BOOKLET ON UMNONGLIPUT UMSIER WATERSHED IWMP-VII
UNDER
INTERGRATED WATERSHED MANAGEMENT PROGRAMME BATCH II

5. FOOTBRIDGE, IWMP PROJECT VII, ENTRY POINT ACTIVITIES

ISSUED BY THE OFFICE OF THE DIVISIONAL SOIL & WATER CONSERVATION OFFICER
SOIL & WATER CONSERVATION NONGSTOIN, DIVISION NONGSTOIN
CUM
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ACKNOWLEDGEMENT

Farming is the hope of the nation, if a Farmer is poor, so is the whole Country.

This Booklet reflects on the efforts made in achieving the goals of the IWMP-II Project, Umnongliput Umsier Watershed to bring about a change in the lives of the People especially the farmers in the area and has been successful to quite an extend due to the hard work and guidance of many people. We take this opportunity to express our gratitude to the people who have been instrumental in the successful completion of this Project.

The success of the Project is dedicated to the hard work of many who were involved in its implementation namely Smt. M.Bani (AS&WCO), Shri. B Rynjah (Range Officer), Shri.K.Wahlang (S&WCD Jr-I), Shri.R.Kharjana .(S&WCD Jr-I), Shri. H. Jyrwa (S&WCD Jr-I.), Shri. R. Basiawmoit (S&WCD Jr-I), Shri. F.Pyrtuh, (S&WCD Sr.) Shri. M.Rani (S&WCFW), Smt. N.Wahlang (WDT Member) and many more who have contributed to the successful completion of the Project..

We also express our gratitude to all elected representatives of the Watershed Committee and Village Community of Project Area for their heartily devotion, full cooperation, for setting the priorities and probing on the issues of inter – regional imbalances. The guidance and support of all the Officials, Watershed Committee Members have given ample contribution in giving the final shape to the Completion of this Project.

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INTRODUCTION:

A Watershed is a Hydro-geological unit of area from which the rainwater drains through a single outlet. Watershed development refers to the conservation, regeneration and judicious use of all the natural resources, namely, soil, water and vegetation. Watershed Management on the other hand brings about the best possible balance between natural resources on the one side and human beings on the other. The Environmental degradation can be managed effectively through a holistic Watershed Development on the basis of "ridge to valley" approach.

The Integrated Watershed Management Programme (IWMP), which is now renamed as the PradhanMantriKrishiSinchayeeYojna-Watershed Development Component (PMKSY-WDC) was launched during 2009-10 as a tool to address problems of the rain fed or degraded areas in India.

The main objective of IWMP is to restore the ecological balance by:

- Harnessing, conserving and developing degraded natural resources i.e., soil, water and vegetation.

The outcomes of the Programme are:

- Prevention of soil run-off
- Rain Water Harvesting and recharging Ground Water Table
- Increasing the Productivity of Crops
- Promoting sustainable Livelihoods and
- Increasing Household incomes

The major Components under IWMP are:

I. **Capacity Building**:

Various types of trainings and Capacity building exercises related to Works and maintenance of accounts.

II. **Preparation of DPR:**

This includes the Details of works to be carried out during the Project Period.

III. **Entry Point Activities:**

These activities are undertaken with the aim of establishing trustworthiness of the Watershed Development Team (WDT), rapport building with the Village Community and Community Mobilization.

IV. **Watershed Works:**

These included activities for treatment of Arable Land, Non-Arable Land and Drainage Line as well.

V. **Production System & Micro-enterprises:**

This included farm based activities to support the production system and microenterprises for land owning households.

VI. **Livelihood Activities:**

The various Livelihood activities taken up were aimed at improving the standards of living and generation of income for the asset less people under the project.

VII. **Monitoring & Evaluation.**

CHAPTER 1: Guiding Principles

The Integrated Watershed Management Programme is based on the following principles:

I. Equity and Gender Sensitivity: Project Implementing Agencies (PIAs) must facilitate the equity processes such as:

a) Enhanced livelihood opportunities for the poor through investment in their assets and improvements in productivity and income,

b) Improving access of the poor, especially women to the benefits,

c) Enhancing role of women in decision making processes and their representation in the institutional arrangements and

d) Ensuring access to usufruct rights from the common property resources for the resource poor.

II. Decentralization: Project management would improve with decentralization, delegation and professionalism. Establishing suitable institutional arrangements within the overall framework of the Panchayati Raj Institutions (PRIs), and the operational flexibility in norms to suit varying local conditions will enhance decentralization. Empowered committees with delegation to rationalize the policies, continuity in administrative support and timely release of funds are the other instruments for effective decentralization.

III. Facilitating Agencies: Social mobilization, community organization, building capacities of communities in planning and implementation, ensuring equity arrangements, etc. need intensive facilitation.

IV. Centrality of Community Participation: Involvement of primary stakeholders is at the Centre of planning, budgeting, implementation, and management of watershed projects. Community organizations may be closely associated with and accountable to Gram Sabhas in project activities.

V. Capacity Building and Technology Inputs: Considerable stress would be given on capacity building as a crucial component for achieving thedesired results. This would be a continuous process enabling functionaries to enhance their knowledge and skills and develop the correct orientation and perspectives thereby becoming more effective in performing their roles and responsibilities.

VI. Monitoring, Evaluation and Learning: A participatory, outcome and impact-oriented and user focused monitoring, evaluation and learning system would be put in place to obtain feedback and undertake improvements in planning, project design and implementation.

VII. Organizational Restructuring: Establishing appropriate technical and professional support structures at national, state, district and project levels and developing effective functional partnerships among project authorities, implementing agencies and support organizations would play a vital role.

CHAPTER 2: INSTITUTIONAL ARRANGEMENTS AT PROJECT LEVEL

Project Implementing Agency (PIA): The Project Implementing Agency (PIA) will provide necessary technical guidance to the Village Community for preparation of development plans for the watershed through Participatory Rural Appraisal (PRA) exercise, undertake community organization and training for the village communities, supervise watershed development activities, inspect and authenticate project accounts, encourage adoption of low cost technologies and build upon indigenous technical knowledge, monitor and review the overall project implementation and set up institutional arrangements for post-project operation and maintenance and further development of the assets created during the project period.

Watershed Development Team: The WDT is an integral part of the PIA and will be set up by the PIA.The WDT will guide the Watershed Committee (WC) in the formulation of the watershed action plan. Some of the important roles and responsibilities of theWDT include the following:

a. Assist Village Communities in constitution of the Watershed Committee and their functioning.
b. Organizing and nurturing User Groups and Self-Help Groups.
c. Mobilizing women to ensure that the perspectives and interests of women are adequately reflected in the watershed action plan.
d. Conducting the participatory base-line surveys, training and capacity building.
e. Preparing detailed resource development plans including water and soil conservation or reclamation etc. to promote sustainable livelihoods at household level.
f. Common property resource management and equitable sharing.
g. Preparing Detailed Project Report (DPR)
h. Monitoring, checking, assessing, and undertaking physical verification and measurements of the work done.
i. Facilitating the development of livelihood opportunities for the landless.
j. Maintaining project accounts.
k. Arranging physical, financial and social audit of the work undertaken.
l. Setting up suitable arrangements for post-project operation, maintenance and future development of the assets created during the project period.

CHAPTER 3: UMNONGLIPUTUMSIER WATERSHED IWMP-1I

The Umnongliput-umsierWatershed (IWMP-II) project is the only Project under Batch-II in West Khasi Hills Districtand is located in Mairang C&RD Block. It consists of a Single micro-watershed. The project area is drained by the Umnongliput River and its tributaries flowing in a north to west direction . The total area is 1323Ha. 1000 Ha is to be treated under the Integrated Watershed Management Programme (IWMP). The Project Area is Located at a Distance of about 40 Km from Mairang the Civil Sub-Division Headquarter and about 90 Km from Nongstoin the District Headquarter

A total of Three (3) villages are covered under the project. These are:-

1. Nongliput. 2. Pyrda. 3. Mawiong.

The Micro- Watershed code is 3B1C4a2h as codified by the North East Space Application Centre (NESAC).

The major problems faced in the Watershed area during the pre-project period were the mismanagement of lands, unscientific land use, frequently forest fires, indiscriminate tree felling, uncontrolled grazing, etc. resulting in soil erosion and increase runoff in the area. Besides, farmers were unaware of the seriousness of the problem, hence their lack of motivation and willingness to change their traditional practices and adopt other alternatives and more sustainable cultivation and farming practices. Lack of extension, demonstration and infrastructure facilities also contributed to low yield in agriculture production.

Hence, the Project was initiated taking into consideration all the above problems and as per the Common Guidelines for Watershed Development Projects (2010),

The Project was broadly carried out in three phases, namely:

- Preparatory Phase
- Watershed Works Phase
- Consolidation & Withdrawal Phase

The implementation of the Umnongliputumsier Watershed project was facilitated and carried out by the PIA (Project Implementing Agency) through the WDT (Watershed Development Team) with the active involvement, leadership and participation of the Watershed Committee at the village level.

CHAPTER 3.1: PREPARATORY PHASE

This Phase was carried out for 1 year during the first Year of starting of the Project. The major objective of this phase is to build appropriate mechanisms for adoption of participatory approach and empowerment of local institutions (WC, SHG). In this phase, the main activities included:

- Taking up Entry Point Activities
- Development of Village level institutions
- Preparation of DPR

Entry Point Activities (EPA):

The EPAs were created based on the needs of the local community with the aim to establish credibility of the Watershed Development Team (WDT) and create a rapport with the village community as well as Community mobilization.

The following Works were taken up as EPAs under the Watershed in all seven villages:

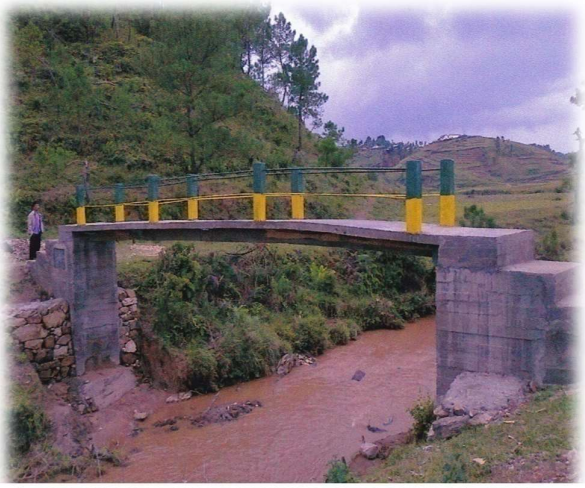
Sl.no.	Particulars	Place	Physical
a.	Footbridge	Mawiong	1 Nos
b.	Washing Place	Pyrda	1 Nos
c.	Footpath	Pyrda	2 Nos
d.	Washing Place	Nongliput	3Nos
e.	Total		7 Nos

A Glimpse of EPAs created

Nongliput

4. WASHING PLACE AT PYRDA RIM, IWMP PROJECT VII
ENTRY POINT ACTIVITIES

Pyrda



5. FOOTBRIDGE, IWMP PROJECT VII, ENTRY POINT ACTIVITIES

Mawiong

Mawiong

Development of Village level institutions:

During the Preparatory Phase, many Awareness Programs were organized on the concept of the IWMP and its implementation at village level as well as for the formation and development of Village level institutions such as Watershed Committees (WCs), Self-Help Groups (SHGs) and User Groups (UGs) Various Capacity Building and Training exercises of different stakeholders were also conducted on institutional and work related aspects.

Awareness programmes conducted at village level

Watershed Committee: The Watershed Committee was constituted on 11 November 2010 and registered under the Registration of Societies Act 7 of 1990. The list of members is:

Sl.no	Name	Village	Designation
1	Shri. Silo Mawlong	Pyrda	Chairman
2	Shri. RibokempyMawlong	Pyrda	Secretary
3	Shri.EstarlinNongrang	Pyrda	Member
4	Shri. KynthroinMawlong	Pyrda	Member
5	Shri. KaptenRyntathiang	Pyrda	Member
6	Shri.DeinsingMawlong	Mawiong	Member
7	Smt. RisilaMawlong	Pyrda	Member
8	Smt. RishilongMawlong	Pyrda	Member
9	Smt. AinuraLawriniang	Mawiong	Member
10	Smt. Misaida K Thangmaw	Pyrda	Member
11	Shri.ManistarKhyllait	Nongliput	Member
12	Smt. BindraMawlong	Pyrda	Member

Sub Committee -: Apart from Watershed Committee Sub Committee have been form in each and every village to make the Project run smooth and Sucesesfully.Following are the list of Photo and Members.

Right. Shri. PhiarNongrang (Chairman), Shri. RawlinMawlong(Secretary) , Shri. AinuraLAwriniang, and Shri. Deing son Mawlong (SC MAwiong)

Right. Shmt. ArdianKhyllait ,Shri. ManistarKhyllait(Chairman), Shri. KynthroinMawlong(Secretary), Smt. Ardian K Thangmaw,Smt. RisilongMawlong, (Nongliput WC).

Right. Shri. KaptenRyntathiang(Chairman) , Shri, RE Mawlong (Secretary), Shri. SL Mawlong ,Shri. Plantar Mawlong ,Shri. Hesling BSMT, Smt. Stibon K Thangmaw.(SC Pyrda).

Self Help Groups: SHGs were constituted in the Watershed area with the help of WDT from amongst the poor, small and marginal farmer households, landless/asset less and poor agricultural laborers, women folks etc. These Groups are homogenous in nature having common identity and interest that are dependent on the watershed area for their livelihood. About 21 numbers of SHGs were formed and nurtured under the Watershed but most of the SHGs have dissolved and only 11 SHGs are still active at present. The details of SHGs that are still active are:

Sl No	Name of Group (SHGs)	Village	No of members	Composition of Group	
				Male	Female
1	Iamutlang SHG	PyrdaThymmai	9	-	9
2	Iatreilang SHG	PyrdaThymmai	9	-	9
3	Iaiiroh SHG	PyrdaThymmai	10	-	10
4	Iaiaidlang SHG	Pyrda	8	-	8
5	Synroplang SHG	Pyrda	9	-	9
6	Nalaiing SHG	Pyrda	12	-	12
7	Deiti SHG	Pyrda	10	-	10
8	Nangiaitrei SHG	Pyrda	8	7	1
9	Umpohliew SHG	Pyrda	13	-	13
10	Iatiplang SHG	Mynsain	10	-	10
11	Iaraplang SHG	Mynsain	11	-	11
12	Iatreilang SHG	Mynsain	9	-	9
13	Nangkiewshaphrang SHG	Mynsain	12	-	12
14	Banteilang SHG	Mynsain	9	-	9
15	Damanbha SHG	Mynsain	9	-	9
16	Maitshaphrang SHG	Nongliput	10	-	10
17	Synroplang SHG	Mawiong	9	-	9

User Groups: These are homogeneous groups of persons most affected by each work/activity and included those having land holdings within the Umnongliput umsier Watershed area. Each User Group consisted of members who derive direct benefits from a particular work or activity. The Watershed Committee (WC) with the help of the WDT facilitated resource-use agreements among the User Groups based on the principles of equity and sustainability. The User Groups are responsible for the operation and maintenance of all the assets created under the project in close collaboration with the respective Village Council. Most of the User Groups formed were mainly for EPAs and some few other Structures like Dams. Hence, there are only few numbers of User Groups under the Watershed area as the Land Tenure system is predominantly under private ownership.

Sl. No	Name of UG	Members		Total
		Male	Female	
1	Tiehkara UG	2	5	7
2	Umsohlawai	2	5	7

Preparation of DPR:

DPR preparation is a crucial activity carried out during the Preparatory Phase which is to be facilitated by the Project Implementing Agency (PIA) through the Watershed Development Team (WDT) of Umnongliput umsier Watershed. The DPR was prepared by the WDT for integrated development of the Watershed area with active participation of the people through PRA Exercises. Hence, these exercises were the strong foundation in the preparation of the DPR.

PRA Exercises: Participatory Rural Appraisal is a methodology adopted for using participatory techniques to build rapport, elicit support, information and participation of the people in their own development.This technique was adopted in Umlangia Watershed as well during the preparation of DPR for assessing group and community resources, identifying and prioritizing problems and appraising strategies for solving them. During the PRA exercises, the PIA acts as the facilitator for encouraging the village community to actively participate in identifying and prioritizing their problems, evaluates options for solving the problem(s) and comes up with a Community Action Plan to address the concerns that have been raised.

Wealth Ranking

During PRA, a number of different tools are used to gather and analyze information. These tools encourage participation, make it easier for people to express their views and help

to organize information in a way that makes it more useful and more accessible to the group that is trying to analyze a given situation. They are intended to give a sense of what information can be obtained by using different tools and how diverse issues can be looked at from multiple angles. Some of the tools that were adopted were:

- **Social mapping**
- **Resource mapping**
- **Seasonal Calendar**
- **Wealth Ranking**
- **Time line**
- **Semi-structured Interviews**

Mapping Exercises

Semi structured Interviews

CHAPTER 3.2: WATERSHED WORKS PHASE

This Phase was carried out for a period of 3 years, i.e.; from the 2nd up to the 4th Year of the Project period. It included the following broad categories namely;

- Institutional Capacity Building & Training:
- Watershed Treatment/ Development Works
- Livelihood Activities
- Production System and Micro-enterprises

Institutional Capacity Building &Training: Capacity Building and different types of Training Programmes for WC, SHGs, UGs, farmers, etc. were organized during this Phase to enhance and promote their skills and workmanship.Capacity building support is a crucial component to achieve the desired results from watershed development projects.

Training cum Exposure Visits

Training Programmes carried during Work Phase

Sl. no	Topic	Venue	No of Trainees	Duration (Days)
1	Awareness Programme and PRA.	Pyrda	30	1 Day
2	Awareness Programme and PRA.	Pyrda	33	1 Day
3	Awareness Programme and PRA.	Mynsain	37	1 Day
4	Awareness Programme and PRA.	Mawiong	52	1 Day
5	Training On Concept Seeding of SHG	Mynsain	37	1 Day
6	Training On Bookkeeping	Mynsain	23	1 Day
7	Training On Leadership	Mynsain	21	1 Day
8	Training On Concept Seeding of SHG	Mawiong LP School	42	1Day
9	Training On Concept Seeding of SHG	Pyrda LP School	67	1Day
10	Training On Bookkeeping	Mawiong LP School	10	1 Day
11	Training On Concept Seeding of SHG	Pyrdathymmai LP School	38	1 Day
12	Training On Bookkeeping	Pyrda LP School	22	1Day
13	Training On Bookkeeping	Pyrdathymmai LP School	19	1 Day
14	Training On Concept Seeding of SHG	Nongliput RCLP School	21	1Day
15	Training On Leadership and Exposure Trip to ICAR on Agriculture Development	ICAR	4	1 Day
16	Training on Watershed Committee	RRTC	10	1 Day
17	Training On Livestock Management	KyrdemKulai	10	10 Days
18	Training On Leadership	Nongliput RCLP School	9	1 Day
19	Training On Bookkeeping	Nongliput RCLP School	10	1 Day
20	Awareness Programme and PRA.	Nongliput	12	1 Day
21	Training on Piggery Farming	Pyrda	13	1 Day
22	Exposure Trip	Sohra	30	1 Day
23	Cleaning Drive	Pyrda	65	1 Day

24	Fishery Development & Management	RRTC, Umran	10	3 Day
25	Awareness Campaign & Capacity Building of SHG,Farmers and WC etc.	Pyrda	40	1 Day
26	Training on Tailoring & Knitting	Dwar Jing kyrmen	3	3 Days
27	Training cum Exposure Trip on Fishery Development and Management.	RRTC, Umran	10	3 days
28	Exposure Trip on Vermi composting and piggery farming	RRTC, Umran	31	1 day
29	Awareness Campaign & Capacity Building	Pyrda, Mynsain	70	2 days
30	Exposure Trip to Cherrapunji Project Restoration Degraded	Sohra	30	1 Day
31	Awareness Campaign and capacity building	Pyrda and Mynsain	70	2 Days
32	Awareness Programme on World Environment Day	Govt'LP School Pyrda	59	1 Day
33	Awareness Programme on Celebration of world day to combat desertification	Pyrdathymmai	33	1 Day
34	Training on Hallo Block Making	RRTC	6	3 Day
35	Training on Carpentry	RRTC	4	3 Day
36	Exhibition cum Sale Production of SHG IWMP	State Central Library ,Shillong	9	2 Days
37	Awareness Programme on Carpentry, Tailoring, hallows Block Making and Piggery.	Pyrda	57	1 Day
38	Swachh Bharat Pakhwada Cleanliness	Range Office Soil & Water Conservation Mairang.	12	1 Day
39	Awareness Programme on World Environment Day and Trees Plantation.	RCULP School, Nongliput	52	1 Day
40	Exhibition cum Sale Production of SHG IWMP	Community Hall Nongstoin	8	2 Days
41	Food Processing	Manipur	2	7 Days
42	Refresher Training For SHG	Community Hall Mynsain	14	1 day
43	Food Processing	Office of The Watershed	13	1 Day
44	Social Audit	Pyrda Secondary School.	36	1 Day

Watershed Treatment/ Development Works: Under this category, the works have further been divided into Arable Land Treatment, Non-Arable Land Treatment and Drainage Line Treatment. The Physical Achievements of work done are as below:

VILLAGE WISE ACHIVEMENT OF UMNONGLIPUT-UMSIER WATERSHED UNDER IWMP-VII NONGSTOIN DIVISION : NONGSTOIN

NAME OF THE DISTRICT: WEST KHASI HILL **NO.OF VILLAGES: 3 NOS** **PHYSICAL IN HA/NOS/ RM/UNIT**

NAME OF THE C&RD BLOCK: MAIRANG **PROJECT AREA: 1323 HA**

FINANCIAL RS IN LAKH:

Sl.No	ACTIVITIES	Nongliput				Pyrda				Mawiong				Total	
		Nongliput		Mynsain		Pyrda		PyrdaThymmai		Mawiong		Mawria		Total	
		PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN	PHY	FIN
1	2	3	4	5	6	7	8		10	11	12	13	14	15	16
A	WATERSHED WORKS PHASE:														
	Arable Land Treatments:														
i	Agro-horti	10 Ha	83500	0	0	30 Ha	250500	0	0	10Ha	83500		0	50 Ha	417500
ii	Loose Boulder	6 Ha	45000	2.5Ha	18750	7Ha	52500	6	45000	4 Ha	30000	4.5 Ha	33750	30 Ha	225000
iii	Peripheral bund	458.32	22916	0	0	498.32	24916	0	0	200	10000	0	0	1156.64	57832
iv	Imp of EPF	7	30100	8.5832	36908	10	43000	7	30100	10.92902	43818	7.91674	34042	50.69284	217968
v	Construction of terrace	1.10Ha	22000	0.9	18000	4.5	90000	1.6	32000	0.7	14000	1.2	24000	8.00 Ha	200000
vi	Crop Demonstration	5 Units	25000	0	0	2	10000	4	20000	1	5000	3	15000	15 Ha	75000
	Total of A		228516		73658		470916		127100		186318		106792		1193300
B	Non-Arable land Treatment														
i	AffDev Work	0	0	0	0	47.9	483790	0	0	2.1 Ha	21210	0	0	50 Ha	505000
ii	Impf of D Forest	0	0	0	0	34	122400	0	0	10.00Ha	36000	6.00 Ha	21600	50 Ha	180000
	Total of B	0	0	0	0		606190	0	0		57210		21600		685000
C	Drainage Line Treatment														
i	Check Dam	9 Nos	456730	6 Nos	333260	6 Nos	399550	5 Nos	309360	4 Nos	218710	1 Nos	44990	31 Nos	1762600
ii	Run Off Disposal Channel	1269.5 Rm	52460	322.5Rm	12900	2646.46	112506	0	0	1749.38	74445	1515.78	62999	7503.58	315310
iii	Protection Wall/wall/	1 No	35200	14 Nos	492800	4	140800	4 Nos	140800	14 Nos	369600	5 Nos	132000	42 Nos	1311200
iv	Small Dug out Pond /F.P	5 Nos	151200	0	0	8 Nos	241920	3 Nos	90720	3 Nos	95280	2 Nos	60480	21 Nos	639600
v	Water harvesting	0	0	1	90860	3	409280	4	477130	1	114380	1	90860	10	1182500
vi	Dringking Well	2	50000	0	0	2	50000	0	0	2	50000			6	150000
vi	Aqueduct	0	0	0	0	1	42000	0	0	2	238400	0	0	3	280400

	Total of C		745590		929820		1396056		1018010		1160815		391329		5641610
D	Livelihood Activities for Landless														
i	Carpentry	12 Units	60000	13 Units	65000	15	75000	13	65000	10	50000	9	45000	72	360000
ii	Tailoring	2	13000	1	5000	2	13000	2	13000	2	13000	2	13000	11	70000
iii	Hollow Block making	2	17500	1	12500	5	32500	2	17500	1	5000	1	5000	12	90000
iv	K Garden	8	20000	18	45000	13	32500	13	32500	18	45000	8	20000	78	195000
v	Vermi compost	0	0	2	25000	1	12500	1	12500	1	12500	1	12500	6	75000
	R/F for SHG & Individual	3	53000	6	150000	7	162000	5	91000	2	31000	1	10000	17	497000
	Grant in Aid for SHG & WC	4	25800	8	51600	12	77550	6	38700	2	12900	1	6450	33	213000
vi	Total of D		189300		354100		405050		270200		169400		111950		1500000
E	Production System and micro Enterprise														
i	Grocery Shop	0	0	1	30000	1	30000	1	30000	0	0	0	0	3	90000
ii	Pisiciculture	0	0	1	30000	3	90000	3	90000	1	30000	1	30000	9	270000
iii	Rice Mill	1	50000	1	50000	1	50000	1	50000	1	50000	1	50000	6	300000
iv	Piggery	7	210000	6	180000	6	180000	6	180000	6	180000	7	210000	38	1140000
v	Mud Block Making	1	30000	1	30000	1	30000	1	30000			1	30000	5	150000
	Total of E		290000		320000		380000		380000		260000		320000		1950000
	Grand Total of A+B+C+D+E		1453406		1677578		3258212		1795310		1776533		951671		109.6991

(Rupees One Crore Ninety Six Lakh Nine Thousand Nine Hundred Ten)Only

Present Status of Works:

Sl.no.	Works	Status
2.	**Terraces** 	Terraces are cut and fill structures to level the land surface constructed across steeper slopes to reduce runoff by allowing infiltration of rainwater into the soil and prevent soil erosion. Both dry and wet terraces were constructed; land was brought under Terrace cultivation. In most of the Dry Terraces, vegetables are grown which added extra income to the farmers.
3.	**Agro-Horticulture** 	Seedlings of fruit trees such as Plum, Lagoon and Vegetable Seeds such as carrot, Coriander,etc.were provided to the Watershed area through this Project in which the farmers grow in their fields along with other food and vegetable crops, a technique known as Agro-horticulture.
4.	**Improvement of existing Paddy Field** 	Improvements of the paddy fields were done to increase the productivity of the land.
5.	**Peripheral Bunds**	When a farmer want to cultivate crops in a new area, some kind of fencing is required on the periphery of the cultivated land to prevent erosion of soil and to avoid cattle from damaging their crops. One such Traditional Structures are the Peripheral Bunds which are constructed from grass turfs. These are low cost structures but have proven very effective to the farmers.

6.	**Crop Demonstration/ Kitchen Gardening** 	Certain improved varieties seeds of vegetables such as Beans carrots etc. were introduced to the Watershed area which increase the yield of the crops as well as brought additional income to the farmers.
7.	**Afforestation** 	Afforestation was done on Wastelands and Barren Lands with Tree Species such as *Cryptomeriajaponica, Grevilliarobusta, Alnusnepalensis, Micheliachampaca, Toonaciliata, Bucklandiapopulnea, etc*. The rate of survival of the seedlings was very poor due to many factors. Forest fires, negligence and lack of care and interest of the people are some of the major factors. As a result, the target of covering about 50 Ha of forest land through this intervention could not be met.
8.	**Improvement of Degraded Forests**	Tree species such as *Cryptomeriajaponica, Grevillearobusta, Alnusnepalensis, Micheliachampaca, Toonaciliata, Bucklandiapopulnea,* etc.were also planted in degraded forest lands and community lands. In this case too, the rate of survival of the seedlings was very poor. Hence, only about one third of the 50 Ha target area under this activity could be achieved.
10.	**Protection Walls** 	About 42 nos. of these structures were constructed particularly to protect loss of precious cultivated lands on stream banks from being eroded away during heavy downpour. They are generally stone masonry structures. They have proven to be very beneficial to the farmers since a major portion of the land is protected from the erosive force of rainwater. Most of these structures are still intact though a few have been destroyed because of the strong force of water flowing in the stream during heavy rains.

11.	**Check Dams** 	31 nos. of Check Dams were constructed mainly to reduce runoff velocity and for silt retention. In addition, they also act as Head Water Dam for providing irrigation to the cultivated areas. Hence, behave as multi-functional structures. They are either masonry or concrete structures. The condition of these structures is satisfactory but they require proper care and maintenance from time to time to increase their longevity.
12.	**Water Harvesting Structures** 	Their main purpose is for groundwater recharge but at the same time serve as storage structures for irrigation and for fish farming as well. All the 10 nos. of structures that were constructed are in good condition and some of them have potential as tourist spots. Hence, efforts are being made to instigate the people so as to further improve and beautify them to obtain additional income through tourism activities.
13.	**Small Dug Out Ponds** 	They are 21 in nos. usually aiming at providing irrigation water to vegetable crops particularly during the dry periods between rains. They are low cost and highly efficient structures and enable the farmers to earn extra income. These are also in good working condition and some have been further improved and renovated by the beneficiaries themselves.
14.	**Earthen Irrigation Channel Run off Disposal Channels**	More than 7000rmt ofthese structures are aimed at diverting the excess surface runoff from one area for use or safe disposal to other areas to prevent

		flood damage, erosion, or sedimentation damage. These structures have proven beneficial to the farmers.
15.	**Aqueduct**  **At Mawiong**	These are 3 in nos. and are artificial channels for conveying irrigation water to the Fields and are typically in the form of a bridge across a valley or any other gap.

Livelihood Activities:

The various Livelihood activities taken up were aimed at improving the standards of living and generation of income for the asset less people under the project. Before receiving any assistance, the people were provided with the total training package for taking up such activities at various Training Institutions within the State. Activities like Piggery, Vermicompost, Hollow Block Making, Carpentry, Tailoring and Food Processing etc. have really boosted up the people and they are encouraged to continue with these activities.

Different Livelihood Activities promoted under the Watershed

Tailoring unit at Pyrda

Piggery unit at Mawria.

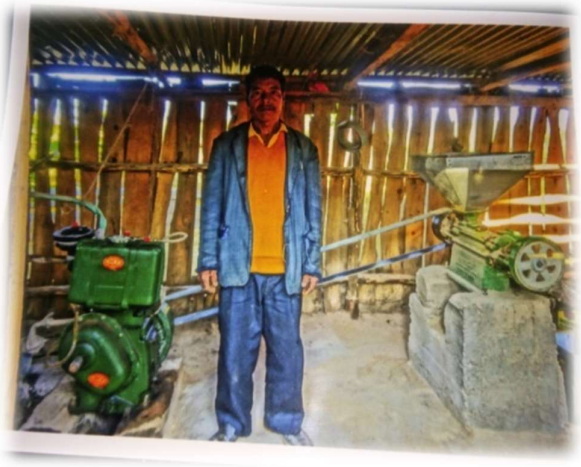
Hallow Block Making at Nongliput

Production System & Microenterprises:

This included farm based activities to support the production system and microenterprises for land owning households. This component aims to diversify and maximize the production and productivity of agriculture system as a whole and targets the land holders with cascading benefits to landless agriculture labor.

Different Activities Promoted under Production System & Micro-enterprises.

Apiculture Unit oat Pyrda



Rice mill unit managed by MAwiongvillageCommununity

Food processing unit of Maitshaphrang SGH, Nongliput

CHAPTER 3.3: CONSOLIDATION & WITHDRAWAL PHASE

In this phase the resources augmented and economic plans developed in Watershed Work Phase were made the foundation to create new nature-based, sustainable livelihoods and raise productivity levels. The main objectives under this phase were:

- Consolidation and completion of various works.
- Building the capacity of the community based organizations to carry outthe new agenda items during post project period.
- Sustainable management of (developed) natural resources and
- Up-scaling of successful experiences regarding farm production systems/off-farm livelihoods.

Consolidation and completion of various works

i. Preparation of project completion report with details about status of each intervention;

ii. Documentation of successful experiences as well as lessons learnt for future use.

Capacity Building of Community Based Organizations

The Community based Organizations such as Watershed Committee, Self Help Groups and User Groups as well as other individual beneficiaries were motivated, sensitized and capacitated on the Operation & Maintenance of assets created during Post Project period. Refreshers Training was organized for the SHGs on Group management & Book-keeping.

Capacity building of Watershed Committee members

Capacity building of User Groups

Capacity building of Self Help Groups

CHAPTER 4: SUCCESS STORIES

-EPA SUCCESS STORY-

Success Story on Footbridge at Mawiong

The footbridge at Mawiong was erected under UmnonliputUmsier Watershed (IWMP-VII), West Khasi Hills Meghalaya as part of the Entry Point Activity (EPA). It was constructed to connect the residents of the village with other villages near and far. It was constructed with the aim of easing the day to day activities of the local people and particularly farmers and school children. The span of the footbridge is 12 Meters, height is 3 meters and freeway is 1.30 m

Objective: The footbridge was constructed to make the villagers easier to cross the stream and provide them access to participate in their local businesses, shorten their route of destination to go from one community or village to another and mainly during monsoon season when the water level in the stream rises.

Utilization: Here around 3 villages benefitted from the footbridge. Farmers and pedestrians travels and passes through this bridge back and forth daily for their agricultural works , to carry out their businesses, works etc, bringing back home their daily necessity. This footbridge has surely acted as a blessing to the people around this area and through this they are able to fulfill their needs.

Impact: The footbridge has proven to be very useful and helpful to the people of this village especially during the rainy seasons and in times of emergencies and the stream is no longer a threat and a problem to the villages even during the monsoon season as it was back then in recent years.

Success Story on Polly rice Machine

At the onset of the Umnongliput-Umsier Watershed IWMP-VI1, Polly rice machine for grinding rice grain was identified as one of the income generating activities which could be taken up since people in this area are traditionally experienced for making local rice snacks such as Putharo, Pusaw, Pusyep, Pukhlein, Pumaloi etc.

Smt MissaideKharthangmawofPyrda earn her living by baking and selling traditionally bake rice snacks like Pukhlein, Putharo, Pusaw, Pusyep,Pumaloi etc. a trait which she learn from her mother. Initially, she was able to prepare less than 10 kg of rice flour since she does not have a Polly rice of her own and has to spend extra on grinding charges which is Rs. 10/kg of Rice flour.

Through the Watershed Project, under the Production System & Microenterprises component, she was able to purchase a Polly Rice Machine at the cost of Rs 30,000. The machine is capable of grinding about 100 kg of rice flour daily. As she can obtain more Rice Flour daily she is now able to bake more snacks depending on the demand. Her main item is the *Putharo* or Steam Rice Cake which she sells off at the rate of Rs.10/piece in her own Tea Stall in Pyrda and Umthlong and to markets at Umthlong, Mawmaram, Sohiong, as well as in Shillong etc. She also earns extra income from the Polly Rice through grinding of Rice flour for other people in her own village as well as neighboring villages which she charges at the rate of Rs. 10/kg of Flour. She was also encouraged to showcase and exhibits her products in many District as well as State levels Exhibition Programmes and Festivals from time to time.

Though, she received a very small assistance, Smt. Missaide has come a long way now because of her hard work and dedication, she is able to expand her business. She also aims at taking her business to a higher level by having more Shops. She has become self-sufficient as well as she has been able to provide employment opportunities to other people.

SUCCESS STORY OF UMSOHLWAI HEAD WATER DAM

Year Of Watershed Work Phase and has benefited about 7 families by providing irrigation to their fields About 3 Ha area has been brought under year round cultivation not just for Paddy but for other income generating crops such as Carrot, Solanaceous vegetables, Coriander, Cole crops, etc.

Through the Head Water Dam at Umsohlwai the farmers now are able to adopt multiple cropping as a result of which soil fertility is maintained. Due to sufficient irrigation water, the growth of paddy is enhanced, thus increasing its yield up to 1000-1200 kg/ha. There was also sufficient water for crop cultivation during winter season. Farmers cultivate vegetables like Carrot, Solanaceous vegetables; Umsohlwai is a locality in Pyrda village having a cultivated area of about 3 Ha. In the past years, the people have been facing lots of problems regarding cultivation as there is scarcity of water and they find difficulties for irrigation during dry seasons because there is no water in the fields and they depend mostly on rain water. A temporary Head Dam with irrigation channels was constructed but that was easily destroyed during heavy rain as they were constructed using mud only and there was not enough water in the field. Hence, the output produced was also very less just 800 kg/ha of paddy.

The Head Water Dam at Umsohlwai under Umnongliput-Umsier (IWMP-VII) Watershed had been constructed during The First Coriander, Cole crops, Beans; Peas etc. One of the beneficiaries was able to generate an extra income of not less than Rs. 40,000/- annually just by growing vegetables. The farmersare also able to produce their own paddy as well as vegetables' seeds like carrot for cultivation and for selling to other farmers of nearby villages.

Since there is sufficient irrigationwater farmers are nowextendingtheir cultivation area so that they can cultivate more crops. They have constructed wet terraces on their own.

BENEFITTED AREA

SUCCESS STORY ON AQUEDUCT AT MAWIONG VILLAGE

The people of Mawiong Village are hardworking farmers who spend most of the time working in the field. They are dependent on rainwater for most of their crops cultivation. They cultivate wide varieties of crops throughout the year. They cultivate mainly Paddy during the Kharif season and vegetables such as potato, cabbage, carrot, beetroot, mustard leaves, chili, radish, etc. during Rabi season.

During the Rainy season, there was sufficient amount of rainfall for cultivation of crops. But for the winter crops they have to depend on the residual moisture in the soil since there was no canal facility. The total cultivable land here in this area is about 10 ha which is being shared by 30 households. Due to the lack of irrigation facilities and the effects of low soil moisture particularly during the winter season, the productivity of their crops is quite low.

Hence, through the Umnongliput-Umsier Watershed Project, an Aqueduct was constructed to provide irrigation to this area. Through the construction of the Aqueduct at Mawiong village, the farmers here are able to cultivate different crops in different seasons accordingly without any problem or shortage of irrigation water for their crops. The farmers are really grateful and will be able to sleep soundly at night with no worries of how to irrigate their crops.

The dimensions of the aqueduct are 15 meter length and 3 meter height and the cost of construction was Rs.1,70,000.00 (One Lakh Seventy) only.

Success Story on Tailoring in PyrdaThymmai Village

Portibon Basaiawmoit a resident of PyrdaThymmai village under Umnongliput-umsier Watershed (IWMP-VII), had keen interest and in born skill in stitching and sewing clothes whenever he get the chance using his friends or neighbors' Tailoring machine. He was lucky enough to have received assistance through the Watershed Project for purchasing a Tailoring machine of his own during the year 2013 under Livelihood component. It was like a dream come true for him. He started small by sewing clothes for Gents such as Trousers, Shirts, etc. of whoever comes to him in his own village Due his hard work and complete dedication, later he was able to buy more machines on his own and rent a shop in Umthlong near the market place. He is particularly specialized in gents Clothing only.

Though, he received a very small assistance, because of his dedicated hard work, he is able to expand his business. He also aims at taking his business to a higher level by purchasing more machines and other required accessories. He has become self-sufficient as well as he has been able to provide employment opportunities to others as well.

PIGGERY

Shri.KaptenRyntathiang is a poor and hardworking man of Pyrda Village under Umnongliput-umsier Watershed IWMP-VII (Batch II) of Mairang C&RD Block West Khasi Hills District.

Initially, he took up Piggery Rearing on his own since long time back. It all started during his childhood days when his parents use to rear pigs in their house and so it was his daily duty to collect vegetables, grasses, weeds and other feeds for the pigs. He became interested in rearing pigs and a thought struck his mind after marriage to take up this particular activity on pig rearing.

He bought 2 piglets, one male and one female from the market and raised in his shed but that did not work well because the shed which he used was built from wood and most of the time the pigs were let loose from the shed creating disturbance in the neighborhood. His sow gave birth to 9 Nos. of piglets but they all died because of the poor hygienic condition of the shed and that brought him great lost.

He tried rearing pigs again but due to lack of financial assistance he could not afford to buy piglets. So, depended his livelihood on daily wages, but still his eagerness to rear pig did not end with his failure.

Later, through the Livelihood Activities Component under the Umnongliput-Umsier Watershed, he received training on modern and scientific method of pig rearing to RRTC, Umran in the year 2014 and also financial assistance of Rs. 30.000.00/- only for construction of a scientific Pig sty and bought 4 piglets, three females and one male. Within a period of one year, he was able to sell off two gilts at the price of Rs. 6000/- and Rs. 8000/- respectively. One of the sows had given birth to 10 Nos. of piglets, 5 males and 5 females which he sold at the rate of Rs. 3000.00 for each male and Rs.2800.00 for a female piglet. Later he sold off the boar at the rate of Rs. 10000.00/- and kept one of the male piglets for breeding purpose. Total income earned during the first year was 50000/- and from Pig shed he got manure for plantation vegetables.

During the second time, the sow gave birth to 9 piglets, 5 males and 4 females which he sold at the same rate as the previous ones. At present, he has around 4 Pigs and a Pig sty with 4 compartments. He has high hopes of expanding his business and earning more income from this activity.

CHAPTER 5: ANNEXURES

WATERSHED COMMITTEE ACCOUNT PASSBOOK

Generally used abbreviations

a/c = Account	dep = Deposit	Pr = Principal
adj = Adjustment	Dft = Draft	proc = Processing Charge
Amt = Amount	dish/dsh = Dishonour	rd = Recurring Deposit
Ar = Arrear	DR = Debit	ret/rtn = Return
bal = Balance	DOB = Date of Birth	Rnd = Round of
Capn = Capitalization	eft = Electronic Fund Transfer	sb = Savings Bank
chg/ch = Charge	Inop = Inoperative	SC = Short Credit
chq = Cheque	ins = Insurance	SI/So/SORD = Standing Instruction
Clos = Closure	int/in = Interest	S/D/W/H/o = Son/Daughter/Wife/Husband of
coll = Collection	lon/ln = Loan	tr/trf/xfer = Transfer
comm. = Commission	min = Minimum	TT = Telegraphic Transfer
COR/CORR = Correction	os = Outstanding	txn = Transaction
CR = Credit	P & T = Postage & Telegram	Wdl = Withdrawal
csh = Cash	Pos = Point of Sale	+ MOD bal = total balance (SB+linked MOD a/c)

भारतीय स्टेट बैंक

State Bank of India

Savings Bank Account — MAIRANG
CIF No : 86170259380 — MISSION MAIRANG
Account No : 32156786543
Customer Name: UMNONGLYPUT UMSIER WATERSHED DEVELOPMENT FUND (UUWDF)

S/D/W/H/o:
Address:O/O SOIL & WATER CONSERVATION RANGE — Phone:282229
MAIRANG — Email:
PO MAIRANG — Branch Code:5734
Phone: — Date of Issue:25/01/2012
Email: — 25/01/2012 5841992 5734
D.O.B. (If Minor): — FIRST
MOP.:
Nom. Reg. No.:

शाखा प्रबंधक
Branch Manager

Office of the Jt. Registrar of Societies
West Khasi Hills District, Nongstoin

CERTIFICATE OF REGISTRATION OF SOCIETIES
Act 7 of 1990

NO.NRS/UUWA-103/11 OF 2011

I hereby certify that UMNONGLYPUT-UMSIER WATERSHED ASSOCIATION P.O. MAIRANG WEST KHASI HILLS DISTRICT, MEGHALAYA *has this day been registered under the Meghalaya Societies Registration Act, 7, of 1990 Given under my hand at* NONGSTOIN *This* TWENTYSEVENTH *day of* THE MONTH OF JUNE *TWO THOUSAND AND* ELEVEN

Registration fee of Rs :- 250/- Paid.

(Shri W. Nongsiej, MCS)
REGISTRAR OF SOCIETIES, WEST KHASI HILLS
DISTRICT : NONGSTOIN.

Registrar of Societies,
West Khasi Hills District,
Nongstoin.