



ASSAM PROJECT ON FOREST & BIODIVERSITY CONSERVATION



THAIJUWARI JOINT FOREST MANAGEMENT COMMITTEE (JFMC)

West Haflong Forest Division, Dima Hasao Forest Circle

MICRO-PLAN

(2016-17 to 2025-26)

Prepared by Thaijuwari Joint Forest Management Committee

Assisted by Assam Forest Department

> & COMPELO (IIE, RGVN and CML)

> > July 2016

Approved

Divisional Abrest Officer Dima Hasao Forest Division (West) Haflong

| Acronym | Full Form | | | |
|----------|--|--|--|--|
| APFBC | Assam Project on Forest and Biodiversity Conservation | | | |
| AFD | Agence France de Développement | | | |
| BPL | Below Poverty Line | | | |
| втс | Bodoland Territorial Council | | | |
| COMPELO | Consortium for Micro Planning and Enhancing Livelihood Opportunities | | | |
| ЕРА | Entry Point Activities | | | |
| GIS | Geographical Information System | | | |
| Ha | Hectare | | | |
| IIE | Indian Institute of Entrepreneurship | | | |
| EDC | Eco Development Committee | | | |
| Kg | Kilogram | | | |
| Km | Kilometre | | | |
| Manas NP | Manas National Park | | | |
| Manas TP | Manas Tiger Project | | | |
| NGO | Non-Governmental Organization | | | |
| NTFP | Non Timber Forest Product | | | |
| PDS | Public Distribution System | | | |
| PRA | Participatory Rural Appraisal | | | |
| Rs. | Indian Rupees | | | |
| SHG | Self Help Group | | | |
| VCDC | Village Council Development Committee | | | |

List of Acronyms

JOINT FOREST MANAGEMENT COMMITTEE

[Livelihood Development Plan]

| Section No | Heading | Page No |
|---------------|---------------------------------|---------|
| 1 | Introduction | 1 |
| 2 | Village Socio-Economic Profile | 2-7 |
| 3 | Livelihood Opportunity Analysis | 8-13 |
| 4 | Livelihood Development Plan | 14 |
| 5 | Forest Development Plan | 15-29 |
| | List of Appendices | 30- 61 |

Table of Contents

Contents

| 1. | Introduction | 2 |
|----|--|------|
| 2. | Village Socio-Economic Profile | 3 |
| 3. | Livelihood Opportunity Analysis | 7 |
| 4. | Livelihood Development Plan | . 12 |
| | West Haflong Division | . 13 |
| 5. | Forest Development Plan | . 14 |
| | Table-5.2: Forest Soil Type in JFMC | . 15 |
| | Table-5.3: Existing Composition of Flora in the Thaijuwari JFMC | . 15 |
| | Thaijuwari JFMC | . 16 |
| | Table-5.4 (B): Total Domestic Requirement of Forest Produce - All Households of the Thaijuwa JFMC | |
| | JFMC | . 18 |
| | Table-5.5 (B): Collection & Marketing of Forest Produce - Additional Information [Thaijuwari JFMC] | . 18 |
| | Table-12 (B): Maintenance Plan of Bamboo Plantation in the Thaijuwari JFMC | |
| | JFMC | |
| | Appendix 2 | |
| | PRA ACTIVITY | . 33 |
| | Table – 3.1 Brief about the villages under Thaijuwari JFMC | . 33 |
| | Figure 2: Wealth Ranking | |
| | Wealth ranking (Pie Chart) | |
| | Table 4.2: Timeline review | |
| | Figure 3: Seasonal Agricultural Pattern | . 40 |
| | Table 4.3 Seasonal cropping pattern | |
| | 3.5 Venn Diagram | . 42 |
| | Annexure 4 | . 44 |
| | LIST OF JFMC MEMBERS | . 44 |
| | Annexure 5 (Photographs) | . 45 |
| | Photograph 2: PRA Exercise at Thaijuwari JFMC, Date- 16/06/2016 | . 45 |
| | Date- 08/09/2016 | |
| | Annexure 6 (Recode I) | . 47 |
| | Table 1: Basic data of the JFMC | |
| | RECORD: II | . 51 |
| | | |

1. Introduction

| 1. Introduction | |
|---|--|
| About the Project | The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is 'to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources'. The project's objective has been stated as: 'In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community's livelihoods and ensure conservation and sustainable use of biodiversity'. |
| Micro-Planning & Livelihood Development | The above project is being mainly funded by the <i>Agence France de Développement</i> (AFD) - i.e. the French Development Agency, with cofunding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project. In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be builtup through skills development initiatives. |
| | A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati, Rashtriya Gramin Vikas Nidhi (RGVN) and Centre for Microfinance and Livelihood (CML) has been formed to implement (<i>inter</i> alia) the micro-planning and livelihood development under the above project. The above consortium has been titled as 'Consortium for Micro Planning and Enhancing Livelihood Opportunities' - COMPELO in short. |
| Micro-Plan for th Thaijuwari JFMC | As per project guidelines, this micro-plan includes 'various operations of village and forest development, livelihood support of forest dependent members and keeping sustainable forest management as the broad objective'. It includes both forest development and livelihood development. We This document gives the Micro-Plan for the Thaijuwari JFMC, which is located in the Dima Hasao district of Assam. The JFMC falls under the jurisdiction of the West Haflong Forest Division of the Dima Hasao Forest Circle. The profile of the community is given in the next section. The present micro-plan has been prepared by members of the community, including both male and female members. This document has emerged as an outcome of a Participatory Rural Appraisal (PRA) process undertaken by the community and personnel of Indian Institute of Entrepreneurship (IIE) Guwahati in June 2016. The micro-plan has been discussed and finalized for adoption in July 2016. |

2. Village Socio-Economic Profile

Location

The Thaijuwari Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Thaijuwari, a village located on the fringe of the Diyungbra Unclassed State Forest (USF). The area covered by the above JFMC falls within the Haflong forest division of Dima Hasao District of Assam.

Appendix-1 gives the Village Map.

Key Information

The key information of the JFMC is furnished below. **Table-A: Key Information of the JFMC**

| Key information of the struct | | |
|-------------------------------|---------------------------|--|
| Name of the JFMC | Thaijuwari | |
| Habitation | Thaijuwari | |
| Name of Revenue Village | nil | |
| Name of the Gram | nil | |
| Panchayat / VCDC | | |
| Revenue Circle | nil | |
| District | Dima hasao | |
| Forest Division | West Haflong | |
| Forest Range | Diyungbra | |
| Forest Beat | Nil | |
| Year Formed | 2015-16 | |
| Description of Boundary of | As below | |
| JFMC | North: Haflong Lanka Road | |
| | South: JFMC Forest area | |
| | West: Madhubari Village | |
| | East: Diyung River | |

Source: JFMC Records & Discussions during PRA Exercise in June 2016

Additional details are given at Table-1 of Record-I. (Given at Annexure)

The brief details of Executive Committee & General Body of the JFMC are contained in the table, which is given below.

Brief Details of the Executive Committee & General Body

| Table-B: Brief Details | of Executive | Committee | & general Body |
|-------------------------------|--------------|-----------|----------------|
| Tuble Di Dilei Detallo | or miccurre | Committee | e general Doay |

| | e . |
|----------------------------|-------------------|
| Name of President | Dhanther Thaosen |
| Name of Secretary | Robindra Dibrgede |
| Name of Treasurer | - |
| No. of Members in | Male:6 Female:2 |
| Executive Committee | |
| No. of Members in the | Male:12 Female:3 |
| General Body | |
| Someon IEMC Descardo | |

Source: JFMC Records

Households&The village has 60 households, of which 83.33 % of households are BPL
(Below Poverty Line) households and remaining 16.67 % are from APL
(Above Poverty Line) category. There is no female headed households.
The total population is 206, of which 139 are male and the 121 are female
members. The population includes cent percent ST (hills) people.

| | Table-2 of Record-I may be referred for further details in the above regard. | | | |
|---------------------------------------|---|--|--|--|
| Education & Skills Development | From this, it is inferred that: (1) The average number of persons in a household is 4.3. (2) The sex ratio is 871 females per 1000 males in the village. Over 71.68% of the population is reported to be literate. Most of the community members have received school level education. On the other hand, relatively fewer households have college educated members. | | | |
| | Livelihood skills are usually acquired under various settings – formal & informal. In the JFMC area, informal means for skills development is the traditional norm. People have traditional skills in the following areas: (a) Livestock rearing (b) Farming (c) Tailoring (d) Handicraft | | | |
| | Government has been active in promoting formal skills development programmes in the country as well as in the state. However, no such programme has been carried out in the habitation or in nearby areas. | | | |
| Soil | The soil type of the project area includes: Sandy Loam in hilly area Latrice towards south in hilly area Both types of soil can support different kinds of crops, as the soil is reported to be fertile on the whole. | | | |
| Water | The area is drained by River Diyung. Diyung (which means Large Water in Dimasa language) River is the longest, having a length of 240 km. This river is originates from Borail. | | | |
| | The Barak Valley is also marked by the presence of wetland, locally called as 'beels', which are rich in fish and other aquatic resources. | | | |
| Climate: & Temperature Rainfall | The maximum temperature during the summer is 32° C. The minimum temperature during the winter is 7 ° C. | | | |
| | The annual rainfall is about 2200 to 2700 mm. About two-thirds of the rainfall usually occurs during the rainy season (June-September). The village has high levels of humidity (87 %) during the rainy months and low levels in the winter (Below 70%). | | | |
| Forest & Bio- diversity | The local forests have been broadly classified as Unclassified state forest (USF). The main tree species are Haldu, Gamari, Titachopa, Nahar, Bonsum, Bogipoma, Bola, Koroi, Bhelu, Makri, Sal etc. The forests can yield a range of NTFP like spices, leafy vegetables, ferns, medicinal plants, bamboo, cane, thatch, fodder, broom stick etc. | | | |
| | Additional details in this regard are given at the 'Forest Development Plan'. | | | |
| Land Use Pattern | Appendix-2 gives the land-use pattern of the village. From the same, it is seen that the land-use in the village is as follows: | | | |
| | Crop Land (Shifting cultivation) : 30 % | | | |

| Land Holdings | Tree Cover: 20 % Habitation: 15 % Water Bodies: 10 % (incl. water logged areas) Barren Land: 10 % Other: 15 %. The type of households as per land-holding is given at Table-3 of Record-I. From the same, it is seen that: None of the households are landless; 88.33 % of the households are marginal farmers (less than 2 Ha) (50 HHs); 16.67 % of the households are small farmers (2-10 Ha) (10 HHs). | | | |
|--|--|--|--|--|
| Livestock | The total number of livestock in the village is 400. The main types of livestock possessed by the households include: Cows: 100 Goats: 50 Pigs: 100 Poultry: 150 | | | |
| | Table-4 of Record-I may be referred to for the details in the above connection. | | | |
| Village Infrastructure & Communication Facilities | In any community; the availability of basic infrastructure enables the development of sustainable livelihood options. The present condition of infrastructure in the village is not satisfactory. This is borne out by Table-5 of Record-I, which gives the present status of the village infrastructure. | | | |
| | From the above table, the following have been noted with regard to village infrastructure: | | | |
| | Physical Infrastructure: The habitation is deprived of basic physical infrastructure like electricity, water supply, mobile network etc. | | | |
| | Education & Health Facilities: There are minimal educational and health facilities. Public transport is not available, and the community members have to use bicycles to move around. | | | |
| | Govt. Offices : The government offices (such as Police station, Gram Panchayat office, Revenue office, Forest Beat office etc.) are located at a far distance, which gets amplified as the villagers do not have access to regular public transport from either the habitation or from nearby areas. | | | |
| | Financial Inclusion : Facilities for financial inclusion like bank and post office are located at a far distance from the habitation. Hence, the community members do not have bank accounts or postal savings accounts. | | | |
| Agricultural Crops | The details of the agricultural crops grown in the village is available at Table6 of Record-I. The above shows that the following are the main crops grown in the village. Kharif Crops: Paddy, Sesame Seed Rabi Crops: Ginger, Broom stick, Corn Others: Horticulture. All the crops are rain fed. | | | |

| Crop Production Profile | Table-7 of Record-I may be referred to for the production and yield details of the crops grown in the village. | | |
|---|---|--|--|
| | The maximum numbers of households are involved in growing crops like rice and sesame seed. | | |
| | The production and yield of these crops is given as follows: | | |
| | (a) Paddy : Production 78.88 Quintals Yield 18 q /ha (b) Vegetables : Production 10 Quintals Yield 3 q/ha | | |
| Fodder Availability | The matter of fodder availability in the village is dealt with at Table-8 of Record-I. The above shows that the main sources of fodder in the village are as follows: | | |
| | (a) Crop residue (b) Grazing in forest (c) Household wastage (d) Green fodder | | |
| Markets | Table-9 of Record-I shows the location of the different markets from the village. The main markets used by the community are as follows: (a) Grocery / PDS: Inside the village area. (b) Weekly / Bi-weekly Market: : Diyungbra at 12 km away (c) Major Market: : Diyungbra at 12 km away | | |
| Water Resources | The water resources are tabulated at Table-10 of Record-I. The main water resources with the water availability is as follows: (a) Ring well (1 No) (Water Availability: Perennial / Seasonal) (b) Diyung River (1 Nos.) (Water Availability: Perennial / Seasonal) | | |
| Energy Consumption Socio-economic statu | Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below. (a) Fuel wood- Households Depending: 60 Nos. Source: Local forest sSocial set-up: The village is inhabited by tribal community. They do not have a caste system. The society is not marked by deep social divisions. The | | |
| | observed position of women is satisfactory. | | |
| | Economic Condition: The economic position is not satisfactory. The main livelihoods are Farming, Daily wages, Livestock rearing etc. Most households earn Rs. 11,000 to Rs. 16,000 per year. | | |
| Maps | There is no large-scale migration of the youth and others for livelihoods. Additional details are available at the next section. Appendix-1 gives the following maps, based on PRA exercise: Village Map Village Social Map (with the names and particulars of members in PRA) Village Resource Map | | |

3. Livelihood Opportunity Analysis

| PRA Exercise | Team from IIE Guwahati carried out PRA exercise in Thaijuwari village as follows: | | | | |
|-------------------------------|--|---|--|--|--|
| | Locat | 2 pm, 16 th June 20 ion: Village locality pers Present: 45 | | | |
| | | sence of: JFMC offic Department personn | e bearers, Village Headman el, etc. | , community members, | |
| Objective of PRA | prima | • • | the existing household cond munity for developing the l n. | | |
| Tools Used Outcomes of the | & _{Differ} | ent tools were used a | nd outcomes obtained. Thes | e include: | |
| PRA | Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram | | | | |
| | Appe | ndix-3 furnishes deta | iled information of the abov | ve. | |
| Ranking | Ranking exercise has been done for the following:□Livelihoods & SkillsDevelopment □Entry PointActivities (EPA) | | | | |
| | Apper | ndix-3 elaborates the | above. From the same, it is | stated that: | |
| | Ranking of Livelihoods & Skills Development | | | | |
| | 2. Liv | iculture estock aving/ Tailoring | | | |
| | Ranki | ng of EPA | | | |
| | Sl. No. | Village EPA as ranked | Details (Appendix-3 has additional particulars) | Probable source of funding/dep't. | |
| | 1. | LPG connection | LPG substitutes for wood fuel. Efficient and effective cooking method as well as environment friendly and low cost. | Pradhan mantri Ujjwala Yojona scheme | |
| | 2. | Solar Connection | Provision of solar connection in every HH will beneficial for the | NABARD | |

| | | 1 | | | |
|---------------|--------------|--|---|-------------------------|--|
| | | | whole society. Low cost | | |
| | | | and distribution is | | |
| | | | uniform. | | |
| | 3. | Health Centre | Sub-Centre within the village | NHM/ H & FW | |
| | 4. | Sanitation | Providing HHL (House | Swach Bharart | |
| | | | Hold Latrine)- Low cost | Mission/ PHE | |
| | | | ,septic and sanitary type. | | |
| | | | ng capital worth Rs.2 Lakhs ng livelihood activities. | should be arranged from | |
| | | mmunity work she laries. | nmunity work shed cum JFMC office to be setup within the JFMC | | |
| | • A lov | v cost livestock rear | ing shed have to be arranged | I from the EPA fund for | |
| | prom | oting a common cor | nmunity livelihood activity. | | |
| Livelihood | Liveli | hood Opportunities | were identified as follows: | | |
| opportunities | • | ulture & Horticultur | e | | |
| | Lives | | | | |
| | NTFP | | | | |
| | | Development Credi | it | | |
| | Facili | • | | 1 | |
| | Addit | ional discussion abo | out the above has been given b | below. | |
| Forest | In Th | aijuwari JFMC, rai | nking has been done in orde | er to understand how | |
| Development | people | e are aware regardi | ng opportunities lead to for | est development. The | |
| Opportunities | | e | the rank wise forest develop | | |
| | the pr | oject area. (Matrix r | anking is given in Annexure |) | |
| | 1. | 1. Plantation of firewood, 2. Demarcation of land, 3. Plantation on | | | |
| | | medicinal NTFP etc. 4. Plantation of tree raising of nursery, 5. | | | |
| | | Development of degraded forest, 6. Plantation of bamboo 7. Forest protection 8. Natural regeneration 9. Fodder cultivation | | | |
| | | protection 8. Nati | Iral regeneration 9. Fouder cu | nuvation | |
| Agriculture | & Table | -12 under Record-2 | may be seen in this connection | on for opportunities in | |
| Horticulture | | eas of agriculture an | - | | |
| | | nain constraints are: | | | |
| | (a) Ve | ery negligible use of | fertilizers and pesticides, ins | ecticides. | |
| | (b) La | ck of irrigation faci | lities | | |
| | (c) La | ick of agricultural | infrastructure, modern tools | and equipment's viz, | |
| | po | ower tillers, tractors | etc. | | |
| | (d) No | on usages of high yi | elding seeds etc. | | |
| | The o | The opportunities are: | | | |
| | / \ \ | | | | |
| | | (a) Application of proper and controlled pesticides and insecticides.(b) Introduction of new and advance technology | | | |
| | | | | and inhamited the the | |
| | | (c) Well-structured training programme. The villagers are inherited with the skill of cultivation. All they need is improvisation of their skill level | | | |
| | | skill of cultivation. All they need is improvisation of their skill level. The suggested programme is: | | | |
| | | | | | |
| | | ractor operation trai gri-skill developme | + | | |
| | | | les, pesticides, hybrid cultivat | ion etc | |
| | 1 | running on miseculeit | ico, posicidos, irgonia cultiva | | |
| | | | | | |

| Livestock | Table-13 furnishes additional information about opportunities for livestock rearing. |
|--------------------|---|
| | The main constraints are: Unable to buy fodder from market due to poor financial condition. (b) Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. (c) No veterinary care clinic (d) Lack of knowledge about the proper rearing of live stock |
| | (a) Lack of knowledge about the proper rearing of nive stock |
| | The opportunities are: |
| | (a) Higher income from livestock rearing.(b) A huge demanded market for milk is available as Karbi anglong and Nagaon district is too far from the JFMC. Moreover the JFMC area shares boundary with Meghalaya state. |
| | The suggested programme is: |
| | (a)Piggery (b)Poultry |
| NTFP | The opportunities for NTFP are tabulated at Table-14 under Record-2 |
| | The main constraints are: (a) Less availability of NWFP (b) No technical know-how (c) No processing units |
| | The opportunities is: (a) Availability of fertile fallow land |
| Specialized Skills | The suggested programme is: (a)Plantation of Food plants, (b)Medicinal Plant etc. For skills development, the opportunities are tabulated at Table-15 under Record-2 |
| | The main constraints are: (a) Lack of product diversification (b) Lack of research on product quality (c) Lack of TQM techniques. |
| | The opportunities are: |
| | (a) Providing good communication facility (b)Training of the skill holder(c) Financial assistance from govt. |
| | The suggested programme are: |
| | Training on Modern Tools and Equipment |

| | Providing modern technology to the villagers Skill Up gradation & Training on New Product Development and Product Diversification Setting up a raw material bank Providing a bulk buy arrangement of the finished product with institutional buyers. |
|----------------------------|---|
| Credit Facility | Table-16 under Record-2 discusses this aspect. |
| | The main constraints with the reasons are:(a) Financial exclusion(b) Higher rate charged by the private money lender. |
| | The opportunities are: (a)setting up modern financial institution (b)Adequate awareness. |
| | The suggested programme is: (a) Setting up modern financial institution in the nearby areas. |
| Strategic Interventions | Summarizing the suggested programmes at above as strategic interventions for the Livelihood Development Plan: 1 Agriculture & Horticulture: Agri-skill development programme, Training on insecticides, pesticides, hybrid cultivation. 2.Livestock: Piggery, Poultry 3.NWFP : Plantation of Food plants, Medicinal Plant etc 4. Specialized Skills: Training on Modern Tools and Equipment, Providing modern technology to the villagers, Skill Up gradation & Training on New Product Development and Product Diversification, Setting up a raw material bank, Providing a bulk buy arrangement of the finished product with institutional buyers. 5. Credit facility: Setting up modern financial institution in the nearby areas |
| | Framework of livelihood Opportunity Analysis has been done with the help of the following criteria: A) Livelihood assets B) Livelihood context C) Priority ranking on potential livelihood |
| | The livelihood situation of Thaijuwari JFMC has been analysed during the PRA exercise using sustainable livelihood framework of DFDI (Department of Funding for International Development). The existing livelihood situation of JFMC is outlined in terms of – |
| | Natural Capital Physical Capital Social Capital Human Capital Financial Capital |

NATURAL CAPITAL:

The major natural capital of Thaijuwari JFMC is Diyungbra Unclassified State Forest.

Majority of the people are dependent on the forest for firewood, green fodder, timber etc. For farming purpose and for livestock rearing, the villagers use the river water. (Refer table 10, 11, table 3 of FDP for further details)

PHYSICAL CAPITAL:

Majority of the households in the Thaijuwari JFMC are involved in farming activities and are marginal farmers with farming land of less than 2 ha. Detailed land holding pattern is described in the table 3/annexure 6.

All the houses of the village are kuccha. Among the various sources of energy consumption such as Biomass, kerosene, electricity, LPG and candle, villagers depend only on firewood for household and other uses. No households have LPG connection. (Refer to table 10,11)

There is only LP school present within the JFMC area. No other education institution is present. (Refer to table 5)

In case of water sources, cent percent of the households are depends on the Water reservoir (1 No.) and Diyung River.

SOCIAL CAPITAL:

The villagers are not fully involved in the JFMC functioning due to lack of awareness on their roles, functions, and specific benefits they are going to receive.

There is no formal SHGs are present in the village. Generally the social meeting are held inside the church locality.

HUMAN CAPITAL:

71.68% per cent of total population of the JFMC are educated and 28.32 per cent of them have crossed upper primary level school education.

FINANCIAL CAPITAL:

There is no government bank or lending institution available in the JFMC area or in the nearby areas. However, villagers lend from informal lending groups, relatives etc. Very less numbers of people have bank account in commercial banks, but they are not aware of the benefits of financial inclusion.

Livelihood Context:

Livelihood activities of the Thaijuwari JFMC are identifies on the basis of following criteria:

a) Contribution of particular livelihood activity in the total income of the JFMC

- b) Percentage involvement of income group in a particular livelihood activities
- c) Priority ranking of the potential livelihood activities

4. Livelihood Development Plan

| Income Generating Activities | The main income generating activities as planned at the village are: |
|---------------------------------|---|
| renvines | Farm Sector : |
| | 1. Poultry and |
| | piggery |
| | 2. Lac |
| | cultivation 3. |
| | Horticulture |
| | Non-Farm sector: |
| | 1.Handloom/ Weaving |
| | 2. Electrician |
| | 3. Driving |
| | 4. Sericulture |
| SHG Activities | |
| SIG Acuvilles | SHGs of the village can plan the following activities: |
| | 1. To create awareness. |
| | 2. To organise and form group |
| | 3. To involve the villagers in Livelihood Activities collectively. |
| Exposure Trips | The following exposure trips are planned: |
| F | |
| | NIL |
| Summary of Action Plan | As attached in next page. |
| Convergence | The planned initiatives may be converged with the following schemes of the |
| | Government of India: |
| | (a) National Rural Employment Guarantee Scheme - for rural employment |
| | (b) Rashtriya Krishi Vikas Yojana (RKVY) - for agricultural and allied development |
| | (c) Rashtriya Krishi Sinchay Yojana (RKSY) - for irrigation, including watershed development |
| | (d) National Rural Livelihoods Mission |
| | (e) Skills Development schemes |
| | (f) Other schemes for rural development and livelihoods as found appropriate. |
| | The above convergence will yield synergies for the present plan, as well as help in sustaining the planned works in the post-project period. |

Action plan for Thaijuwari JFMC, Diyungbra Range,

| West Haflong Division | | | | | | |
|-----------------------|--|---------------------|---|--------------------|--|--|
| Sl. No. | Activity | Numbers | Method | Amount (in Rs.) | | |
| A. Pa | rticipatory Micro Planning | | · · · | | | |
| 1 | Preparation of Micro Plan | 1 | PRA, Baseline Survey | 1,00,000.00 | | |
| | Total | | | 1,00,000.00 | | |
| B. Or | ganize Producers and Build Entrepreneurial a | nd Technical C | apacities (Capacity Building) | | | |
| 1 | Awareness Build-up Programme | 1 | Awareness Programme | 20,000.00 | | |
| B1 | Training on Skill development | | | | | |
| 1 | Skill Development Training Programme on Livestock (15 Nos.) and Electrical (15 Nos.). | 1 | Conducting Skill Development Training programme | 2,00,000.00 | | |
| 2 | Skill Development Training Programme on Tailoring (10 Nos.), Handloom (10 Nos.) and Lac Cultivation (10 Nos.) | 1 | ConductingSkillDevelopmentTrainingprogramme (40 days) | 2,00,000.00 | | |
| 3 | Training on Entrepreneurship Orientation | 1 | 3 days Entrepreneurship Orientation programme | 50,000.00 | | |
| | Total | | | 4,70,000.00 | | |
| C. So | cial Mobilization | | | | | |
| 1 | Awareness generation camp on Formation of collective units (e.g. SHGs, Societies, NGOs, Bodies, Producers Companies) | | 4 days awareness camp on formation of collective units through cooperative experts | 50,000.00 | | |
| 2 | Hand Holding guidance support and linkage promotion programme for self-employment and placement | | Hand holding support from IIE experts throughout the year upto march 2017 | 50,000.00 | | |
| | Total | | | 1,00,000.00 | | |
| D. Va | lue Chain Improvement | | | | | |
| D1 | Product improvement Through Value Chain In | provement | | | | |
| 1 | Design and Densification programme on Readymade garments | 1 | 20 days Training on processing activities | 90,000 | | |
| D2 | Supply of modern tools for Tailoring | | | | | |
| | Supply of modern tools for Tailoring & Readymade garment making | | | 1,50,000.00 | | |
| | Supply of modern tools for electrical | | | 80,000.00 | | |
| D4 | Training programme on medicinal plantation and process of NTFP etc | | | 80,000.00 | | |
| | Total | | | 4,00,000.00 | | |
| E. Su | pport for Access to Market | | | | | |
| E1 | Linkage with institutional buyers and/or govt. Organizations. (throughout the year) | 2 | Creating platform for buyers' and sellers' interactions (2 day) | 80,000.00 | | |
| E2 | Setting Up Ban Bazar | Throughout the year | linkage through van bazar | 1,00,000.00 | | |
| E3 | Exhibition Participation | 1 | Participation in one exhibition through forest department | 1,20,000.00 | | |
| E4 | Access To Other Geographical Markets | 1 | Exposure visit | 1,20,000.00 | | |
| E5 | Publicity through E-portal, brochure, catalogue etc | 1 | 2 day training and awareness programme taken by marketing expert | 60,000.00 | | |
| | Total | | | 4,80,000.00 | | |
| | Grand Total | | | 15,50,000.00 | | |

West Haflong Division

5. Forest Development Plan

This Forest Development Plan has been prepared after a detailed PRA exercise at the village level as a part of the Micro-Plan of Thaijuwari JFMC. The objective of this plan is to provide for the sustenance of the conservation and bio-diversity values, environmental functions and productive potential of the forests assigned to the JFMC; while meeting the consumption and livelihood needs of the community in a sustainable manner.

5.1 Status of the JFMC Forests

The micro-plan takes into consideration the following categories of the JFM Forests of the Thaijuwari JFMC:

- (a) Forest areas assigned to the JFMC by the Forest Department; and
- (b) Areas planted / to be planted on community lands and other lands outside the notified forest area.

The status of both the above categories of JFMC forests is briefly discussed below.

5.2 Forests & Their Conditions

The details of the status of forest areas assigned to the JFMC have been furnished at Table-3.1 under Proforma-3 ('Forest Development Plan'), which has been attached as Annexure to this micro-plan. After considering other areas planted (or to be planted), the conditions of the forests of the Thaijuwari JFMC have been summarized below.

| Identification (A) Assigned Forest | Area of JFMC Forest (Ha) | Distance from Village (Km) | Condition of Forest [Good - Forest with crown density of 40% of more Else 'Degraded'] | Frequency of Use by Community [2-3 m / 3-6 m / 6-9 m / Over 9 m] |
|---|-----------------------------------|-------------------------------------|---|---|
| RF / PF Name: Diyungbra Range, Dima Hasao West Division Beat: Compartment: | 100 Ha | 0Km | Good Area: - 75 Ha Degraded Area: 25 Ha | 2-3m |
| (B) Other Planted Area | | | | |
| Location: Type of Forest: Deciduous Moist VF / Other | NIL | NIL | Good Area: - Nil Degraded Area: Nil | NIL |
| TOTAL | 100 Ha | NIL | Good Area: - 75 Ha Degraded Area: 25 Ha | NIL |

Source: Proforma-3, Table 3.1 / Discussions with Forest Department personnel & Community members

It is seen that the Thaijuwari JFMC has 100 Ha under its forests, of which 75 Ha is 'Good' and 25 Ha is 'Degraded'.

5.3 Forest Soil Type

The forests of Thaijuwari JFMC are located in loamy type(s) of soil. Some salient points of the forest soil type have been given in the following table.

| Parameter | Status in Assigned Forests | Status in Other Planted Areas |
|-------------------------|---|----------------------------------|
| Fertility Level | 2.5 to 2.98% organic. The available N, P205 and K20 content of the Soil is comparatively less. | - |
| Soil Erosion Status | - | - |
| Presence of: | | |
| (a) Silt | 25% | - |
| (b) Mud-flat | 30% | - |
| (c) Newly accreted land | Low | - |
| (d) Sand dune | 45% | - |

Table-5.2: Forest Soil Type in JFMC

Source: Proforma-3, 'B. Forest Soil Type' / Discussions with Forest Department personnel & Community members.

For the Thaijuwari JFMC; the salient points of the forest soil type are summarized below:

- 1. Entisol (30.3%)
- 2. Inceptisol (51.3%)
- 3. Alfisols (11.3%)
- 4. Ultisols (7.1%)

5.4 Existing Composition of Flora

In the forests of the Thaijuwari JFMC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as deciduous moist Forests.

Table-5.3: Existing Composition of Flora in the Thaijuwari JFMC

| Parameter | Local Name(s) | Biological Name(s) |
|----------------------|---------------|----------------------|
| Major Forest Species | Teak | Tectona grandis Linn |
| Associates | Gamari | Gmelina Arborea |
| Shrubs | Dhekia | Ferns |
| | Bhot jalakia | Capsicum chinense |
| | | |
| Medicinal Plants | Arjun, | Terminalia arjuna |
| | Hilikha | Terminalia Chebula |
| | Neem | Azadirachta indica |
| | Amlakhi | Phyllanthus emblica |
| Produces | | |
| | Jori bet | Calamus erectus |

| | Jati bet | Calamus tenuis |
|----------------|-----------------|----------------------------------|
| | Raidang bet | Calamus rotang |
| | Chuli bet | Calamus flagellum |
| | Lejai bet | Calamus floribundus |
| Others, if any | Kako Bah | D. hamiltonii |
| | Pahari Jati Bah | Oxytenthera parvifolia |
| | Dulu Bah | Schizostachyum dulloa |
| | Amlakhi | Emblica officinalis |
| | Halakh | Terminalia myriocarpa |
| | Hollong | Dipterocarpus |
| | Arjun | macrocarpus Terminalia arjuna |
| | Agar | Aquillaria agallocha |

Source: Proforma-3, 'C. Composition of Existing Fauna & Flora' / Discussions with Forest Department personnel & Community members.

5.5 Other Inputs for the Forest Development Plan

The following sub-sections discuss the other inputs for the Forest Development Plan of the Thaijuwari JFMC.

5.6 Past Protection Measures of the JFMC

The measures taken by the Thaijuwari JFMC for forest protection in the past have been discussed as follows.

- (a) Number of households involved: 60
- (b) Number of people involved: 60 (1 Person Per House hold)
- (c) Summary of the measures: Not available
- (d) Any formal mechanism: Not available

[**Source:** Proforma-3, 'JFMC Status - viii + ix' / Discussions with Forest Department personnel & JFMC members]

5.7 Domestic Requirements of Forest Produce

The dependency of the local community on forest produce for household requirements is available in the table given at below.

| Table-5.4 (A): Domestic Requirement of Forest Produce per Household of the |
|--|
| Thaijuwari JFMC |

| Name of Forest Produce | Average Household Requirement | | How met at Present | Source | | |
|---------------------------|----------------------------------|----------------|-----------------------|--------|--|--|
| | Frequency of Requirement | Approx. Qty | | | | |
| Firewood | Frequent | 75-80 kg | - | Forest | | |

| Timber for House | Once in a year | 3 nos. | - | Forest |
|--------------------------------|-----------------|---------------------------|---|--------|
| Small timber for Implements | - | - | - | - |
| Pole / Bamboo | Once in a month | 2-5 bamboo / per month | - | Forest |
| Fodder from Forest | Frequent | 5-9 kg per day | - | Forest |
| NTFP | Frequent | 2-7 kg per day | - | Forest |
| Other | - | - | - | - |

Source: Proforma-3, Table-3.2 / Discussions with Forest Department personnel & Community members

There are 310 households in the Thaijuwari JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Thaijuwari village for forest products for own use is as follows:

| Table-5.4 (B): Total Domestic Requirement of Forest Produce - All Households of the |
|---|
| Thaijuwari JFMC |

| Name of Forest Produce | Community Requirement (Kg per annum) (*) | Remarks | | |
|--------------------------------|---|---------------------|--|--|
| Firewood | 150800 | Throughout the year | | |
| Timber for House | 290 nos. | Dec - Jan | | |
| Small Timber for Implements | - | - | | |
| Pole / Bamboo | 750 bamboo | Dec - Jan | | |
| Fodder from Forest | 160800 | Throughout the year | | |
| NTFP | 264000 | Throughout the year | | |
| Other | | | | |

Source: Table - 4(A) at above & Total Household Number from Community records

(*) = Approx. Qty. of Average Household Requirement (from Table-4 (A) x 65 Households

5.8 Collection & Marketing of Forest Produce by Villagers

Apart from use in the households, the community dependency on forest produces also includes the collection of such items for sale in local markets. The collection and marketing of forest produce by villagers of Thaijuwari JFMC is given in the following table.

| JF MC | | | | |
|--------------------------------|--------------------------|-----------------------------------|-----------------------------------|-------------|
| Name of Forest | Collection for Marketing | | | Location of |
| Produce | Season / Months | No of Households Collecting | Average Qty. Collected (Kg) | Collection |
| Firewood | Throughout the year | 60 | 654 | Forest |
| Timber for House | Dec - Jan | 60 | 2 nos. | Forest |
| Small timber for Implements | - | - | - | - |
| Bamboo | Dec - Jan | 60 | 10 nos. | Forest |
| Pole | - | | | |
| Fodder from Forest | Throughout the year | 60 | 7 kg per day | Forest |
| NTFP | Throughout the year | 60 | 9-12 kg per day | Forest |
| Other | - | - | - | - |

Table-5.5 (A): Collection & Marketing of Forest Produce by Villagers of the Thaijuwari JFMC

Source: Proforma-3, Table-3.3 / Discussions with Forest Department personnel & Community members

In the above connection, the following table gives additional pertinent information.

Table-5.5 (B): Collection & Marketing of Forest Produce - Additional Information [Thaijuwari JFMC]

| Name of Forest Produce | Surplus Marketed (Kg) | How marketed | Average Income per HH from sale of Forest Produce | |
|--------------------------------|-----------------------------|---------------|--|--|
| Firewood | 126000 kg/year | Diyung market | 1750-2170/month | |
| Timber for House | - | - | - | |
| Small timber for Implements | - | - | - | |
| Bamboo | 32-50 pc/ month | Diyung market | 703-1273/month | |
| Pole | - | - | - | |
| Fodder from Forest | 1800 kg /year | Diyung market | 1200-1500/month | |
| NTFP | - | - | - | |
| Other | - | - | - | |

Source: Proforma-3, Table-3.4 / Discussions with Forest Department personnel & Community members

5.9 Total Requirements of Forest Produce - Domestic Use & Marketing

The total requirements of forest produce by the community members of the Thaijuwari JFMC have been summarized below - based on the information in the previous sub-sections.

Refer to: Tables 4 (B) & 5 (B) of this Section, given at the previous pages

5.10 Forest Protection Issues

5.10 (A) Protection Problems

The protection issues of the forests of Thaijuwari JFMC have been summarized below.

| Table-5.6: Protection Problems of the Thaijuwari JFMC | | | | | |
|--|---------------------|------------------------|--|--|--|
| Type of Problem | Relevant (Yes / No) | Significant (Yes / No) | | | |
| Grazing - Local Animals | Yes | Yes | | | |
| Grazing - Animals from Other Area | Yes | Yes | | | |
| Illicit Felling of Timber | No | No | | | |
| Smuggling of Timber | Yes | Yes | | | |
| Accidental Fires | Yes | Yes | | | |
| Encroachment of Forest Lands | Yes | Yes | | | |
| Incident of Snake bites/life threats/risks while protecting forest | Yes | Yes | | | |
| Theft of Medicinal Plants | Yes | Yes | | | |

Table-5.6: Protection Problems of the Thaijuwari JFMC

Source: Proforma-3, Table-3.5 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant forest protection issues facing the above JFMC are:

- (a) Grazing Local Animals
- (b) Grazing Animals from Other Area

5.11 Reasons for Degradation of the Forest

In the Thaijuwari JFMC, the reasons for degradation of forest are as follows:

- (a) No Scientific Plan
- (b) Traditional Cultivation of Tribal People
- (c) Extremist problem in hill sides

[Source: Proforma-3, Table-3.6 / Discussions with Forest Department personnel & Community members]

5.12 Components of the Forest Development Plan

The following sub-sections discuss the main components of the Forest Development Plan of Thaijuwari JFMC; viz. the plans for Protection, Forest Improvement (Treatment), Nursery Development, Maintenance and Miscellaneous Operations.

5.13 Protection Plan

The Protection Plan given at below, discusses the measures for the protection of the forests of Thaijuwari JFMC from the issues discussed earlier at Sub-section 3.1

| Table-5.7. I Totection I fan of the Thaijuwari JFWIC | | | | |
|--|-------------|----------------|---------|-------------------|
| Protection Work | Location in | Quantification | Timing | Priority / |
| [to be filled from Table | Forest Area | of the | | [High / |
| 3.7 of Proforma-3 as | | Measures | | Medium |
| applicable] | | [Length, Area, | | Low] |
| | | Size etc.] | | |
| 1. Engagement of | R.F. | 3 km | 6pm-6am | High |
| Watcher | | | | |
| 2. Informers award | R.F. | 3km | Anytime | High |
| | | | | |
| 3. Fire Protection | R.F. | 3km | Anytime | High |
| | | | | |

 Table-5.7: Protection Plan of the Thaijuwari JFMC

Source: Proforma-3, Table-3.7 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant protection measures planned to be undertaken in the Thaijuwari JFMC (with high / medium priority) are as follows:

(a) Fencing

(b) Fire protection

5.14 Types of Operations Proposed

The types of operations proposed for the treatment of degraded areas of the JFMC Forest of Thaijuwari JFMC are given here under.

 Table-5.8: Types of Operations Proposed in the Thaijuwari JFMC

 Treatment
 Beginsed

| Treatment | Required (Yes/ No) | Responsibility of JFMC (Yes / No) | Month / Year when can be done | Extent of Area proposed for Treatment (Ha) |
|--|-----------------------|---|-------------------------------------|--|
| Restoration of Degraded Forests | Yes | Yes | June - July | 100 Ha |
| Protection to Cut Stumps of Trees | Yes | Yes | All the Year | 200 На |
| Watershed Treatment | Yes | Yes | All the Year | 3 Ha |
| Water Reservoirs | Yes | Yes | All the Year | 4 Ha |
| Grass and Silvi Pastoral activities | Yes | Yes | All the Year | - |
| Bamboo culture and earth piling | Yes | Yes | All the Year | R.F |
| Seed Sowing | Yes | Yes | All the Year | - |

| Root & Shoot Cutting & Plantation | Yes | Yes | All the Year | - |
|---|-----------------------|---|-------------------------------------|--|
| Treatment | Required (Yes/ No) | Responsibility of JFMC (Yes / No) | Month / Year when can be done | Extent of Area proposed for Treatment (Ha) |
| Cut Back & Coppice Treatment | Yes | Yes | All the Year | - |
| Stone wall fencing/live Hedge fencing | Yes | Yes | All the Year | 100 Ha |
| Social Fencing | Yes | Yes | All the Year | 100 Ha |
| Other Activities(Protection of Elephants) | Yes | Yes | All the Year | R.F |

Source: Proforma-3, Table-3.9 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the following are the treatment operations which have been proposed in the forest area of the Thaijuwari JFMC:

- (a) Seed Sowing
- (b) Root & Shoot Cutting & Plantation etc.

5.15 Forest Improvement Plan - Advance Works & Creation

The pertinent details in the above connection have been tabulated as follows.

| Treatment | Area in Ha under Plantation Module | Priority for Block Plantation | Species | Spacing (metre x metre) |
|--|---|-------------------------------------|------------------|-------------------------------|
| Assisted Natural Regeneration (with plantation in gap) | 25 Ha ANR by APFBC | - | Non Sal NTFP | 2/2 |
| Block Planting | - | - | - | - |
| Sowing of Neem, Amla, Mahua, Bahera (Medicinal Plants) | 8 | - | Medicinal Plants | - |
| Enrichment Plantation/ Sowing | - | - | - | - |
| Direct Plantation | - | - | - | - |
| Other | - | - | - | - |
| Total Area (in Ha.) | 33 Ha | - | - | - |

Table-5.9: Forest Improvement Planned in the Thaijuwari JFMC

Source: Proforma-3, Table-3.8 / Discussions with Forest Department personnel & Community members

5.16 Forest Improvement - Annual Targets

1. Table-5.10 (A) and (B): Annual Targets of Forest Improvement in Thaijuwari JFMC (Year-1 to Year-5) and (Year-6 to Year-10)

| The annual targets in the al | pove connection are given below for a ten year period. |
|------------------------------|---|
| Name of Plantation | : Block Plantation of Saal Mixed with Associates |
| Plantation Period | : 2016-17 to 2025-26 (10 Years) |
| Plantation Area | : 100 ha |
| Spacing | : 3m X 3 m-1100 plants per ha |
| No. of Plants to be Raised | : 110000 (11000 approx. annually) |
| Number Blocks | : 10 Numbers(10 ha each) |
| Species | : Saal ; Associates-Gamari, Sissoo, Titasopa, etc. |
| Rates | : As Approved by APFBCS(to be increased by 20% every two years) |
| | |

| Financial Year | Activities | Amount |
|-------------------|---|---------------|
| 2016-17 | Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 100 ha, Demarcation of land during the month of DecemberJanuary, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha | 10000 |
| 2017-18* | Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June; GPS marking of the area | 49700 |
| 2018-19* | Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June; GPS marking of the area | 49700 |
| 2018-19* | 1st Weeding; Replacement of dead/struggling saplings raised in the previous year | 6160 |
| 2019-20* | Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June; GPS marking of the area2nd Weeding; Replacement of dead/struggling saplings | 59640 7392 |
| 2020-21* | raised in the previous yearBlock Plantation 3m x 3m, 1111 plants/ha-during the season of April-June; GPS marking of the area | 59640 |
| | 3rd Weeding | 14784 |
| 2021-22* | 4th Weeding; Replacement of dead/struggling saplings raised in the previous year | 26611 |
| 2022-13* | 5th Weeding; Replacement of dead/struggling saplings raised in the previous year | 35481 |
| 2023-24* | 6th Weeding; Replacement of dead/struggling saplings raised in the previous year | 26611 |
| 2024-25* | 7th Weeding | 26611 |
| 2025-26* | 8th Weeding | 26611 |

* Silvicutural thinning to be undertaken on intervals of five years post plantation

Source: Proforma-3, Table-3.10 / Discussions with Forest Department personnel & Community members

| Name of Plantation | : Block Plantation of Teak Mixed with Associates, Firewood and Bamboo |
|----------------------------|---|
| Plantation Period | : 2016-17 to 2025-26 (10 Years) |
| Plantation Area | : 100 ha |
| Spacing | : 2m X 2 m-2500 plants per ha |
| No. of Plants to be Raised | : 110000 (11000 approx. annually) |
| Number Blocks | : 10 Numbers(10 ha each) |
| Species | : Teak; Associates-Ajar, Khoroi, Khayer, Sissoo, Jia, Arjun, Ghora Neem, Bamboo(Jaati, Kako, Bholoka, Bijili), etc |

| | Action Plan for Creation of Plantation | | |
|----------------|---|---------|--|
| Financial Year | Activities | | |
| 2016-17 | Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 100 ha, Demarcation of land during the month of DecemberJanuary, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha | 100000 | |
| 2017-18* | Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area | 262500 | |
| 2019 10* | Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area | | |
| 2018-19* | 1st Weeding; Replacement of dead/struggling saplings raised in the previous year | 26950 | |
| 2010 20* | Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area | | |
| 2019-20* | 2nd Weeding; Replacement of dead/struggling saplings raised in the previous year | 32340 | |
| 2020-21* | Block Plantation 2m x 2m, 2500 plants/ha-during the | | |
| | 3rd Weeding | 64680 | |
| 2021-22* | 4th Weeding; Replacement of dead/struggling saplings raised in the previous year | 266112 | |
| 2022-13* | 5th Weeding; Replacement of dead/struggling saplings raised in the previous year | 155232 | |
| 2023-24* | 6th Weeding; Replacement of dead/struggling saplings raised in the previous year | 116424 | |
| 2024-25* | 7th Weeding | 116424 | |
| 2025-26* | 8th Weeding | 116424 | |
| | Total Budgetray Requirement | 2149586 | |

* Silvicutural thinning to be undertaken on intervals of five years post plantation

5.17 Nursery Development Plan

The Nursery Development Plan for the Thaijuwari JFMC depends on the following types of Nurseries:(a) JFMC Nurseries (incl. Departmental Nursery) (b)Other Nurseries - SHG & Private.

The details are given below.

JFMC Nurseries

The following table gives the details of the nurseries of the Thaijuwari JFMC. This includes the Departmental Nursery involved in JFMC works.

| Location of Nursery | Species | Year of Development | Number of Seedlings | Remarks |
|------------------------|-----------|------------------------|------------------------|----------|
| Thaijuwari JFMC | Varieties | 2016 | 8,28,000 | Proposed |

Source: Proforma-3, Table-3.11 / Discussions with Forest Department personnel & Community members

Other Nurseries

The following table gives the details of other nurseries near the Thaijuwari JFMC.

| Table-3. | II (D). Other Nu | series near the | 1 naiju wai i Ji | |
|-----------------|------------------|-----------------|------------------|----------|
| Name of Nursery | Species | Year of | Number of | Remarks |
| | | Development | Seedlings | |
| Thaijuwari JFMC | Varieties | 2016 | 8,28,000 | Proposed |

Table-5.11 (B): Other Nurseries near the Thaijuwari JFMC

Source: Proforma-3, Table-3.12 / Discussions with Forest Department personnel & Community members

5.18 Maintenance Plan - 10 Years

The maintenance plan for plantations raised in the Thaijuwari JFMC is given below. This covers a period of ten years.

(A) Timber Species Sal, Gameri, Tik

| Year(s) | Treatment |
|----------------------|---|
| 1 st Year | Periodic weeding and removal of creepers Ring formation |
| 2 nd Year | Removing of all dominating weeds affecting supply of sunlight Gap filling Training the plants for straight pole formation |
| 3 rd Year | Removal of side branches |
| 4 th Year | Pruning the nearby trees |
| 5 th Year | Pruning the nearby trees |
| 6 th Year | Gap plantation |

| 7 th Year | Gap plantation |
|-----------------------|------------------------------------|
| 8 th Year | Gap plantation |
| 9 th Year | Gap plantation |
| 10 th Year | Removal of alternative row of teak |

Source: Discussions with Forest Department personnel & Community members (B) Bamboo

| Year(s) | Treatment |
|-----------------------|---|
| 1 st Year | Weeding and removal of dominating other weeds |
| | Ring formation around the buses |
| 2 nd Year | Weeding and removal of dominating other weeds |
| | Ring formation around the buses |
| 3 rd Year | Removal of culms |
| 4 th Year | Removal of culms |
| 5 th Year | Removal of culms and trimming of criss-cross culms |
| 6 th Year | Removal of culms and trimming of criss-cross culms |
| | Light pruning to improve adequate sunlight and aeration |
| 7 th Year | Removal of culms and trimming of criss-cross culms |
| | Light pruning to improve adequate sunlight and aeration |
| 8 th Year | Removal of culms and trimming of criss-cross culms |
| | Light pruning to improve adequate sunlight and aeration |
| 9 th Year | Removal of culms and trimming of criss-cross culms |
| | Light pruning to improve adequate sunlight and aeration |
| 10 th Year | Removal of culms and trimming of criss-cross culms |
| | Light pruning to improve adequate sunlight and aeration |

Source: Discussions with Forest Department personnel & Community members

(C) Fuel wood Plantation

| Year(s) | Treatment |
|----------------------|--|
| 1 st Year | Weeding around the fuel wood seedlings Ring formation around the seedlings |
| 2 nd Year | Weeding around the fuel wood seedlings Ring formation around the seedlings |
| 3 rd Year | Cutting of side branches, Removal of criss-crossing |
| 4 th Year | Cutting of side branches, Removal of criss-crossing |
| 5 th Year | Rows of plantation |
| 6 th Year | Remove Stumps |

Table-5.12 (C): Maintenance Plan of Fuel Wood Plantation in the Thaijuwari JFMC

| 7 th Year | Prune trees (This would create a 15 years pruning cycle) |
|-----------------------|--|
| 8 th Year | Cutting of side branches and weeing |
| 9 th Year | Cutting of side branches and weeing |
| 10 th Year | Cutting of side branches and weeing |

Source: Discussions with Forest Department personnel & Community members (D) NTFP / Medicinal Plantation

| Table-5.12 (D): Maintenance Plan of NTFP / Medicinal Plantation in the Thaijuwari |
|---|
| JFMC |

| Year(s) | Treatment |
|-----------------------|--|
| 1 st Year | Weeding around the seedlings |
| | Ring formation |
| | Nipping of terminal |
| | Disbudding to delay the fruit set to next season |
| 2 nd Year | Weeding around the seedlings |
| | Ring formation |
| | Nipping of terminal |
| | Disbudding to delay the fruit set to next season |
| 3 rd Year | Collection of fruits, Seeds and minimal pruning to remove dead |
| 4 th Year | Collection of fruits |
| | Minimal pruning for removal of criss-crossing, overcrowding branches |
| 5 th Year | Collection of fruits |
| 5 I car | Minimal pruning for removal of criss-crossing, overcrowding |
| | branches |
| 6 th Year | Collection of fruits |
| | Minimal pruning for removal of criss-crossing, overcrowding branches |
| 7 th Year | Collection of fruits |
| | Minimal pruning for removal of criss-crossing, overcrowding branches |
| 8 th Year | Collection of fruits |
| | Minimal pruning for removal of criss-crossing, overcrowding |
| | branches |
| 9 th Year | Collection of fruits |
| | Minimal pruning for removal of criss-crossing, overcrowding branches |
| 10 th Year | Collection of fruits |
| | Minimal pruning for removal of criss-crossing, overcrowding branches |

Source: Discussions with Forest Department personnel & Community members

5.19 Miscellaneous Operations Plan

The miscellaneous operations planned in the Thaijuwari JFMC are given below. **Table-5.13: Miscellaneous Operations in the Thaijuwari JFMC**

| Operation | Required (Yes / No) | Responsibility | Month / Year | Area (Ha) | |
|--|------------------------|----------------|-----------------|-----------|--|
| (i)Medical/Health care Camp | Yes | VSS | Feb-Mar | JFMC | |
| (ii)Centre For Non- Formal education | Yes | VSS | Feb-Mar | JFMC | |
| (iii)Promotion of Fuel Saving Devices | Yes | VSS | Feb-Mar | JFMC | |
| (iv)Cattle improvement/health improvements | Yes | VSS | Feb-Mar | JFMC | |

Source: Proforma-3, Table-3.13 / Discussions with Forest Department personnel & Community members

Marketing Operations

For produce from the Thaijuwari JFMC, the planned marketing operations are:

- (a) Linkage will be established with traders inside and outside the district
- (b) Selling to the Ban Bazar
- (c) Participation in Exhibition

Expected Benefits

This sub-section furnishes the benefits expected from the forests protected by members of the Thaijuwari JFMC, as well as the sharing mechanism for the usufruct benefits.

5.20 Expected Benefits Related to Wood & Grass

The above has been tabulated below for the Thaijuwari JFMC. The benefits are expected from the forests protected by its members under this Forest Development Plan.

| Item | Month | Year (Indicative) | Quantity | | |
|-----------------------------|-----------|-------------------|----------------|--|--|
| Firewood | 12 month | | 60-75 Kg/month | | |
| Timber for House | - | - | - | | |
| Small timber for Implements | - | - | - | | |
| Bamboo | 12 month | 32-50 pc/ month | 801 -1240 | | |
| Bamboo | | | Kg/month | | |
| Pole | - | - | - | | |
| Fodder from Forest Trees & | 12 month | - | 1508-2040 | | |
| Grass | | | Kg/month | | |
| NTFP | 3-4 month | - | 20-30 Kg/Year | | |
| Wagas | 12 month | 200 -300 | Forest | | |
| Wages | | Rupees/Day | | | |
| Other | - | - | | | |

Table-5.14: Expected Benefits from Forests Protected by Members of Thaijuwari JFMC

Source: Proforma-3, Table-3.14 / Discussions with Forest Department personnel & Community members

5.21 Sharing Mechanisms

The sharing mechanism for the benefits is indicated below for members of the Thaijuwari JFMC.

| Method | Items |
|-------------------------------|---------------------------------------|
| To be shared equally | Collected Individually |
| To be freely collected by the | Medicinal Plants, Fodder, Broom Stick |
| members | |
| Other Methods | Na |

Table-5.15: Sharing Mechanism for Thaijuwari JFMC

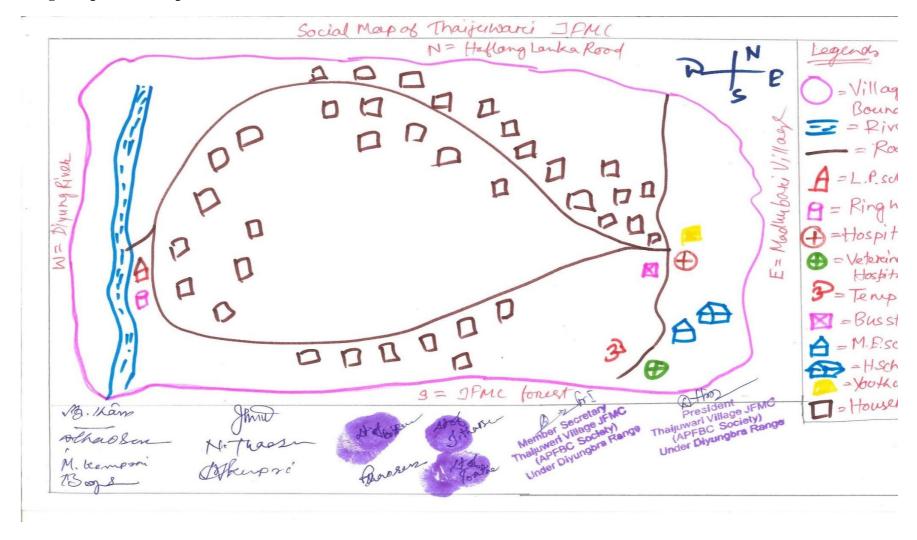
Source: Proforma-3, Table-3.15 / Discussions with Forest Department personnel & Community members.

List of Appendices

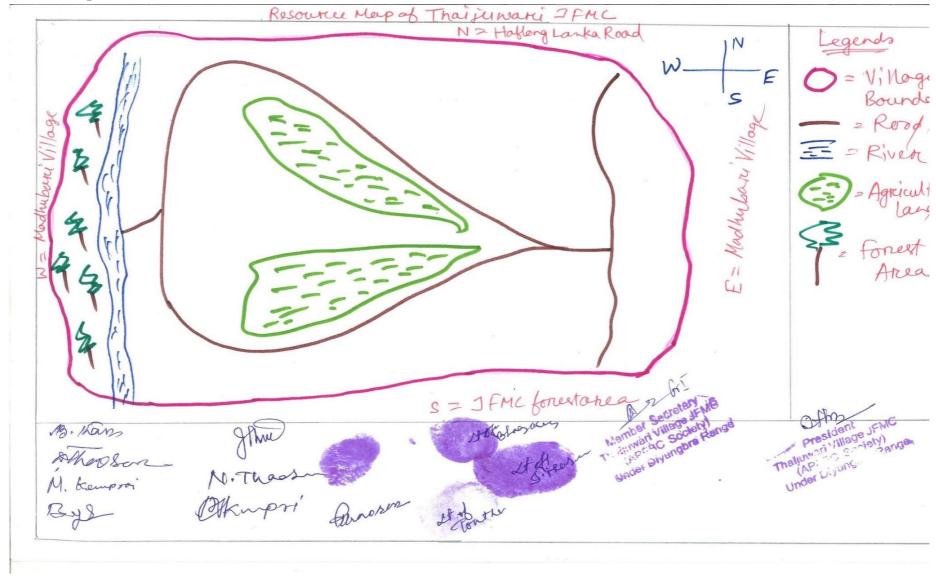
| Appendix No | Heading | | | |
|----------------|---|--|--|--|
| 1 | Maps | | | |
| | Village/Social Map | | | |
| | Village Resources Map | | | |
| 2 | Land Use Map of Village (GIS) | | | |
| 3 | PRA Exercise | | | |
| | Social Mapping | | | |
| | Wealth Ranking | | | |
| | Time Line review | | | |
| | Seasonality of Livelihoods | | | |
| | Venn Diagram | | | |
| | Priority ranking and EPA | | | |
| 4 | List of JFMC Members | | | |
| 5 | Photographs | | | |
| 6 | Filled Up Tables (Proforma-1 to Proforma-4) | | | |
| | Table Nos. 1-37 | | | |

Appendix 1 1.

Village Map/ Social Map:

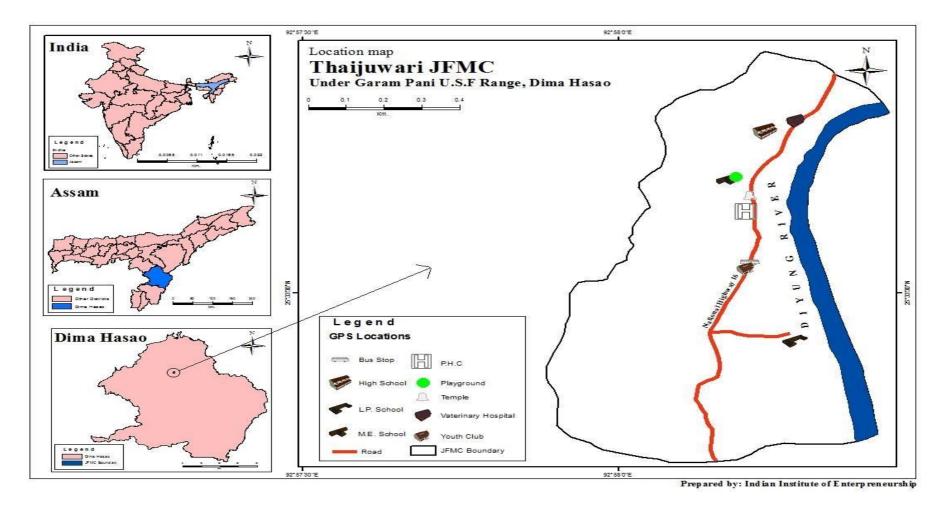


2. Resource Map:

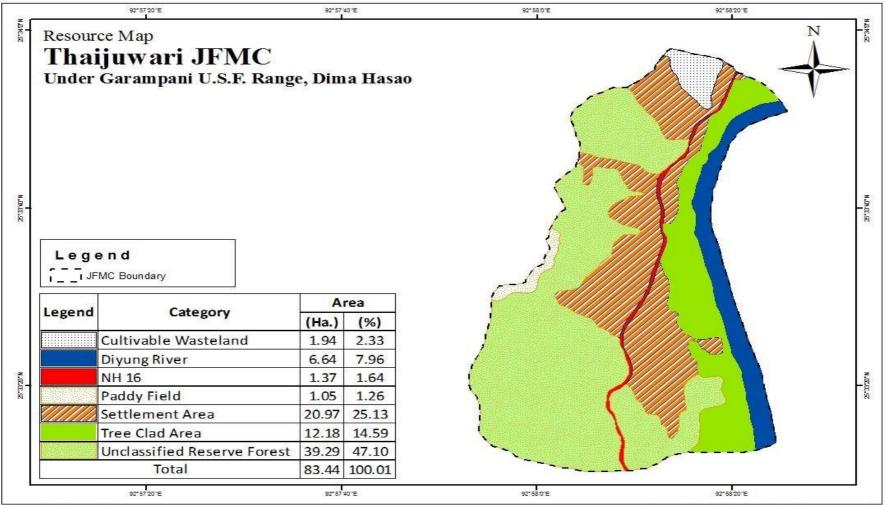


Appendix 2

Location map of GIS



Land Use map of GIS



Source: Google earth Imagery

Prep ared by: Indian Institute of Enterpreneurship

Appendix 3

PRA ACTIVITY

Location and Timing of Participatory Rural Appraisal:

| Numbers of participants : | 45 | | |
|---------------------------|----------------------------------|--|--|
| Time : | 2 pm, 16 th June 2016 | | |
| Venue : | Village locality | | |

Table – 3.1 Brief about the villages under Thaijuwari JFMC

| Sl. No. | Name of village | Households (No.) | Population (No.) | | | Sex | Avg. |
|------------|--------------------|---------------------|------------------|------|--------|-------|------------|
| | | | Total | Male | Female | ratio | HH size |
| 1 | Thaijuwari | 60 | 260 | 139 | 121 | 871 | 4.3 |
| | Total | 60 | 260 | 139 | 121 | 871 | 4.3 |

Source: Field Survey

Different PRA tools have been used under the exercise of PRA technique.

- a) Social Mapping
- b) Wealth Ranking
- c) Time Line Review
- d) Seasonality Analysis

4.2 Social Mapping:

Social mapping is used to visualise the socio-economic aspects of the Thaijuwari village where the housing patterns of the households, the numbers of schools, social infrastructure, and religious beliefs among households. Awareness camp about the project was carried out beforehand. So it was easy to gather people for the PRA process in the community hall. And due to time constraint we have to skip the transect walk. The villagers are enthusiasms about the mapping process and they actively participated in the process.

At first, the people of villagers were asked to draw the main roads of the village and then asked them to locate their houses and locate the important social places and government offices with help of the PRA team members. Two of them voluntarily came out to draw and they were assisted by other villagers and the team members.

Figure 1: Social Mapping



| Social information | Village | Thaijuwari |
|--------------------|--------------------------|------------|
| | Total Population | 260 |
| | Male | 139 |
| | Female | 121 |
| | Total households | 60 |
| | Numbers of kuccha Houses | 56 |
| | Numbers of IAY Houses | 4 |
| Landmarks | Schools | 3 |
| | River | 1 |
| | Temple | 1 |
| | РНС | 1 |
| | Veterinary hospital | 1 |
| | Youth club | 1 |
| | Bus stop/ resting shed | 1 |
| | Ring well | 1 |
| | Stationary shop | 1 |

Table4.1: Information about the villages

- The participants of social mapping have identified all total 60 households. Among all HHs 4 HHs are constructed from IAY schemes. All the 54 HHs are kuccha construction.
- Other than the class based division of the households, important places like schools, playground, a temple, youth club, ring well, PHE, veterinary and location of river are mapped.
- Main sources of water for the villagers are the ring well and the river which is used by villagers for their day to day use.

- Provision of Education facility up to high school level is satisfactory in the village as there are three are primary, upper primary and high school in the village.
- All people are belonging to the Dimasa Kachari community and are of schedule tribe caste.

4.3 Wealth Ranking:

Wealth ranking, or well-being ranking, involves community members identifying and analysing the different wealth groups in a community. It enables evaluators to learn about the socioeconomic stratification of project beneficiaries and local people's definitions and indicators of wealth/well-being.

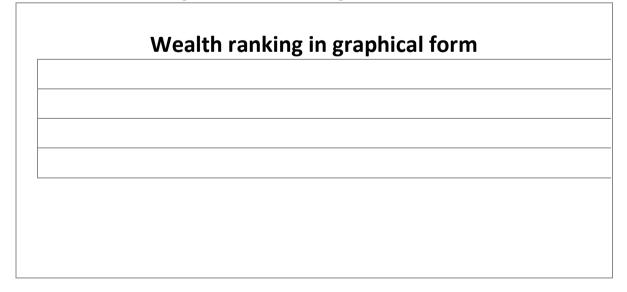
The most common version of this technique involves a series of individuals, a focus group of community members, ranking their entire community (or a particular section of the community if there are too many households to rank it all-say more than 100-or if the participants are familiar with only their own neighbourhood). The PRA facilitators introduce the technique using local terms for wealth and poverty and encourage participants to first discuss how they define these terms and how they would describe a poor household or a rich household (that is, their criteria for assessing a household's relative wealth).

Wealth ranking was done with the help of the following criteria

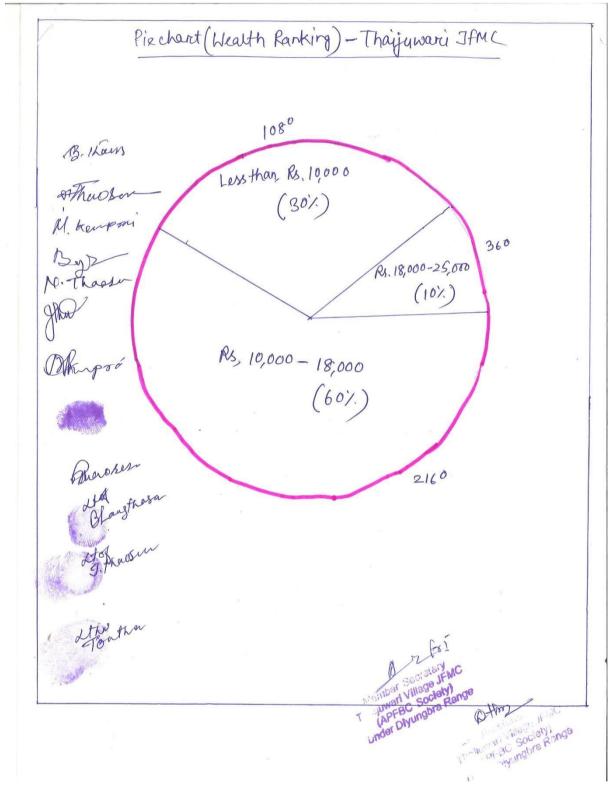
- a) Occupation
- b) Land holding
- c) Types of living house

As such about 83.33 per cent people are BPL category, about 16.67 per cent are belonging to APL category. BPL people are mainly irregular wage earners, sometimes they (adhilua) others land. APL people are mainly doing government job. They also have good amount of agricultural land and are also engaged in profitable business.

Figure 2: Wealth Ranking



| | | | |] |
|----|------------|-----|----------|-----|
| | | | | |
| | | | | |
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| | | | | |
| 90 | | | | |
| 80 | | | | |
| 70 | | | | |
| 60 |) | | | |
| 50 |) | | | |
| | | | | BPL |
| 40 |) | | | |
| | | | | APL |
| 30 |) | | | |
| 20 |) | | | |
| 10 | | | | |
| c | | | | |
| | No. of HHs | Pei | rcentage | |
| | | | | |



Wealth ranking (Pie Chart)

Learning:

Major portion of the JFMC are from BPL category. So we should mainly focus to improve the livelihood of this portion of people by giving various livelihood options.

4.4 Time Line Review:

| Yea | r | Event | Туре |
|--------------------------|---------|--------------------------------------|---------------------------|
| 100 | • | Livent | турс |
| Pre | 1942 | First Village road was constructed | Construction |
| independence | 1944 | Temple was constructed | Religious |
| Post - | 1950 | Earthquake | Environmental |
| Independence | 1962 | LP school was started | Educational |
| | 1979 | Middle School was started | Educational |
| | 1989 | High School was started | Educational |
| 20 th century | 2006 | Thaijuwari Nogen youth club | Educational |
| | 2013-14 | Construction of D.D road via village | Construction |
| | 2015-16 | JFMC established | Social + environmental |

Table 4.2: Timeline review

In order to know the past important cum historical events over time, the team has conducted the timeline analysis. The team members discussed about the local events to the village head, elderly persons and also to some young people to have an idea about how they dealt with those situations and what was the impact of those events on their lives as well as on the development of the village. Our time line illustrates that

The first village road was constructed in 1942 which connected the Thaijuwari Village with main road which may indicates the beginning of trade with nearby villages and markets. In the year 1944 one Shiva Temple was constructed in the JFMC area. Although the people of this JFMC are orthodox in nature, still the shiva temple will somehow put some light of religion inside the JFMC area.

After independence, the earthquake of 1950 caused many damages to the village. In the year 1962 the first village LP school was constructed. Which is the first educational institute in this area. After the formation of the LP school, the middle and high school was also constructed in the year 1979 and 1989 respectively. The village youth club was constructed in the year 2006, this improves social communication among the people inside the village. Previously the condition of the village road was not good (kuccha), in the year 2013-14, the Autonomous council of the Dima Hasao district named the road as D.D road and made it puccha. The first Joint Forest Management Committee (JFMC) was formed in 2015-16.

Learning:

- The villagers are aware of the fact that post cutting down of the trees, the number of animals becomes less in the forest which indicates the forest preserving awareness of the people.
- The processes of conserving the forest area start mainly after the formation of JFMC.

4.5 Seasonal Mapping of livelihood activities:

Seasonal calendars drawn by the local people are very useful means of generating information about seasonal trends within the community and identifying periods of particular stress and vulnerability. Best undertaken in the context of a group discussion (to help verify the information obtained), seasonal calendars are often drawn on the ground with the relative trends depicted using stones or seeds, as in a preference-ranking matrix. In other instances, simple line graphs can be drawn to show seasonal increases or decreases. A whole series of seasonal variables can be included in one calendar to give an overview of the situation throughout the year. These variables can include: rainfall, crop sequences, labour demand, availability of paid employment, out-migration, incidence of human diseases, expenditure levels, and so on. Important periods, such as festivals, can also be shown.

Seasonal mapping mainly covers the seasonal variation of crops. In seasonal mapping, we considered agricultural crop and the timing of three activities viz. showing, cropping and harvesting criteria and collected the details throughout the year. From the seasonal mapping, it has been noticed that the main crops grown in the village are Till (Sesame seed), Broom stick (Jharu), Yam and paddy.

Figure 3: Seasonal Agricultural Pattern

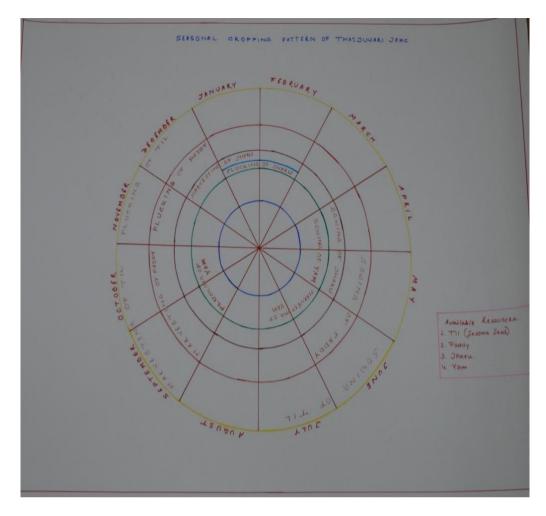


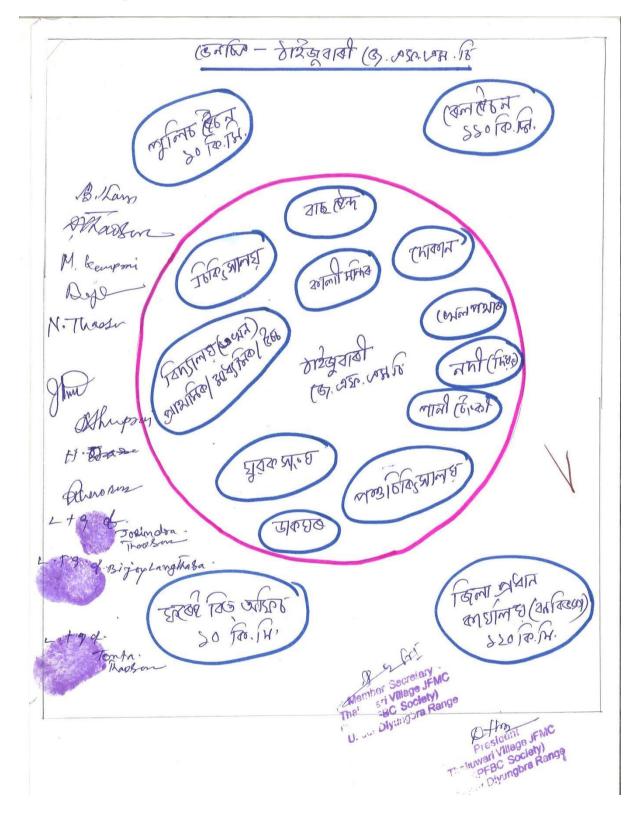
Table 4.3 Seasonal cropping pattern

| Agricultural crop | Sowing | Plucking | Harvesting | | | | | | |
|---------------------|-------------------|---------------------|--------------------|--|--|--|--|--|--|
| Broom stick (Jharu) | April- May | December- January | January- February | | | | | | |
| Till (Sesame seed) | June- July | September- October | November- December | | | | | | |
| Yam | April- May | June- July | September- October | | | | | | |
| Horticulture | Throughout the ye | Throughout the year | | | | | | | |
| Rice | Throughout the | Throughout the r | | | | | | | |
| | yea | | | | | | | | |

Learnings:

□ Water availability is less during the period September to March, so agricultural productivity become less in this period. Moreover, lack of agricultural knowledge also negatively affects the cropping pattern. Because all the villagers are mainly depending on shifting cultivation in intercropping mood.

3.5 Venn Diagram



3.7. Priority Ranking- EPA and Livelihood

EPA

| EPA activities | | A LPG Connection | g Solar Connection | Health Centre | D Sanitation | н Oil seed Processing Unit | _H Community Hall | O Marketing Shed | H Village Road | Mark s | Rank |
|----------------------------------|-----|---------------------|-----------------------|-----------------------------------|--------------|-------------------------------|--------------------------------|------------------|----------------|-----------|------|
| | | | | - | | | | - | | | |
| LPG | | | | | | | | | | _ | - |
| | 4 | Х | А | А | А | А | А | А | А | 7 | 1 |
| Connection | _ | | | | | | | | | | |
| Solar | | | | D | D | D | D | D | D | | 2 |
| | 3 | х | Х | В | В | В | В | В | В | 6 | 2 |
| Connection | _ | | | | | | | | | | |
| Health Centre (| 2 | Х | Х | Х | D | С | С | С | С | 4 | 4 |
| Sanitation I |) | Х | Х | Х | х | D | D | G | D | 3 | 5 |
| Oil seed Processing I Unit | | x | x | x | х | x | Ι | Е | Е | 5 | 3 |
| Community Hall | TT. | x | x | x | х | x | x | F | F | 2 | 6 |
| Marketing | | | | | | | | | | | |
| Shed | 3 | X | х | х | Х | Х | Х | Х | G | 1 | 7 |
| Village Road I | I | х | х | Х | Х | х | х | х | Х | 1 | 7 |

Livelihood

| Potential Livelihood Activities | P Livestock | B Tailoring | O Agriculture | D Horticulture | E Driving | Horticulture | D Lac Cultivation | Н Carpentry | I Cane & Bamboo | Marks | Rank |
|---------------------------------------|-------------|-------------|---------------|----------------|-----------|--------------|-------------------|-------------|--------------------|-------|------|
| Livestock A | Х | В | С | А | Α | А | А | А | А | 6 | 1 |
| Tailoring B | Х | Х | В | В | E | В | G | Н | В | 5 | 3 |
| Agriculture C | Х | Х | Х | D | C | С | С | С | С | 6 | 1 |
| Horticulture D | Х | Х | Х | Х | E | D | G | D | D | 4 | 5 |
| Lac E Cultivation | x | x | x | x | x | Ι | Е | Е | Е | 5 | 3 |
| Carpentry F | Х | Х | Х | Х | Х | Х | G | Н | F | 1 | 9 |

| Driving | G | Х | Х | Х | Х | Х | Х | Х | G | Ι | 4 | 5 |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|
| Cane & | Н | х | x | x | x | x | x | х | x | Н | 3 | 7 |
| Bamboo | | | | | | | | | | | | |
| Masonry | Ι | Х | Х | Х | Х | Х | Х | Х | Х | х | 2 | 8 |

Annexure 4

LIST OF JFMC MEMBERS

Name of JFMC- Thaijuwari

Division- West haflong

Range- Diyungbra

| Sr. No. | Name | Father's / | Age | Male / | Education | SC/ST |
|---------|-------------------|------------|-----|--------|-----------|--------|
| | | Husband's | | Female | | / |
| | | name | | | | BC/OBC |
| 1 | Dhanther Thaosen | - | 50 | Male | LP | ST |
| 2 | Robindra Dibraede | - | 51 | Male | ME | ST |

Annexure 5 (Photographs)



Photograph 1: Inauguration of PRA exercise at Thaijuwari JFMC, Date- 16/06/2016



Photograph 2: PRA Exercise at Thaijuwari JFMC, Date- 16/06/2016



Photograph 3:Inauguration of Mixed livestock rearing training at Thaijuwari JFMC, Date- 08/09/2016



Photograph 3:Training session of Mixed livestock rearing training at Thaijuwari JFMC, Date- 10/09/2016

Annexure 6 (Recode I)

| Success of JFMC by RFO | |
|--------------------------------|-------------------|
| Grading % of | NIL |
| special attainments | , |
| Yes/No Remarks on | NIL |
| rencing used | |
| Social | NIL |
| per person | |
| Contribution per family or | NIL |
| Dev. Fund | |
| village | |
| Money | NIL |
| Name of Secretary | Robindra Dibraede |
| Name of President | Dhanther Thaosen |
| Members In Executive Comtt. | |
| No. of | 8 |
| Date of Establishment | 201 5- 16 |
| Name of JFMC/Village | Thaiju wari |
| SI.No | 1 |

Table 1: Basic data of the JFMC

Source: PRA

Table -2: Village wise population data

| | | | | | | ··· I · I | | | | |
|---------|-----------------|----------|------------|----------|------------|-----------|------------|----------|------------|---------------------|
| Name of | No. | SC | | | ST | | OBC | | General | |
| Village | of Hous e | Mal e | Fema le | Mal e | fema le | Mal | Fema le | Mal e | Fema le | all categor y |
| Thaijuw | hold | NIA | | 120 | 101 | | | | | 2(0 |
| ari | 60 | NA | NA | 139 | 121 | NA | NA | NA | NA | 260 |

Source: PRA

TABLE-3: Village wise farmers category on the basis of land holding

| S.No | Name of | Тур | Type of Farmers according to land holding | | | | | | |
|------|------------|---------|---|----------|------|----|--|--|--|
| | Village | Large | Small Farmer | Marginal | Land | | | | |
| | | Farmer | 2 - 10 ha. | Farmer | Less | | | | |
| | | > 10ha. | | <2 ha. | | | | | |
| 1 | Thaijuwari | Nil | 10 | 50 | Nil | 60 | | | |
| | | | | | | | | | |

Source: PRA

Table 4: Cattle Population of the JFMC

| ĺ | S. | Village – wise No. of cattles or Type of animals | Tot |
|---|----|--|-----|
| | | | |

| No | Name | Cows | Buffalo | Go | She | Bulls | Cam | He | Othe | al |
|----|----------------|---------|---------|-----|-----|-------|-----|-----|--------------|-----|
| | of | (Milchi | es | ats | ep | / | els | n/ | rs | |
| | Villag | ng) | (Milchi | | | Oxei | | Co | | |
| | e | | ng) | | | ng | | ck | | |
| 1 | Thaijuw ari | 100 | 00 | 50 | 00 | 00 | 00 | 150 | (Pig) 100 | 400 |

Table 5. JFMC infrastructure

| S.N o | Infrastructure | Location | Distance from village, if in another location (in Kilometers) | Condition and status of present use |
|----------|---|-----------|---|-------------------------------------|
| 1 | Main Road | Yes | Under Village area | Good |
| 2 | Electricity | Nil | Nil | Nil |
| 3 | Gas connection | Nil | Nil | Nil |
| 4 | Transport | Yes | Under Village area | Good |
| 5 | Primary Health Centre | Yes | Under Village area | Good |
| 6 | School (LP, MP, High) | Yes | Under Village area | Good |
| 7 | Post Office | Yes | Under Village area | Poor |
| 8 | Bank | Nil | Nil | Nil |
| 9 | Phone | Nil | Nil | Nil |
| 10 | Youth club | Yes | Under Village area | Poor |
| 11 | Anganwadi Cetre | Nil | Nil | Nil |
| 12 | Gram Panchayat Office | Nil | Nil | Nil |
| 13 | Revenue Office | Nil | Nil | Nil |
| 14 | Police Office | Diyung | 10 KM | Good |
| 15 | Forest Office (Beat) | Diyungbra | 2 KM | Poor |
| 16 | Bus facility | Yes | Under Village area | Average |
| 17 | Railway Station | Lanka | 110 KM | Good |
| 18 | Drinking Water | Yes | Under Village area | Average |
| 19 | JFMC assets community hall petromax loudspeaker utensils etc. | Nil | Nil | Nil |
| 20 | District Head Quarter | Haflong | 120 km | Poor |

Source: PRA

Table 6. Agriculture Crops

| | Rain | fed | Irrigation | | |
|--------|-----------------------------|--------------|--------------|-------------|--|
| | Name of Crop | Area in ha. | Name of Crop | Area in ha. | |
| Kharif | Paddy, Til (Sesame seed), | 80 Ha, 20 Ha | - | - | |
| Rabi | Jharu (Broom stick), Yam | 45 Ha, 6 Ha | - | - | |
| Others | Horticulture | - | - | - | |

Table 7. Crop production profile of Lunglarpheng JFMC

| | | | onne of Eurigian priorig s | |
|-----------------------------------|------|------------------------------|---------------------------------|--|
| crop | | Total production (approx) | Number of households growing | Average production(quintal per/ha) |
| Paddy | | 59.34 Qt. | 60 | - |
| Wheat | | - | - | - |
| Oil seeds | | 4 ha. | 60 | - |
| Vegetables | | 8 Ha. | 60 | - |
| Pulses | | - | - | - |
| Small millet | | - | - | - |
| Fruit orchards | | - | - | - |
| Others, Jharu, Ginger, Corn | Til, | - | 60 | - |

Source: PRA

Table 8. Fodder availability of the JFMC

| `` | 1-3 months | 3 – 6 months | > 6 months |
|-------------------|------------|--------------|--------------|
| Crop residue | - | \checkmark | - |
| Trees fodder | - | \checkmark | - |
| Grasses | - | - | \checkmark |
| Green fodder | - | - | \checkmark |
| Grazing in forest | - | - | - |

Source: PRA

Table 9. Fodder availability

| For purchase | Location | Distance from village if in other village kilometer |
|----------------------------|----------|--|
| Grocery Shop/PDS center | - | - |

| Weekly Market | Diyung | 10 KM |
|--------------------------------------|--------|-------|
| Major Market | Diyung | 10 KM |
| Forest corporation sale depo. | - | - |
| Tendu Patta PHAD | - | - |
| Fish Market | - | - |
| Medicinal Plant Collection Center | - | - |
| Forest Corporation Medicinal | - | - |
| Plant Collection Center | - | - |
| Other Specify | - | - |

Table 10: water resource facility available in the village

| Water Source | Number | Water Availability (Adequacy, seasonality) | Uses (drinking, irrigation, livestock bathing) |
|------------------------------|--------|--|---|
| Water Harvesting Structure | - | - | - |
| Check dam | - | - | - |
| Tube well | - | - | - |
| River/Nala | 1 | Adequacy | drinking |
| Spring | - | - | - |
| Canal | - | - | - |
| Water Reservoir | - | - | - |
| Other, pl specify, Ring well | 1 | Adequacy | drinking |

Source: PRA

Table 11: Energy consumption:

| Type of fuel | Number of household depending | Number of months dependent | Source (local village, forest, other | Major/Secon dary |
|--------------|-------------------------------------|-------------------------------|--|---------------------|
| | depending | | source) | |

| Fuel wood | 100% (60 HHs) | 12 month | Forest | Major |
|--------------------------|---------------|----------|------------|-----------|
| Kerosene stove | _ | - | - | - |
| Gobar/Bio Gas | - | - | - | - |
| Cow dung cake | - | - | - | - |
| LPG | - | - | - | - |
| Electric Healer | - | - | - | - |
| Other, pl specify, Solar | 30% | 12 month | Individual | Secondary |

RECORD: II

LIVELIHOOD OPPORTUNITY ANALYSIS

| Constraints | Reason | Opportunities | Programme |
|---------------------------|---|---|---|
| Low Production | Traditional way of cultivation. Only one crop undertaken annually (Sali) Very negligible use of fertilizers and pesticides, insecticides. Lack of irrigation facilities. Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. Non usages of high yielding seeds. | Application of proper and controlled pesticides and insecticides. Introduction of new and advance technology. Well-structured training programme. The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour. Usage of high yielding seed programme. | Tractor operation training Agri-skill development programme. Training on insecticides, pesticides, hybrid cultivation |
| Storage and Production | Lack of common storing place Lack of cold storage facility due to nonavailability of electricity | Helpful in preserving unsold products for a longer period of time. They can store their product and sell it when there is a higher demand. | Packaging Transportation and distribution. |

Table 12: Agriculture and Horticulture

Table 13: Livestock

| Constraints | Reasons | Opportunities | Programme |
|--|--|---|---|
| Less grazing land | Not Applicable | | |
| Availability of fodder Veterinary care facility | Unable to buy fodder from market due to poor financial condition Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. No veterinary care clinic Lack of knowledge about the proper rearing of live stock | Higher income from livestock rearing. The villagers can make it as an alternative livelihood opportunity if they have the easy access of livestock fodder. Disease control Increases the life span of cattle. It will also help to aware the villagers and will encourage them for livestock rearing. | Linkage with veterinary department for better opportunities in livestock |
| Production of milk | Less availability of fodder No scientific knowledge on cattle rearing to increase the milk production. | Training on the milk production can enhance the skill of milk production. Availability of supplements like cattle "Milk Booster, Milk Plus" etc. can increase the production of milk in the area. | sector. |

| Constraints | Reasons | Opportunities | Programme |
|-----------------------------|---|---------------------------------------|---|
| Less collection | Less availability of NWFP | □ Availability of fertile fallow land | Plantation of Food plans, Medicinal |
| Unsustainable extraction | 🗆 NA | □ Availability of fertile fallow land | Plant etc.Improve in |
| Low rates | 🗆 NA | NA | processing of NTFP |
| Value addition | No processing units Non availability of required resources No technical knowhow | NA | |

Table 13: NWFP

| Constraints | Reasons | Opportunities | Programme |
|------------------------------|--|---|---|
| Raw material availability | Non-Availability of Raw Materials within reachable location (market 7km away) No Storage | Common place for setting a raw material storage | Setting up a raw material bank |
| Product quality | Shortage of High Quality Materials Use of Traditional machineries | Developing Quality Products for new market exploration. | Training on Modern Tools and Equipment. Providing modern technology to the villagers |
| Marketing potential | No standardised market No pricing policy No linkage with the institutional buyers No Product Diversification or New Product Development. | Exploring new markets with diversified products | Providing a bulk buy arrangement of the finished product with institutional buyers. |
| Credit facilities | No linkage with the banks or post office saving banks. Unaware of the development schemes of banks and government | Financial assistance by the Govt. Providing easy access to credit. | Microfinance, Term Loans, Working Capital Arrangement |

Table 15: Specialised skills: Handloom

| Product | No Product Diversification | Developing | Skill |
|-----------------|---|---|--|
| Diversification | or New Product Development. Lack of concept for product diversification. | Demand Based Products, as per the needs of the modern day market. | Upgradation & Training on New Product Development and Product Diversification |

Table 16 Credit facility

| Constraints | Reason | | Opportunities | Programme | | |
|-------------------------|--------|--|--|--|--|--|
| Indebtness | Nil | | Setting up modern financial institution in the nearby areas. | Linkage with financial institution for | | |
| Rate of interest | | Higher lending rates charged by the private money lender | Subsidised credit arrangement | better credit facility with financial | | |
| Availability of loan | | Fear of risk taking No knowledge of documentation | Start-ups entrepreneurial venture | inclusion. | | |
| Mortgage difficulty | | Unavailability of proper documentation of mortgaged property. | Proper awareness about documentation in the area | | | |

Thaijuwari JFMC/ Mix livestock

| r | | | Inaljuwa | | | | | |
|------------|-----------|-------------------|--------------------|---------------------------|-------------------|-----|------------|----------|
| Start Date | End Date | Master Trainer | Participant | Guadian | Qualificat ion | Age | Gende r | Category |
| | | (Name,) | | | | | | |
| 8-Sep-16 | 18-Sep-16 | NYWA | MINADI THAOSEN | SANTILAL THAOSEN | IX | 23 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DENGPAILAL THAOSEN | Lt MOLENDRA THAOSEN | HSLC | 34 | м | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | EMILAL THAOSEN | Lt AOJODAR THAOSEN | HSLC | 36 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DIMITHA THAOSEN | SURANJIT THAOSEN | VIII | 19 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | JOYLAL THAOSEN | MAINAR DAO THAOSEN | HSLC | 34 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | RINGSODI THAOSEN | RAXTAN THAOSEN | VI | 36 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | NOVITA THAOSEN | BOLGIDAO THAOSEN | х | 21 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | BINET THAOSEN | MAISOLAL THAOSEN | х | 26 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | RUPONJIT THAOSEN | NASUDAO THAOSEN | VIII | 16 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DIGMA THAOSEN | BINET THAOSEN | х | 24 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DORMITHA THAOSEN | Lt LUMBUR THAOSEN | х | 21 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | RENA THAOSEN | MUINAR DEW THAOSEN | Х | 21 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | ΡΟΜΙΤΗΑ ΗΟΙΑΙ | LAIDHO HOJAI | х | NP | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | BOLITHA THAOSEN | DINGPAI THAIM | х | 24 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PATMUNI THAOSEN | RAIJON THAOSEN | х | 30 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PONITHA THAOSEN | BIFEEL | IX | 31 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | REPAINON THAOSEN | PHOLTHAMDAO THAOSEN | NP | 31 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | MAINOLI THAOSEN | SHANTILAL THAOSEN | Х | 17 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DIMALI THAOSEN | RONES THAOSEN | VIII | 20 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | SONOLA THAOSEN | MAINSOLAL THAOSEN | 111 | 48 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | ABISINI THAOSEN | DISULAL THAOSEN | HSLC | NP | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | BABON THAOSEN | Lt LUMBUR THAOSEN | HSLC | 26 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | ABINESH THAOSEN | ROTISHI THAOSEN | Х | 21 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | AMENDRO THAOSEN | DISULAL THAOSEN | IX | 26 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DEPOLAL THAOSEN | BIDESH THAOSEN | N | 22 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DONJOY THAOSEN | Lt LUMBUR THAOSEN | HSLC | 31 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | SHAMITY THAOSEN | NP | V | 30 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PONITA KEMPRAI | NP | NP | NP | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | MONITA THAOSEN | TONTA THAOSEN | х | 20 | м | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | KHYLAN THAOSEN | Lt. JOYKRISHAN THAOSEN | | 40 | М | ST |

| 8-Sep-16 | 18-Sep-16 | NYWA | RINA THAOSEN | EMILAL | х | 33 | F | ST |
|----------|-----------|------|-------------------|---------------------------------|------|----|---|----|
| 8-Sep-16 | 18-Sep-16 | NYWA | MAINSODI THAOSEN | THAOSEN HOSONGDAO THAOSEN | х | 48 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | ANITHA THAOSEN | DEPAINON THAOSEN | IX | 32 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | BABITA LANGTHASA | PAILAL | IX | 45 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | MUNI THAOSEN | BORNO | х | 18 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PARBALI THAOSEN | MAISOLAL | IX | 16 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | RATNABALA THAOSEN | BHAIDYLAL THAOSEN | х | 28 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | JAIPINDI THAOSEN | BIDESH THAOSEN | NP | 50 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DONGTHAR THAOSEN | PALTAMDAO THAOSEN | х | 48 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | BIRESH THAOSEN | SOWARING THAOSEN | VIII | 50 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | HEMATHA THAOSEN | HINDULAL THAOSEN | VIII | 32 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | NOYADI THAOSEN | BIRESH THAOSEN | NP | 36 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PELSONDI THAOSEN | HAMPAINON THAOSEN | VIII | NP | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | POGESWARI THAOSEN | MUKESH KEMPRAI | HSLC | 29 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | RINGSODI THAOSEN | MONDES THAOSEN | х | 30 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | SIBANI THAOSEN | JYOTENDRA THAOSEN | х | 20 | м | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | POLMITA HOJAI | NIKIL HOJAI | Х | 20 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | SURANJIT THAOSEN | MOLENDRA THAOSEN | x | 28 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | HEMEN THAOSEN | JALADAO THAOSEN | х | 30 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PAILAL LANGTHASA | ROMONI LANGTHASA | HSLC | 30 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | ACHENDRA THAOSEN | MAINARDAO THAOSEN | HS | 22 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | MONESH KEMPRAI | DINANGDAO KEMPRAI | х | 29 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | ETALI THAOSEN | JUGENDAR THAOSEN | х | 23 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | RAMITHA THAOSEN | DONGTARDAO THAOSEN | х | 20 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | REPAINON THAOSEN | PHOLTHAMDAO THAOSEN | HS | 31 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | SHAMILY THAOSEN | RAIJON PONGLO | IX | 35 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | MUKESH KEMPRAI | JOYNACHORON KEMPRAI | XII | 27 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | DENGNODI THAOSEN | KASILAL THAOSEN | IV | 35 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | HEMSON THAOSEN | JAITOLAL THOSEN | 11 | 30 | М | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | ETHALI THAOSEN | JOGINDRO THAOSEN | XII | 21 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | HEMON THAOSEN | JOLADAO THAOSEN | ХІІ | 30 | М | ST |

| 8-Sep-16 | 18-Sep-16 | NYWA | DINGNODI THAOSEN | KAISILAL THAOSEN | II | 31 | F | ST |
|----------|-----------|------|------------------|------------------------|------|----|---|----|
| 8-Sep-16 | 18-Sep-16 | NYWA | DARJINON THAOSEN | GILIYAR THAOSEN | VII | 57 | м | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PEILAL LANGTHASA | LT ROMINI LANGTHASA | х | 33 | м | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | BOLGIDOW THAOSEN | NOLISHOSON THAOSEN | VIII | 47 | м | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PROMILA THAOSEN | BIRESH THAOSEN | х | 22 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | THALODI THAOSEN | JAILAL THAOSEN | NP | NP | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | PROMILA THAOSEN | BIRESH THAOSEN | х | 22 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | THALODI THAOSEN | JOYLAL THAOSEN | IX | 32 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | SIBANI THAOSEN | JATINDRO THAOSEN | х | 23 | F | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | HAMJOLA THAOSEN | BIREN THAOSEN | х | NP | м | ST |
| 8-Sep-16 | 18-Sep-16 | NYWA | BINA THAOSEN | JAOSOLAL THAOSEN | х | 20 | F | ST |