer towards the west and north, this conforms to ***Khasi Subtropical pine Forests (8B/C2).***

1.3.5. **Bamboo Forests**

These types of forests occur throughout all the low lying areas of the district. Various types of bamboo seen in these forests are *Melocana Bambosoides, dendrocalamus spp.*

1.3.6. **Grass lands**

This type of forests occur on patches on new soils on river bed and also areas affected by shifting cultivation or fire where the primary forest has been destroyed due to biotic disturbances.

1.4. **Wild Life**

The Wildlife areas under Khasi Hills Wildlife division are

SL No	Name of the Reserve Forest	Area in Sq Kms
1	Nongkhyllem	125.91
	Total	125.91

1.4.1. **Nongkhyllem Sanctuary**

Nongkhyllem Wildlife Sanctuary extends over an area of 29 sq.km in Ri Bhoi District of Meghalaya. The Forest and Environmental Department of Meghalaya is currently in the process of acquiring more land to increase the total area of the Sanctuary. The area is dominated by tropical mixed evergreen vegetation in addition to tropical semi-evergreen forest, mixed deciduous forest and sal forest. Due to its rich variety of flora and fauna, Nongkhyllem is considered as one of the few remaining islands and last refuge of the once-abundant rainforest wealth of Meghalaya. Nongkhyllem WLS falls in an area identified as a global biodiversity hotspot and forms a part of the Eastern Himalayan Endemic Bird Area. Rare and endangered bird species such as the rufous-necked hornbill, peacock pheasant and Manipur bush quail still exist here. Endangered mammal species such as Himalayan black bear, hoolock gibbon and capped langur are also present in the area. There are eight villages located in the buffer zone of Nongkhyllem, having a human population of 1750. The major threat to the wildlife of the sanctuary is community-hunting in which people from several villages get together for hunting purposes. Illegal poaching of animals for trade purposes and collection of rare plants and animals for sale is also common and difficult to control. Commercially valuable non-wood forest produce such as bamboo, broomsticks and medicinal plants is collected from the forests. Fires occasionally spread from surrounding areas to the sanctuary when annual burning is carried out in surrounding grasslands.

1.5. **Grading of project on a scale of 1 to 10**

Sl No	Heads	Details	Grading
1	Quantitative aspect	Physical	8
		Financial	8
2	Qualitative Aspect	Survival	7
		Health of plantations	7

Sl No	Heads	Details	Grading
		Maintenance	6
		Sustainability	8
3	JFM	Degree of peoples participation	8
		Satisfaction over perceived benefits by the local people	6
4	FDA Mechanism	Composition of general & Executive Bodies of the FDA	8
		Role of FDA in administrative , supervisory and Monitoring mechanism of the project	7
		Flow of funds from FDA to VFCs	9
		Planning Implementation and maintenance of Assets directly by VFCs/EDCs	6

Over all Grading of the project	Out standing	Very Good	Good	Poor
	---	7.33	---	-------

CHAPTER II

PROJECT EVALUATION

2.1. Project Title

National Afforestation Programme.

2.2. Project Implementing FDA

Khasi Hills Wildlife Division Forest Development Agency
Social Forestry circle, Meghalaya

2.3. Project Location

The area falls under the whole of East, West, South-West & Ri-Bhoi district are Umsning C D Block, Jirang C D Block and Umling C.D. Block . Nongpoh Range, Protection Range, Headquarter Range,Lum-Nehru park Range & Nongstoin Range.

2.4. Project Cost:-

Project cost till 31st March 2014 is Rs. 341.66 lakh, its duration is from 2010-11 and was extended to the year 2011-12 and 2012-13. The total area of coverage is 2390 ha.

2.5. Blocks covered by the division

The project areas are located within the geographical boundary of East, West,South-West and Ri - Bhoi districts of the state, which are subdivided into the following blocks

No	Name of district/Blocks	No	Name of district/Blocks
	Ri - Bhoi *District*	*7*	Mawkynrew
1	Jirang	8	Pynursla
2	Umling		***West Khasi Hills district***
3	Umsning	1	Mawshynrut
	East Khasi Hills District	*2*	Nongstoin
1	Mylliem	3	Mairang
2	Mawryngkneng	4	Mawthadraishan
3	Shella - bhollaganj		***South West Khasi Hills District***

No	Name of district/Blocks	No	Name of district/Blocks
4	Laitkor	1	Mawkyrwat
5	Mawphlang	2	Ranikor
6	Mawsynram		

2.6. Incumbents in the Office

Sl No	Name	Phone Number
1	Sri P.S.Nongbri MFS	0364-2226181/ 9436100179

2.7. Function of the Division

Main function of the division is to protect wildlife of the districts of the state and control wild life areas of the districts. However from 2007 onward FDA has been formed and the division has been entrusted to raise plantations in abandoned jhum lands and degraded forest lands mostly owned by communities and arrange awareness programme around the wildlife areas of the district.

2.8. List of the JFMC'S under Khasi Hills Wildlife Division,

Name of JFMC	**Name of District**	**Name of Forest Range**	**Name of Development Block**	**Area (ha)**
Nongkusba	West Khasi Hills District	Protection Range	Nongstoin Block	140ha
Mawmarin	-do-	-do-	-do-	436ha
Nonglanglieh	-do-	-do-	-do-	180ha
Umtasor	Ri-Bhoi District	Nongpoh Range	Umsning Block	200ha
Old Tasku	-do-	-do-	Jirang Block	160ha
Mawroh, Jirang	-do-	-do-	-do-	275ha
Nongpuinskei	West Khasi Hills District	Protection Range	Nongstoin Block	205ha

Name of JFMC	**Name of District**	**Name of Forest Range**	**Name of Development Block**	**Area (ha)**
Umksih	Ri-Bhoi District	Nongpoh Range	Umsning Block	56ha
Umladoh	-do-	-do-	Umling Block	135ha
Siatbakon	East Khasi Hills District	Headquarter Range	Pynursla Block	152ha
Mawlein-Mawkhan	Ri-Bhoi District	Lum Nehru Park, Umiam	Umsning Block	50ha
Mawmareh	West Khasi Hills District	Nongstoin Range	Mawshynrut Block	86ha
Tynghor	-do-	-do-	-do-	76ha
Mawthohkrah	-do-	-do-	-do-	104ha
Sohbar	East Khasi Hills District	Headquarter Range	Shella Bholaganj Block	70ha
Mawtari	Ri-Bhoi District	Nongpoh Range	Umsning block	65ha

CHAPTER III

PROJECT EVALUATION

3.1. Introduction

The project areas are located within the geographical boundary of East, West, South-West and Ri-Bhoi districts of the state, which are subdivided into 17 blocks. The division is controlling the forest areas which is located in the northern middle and southern part of the state of Meghalaya, having interstate boundary with Assam & international boundary with Bangladesh and is blessed with favourable climatic, topographic and edaphic conditions characterized by abundant and well distributed rainfall.

3.2. Type of forests

On the basis of rainfall, altitude and temperature the following forest types can be noticed

- **Tropical moist deciduous with Sal**: Found in Northern and western slopes of the district.
- **Tropical Moist Evergreen Forests**: they occupy the Southern and South-eastern slopes.
- **Sub-Tropical Pine Forest**: they occupy the upper Eastern region.

3.3. Jurisdiction

Khasi Hills Wildlife Division, Shillong covers the whole of the East Khasi Hills, West Khasi Hills, South-west Khasi Hills and Ri-Bhoi District, whose area is 10,443 sq km. The present composition of the JFMC have been selected to give an equitable distribution under the different Ranges covering such villages which have shown interest in implementation of the project through Joint Forest Management mechanism.

All the project areas under this division falls under the community land covering an area of 7,731sq.km (approx) and the whole project area is outside the jurisdiction of Territorial & Wildlife Project Areas.

3.4. **Population**

Most of the population in the project villages consists of poor people as per land holding; hence most of the farmers are marginal farmers. Both land holding as well as land tilling is primitive, modern technology is hardly used.

3.5. **Intent and purpose**

The Khasi Hills Wildlife Division, Forest Development Agency intends to take the opportunity provided under the National Afforestation Programme to replenish and rejuvenate forests which are lying degraded, open and scrub category with interventions indicated in the NAEB guidelines. The project proposal is formulated after eliciting the view of the JFMC's and obtaining assurance on availability of land to implement the project. The project has already created an interest among the stake holders who are willing to participate and involve themselves fully in the project right from the conception.

3.6. **Project areas & Locations**

The project areas are located within the geographical boundary of East, West, and South-West & Ri-Bhoi districts of the state, which are subdivided into Seventeen (17) blocks. The villages and JFMCs selected are within the districts. A list of JFMCs selected during the period 2008-09 to 2013 has been given at Para 2.8.

3.7. **Any previous project**

So far in the division there is only one project created under the FDA namely the **National Bamboo Mission** covering an area of 204 ha under Forest Areas and 48ha under Non-Forest Areas and it covers the whole of Ri-Bhoi and West Khasi Hills District. This National Afforestation Programme, is an on-going project launched during the financial year 2007-08 and is continuing till Date.

3.8. **Socio Economic Profiles of villages**

This is an on-going Project .Majority of the inhabitants of the villages belong to scheduled tribes, depending mostly for their livelihood on agriculture and seasonal labourer. The villagers are very poor , the villages has vast land under their

command,which are mostly denuded grass/unproductive lands, due to over exploitation of land during earlier years; which cannot be used for any gainful purpose except for forestry plantations. All these lands are classified as community lands though the area falls under a) Tropical moist deciduous Forests b) Tropical moist evergreen Forest. Degraded grass lands are now devoid of any tree cover. There is a high degree of pressure on the marginal forest areas and as such these require immediate attention/restoration.

3.9. **Objectives**

Vide Notification No. FOR.62/2000/239 and FOR.64/99/186, Dated Shillong, the 9th September 2003 the Government of Meghalaya decided to implement Joint Forest Management (JFM) in the State with the consent of the Khasi Hills Autonomous District Council, the Jaintia Hills Autonomous District Council and the Garo Hills Autonomous District Council in order to enlist active participation and involvement of local people for the protection of forests, wildlife and biodiversity and implementation of afforestation and aided regeneration schemes and forest based resource development programmes; Primary responsibility of Forest Development Agency (FDA) is the preparation and implementation of the approved projects under National Afforestation Programme of Ministry of Environment & Forest, Government of India.

Each FDA, Forest Range Officers of the Forest Division worked as Regional Level Coordinators (RLCs) through whom funds were channelled to the JFM Committees for implementation of the projects as per the decisions of the FDAs. The RLCs functioned as Subordinate disbursers for this purpose. The RLCs were authorized to open and maintain bank account (s) in Nationalized Banks and operate them in order to deposit and manage the advances received from FDAs. The Regional Level Coordinators were primarily responsible for maintaining consolidated accounts of the JFMCs in their jurisdiction and carrying out normal supervision and monitoring activities. The RLCs maintained and submit monthly accounts and other records / reports to the Executive Body of the FDA as per their directions.

3.10. **Project Components**

To achieve the objectives, in every selected village Joint Forest Management Committees were formed by the villagers, from among the village committee members and all the works related to the project were undertaken by these JFMC members.

3.11. **Strategies adopted**

Under the NAP the approved Action Plans implemented through a 3-tier structure i.e. Forest Development Agency (FDA) at the forest division level, RLC at Range Level and Joint Forest Management Committee (JFMC) at the village level.

The denuded areas are planted with suitable local tree species as per suggestion of the JFMC members. All the related works of the plantation were done by the JFMC members as well as villagers of that particular village/JFMC members.

3.12. **Creation of JFMC**

Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

3.13. **Implementing Agencies**

For implementing the scheme as per Government of Meghalaya's OO NoFOR.62/2000/239 Dtd. 9th September2003 Forest Development Agency was formed in the Forest Division .The Forest Development Agency was first registered vide JR/K.H.W.D.FDA.-3/07 of2007.

3.14. **Micro planning**

Micro plans were prepared for each JFMC after conducting a Participatory Rural appraisal exercise among the JFMC members ,group discussions and various interventions and species to be planted, entry point activities to be undertaken etc.

3.15. **Entry Point activity**

Entry point activity works should be in proportion to the amount spent for plantation works. It is always suggested that some income generating schemes be under taken as

entry point activity so that JFMCs become self sustained in future maintenance of the works which has been under taken.

3.16. **Approved Programme of Works**

In accordance to the fund released approved interventions must be carried out in consultation with the villagers, as envisaged in the micro plans.

3.16.1. **Approved Work Programme of Forest Development Agency, Khasi Hills Wildlife Division, Shillong for 2010 – 11.**

Sl. No.	**Component** Wage Rate : Rs.100.00	**Adm. Cost** (Rs. In lakh)	**Phy.**	**Fin.**	**Total**	
					Phy.	**Fin.**
1.	Aided Natural Reg.	13000				
	Advance Work	5600	580	20.95	580	20.95
	Creation (200 plants/ha)	4000				
	Maintenance – 1st year	1400				
	Maintenance – 2nd year	1000				
	Maintenance – 3rd year	600				
	Maintenance – 4th year	400				
	Sub Total	13000	580	20.95	580	20.95
2.	Artificial Regeneration	22800				
	Advance Work	9000				
	Creation (1100 plants/ha)	7000				
	Maintenance – 1st year	3000				
	Maintenance – 2nd year	1800				
	Maintenance – 3rd year	1200				
	Maintenance – 4th year	800				
	Sub Total	22800				
3.	Pasture Development	14800				
	Advance Work	5600	200	8.95	200	8.95
	Creation (400 plants/ha)	3200				
	Maintenance – 1st year	2000				
	Maintenance – 2nd year	1600				
	Maintenance – 3rd year	1200				

Sl. No.	**Component** Wage Rate : Rs.100.00	**Adm. Cost** (Rs. In lakh)	**Phy.**	**Fin.**	**Total**	
					Phy.	**Fin.**
	Maintenance – 4th year	1200				
	Sub Total	14800	200	8.95	200	8.95
4.	Perennial Herbs & Shrubs	27200				
	Advance Work	12000	60	6.33	60	6.33
	Creation (2000 plants/ha)	8000				
	Maintenance – 1st year	3000				
	Maintenance – 2nd year	1800				
	Maintenance – 3rd year	1200				
	Maintenance – 4th year	1200				
	Sub Total	27200	60	6.33	60	6.33
	Total	CR				
		AW	840	36.23	840	36.23
5.	Soil & Moisture Conservation (15%)					5.43
6.	Entry Point Activities (4000 p/h)					33.60
7.	Awareness Raising (1%)					0.36
8.	Micro-Planning (2%)					0.72
9.	Fencing (5%)					1.81
10.	Monitoring & Evaluation (2%)					0.72
11.	Overhead (10%)					3.62
	Sub Total					46.28
	Total					82.51
	Grand Total					82.51

3.16.2. **Approved Work Programme of Forest Development Agency, Khasi Hills Wildlife Division, Shillong for 2011 – 12**

Wage Rate : Rs.100.00			**Fin: Rs. In lakh**			
Sl. No.	**Component**	**Adm. Cost (in Rs)**	**Phy.**	**Fin.**	**Total**	
					Phy.	**Fin.**
1.	Aided Natural Reg.	13000				
	Advance Work	3125	780	24.38	780	24.38
	Creation (200 plants/ha)	3400	580	19.72	580	19.72
	Maintenance – 1st year	2375				
	Maintenance – 2nd year	2100				
	Maintenance – 3rd year	2000				
	Sub Total	13000	580	44.10	580	44.10
2.	Artificial Regeneration	22800				
	Advance Work	8080	100	8.08	100	8.08
	Creation (1100 plants/ha)	5900				
	Maintenance – 1st year	3310				
	Maintenance – 2nd year	2810				
	Maintenance – 3rd year	2700				
	Sub Total	22800	100	8.08	100	8.08
3.	Pasture Development	14800				
	Advance Work	4052	200	8.10	200	8.10
	Creation (400 plants/ha)	3948	200	7.90	200	7.90
	Maintenance – 1st year	2800				
	Maintenance – 2nd year	2300				
	Maintenance – 3rd year	1700				
	Sub Total	14800	200	16.00	200	16.00
4.	Perennial Herbs & Shrubs	27200				
	Advance Work	11700	120	14.04	120	14.04
	Creation (2000 plants/ha)	7700	60	4.62	60	4.62
	Maintenance – 1st year	2900				
	Maintenance – 2nd year	2900				
	Maintenance – 3rd year	2000				

Wage Rate : Rs.100.00			Fin: Rs. In lakh			
Sl. No.	**Component**	**Adm. Cost (in Rs)**	**Phy.**	**Fin.**	**Total**	
					Phy.	**Fin.**
	Sub Total	27200	60	18.66	60	18.66
	Total	AW	1200	86.84	1200	86.84
		CR	840			
5.	Strengthening of JFMCs					
	(a) Constitution @ 5000/JFMC				9	0.45
	(b) Micro Planning @ 5000/JFMC				9	0.45
6.	Soil & Moisture Conservation (15%)					13.03
7.	Entry Point Activities (4000 p/h)					33.60
8.	Awareness Raising (1%)					0.87
9.	Micro-Planning (2%)					1.74
10.	Fencing (5%)					4.34
11.	Monitoring & Evaluation (2%)					1.74
12.	Overhead (10%)					8.68
13.	Training and Capacity Building					3.00
	Sub Total					67.90
	Total					154.74
14.	Unspent Balance					19.64
	Grand Total					135.10

3.16.3. **Approved Work Programme of Forest Development Agency, Khasi Hills Wildlife Division, Shillong for 2012 – 13**

Wage Rate : Rs.100.00 **Fin: Rs. In lakh**

Sl. No.	**Component**	**Adm. Cost (in Rs)**	**Phy.**	**Fin.**	**Total**	
					Phy.	**Fin.**
1.	Aided Natural Reg.	13000				
	Advance Work	3125				
	Creation (200 plants/ha)	3400	780	26.52	780	26.52

Wage Rate : Rs.100.00 **Fin: Rs. In lakh**

Sl. No.	Component	Adm. Cost (in Rs)	Phy.	Fin.	Total	
					Phy.	Fin.
	Maintenance – 1st year	2375	580	13.78	580	13.78
	Maintenance – 2nd year	2100				
	Maintenance – 3rd year	2000				
	Sub Total	13000	780	40.30	780	40.30
2.	Artificial Regeneration	22800				
	Advance Work	8080				
	Creation (1100 plants/ha)	5900	100	5.90	100	5.90
	Maintenance – 1st year	3310				
	Maintenance – 2nd year	2810				
	Maintenance – 3rd year	2700				
	Sub Total	22800	100	5.90	100	5.90
3.	Pasture Development	14800				
	Advance Work	4052				
	Creation (400 plants/ha)	3948	200	7.90	200	7.90
	Maintenance – 1st year	2800	200	5.60	200	5.60
	Maintenance – 2nd year	2300				
	Maintenance – 3rd year	1700				
	Sub Total	14800	200	13.50	200	13.50
4.	Perennial Herbs & Shrubs	27200				
	Advance Work	11700				
	Creation (2000 plants/ha)	7700	120	9.24	120	9.24
	Maintenance – 1st year	2900	60	1.74	60	1.74
	Maintenance – 2nd year	2900				
	Maintenance – 3rd year	2000				
	Sub Total	27200	120	10.98	120	10.98
		Creation	1200		1200	
		Maint. 1	840		840	
		Maint. 2	0		0	
		Maint. 3	0		0	

Wage Rate : Rs.100.00 **Fin: Rs. In lakh**

Sl. No.	Component	Adm. Cost (in Rs)	Phy.	Fin.	Total	
					Phy.	Fin.
	Grand Total					70.68

Wage Rate : Rs.100.00 **Fin: Rs. In lakh**

Sl. No.	Component	Adm. Cost (in Rs)	Phy.	Fin.	Total	
					Phy.	Fin.
1.	Aided Natural Reg.	13000				
	Advance Work	3125	50	1.56	50	1.56
	Creation (200 plants/ha)	3400	780	26.52	780	26.52
	Maintenance – 1st year	2375	580	13.78	580	13.78
	Maintenance – 2nd year	2100				
	Maintenance – 3rd year	2000				
	Sub Total	13000	780	41.86	780	41.86
2.	Artificial Regeneration	22800				
	Advance Work	8080	13	1.05	13	1.05
	Creation (1100 plants/ha)	5900	100	5.90	100	5.90
	Maintenance – 1st year	3310				
	Maintenance – 2nd year	2810				
	Maintenance – 3rd year	2700				
	Sub Total	22800	100	6.95	100	6.95
3.	Pasture Development	14800				
	Advance Work	4052	13	0.53	13	0.53
	Creation (400 plants/ha)	3948	200	7.90	200	7.90
	Maintenance – 1st year	2800	200	5.60	200	5.60
	Maintenance – 2nd year	2300				
	Maintenance – 3rd year	1700				
	Sub Total	14800	200	14.03	200	14.03
4.	Perennial Herbs & Shrubs	27200				

Wage Rate : Rs.100.00 **Fin: Rs. In lakh**

	Advance Work	11700	13	1.52	13	1.52
	Creation (2000 plants/ha)	7700	120	9.24	120	9.24
	Maintenance – 1st year	2900	60	1.74	60	1.74
	Maintenance – 2nd year	2900				
	Maintenance – 3rd year	2000				
	Sub Total	27200	120	12.50	120	12.50
	Total	AW	88	75.34	88	75.34
		CR	1200			
		Maint. 1	840			
		Maint. 2				
		Maint. 3				
5.	Monitoring & Evaluation (2%)					1.50
	Total					76.84
6.	Committed Liabilities					59.19
	Total					136.03
7.	Unspent Balance					19.64
	Grand Total					116.39

Wage Rate : Rs.100.00 **Fin: Rs. In lakh**

Sl. No.	**Component**	**Adm. Cost (in Rs)**	**Phy.**	**Fin.**	**Total**	
					Phy.	**Fin.**
1.	Aided Natural Reg.	13000				
	Advance Work	3125	130	4.06	130	4.06
	Creation (200 plants/ha)	3400				
	Maintenance – 1st year	2375				
	Maintenance – 2nd year	2100				
	Maintenance – 3rd year	2000				
	Sub Total	13000	130	4.06	130	4.06
2.	Artificial Regeneration	22800				
	Advance Work	8080	32	2.59	32	2.59
390	Creation (1100 plants/ha)	5900				

Wage Rate : Rs.100.00 **Fin: Rs. In lakh**

Sl. No.	Component	Adm. Cost (in Rs)	Phy.	Fin.	Total	
					Phy.	Fin.
	Maintenance – 1st year	3310				
	Maintenance – 2nd year	2810				
	Maintenance – 3rd year	2700				
	Sub Total	22800	32	2.59	32	2.59
3.	Pasture Development	14800				
	Advance Work	4052	42	1.70	42	1.70
	Creation (400 plants/ha)	3948				
	Maintenance – 1st year	2800				
	Maintenance – 2nd year	2300				
	Maintenance – 3rd year	1700				
	Sub Total	14800	42	1.70	42	1.70
4.	Perennial Herbs & Shrubs	27200				
	Advance Work	11700	57	6.67	57	6.67
	Creation (2000 plants/ha)	7700				
	Maintenance – 1st year	2900				
	Maintenance – 2nd year	2900				
	Maintenance – 3rd year	2000				
	Sub Total	27200	57	6.67	57	6.67
	Grand Total					15.02

3.17. **Quantitative Analysis**

3.17.1. **Classification of area covered/treated**

Under the Khasi Hill Wildlife Division FDA all the areas treated so far are community owned degraded forest land .Breakup of areas treated under different interventions are as:-

Category	ANR	AR	REGN	PASTURE	BAMBOO	TOTAL
Community Lands	1540 Ha	145 Ha	250 Ha	455 Ha	--	2390

Forest Land	--	--		--		--
Revenue land						
Govt. waste land	--	--		--		--
Private land	--	--		--		--
Total	1540 Ha	145 Ha	250 Ha	455 Ha	--	2390

3.18. **People's participation**

3.18.1. **Participatory Rural Appraisal/Micro-Planning**

In all the JFMCs micro plan has been prepared with the active involvement of the JFM committee members and their suggestion on selection of species ,area for the plantation as well as during the preparation of project at every step JFM members has been consulted and their suggestion /views has been taken into consideration.

3.18.2. **Joint Forest Management**

Number of JFMCs constituted is given in the following table

Sl. No.	**Year**	**No. of JFMC constituted and registered**
1.	2010 – 11 to 2012 – 13	16
TOTAL		**16**

3.18.3. **The year-wise expenditure on preparation of micro-plans is as follows:**

Sl. No.	**Year**	**Total Expenditure (Rs. in lakhs)**	**Amount spend on Micro-Planning**	**Percentage on total expenditure (Rs. in lakhs)**
1.	2010 – 11	2.43	0.72	29.63%
2.	2011 – 12	3.73	-	-
3.	2012 – 13	1.22	-	-
TOTAL		**7.38**	**0.72**	**29.63%**

3.19. **Entry Point Activities**

3.19.1. **The assets created under Entry Point Activities in the Project Area are given below (2010 – 11)**

Name of JFMCs/Villages	**Assets Created under EPA**		**Expenditure incurred (in Rs.)**		
	Types	**No.**	**EPA fund**	**People's Contribution**	**Total**
Nongkusba	Community Hall	1 no	2,20,000.00	Nil	2,00,000.00
	Foot bridge	25 mtrs	2,00,000.00		2,00,000.00
	Chairs	40 nos	15,663.00		15,663.00
	Table	1 no			
	School benches	22 nos	24,337.00		24,337.00
Mawmarin	Public latrine	1 no	90,000.00		90,000.00
	Plastic chairs	40 nos	10,000.00		10,000.00
	PA System	1 set	19,100.00		19,100.00
	Table	1 no	8,512.00		8,512.00
	Almira	1 no			
	Drinking cum washing pond	1 no	80,000.00		80,000.00
	Foot path	150 mtrs	1,50,000.00		1,50,000.00
	Extension of school building	1 no	2,00,000.00		2,00,000.00
	School benches	19 nos	22,388.00		22,388.00
Nonglanglieh	Foot bridge	25 mtrs	2,00,000.00		2,00,000.00
	Chairs	50 nos	25,253.00		25,253.00
	Almirah	1 no			
	Table	1 no			
	Drinking cum washing pond	1 no	80,000.00		80,000.00
	Community hall	1 no	2,20,000.00		2,20,000.00
	School benches	12 nos	14,747.00		14,747.00
	Katcha road	1 no	80,000.00		80,000.00
Umtasor	Footpath	200 mtrs	1,83,000.00		1,83,000.00

Name of JFMCs/Villages	Assets Created under EPA		Expenditure incurred (in Rs.)		
	Types	**No.**	**EPA fund**	**People's Contribution**	**Total**
	School building	1 no	5,41,900.00		5,41,900.00
	Plastic chairs	100 nos	27,000.00		27,000.00
	Plastic tables	2 nos			
	Utensils		25,000.00		25,000.00
	Signboards	5 nos	23,100.00		23,100.00
Old Tasku	Footpath	60 mtrs	90,000.00		90,000.00
	Plastic chairs	40 nos	10,000.00		10,000.00
	Footpath	105 mtrs	99,000.00		99,000.00
	Foot bridge	9 mtr	1,37,000.00		1,37,000.00
	Benches & Desks	20 pairs	37,586.00		37,586.00
	Tables & Chairs	2 pairs			
	Utensils		26,414.00		26,414.00
Mawroh, Jirang	Computer & Accessories	1 set	30,000.00		30,000.00
	Extension of Community hall	1 no	70,000.00		70,000.00
	Footpath	120 mtrs	3,00,000.00		3,00,000.00
	Foot bridge	8 mtr			
	Washing platform	2 nos			
	Purchase of GPS	1 no			

3.19.2. **The assets created under Entry Point Activities in the Project Area are given below (2011 – 12)**

Name of JFMCs/Villages	Assets Created under EPA		Expenditure incurred(in Rs.)		
	Types	**No.**	**EPA fund**	**People's Contribution**	**Total**
Nongpuinskei	Community hall	1 no	2,00,000.00	Nil	2,00,000.00
Umksih	Utensils	LS	90,000.00		90,000.00
	Plastic chairs	100 nos			
	Tarpauline	2 nos			

Name of JFMCs/Villages	Assets Created under EPA		Expenditure incurred(in Rs.)		
	Types	**No.**	**EPA fund**	**People's Contribution**	**Total**
Umladoh	Footpath	160 mtrs	1,43,200.00		1,43,200.00
	School benches & desks		36,800.00		36,800.00
Mawlein-Mawkhan	Extension of community hall	1 no	1,00,000.00		1,00,000.00
Siatbakon	Public toilet	1 no	2,00,000.00		2,00,000.00
Tynghor	Waiting shed	1 no	1,00,000.00		1,00,000.00
	Plastic chairs	100 nos			
	Utensils	LS			
Mawthohkrah	Dorbar hall	1 no	1,80,000.00		1,80,000.00
Mawmareh	Washing platform	1 no	1,50,000.00		1,50,000.00
	Plastic chairs	50 nos			
	Plastic tables	5 nos			
	Utensils	LS			

The village wise expenditure data on EPA for the year 2012 – 13 was not made available.

3.20. **Joint Forest Management**

JFM approach has been adopted in the Project area with utmost care. It was also found that people are taking active participation in the JFM. But it was found that after the plantation, the participation was almost nil.

Details of JFM committees are as follows

- No of villages where formation initiated : 16
- No of villages where formal committees established in the division : 16
- Total number of committees established so far in the project area : 16
- Total membership in terms of households/families : 1533
- Percentage of women in the JFM committees : 43.46%

3.21. **Details of Women, SCs, STs percentage of JFMC**

Sl. No.	Description	Male	Female	Total nos.
1.	Scheduled Caste	Nil	Nil	**Nil**
2.	Scheduled Tribe	5677 nos.	4365 nos.	**10,042 nos.**
3.	Others	Nil	Nil	**Nil**
TOTAL		**5677 nos.**	**4365 nos.**	**10,042 nos.**

- Under the Khasi Hills Wildlife Division FDA, in none of the JFMCs, village development fund has been created; which is not at all encouraging. The CEO should take initiative to create "village development fund" in all of the JFMCs. Joint Forest Management committees may be asked and made to open an account with the local bank.
- Joint Forest Management Committee Meetings / Forest Development Agency Meetings

Details of JFMC and FDA meetings held so far

Sl. No.	Description	JFMC Meeting	FDA Meeting
1.	No. of General Body Meeting	2 times	3 times
2.	No. of Executive Body Meeting	5 times	3 times

- Micro-Planning for all the 16 (sixteen) JFMC's has been done and the micro-plans are under implementation.
- Till date expenditure incurred for preparation of micro plans are **Rs 0.72**lakhs only.

3.22. Records & Registers

Micro planning for each of the JFMCs has been prepared in consultation with JFMC members. During evaluation the following documents and registers has been found **with the FDA**

- Cash book.
- Cheque issue registers.
- General body meeting & minutes register.
- Executive body meeting and minutes register.
- Fund sanction register

- Membership register etc.

During evaluation the following documents and registers has been found **with the JFMC**

- Cash book .
- Cheque issue register.
- General body meeting & minutes register.
- Executive body meeting and minutes register.
- Plantation journal
- Nursery Journal.
- JFMC Membership register.etc.

These were found to be adequate as per forestry norms as of now.

3.23. **Awareness Raising**

Fund under Awareness Raising Programme which included Training and Capacity Building, exposure visit for field functionaries & JFMC members for carrying out PRA exercises and preliminary works for preparation of micro plans were usually received right from the start of the National Afforestration Programme scheme during 2004-05 onwards for all the FDA in the state of Meghalaya. However, Khasi Hills Wildlife Division was implemented during 2010-11 and so awareness raising fund received for three years from 2010-11 as indicated below. No Training & Capacity Building fund received by the FDA.

Years	Awareness Raising	Training & Capacity Building
2010-11	0.36	-
2011-12	0.87	-
2012-13	-	-
2013-14	0.84	-

Fund received year-wise under Awareness Raising, Training and Capacity Building Training in the years 2010-11 to 2012-13 has been arranged on people's participation in plantations, record keeping and maintenance, accounting and general awareness.

3.23.1. **The details of training programme**

Year	**Staff**		**Community**		**Organization involved**
	No. of trainee	**Topic**	**No. of trainee**	**Topic**	
2010	6	Record keeping	20	Forest fire protection	Chartered

– 11 to 2011 – 12		and maintenance, Accounting and Afforestation work		measures/ Animal scaring operation	Accountant, Departmental Officers and Staff

3.23.2. **Year-wise expenditure on training**

2011 – 11	**2011 – 12**	**2012 – 13**	**2013 – 14**	**Total**
0.36 lakhs		-	**-**	**0.36 lakhs**

3.24. **Monitoring and Evaluation:**

This was the chief activity of the higher officials including CCF, CF, ACF and others, from time to time they visited the sites to check the quality and quantity of work done.

Number of inspections by various level forest officials

Sl. No.	**Designation**	**Number of Inspections**
1.	Chief Conservator of Forests	5
2.	Conservator of Forests	6
3.	Deputy Conservator of Forests	35
4.	Asst. Conservator of Forests	20

Year-wise expenditure

2011 – 11	**2011 – 12**	**2012 – 13**	**2013 – 14**	**Total**
0.72 lakhs	**-**	**-**	**-**	**0.72 lakhs**

CHAPTER IV

SUMMARY OF EVALUATION

4.1. Introduction

This present study by way of evaluation & monitoring of **Khasi Hills Wildlife Division Forest Development Agency** where the project has been sanctioned under **National Afforestation Programme** is to study the impact of the programme/scheme on the rural economy as well as on the rural population for protection and conservation of forests of the districts. Under this Programme focus is to encourage the rural people for protection & conservation of forests by way of extracting financial as well as tangible benefits from forests and at the same time protecting the environment and encouraging them in afforestation works.

For this purpose approach adopted was to set up village committees by the villagers themselves and undertake afforestation works in the nearby denuded community fallow/forest lands of the villages.

This is expected to strengthen the Village economy and at the same time reducing the cycle of deforestation caused by indiscriminate extraction of forest products as well as diverting villagers from destructive slash& burn (Jhoom) method of agricultural practice.

Under National Afforestration Programme (NAP), Meghalaya is the only state in India that constituted Range Level Coordinators (RLCs) for fund transfer mechanism from Forest Development Agencies (FDAs) to Joint Forest Management Committee (JFMC). In other states, fund is released directly from FDAs to JFMCs.

4.2. Financial Status

This project was sanctioned by National Afforestation & Eco development Board in the year 2010-11.

Khasi Hills Wildlife Division FDA was entrusted to implement the project. Funds sanctioned & Received by the FDA are:-

Year	Fund released (Rs)	Achievement (Rs)
2010-11	41.88	41.88

Year	Fund released (Rs)	Achievement (Rs)
2011-12	115.63	115.63
2012-13	35.00	35.00
2013-14	149.15	149.15
Total=	**341.66**	**341.66**

4.3. **Fund Allotted**

The fund allocated by NAEB since the start of the project till March 2013 is as follows

Sl.No.	Year	Fund Allocated (Rs. In lakhs)
1.	March/2011	41.88
2.	May/2011	40.63
3.	March/2012	75.00
4.	August/2012	35.00
5.	April/2013	86.15
6.	August/2013	63.00
Total		341.66

4.4. **Methodology adopted for Evaluation**

Under the study, the sample size for the study to be considered is 50% of the total nos. of JFMCs and 20% of the beneficiaries of each sampled JFMCs as per TOR. Office records revealed the total nos. of JFMCs in the division is 16 and total nos. of beneficiaries is 1533. Therefore, the representative sample size of the division stands at 8 nos. of JFMCs as 50% and around 307 nos. of beneficiaries as 20%. However, major challenges to cover and complete the study after the survey of the division with other eight divisions across the state were the limited timeframe, resources/logistics and weather condition. Therefore, sampling as desired in the study could not be designed; however, the field investigators visited in consultation with divisional officers to understand the ground reality and to collect necessary information which is are incorporated in the study report in complete.

Hence, the evaluation is based on collection of both primary as well as secondary data collected from different sources. Primary data has been collected by visiting the plantation areas and by physical visit to the JFMCs, actual sites of creation of different assets and with group discussion with the JFMC members, Field staff as well as in depth discussion with the field officers. Secondary data has been collected from the North Khasi Hills Social Forestry Division FDA.

During collection of primary field data many plantation site and JFMCs has been visited and observation of the plantation growth, terrain, grazing status etc. was studied, out of these the following worth mentioning.

4.4.1. **Plantation 1**

- Umksih JFMC miscellaneous plantation.(56 Ha.- ANR. AR. Pasture) under Nongpoh RLC falls under Umsning C&RD Block.
- Year of Plantation:- 2011-12
- Survival percentage:- 70% ; Height about 3mts.
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, Proper weeding has been carried out. Under entry point activity a washing platform, Utensils, 140mts of footpath, &120 mts of drinking water pipeline has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantations are very good in all aspects.

4.4.2. **Plantation 2**

- Old Tasku JFMC. ANR plantation 60 Ha, under Nongpoh RLC, falls under Umling C&RD Block.
- Year of Plantation:-2011-12.
- Survival percentage:- 65%; Av. Height is about 3mts.
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation

Plantation is satisfactory, proper weeding has been carried out. Under entry point activity a Footpath of 180mts, footbridge, utensils, benches for school, has been supplied/constructed, the JFMC members by rendering labour from the JFMC. In this JFMC 100 hac of broom stick plantation has been created under entry point activity where broom sticks are being sold and revenue earned. As there is no village development fund so the chairman could not explain proper utilisation of the earned revenue.

Overall observation:

Plantations are very good in all aspects.

4.4.3. **Plantation 3**

- Mawroh-Jirang JFMC plantation 10Ha, under Nongpoh RLC, falls under Jirang C&RD Block.
- Year of Plantation:- 2005-06.
- Survival percentage:- 65%
- Health of the plantation:-Very Good as the soil is good and the area receives very good rainfall during the year.

Observation:

Plantation is satisfactory. Proper weeding has been carried out. Under entry point activity a Foot path has been constructed, the JFMC members by rendering labour from the JFMC.

Overall observation:

Plantations are very good in all aspects.

4.5. **Performance and manner of implementation**

The project was launched during the year 2010-11 with the fund released by National Afforestation & Eco development Board(NAEB), Government of India, to the Khasi Hills Wildlife Division Forest Development Agency, which was registered as a society as per the provisions of Meghalaya Societies Act 1983 (Meghalaya Act XII of 1983) during the year 2007.

As per the Guidelines of NAEB till date 16 Joint Forest Management Committees has been formed in accordance to the Government of Meghalaya O.O. no FOR 64/99/186 dt 9.9.2003 for implementation of the programme.

4.5.1. **Project Beneficiaries**

In the whole of the project area as per the record available with the department till date total JFMC members are **10,042** heads out of that **4365** are female /women beneficiaries. All the members are scheduled tribes.

4.5.2. **Physical progress**

Physical progress of the project is good as most of the targets and specifications as envisaged in the NAEB guide line have been achieved, as mentioned in the project. Implementation models were developed involving beneficiaries to form JFMCs. To have a better understanding of JFMC model of functioning many more workshops and training programmes may be conducted.

4.5.3. **Financial Progress**

Financial progress is not very encouraging, as no fund has been released in accordance with work schedule.

Financial Year		**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Total**
No. of JFMCs		16	-	-	-	16 nos.
Area of Afforestation under NAP	Target	840	1200	350	-	2390 Ha
	Achievement	840	1200	350	-	2390 Ha
Financial Progress	Fund received (in lakhs)	41.88	115.63	35	149.15	341.66
	Fund utilized (in lakhs)	41.88	115.63	35	149.15	341.66

4.6. **Impact and assessment of the project**

The project so far has been able to meet most of its proposed targets and objectives including awareness and partnership concept which is considered as vital for its success among the JFMC members.

- Under the Division, A total area of 2390 ha of brought under NAP schemes and plantations which is 0.11% of Meghalaya. Aided Natural Regeneration, Artificial Regeneration, Pasture Plantations and Herbs/Shrubs plantations were taken up under the programme. Being survival rate of the plantations standing at 65 – 70 % it is found that green cover has increased to a significant level. It is seen to some extent that there is increase and improvement in generation of Forest where good treatment of plantation done and subsequent proper protection is rendered.
- Entry point activities taken up under the programme impacted in several aspects of villagers' livelihood. EPAs includes community support by means construction of

Community Hall, supply of Utensils, Public Address System and Plastic tables/ Chairs, Extension of Community hall, Drinking cum washing pond etc.

- Construction of Public latrine was a step taken towards cleanliness sanitation drive and Washing platform to support water storage/shortage. Construction of School building, Extension of school building, purchase of benches, Table, Chairs, Almira, Computer & Accessories for schools to support a better education system in the villages
- Approach roads by means of Footpath, Katcha road and Foot Bridge were significant towards better road connectivity.
- A total of 16 JFMCs formed under the division across seven Blocks i.e. Nongstoin, Umsning, Jirang, Umling, Pynursla, Mawshynrut and Shella Bholaganj. Four JFMCs constituted in Nongstoin and Umsning blocks followed by Mawshynrut Block (3 nos.), Jirang Block (2 nos.) and rest three blocks with one JFMC.
- Under improved technologies green house has been constructed with sprinkler irrigation facility for boosting growth to nursery seedlings.
- Plantations are mainly taken up on degraded forest lands through JFMCs which are decentralized participatory institutions. Improved technologies at nursery are used by using various hormones, cuttings, various manure and bio-fertilizers.
- Under the Plantation activities, Aided Natural Regeneration covered maximum area with 1540 ha. followed by pasture development (455 ha.), regeneration of herbs/shrubs (250 ha.) and lastly Artificial Regeneration (145 ha.). Sixteen Micro plans prepared under all the JFMCs for the programme in the division.
- The NAP scheme has brought about many changes through plantation activities in terms of forest cover. As per India State of Forest Report 2013, there has been sufficient increase of forest cover across the districts. The landscape and hillock which were earlier barren and devoid of trees have now been brought under forest cover. The existing woodlands and village forest have been reduced to a great extent. There is lot of improvement in the water regime of different catchment area and valley in which retention period of water along the stream has increased.
- The quality of work in general as observed in different JFMCs is good and satisfactory. The selection of species are in consonance with the local needs and the overall works on entry point activities carried out in different JFMCs are of good standard and are commendable.

- The implementing Agency with JFMCs and villagers has taken all possible care in planting species which are suitable for growth in the respective areas considering soil condition, moisture content and conductive climatic aspects adopting adequately technique of plantations and subsequent maintenance
- Bio-fertilizers & Root trainers are used at nursery level. Hormonal treatment is used on a limited scale where cuttings and rhizomes are used as planting stock, especially in case of bamboo nursery.
- People have become aware about the tangible benefits of the forest in the form of food, fodder, fuel and minor forest produce. Furthermore the ecological importance of forest in soil and water conservation, clean environment, agriculture, horticulture etc. have been clearly understood and appreciated by the people.
- The Communities have made physical contribution in terms of free manual labour (one from each household) for one day in a year under each JFMC at the time of implementation of work programmes wherever physical work was required
- EPA activities like construction/expansion of School buildings, Community Hall, washing platform, supply of furniture, Utensils, etc. have improved the bondage and co-operation between the Community member, and the Forest Development Agency.
- People participation in conservation of forest under JFMC and Social responsibility in protection of the community forest
- Some of the direct and indirect benefits under NAP are awareness about environmental protection, tangible benefits like fuel wood, fodder, timber etc., intangible benefits like aesthetic value, clean air, etc
- All the beneficiaries surveyed believe that this afforestation programme is lucrative and very suitable for the present circumstances for our state.
- All beneficiaries say that they face a lot of difficulties as in most of the plantations face high degree of cattle grazing, not from the same JFMC but from nearby villages.
- In areas where even single wild animal could no longer be seen can be sighted now in which the birds has started coming, breeding and making their nest on the branches and leaves of the growing forest. Small animal like hare, barking deer, wild bear, pangolin, mongoose, squirrel and other species belonging to avi-fauna, family of reptiles and amphibians are being sighted by the villagers.

4.7. **Reason for deficiency:**

All JFMC members surveyed , believe that non receipt of Government fund in **proper time** for various works is the main reason, as forestry works are time bound and time taking.

4.8. **Observations**

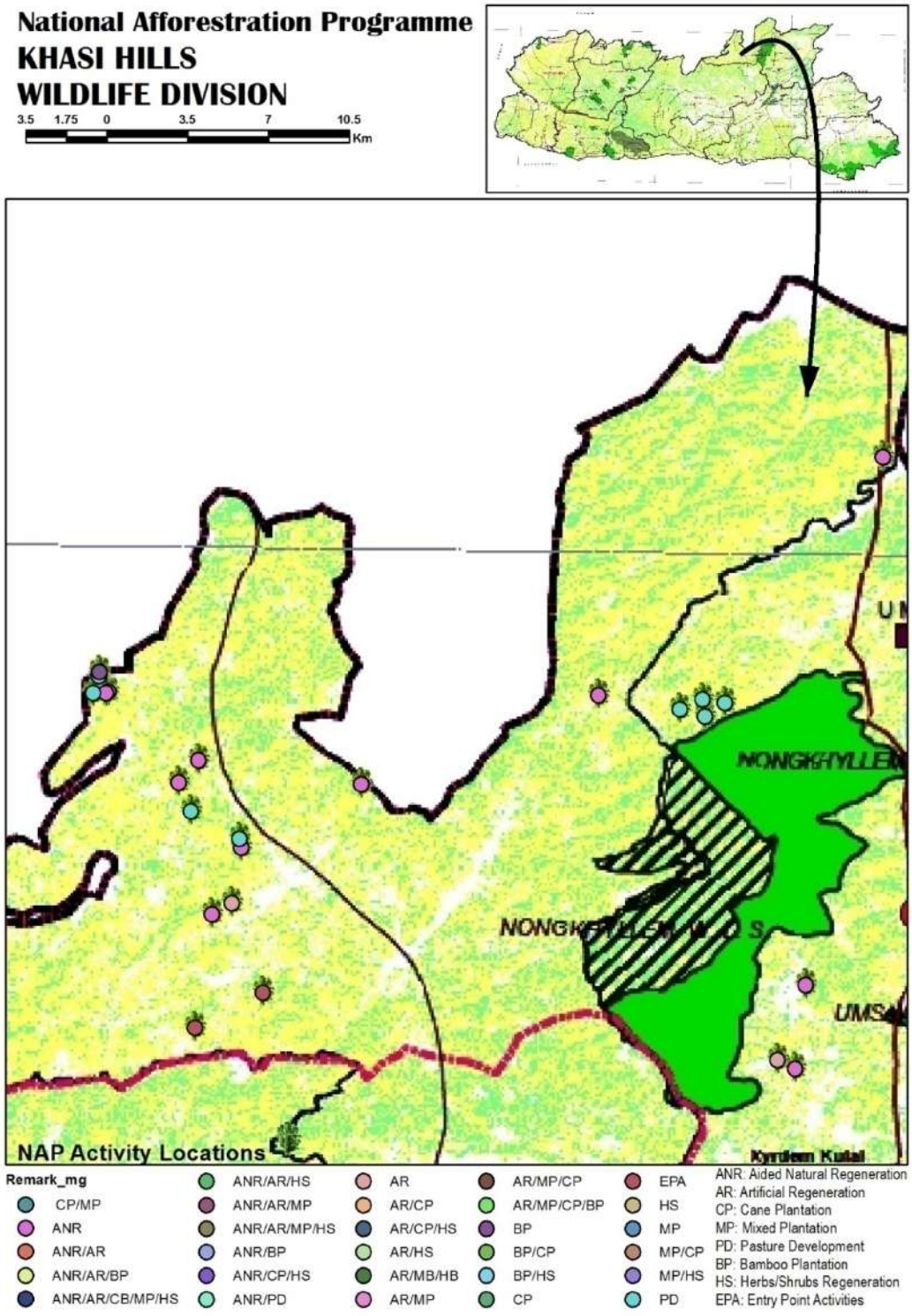
- During evaluation it has been observed that in many of the JFMCs plantations has been done with maintenance works. However as per CEO due to shortage of fund few entry point activity works & maintenance could be done and rest will be taken up as and when fund will be released.
- During the visit to the JFMC villages, group discussion has been held with the villagers who have shown strong determination for protection of the forests they have created and assured to protect these forests at any costs.
- During survey it has been observed that in none of the JFMCs '*Village development fund'* has been created. So it is suggested Village development fund may be created immediately.
- However it is found that number of meetings held are sufficient as per requirements as executive committee meetings are to be held once in every three months and General body meetings are to be held once in a year.
- Authorities should conduct more training to the staff as well as to the JFMC members for better understanding & interaction among the rural people and the implementing officers.

4.9. **Suggestions and recommendations**

- Sufficient fund should be provided for fencing.
- Intensive steps may be taken to motivate people for sustainable conservation of natural resources.
- Suitable members from the JFMCs may be provided opportunities in Forestry Jobs.
- Plantation, planting weeding and protection money may be released during January. When the money is released during June, by then planting season is almost over in our climatic conditions.
- Some income generating schemes must be taken in every JFMC for their sustainability.

- Some interested JFMC members may be trained in different professions ***viz*** Apiculture, Tailoring, Mat making, floriculture etc.
- "Village Development Fund" has not been created which may be done immediately. This is because there is no commercial utilization of any kind of forest produce in the project area. Hence no Small and Micro Forest Enterprise (SMFE) based on value addition and marketing could be set up in the project area.
- Signboards should be there for each & every plantation, meetings should be held regularly.
- Primary data has been collected by the independent evaluator by visiting the plantation area and by physical visit to the JFMCs actual sites of creation of different assets and with group discussion with the JFMC members, field staff as well as in depth discussion with field officers and his findings is satisfactory. However, the major constraint currently experience by this FDA is untimely release of the earmaekd funds for the projects. This has not hindered the effort in executing the work on the field but has brought down the interest level among the villagers.

4.10. **Map/Photographs**



Plantation under Umksih JFMC

Plantation under Umksih JFMC

JFMC Office at Umksih JFMC

Utensils provided to Umksih JFMC

Foot Path under Umkshi JFMC

Washing platform at umksih JFMC

NURSERY AT JIRANG JFMC (2011 – 12) KHASI HILLS WILDLIFE, SHILLONG

JIRANG BEAT, FDA PLANTATION 2010 -11 (EPA INTERVENTION) KHASI HILLS WILDLIFE, SHILLONG

EPA WORKS, KHASI HILLS WILDLIFE, SHILLONG