

Annual Report

2018 - 2019



सत्यमेव जयते

Soil & Water
Conservation Department
Government of Meghalaya



ANNUAL REPORT 2018-2019



SOIL & WATER CONSERVATION DEPARTMENT
GOVERNMENT OF MEGHALAYA

Contents

➤ Preface	
➤ Messages	
CHAPTER - I	1
➤ Introduction	1
Mandate	
Aims	
Objectives	
Prerequisites	
Agenda of Action	
➤ Administrative Set-up of the Department	2
Directorate, Branch Directorate, Field offices	
Organizational Set-Up (Flow chart)	
Strength of Department	
CHAPTER - II	8
➤ Achievements (Physical/ Financial) of the Department	8
Budget Outlay of the Department during 2018-19	
Achievements under various schemes for 2018-19	
CHAPTER - III	50
➤ Success Stories	
➤ Right to Information (RTI)	
➤ Conservation Training Institutes (C.T.I)	
➤ Meghalaya Commercial Crops Development Board (MCCDB)	
CHAPTER - IV	79
➤ E-Governance	
➤ Educations and Trainings during 2018-19	

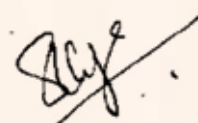
Preface

The Soil & Water Conservation Department is publishing its Annual Report for the year 2018-19 primarily with the aim of portraying its role and responsibility as the connoisseur of prophylactic measures and methods for conservation and management of the State's natural resources, particularly, soil, water and vegetation. The different facets of its activities also encompass socio-economic development, particularly of the rural poor.

The Annual Report assumes importance as it serves not only as an account of the activities undertaken during the period but also providing inferences for the policies and spirit of the Department itself. Featuring wide-ranging dynamics of the Department, the Annual Report also serve as a reference point for relevant information that may be of use to concerned individuals and agencies.

As you would have seen, there have been changes in the modes of implementation of the projects and schemes where there is more transparency and that the stakeholders were made partners in the developmental efforts of the Department. Also visible are the adoption and use of the various technologies, particularly Information Technology in the execution and implementation of works.

I am confident that the Annual Report would have served the purpose for which it was published and that what had been manifested therein would propel the Department to greater heights in its endeavours to conserve, manage and protect our natural resources.



(S. Ch. Sangma))

Editor

&

Director of Soil & Water Conservation,
Meghalaya, Shillong

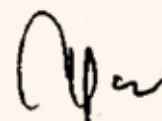
Message

I am happy to know that the Soil & Water Conservation Department is bringing out the Annual Report for the Financial Year 2018-19.

I am confident that this Annual Report will project and showcase the many works and achievements of the Department during the last twelve months.

I also take this opportunity to appreciate the efforts of the Editorial Board, the Staff and Officers of the Department for minutely compiling all the facts and figures and for working tirelessly not only in compiling this Report but, more so, in implementing the various schemes and projects of the Department.

I wish the Department every success in its endeavour to serve the people of our State.



(Shri M.R. Synrem)

Commissioner & Secretary
to the Govt. of Meghalaya,
Soil & Water Conservation
Department

CHAPTER- I

1.1 OVERVIEW

INTRODUCTION:

In view of the increasing human population, inadequate management of resources, faulty human practices, emergence of wastelands, decreasing trend of land productivity, depletion of water sources, deterioration of soil health, climate variability, unhealthy migrations pattern and eventually poverty and under-development are posing serious challenges to food, social, economic, livelihood and environmental securities. The Soil & Water Conservation Department, through their various Interventions seek to address, Conservation, Protection, Restoration and Improvement of Natural Resources. The vigorous execution of schemes and projects in participation mode, has percolated to the masses and has brought in a wider understanding and acceptance amongst a wide section of the population, particularly in rural areas. As an added measure, community organization, promotion of livelihood systems and employment generation is focused upon, besides enhancing equitable and sustainable sharing of benefits arising from projects.

Mandate:

Natural resources management, particularly soil, water and vegetation resources in the context of perpetual utilization and sustainable development of the said resources to improve and sustain livelihood system and to aid in income earning activities of the user-communities.

Aims:

- Promote sustainable utilization of soil, water and vegetation resources
- Sustainable food support and water needs
- Promote social, economic and ecological development

Objectives:

- Dissipating accelerated soil erosion, surface runoff and erosion of topsoil.
- Enhancing water holding capacity of the soil.
- Improving soil moisture regime within the soil profile/ monolith.
- Promoting soil health and tilth.
- Providing soil cover with forest trees/ fruit trees/plantation crops, etc.
- Protecting stream/ river bank erosion and denudation of cultivable/ cultivated land.
- Protecting drainage area of water sources.
- Harvesting rainwater for multipurpose utilities.
- Establishing micro-irrigation facilities.
- Enhancing agricultural crop productivity.
- Promoting integrated farming system.
- Promoting livelihood and gainful employment opportunities.

Pre-requisites:

In the endeavor for natural resources management, it is important for the local partners in development, the local institutions, community, stakeholders and users to unreservedly, voluntarily and actively participate in the different phases viz. exploratory, planning phases and upward. Secondly, it is also equally required for other development Departments to willingly participate for ensuring convergence to bring about holistic and realistic development of the people. Lastly, the importance of Public-Private Partnership in up-scaling the natural resources management programmes require no emphasis.

Agenda of Action:

To ensure that the service-deliveries promote and meet the afore-cited aims and objectives, a mechanism to take forward the system is required. They are underlined as follows:

- Formulation of Land Use and Action Plan on a participatory mode; adoption of appropriate soil and water conservation techniques and measures preferably on a Watershed basis, which is increasingly recognized as an ideal approach for Integrated Natural Resources Management Programme.
- Strengthening the information, Education, Communication Systems, Capacity Building & Demonstration.
- Application of science and technology and research & development inputs.
- Awareness campaign, mobilization and organization of the community, empowerment, building their capacity, up gradation of local skills.
- Promotion and encouragement of Self Help Institutions and other promoting institutions. Designing mechanism to monitor and evaluate socio-techno-economic impacts and results.

1.2 ADMINISTRATIVE SETUP OF THE DEPARTMENT**1. DIRECTORATE OF SOIL & WATER CONSERVATION**

- 2 BRANCH DIRECTORATE**
- Research & Training, Conservation Training Institute, Byrnihat.
 - Jhum Control, Tura

- 3 FUNCTIONAL DIVISIONS**
1. Project Formulation Cell
 2. Soil Survey
 3. Engineering Division

- 4 DISTRICT/FIELD DIVISIONS**
- In the field, the works of the Department are executed by the Territorial and the Plantation Crop Divisions supported by the Soil & Water Conservation Ranges and Soil & Water Conservation Beat offices.

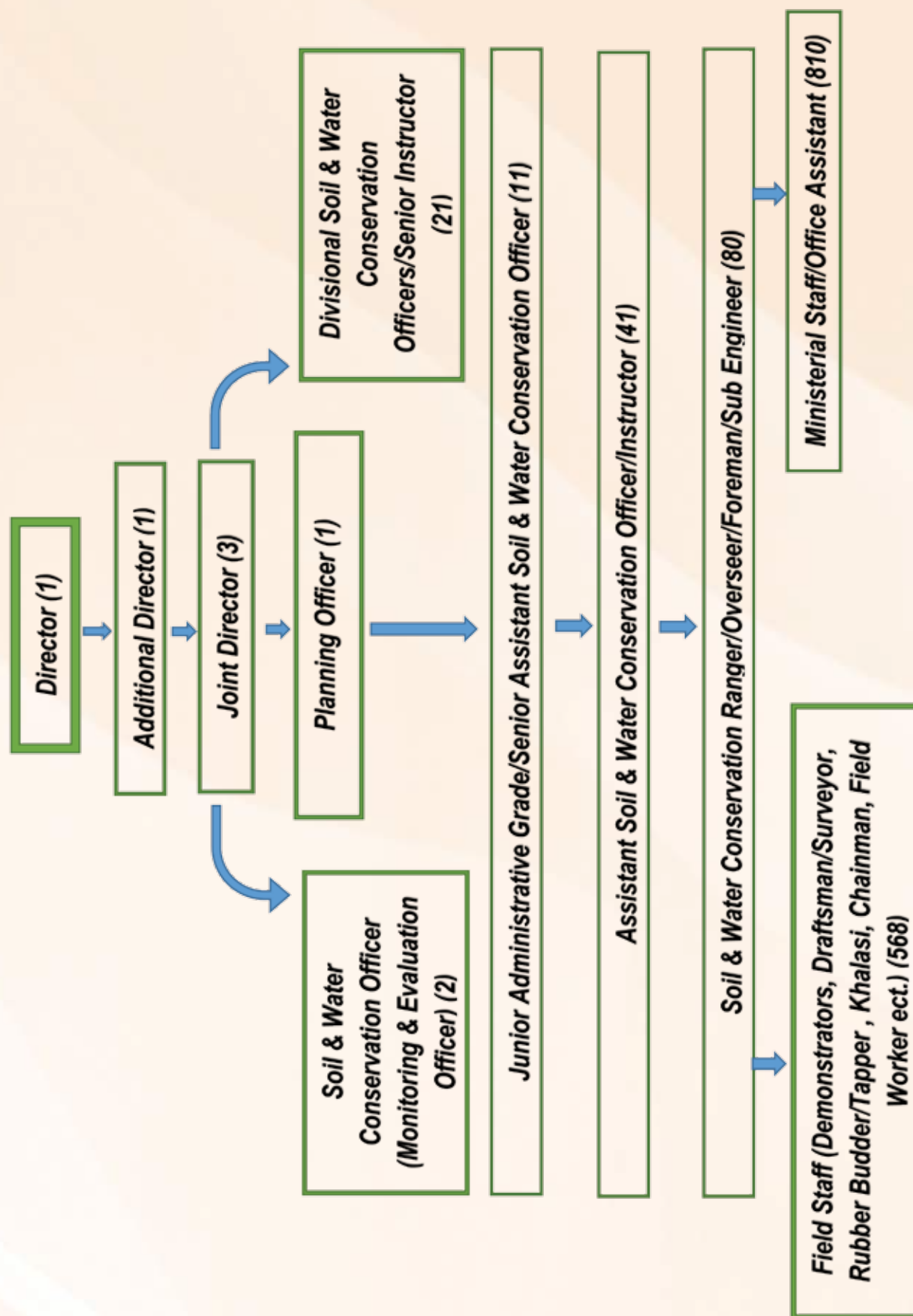
TERRITORIAL			
SI No.	District	Division	Range/ Beat Office
1	East Khasi Hills District	Shillong Soil and Water Conservation (Territorial) Division, Shillong	1. Southern Soil & Water Conservation Range, Mawphlang.
			2. Shillong Soil & Water Conservation Range, Shillong.
			3. Laitlyngkot Soil & Water Conservation Range, Laitlyngkot.
			4. Watershed Management Soil & Water Conservation Range, Shillong.
			5. Sohra Soil & Water Conservation Range, Sohra.
		Beat Office	1. Weiloi Soil & Water Conservation Beat Office, Weiloi.

2	West Jaintia Hills District	Jowai Soil and Water Conservation (Territorial) Division, Shillong	1. Jowai Soil & Water Conservation Range, Thadlaskein.
			2. Amlarem Soil & Water Conservation Range, Amlarem.
			3. Watershed Management Soil & Water Conservation Range, Jowai.
			4. Shangpung Soil & Water Conservation Range, Shangpung.
3	East Jaintia Hills District	East Jaintia Hills Soil & Water Conservation Division, Khliehriat	1. Khliehriat Soil & Water Conservation Range, Khliehriat.
			2. Lumshnong Soil & Water Conservation Range, Lumshnong.
4	Ri – Bhoi District	Ri-Bhoi Soil and Water Conservation Division, Nongpoh	1. Nongpoh Soil & Water Conservation Range, Nongpoh.
			2. Patharkhmah Soil & Water Conservation Range, Patharkhmah.
		Beat Office	3. Sonidan Soil & Water Conservation Range, Sonidan.
5	West Khasi Hills District	Nongstoin Soil and Water Conservation Division	1. Umroi Soil & Water Conservation Beat Office, Umroi.
			1. Riango Soil & Water Conservation Range, Riango.
			2. Mairang Soil & Water Conservation Range, Mairang.
			3. Nongstoin Soil & Water Conservation Range, Nongstoin.
6	South West Khasi Hills District	South West Khasi Hills Soil and Water Conservation Division, Mawkyrwat	4. Watershed Management Soil & Water Conservation Range, Nongstoin.
			1. Mawkyrwat Soil & Water Conservation Range, Mawkyrwat.
7	West Garo Hills District	Tura Soil and Water Conservation (Territorial) Division, Tura	2. Border Areas Soil & Water Conservation Range, Ranikor.
			1. Southern Soil & Water Conservation Range, Machangpani.
			2. Central Soil & Water Conservation Range, Tebronggre.
			3. Anogre Soil & Water Conservation Range, Anogre.
			4. Damjonggre Soil & Water Conservation Range, Damjonggre
			1. Jongchipara Soil & Water Conservation Range, Jongchipara.
8	South Garo Hills District	South Garo Hills Soil and Water Conservation Division, Baghmara	6. Watershed Management Soil & Water Conservation Range, Tura.
		Beat Office	1. Baghmara Soil & Water Conservation Range, Baghmara
9	South West Garo Hills District	South West Garo Hills Soil and Water Conservation Division, Ampati	1. Chokpot Soil & Water Conservation Plantation Crop Beat, Chokpot
			1. Damalgre Soil & Water Conservation Range, Damalgre
10	East Garo Hills District	Simsanggre, Soil and Water Conservation, Division, Williamnagar	2. Zikzak Soil & Water Conservation Range, Zikzak
			1. Eastern Soil & Water Conservation Range, Songsak Bonegre.
			2. Watershed Management Soil & Water Conservation Range, Williamnagar.

11	North Garo Hills District	North Garo Hills Soil and Water Conservation Division, Resubelpara	1. Mendipathar Soil & Water Conservation Range, Mendipathar.
		Beat Office	2. Northern Soil & Water Conservation Range, Wageasi.
			1. Adokgre Soil & Water Conservation Beat Office, Adokgre.

PLANTATION CROPS			
Sl. No.	District	Division	Range/ Beat Office
1	East Khasi Hills District	Shillong Soil & Water Conservation (Plantation Crops) Division, Shillong	1. Shillong Soil & Water Conservation Plantation Crops Range, Shillong.
		Beat Office	2. Marngar, Soil & Water Conservation Plantation Crops Range, Marngar
			1. Sonapahar Soil & Water Conservation Plantation Crops Beat, Sonapahar
2	West Garo Hills District	Tura Soil and Water Conservation (Plantation Crops) Division, Tura	1. Danakgre Soil & Water Conservation Plantation Crops Range, Danakgre
			2. Chokpot Soil & Water Conservation Plantation Crops Range, Chokpot
			3. Baghmara Soil & Water Conservation Plantation Crops Range, Baghmara
			4. Williamnagar, Soil & Water Conservation Plantation Crops Range, Williamnagar
			5. Wageasi, Soil & Water Conservation Plantation Crops Range, Wageasi
		Beat Office	1. Dadenggre, Soil & Water Conservation Beat Office, Dadenggre
			2. Ampati, Soil & Water Conservation Beat Office, Ampati.
			3. Rongjeng, Soil & Water Conservation Beat Office, Rongjeng
			4. Bajengdoba, Soil & Water Conservation Beat Office, Bahendoba
			5. Kharkutta, Soil & Water Conservation Beat Office, Kharkutta
			6. Rongara, Soil & Water Conservation Beat Office, Rongara
3	West Jaintia Hills District	Jowai Soil & Water Conservation (Plantation Crops) Division, Shillong	1. Amlarem Soil & Water Conservation Plantation Crops Range, Amlarem.
			2. Lumshnong Soil & Water Conservation Plantation Crops Range, Lumshnong
			1. Namdong Soil & Water Conservation Plantation Crops Range, Namdong

1.3 ORGANISATIONAL SET-UP OF THE SOIL & WATER CONSERVATION



1.4 STRENGTH OF THE DEPARTMENT

Sl. No	Name of the Office	Director of Soil & Water Conservation	Additional Director of Soil & Water Conservation	Joint Director of Soil & Water Conservation	DSW-CO/ Instructor	Junior Administrative Grade/ Senior AS&WCO/ Instructor	AS-WCO/ asst. instructor	Ranger / Overseer / Foreman/Sub-Engg (electrical)	Field staffs	Establishment/ ministerial	Total
1	The Directorate of Soil & Water Conservation, Shillong	1	1	1	2	1	3	2		568	810
2	Joint Director, Soil & Water Conservation, Tura			1	1		1	0			
3	Joint. Director, Soil & Water Conservation (Res & Trn), CTI, Byrnihat			1	4		3	8			
4	Shillong S & WC (T) Division, Shillong			0	1	2	4	5			
5	Tura S & WC (T) Division, Tura			0	1	1	2	12			
6	Jowai S & WC (T) Division, Jowai			0	1	1	3	6			
7	Nongstoin S & WC Division, Nongstoin			0	1	1	3	7			
8	Simsanggre S & WC Division, Williamnagar			0	1		3	5			
9	Shillong S & WC (PC) Division, Shillong			0	1		2	4			
10	Tura S & WC (PC) Division, Shillong			0	1		2	3			

11	Jowai S & WC (PC) Division, Jowai			0	1		1	3			
12	Ri Bhoi S & WC Division, Nongpoh			0	1		1	3			
13	South Garo Hills S & WC Division, Baghmara			0	1	1	1	1			
14	Soil Survey S & WC Division, Shillong			0	1		2	5			
15	PFC S & WC Division, Shillong			0	1	1	2	6			
16	Engineering Division S & WC Division, Shillong			0	1		0	2			
17	East Jaintia Hills S & WC Division, Khliehriat			0	1	1	2	2			
18	South West Khasi Hills S & WC Division, Mawkyrwat			0	1	1	2	2			
19	South West Garo Hills S & WC Division, Ampati			0	1	1	2	2			
20	North Garo Hills S & WC Division, Resubelpara			0	1		2	2			
	Total	1	1	3	24	11	41	80	568	810	1539

CHAPTER- II

2. Achievements (Physical/ Financial) of the Department

2.1 Statement indicating Schemewise Budgetted Outlay and Expenditure in respect of Development Expenditure Budget 2018-19

(Rs. in Lakhs)

SI No.	Name of Schemes/Projects	Budgetted Outlay (2018-19)	Expenditure (Upto 31.03.2019)	Remarks
(1)	(2)	(3)	(4)	(5)
	SOIL & WATER CONSERVATION SECTOR			
	2216. HOUSING-STATE SCHEMES			
	07. HOUSING			
	800. Other Expenditure			
	(01) Construction			
	TOTAL 2216	0.00	0.00	
	2402. SOIL & WATER CONSERVATION			
	STATE SCHEMES			
	001. DIRECTION & ADMINISTRATION			
	(01) Directorate of Soil Conservation	-	-	
	(02) Divisional Soil Conservation Offices	513.27	428.78	
	(03) Soil Conservation Range Offices	67.25	54.54	
	(05) Project Formulation Cell	0.00	0.00	
	(06) Soil Conservation Engineering Division			
	(07) Monitoring and Evaluation Unit			
	(08) Cash Crop Division	0.00	0.00	
	(10) Soil Conservation Survey Division			
	TOTAL 001	580.52	483.32	
	102. SOIL CONSERVATION SCHEME			
	(04) Erosion Control Works		52.50	Amount Re-Appropriated from IWDP
	(06) Afforestation	219.34	219.29	
	(08) Water Conservation & Distribution Works / Irrigation			
	(09) Cash Crop Development Works	374.66	374.66	
	(10) Construction works in Urban Areas			
	(11) Water Harvesting Works / Farm ponds, etc.			
	(14) Integrated Watershed Management Programme (IWMP) (STATE SHARE)	750.00	74.33	
	(15) Convergence Fund			
	(16) Scheme under Convergence with Community Led Ecosystem Management Project (CLEMP)			
	(17) Scheme under the Ministry of Tribal Affairs	400.00		

	(18) Community Water Reservoir (In Convergence with MGNREGA)	200.00	200.00	
	TOTAL 102	1944.00	920.78	
	109. EXTENSION & TRAINING			
	(01) Conservation Training Institute			
	(02) Training at Soil Conservation Centre			
	(03) Extension Programme & Info. Services	1.00	1.00	
	TOTAL 109	1.00	1.00	
	800. OTHER EXPENDITURE			
	800-(01). Construction of Roads to Work Areas			
	TOTAL 800 (01)	0.00	0.00	
	800-(02). Construction & Maintenance of Departmental Non-Residential Buildings		87.80	Amount Re-Appropriated from IWDP
	TOTAL 800 (02)	0.00	87.80	
(1)	(2)	(3)	(4)	(5)
	800-(06). Meghalaya Commercial Crops Development Board			
	31. Grants-in-aid (Salary)	26.48	26.48	
	36. Grants-in-aid General (Non-Salary)	1.00	1.00	
	TOTAL 800 (06)	27.48	27.48	
	800-(07). Watershed Development Project In Shifting Cultivation Areas (WDPSCA)	-	-	
	TOTAL 800 (07)	0.00	0.00	
	800-(08). Soil Conservation Scheme under NABARD Loan			
	NABARD Loan	1425.00	1150.50	
	NABARD (State Share)	75.00	89.23	
	TOTAL 800 (08)	1500.00	1239.73	
	800-(13). Accelerated Irrigation Benefit Programme (AIBP) (STATE SHARE)	750.00		
	TOTAL 800 (13)	750.00	0.00	
	800-(14). Integrated Watershed Management Programme (IWMP)	-	-	
	TOTAL 800 (14)	0.00	0.00	
	800-(16). Cherrapunjee Ecological Project – Restoration of Degraded Land under Sohra Plateau	-	-	
	TOTAL 800 (16)	0.00	0.00	
	TOTAL 800	2277.48	1355.01	
	TOTAL STATE SCHEMES	4803.00	2760.11	
	CENTRALLY SPONSORED SCHEMES			
	102. SOIL CONSERVATION			
	(14) Integrated Watershed Management Programme (IWMP) (CENTRAL SHARE)	6750.00	669.00	
	Total (14)	6750.00	669.00	

	TOTAL 102	6750.00	669.00	
	(13) Accelerated Irrigation Benefit Programme (AIBP) (CENTRAL SHARE)	6750.00		
	Total (13)	6750.00	0.00	
	TOTAL 102	6750.00	0.00	
	TOTAL CENTRALLY SPONSORED SCHEMES	13500.00	669.00	
	TOTAL 2402	18303.00	3429.11	
	2415. AGRICULTURAL RESEARCH & EDUCATION			
	01. Soil Conservation Research Centre	4.00	4.00	
	02. Field Trial & Experiment	-	-	
	TOTAL 2415	4.00	4.00	
	GRAND TOTAL	18307.00	3433.11	
(1)	(2)	(3)	(4)	(5)
	UNDER RURAL DEVELOPMENT SECTOR			
	Integrated Wasteland Development Programme (IWDP) (Central Share)	1800.00	-	
	Integrated Wasteland Development Programme (IWDP) (State Share)	200.00	-	Amount Re-Appropriated to 102(04) and 800(02)
	TOTAL IWDP	2000.00	0.00	

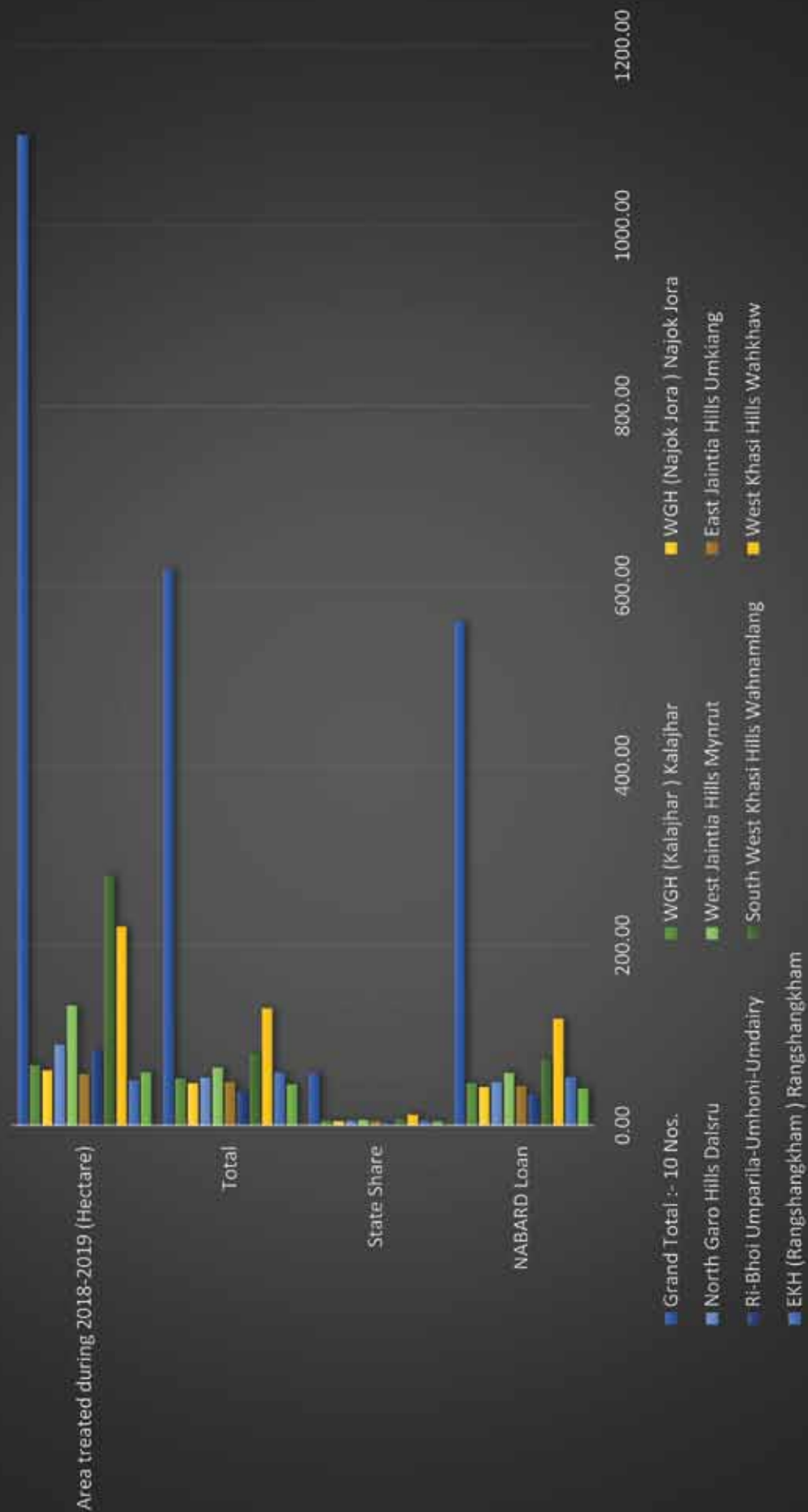
2.2 STATEMENT SHOWING THE PROGRESS AND STATUS OF THE 10 NOS. PROJECTS UNDER SOIL CONSERVATION SCHEME UNDER NABARD LOAN - RIDF-XX

(Rs. in Lakhs)

Sl. No.	Name of District and Project	Total Project Cost			Area to be treated (Ha.)	Cumulative Achievement Upto 2017-18			Total Area treated upto 2017-18 (Ha.)	Expenditure incurred during 2018-19			Area treated during 2018-19 (Ha.)	Cumulative Achievement Upto 2018-19			Total Area treated upto 2018-19 (Ha.)
		Loan	SS	Total		Loan	SS	Total		Loan	SS	Total		Loan	SS	Total	
	East Khasi Hills																
1	Wah Umlawbah	206.21	10.85	217.06	280.00	165	7	172	221	41.21	4.35	45.56	59.00	206	11	217	280
2	Rangshangkham	265.53	13.98	279.51	240.00	212	8	221	190	53.09	5.56	58.65	50.00	266	14	280	240
	West Khasi Hills																
3	Wahkhaw	591.15	31.11	622.26	1055.00	473	19	492	834	118.47	11.85	130.32	221.00	591	31	622	1055
	South West Khasi Hills																
4	Wahnamlang	365.06	19.21	384.27	1325.00	292	12	304	1047	73.05	7.53	80.58	278.00	365	19	384	1325
	Ri-Bhoi																
5	Umparila-Umho-ni-Umdairy	171.51	9.03	180.54	400.00	137	5	143	316	34.26	3.66	37.92	84.00	172	9	181	400
	East Jaintia Hills																
6	Umkiang	221.14	11.64	232.78	270.00	177	7	184	213	44.19	4.66	48.85	57.00	221	12	233	270
	West Jaintia Hills																
7	Mynrut	291.31	15.33	306.64	633.60	233	9	242	500	58.27	6.06	64.33	133.60	291	15	307	634
	North Garo Hills																
8	Dalsru	240.10	12.64	252.74	430.00	192	8	200	340	48.00	5.04	53.04	90.00	240	13	253	430
	West Garo Hills																
9	Najok Jora	212.48	11.18	223.66	290.46	170	7	177	229	42.45	4.50	46.95	61.46	212	11	224	290
10	Kalajhar	235.66	12.40	248.06	322.15	189	7	196	255	47.11	4.95	52.06	67.15	236	12	248	322
	Grand Total :- 10 Nos.	2800.15	147.37	2947.52	5246.21	2240.05	89.21	2329.26	4145.00	560.10	58.16	618.26	1101.21	2800.15	147.37	2947.52	5246.21

Note: All the 10 Nos. Projects under RIDF-XX have been completed in 2018-19.

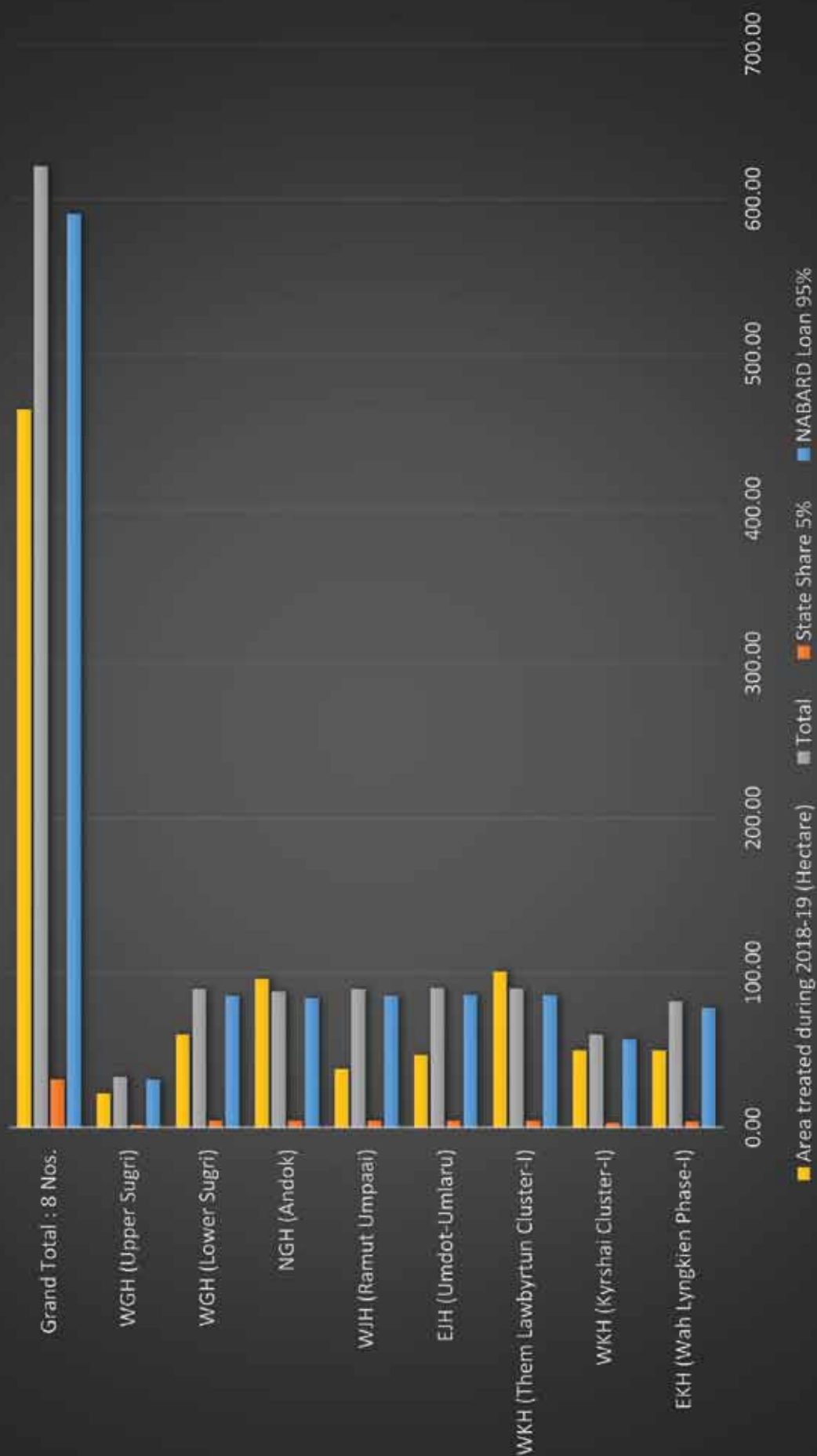
Expenditure incurred during 2018-19



2.3 STATEMENT SHOWING THE PROGRESS AND STATUS OF THE 8 NOS. RIVER VALLEY PROJECTS INCLUDED UNDER RIDF-XXIV UNDER SOIL CONSERVATION SCHEME UNDER NABARD LOAN

Sl. No.	Name of District and Project	Total Project Cost (Rs. in Lakh)			Total Area to be treated (Hectare)	Expenditure incurred during 2018-19 (Rs. in Lakh)			Area treated during 2018-19 (Hectare)
		NABARD Loan 95%	State Share 5%	Total		NABARD Loan 95%	State Share 5%	Total	
1	2	3	4	5	6	7	8	9	10
	East Khasi Hills								
1	Wah Lyngkien Phase-I	258.15	13.59	271.74	166.00	77.45	4.07	81.52	50.00
	West Khasi Hills								
2	Kyrshai Cluster-I	190.24	10.01	200.25	167.00	57.07	3.00	60.07	50.00
3	Them Lawbyrtun Cluster-I	284.70	14.98	299.68	338.00	85.41	4.50	89.91	101.00
	East Jaintia Hills								
4	Umdot-Umlaru	285.91	15.05	300.96	156.00	85.77	4.52	90.29	47.00
	West Jaintia Hills								
5	Ramut Umpai	283.54	14.92	298.46	125.00	85.06	4.48	89.54	38.00
	North Garo Hills								
6	Andok	278.57	14.66	293.23	320.00	83.57	4.40	87.97	96.00
	West Garo Hills								
7	Lower Sugri	283.58	14.92	298.50	199.00	85.07	4.48	89.55	60.00
8	Upper Sugri	103.31	5.44	108.75	72.50	31.00	1.63	32.63	22.00
	Grand Total : 8 Nos.	1968.00	103.57	2071.57	1543.50	590.40	31.08	621.48	464.00

Expenditure incurred during 2018-19 (Rs. in Lakh)





Improvement of Existing Paddy Field

Project : Rongtam Rivervalley Project
 Location : Nengkra
 C&Rd Block : Songsak C&RD Block
 District : East Garo Hills



Before Construction at Rangblang Nongtylla,
 South West Khasi Hills



After Construction at Rangblang Nongtylla,
 South West Khasi Hills



BEFORE CONSTRUCTION AT RANGLANG SOHSYNIANG, SOUTH WEST KHASI HILLS



AFTER CONSTRUCTION AT RANGLANG SOHSYNIANG, SOUTH WEST KHASI HILLS

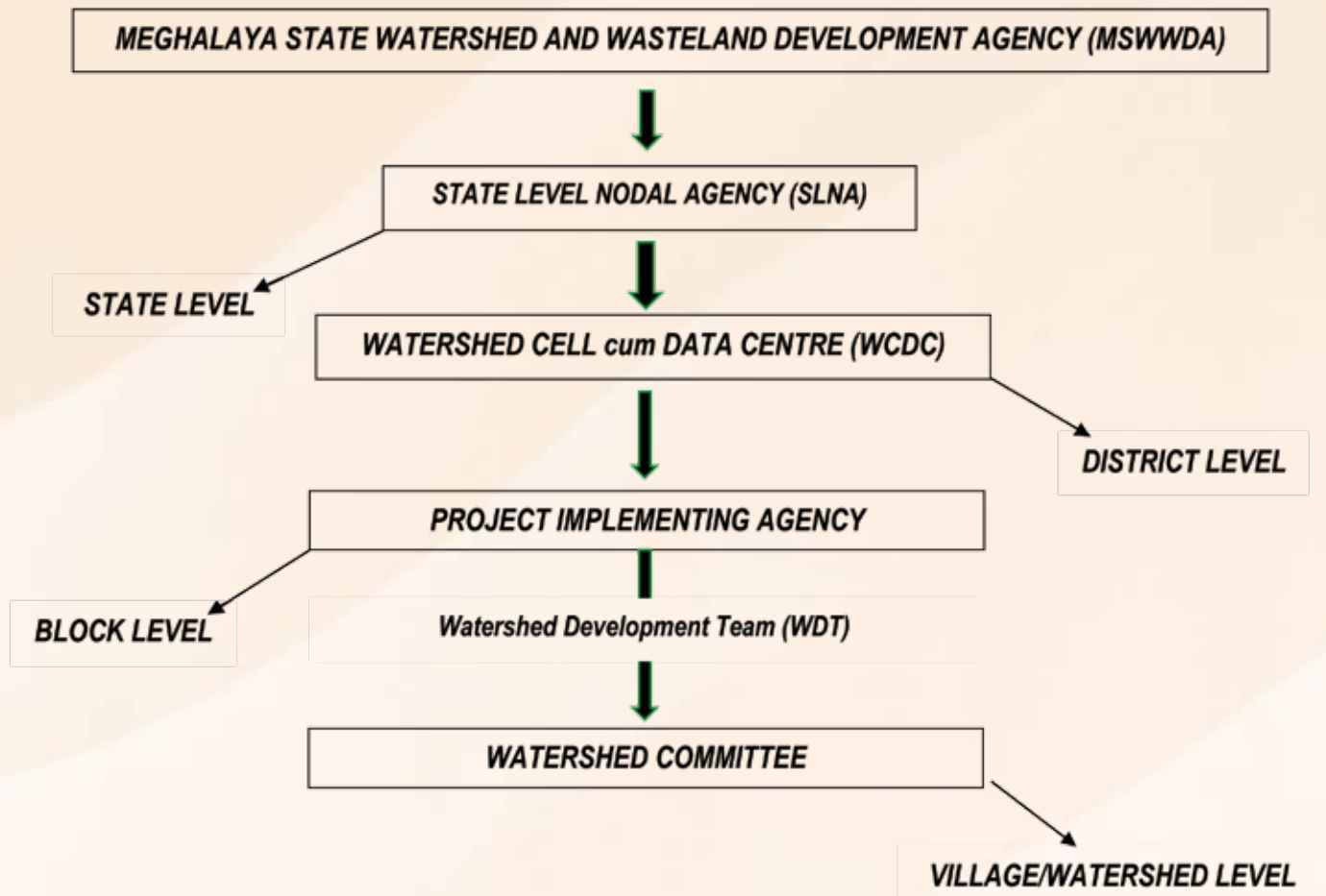
2.4 Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) erstwhile IWMP

Meghalaya State Watershed and Wasteland Development Agency (MSWWDA):

The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) erstwhile (IWMP) is the result of the new and unified approach of the Government of India for treatment and development of the new generation watersheds in realistic and holistic manner. The Government of India through the National Rainfed Area Authority (NRAA) has evolved the Common Guidelines, 2008 for implementation of the Watershed Development Projects. The major area in which paradigm shift has been made under the programme are, inter-alia, institutional funding of the State Government through the State Level Nodal Agency (SLNA) at the State Level.

For the state of Meghalaya, the SLNA was constituted on 25th June 2009, called the Meghalaya State Watershed & Wasteland Development Agency (MSWWDA) which has been registered under the Meghalaya Societies Registration Act, XII of 1983. The main functions of the MSWWDA are:

- Prepare the State Perspective and Strategic Plan of watershed development of the state
- Establish and maintain a State Level Data Cell from funds sanctioned by the Government of India
- Provide technical support to the Watershed Cell cum Data Centres of the Districts.
- Approve independent institutions for capacity building and work out the overall capacity building strategy
- Approve Project Implementing Agencies (PIAs) identified/selected by District Level Committee by adopting appropriate objective selection criteria and transparent system
- Establish monitoring, evaluation and learning systems at various levels
- Ensure regular and timely online monitoring of watershed projects in the state
- Prepare State Specific Process Guidelines, Technology Manuals, etc in coordination with the Nodal Ministry/NRAA and operationalise the same.



Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY) erstwhile (IWMP)
LIST OF SANCTIONED IWMP PROJECTS OF MEGHALAYA STATE DURING THE YEAR 2009-10 VIDE SANCTION LETTER
NO.K-11 013/1/2009/IWMP (MEGHALAYA). dt. 30.09.2009
Batch I (2009-2010) Rupees in Lakhs

Sl. No	District	Name of C&RD Block	Area for treatment (ha)	Total Project Cost	Central Share (90%)	State Share (10%)	Achievement upto 2017-18		Achievement for 2018-19		Cumulative Achievement upto 2018-19	
							Financial	Physical	Financial	Physical	Financial	Physical
1	East Khasi Hills-IWMP-I, IWMP-II, IWMP-III.	Myliem, Mawryngkneng, Laikroh-Khatarnong	4000	600	540	60	600	4000	0	0	600	4000
2	West Khasi Hills-IWMP-I, IWMP-II.	Mairang, Mawkyrwat.	5000	750	675	75	750	5000	0	0	750	5000
3	Jaintia Hills- IWMP-I, IWMP-II.	Thadlaskain, Laskein.	5000	750	675	75	750	5000	0	0	750	5000
4	Ri-Bhoi- IWMP-I, IWMP-II, IWMP-III.	Umsning, Jirang, Umling.	4000	600	540	60	600	3706	0	0	600	3706
5	East Garo Hills-IWMP-I, IWMP-II.	Songsak, Samanda.	4000	600	540	60	600	4000	0	0	600	4000
6	West Garo Hills-IWMP-I, IWMP-II, IWMP-III, IWMP-IV.	Rongram, Dadenggre, Selsella, Gambegre.	5000	750	675	75	750	5000	0	0	750	5000
7	South Garo Hills-IWMP-I, IWMP-II.	Chokpot, Rongara.	3000	450	405	45	450	2999	0	1	450	3000
Grand Total			30000	4500	4050	450	4500	29704	0	1	4500	29705

**LIST OF SANCTIONED IWMP PROJECTS OF MEGHALAYA STATE DURING THE YEAR 2011-12 VIDE SANCTION LETTER NO.K.11013/1/2010/IWMP (Meghalaya),
dt.13.08.2010**

Batch II (2010-2011) Rupees in Lakhs

Sl. No	District	Name of C&RD Block.	Area for treatment (ha)	Total Project Cost	Central Share 90%	State Share 10%	Achievement upto 2017-18		Achievement for 2018-19		Cumulative Achievement upto 2018-19	
							Financial	Physical	Financial	Physical	Financial	Physical
1	East Khasi Hills- IWMP-IV, IWMP-V, IWMP-VI, IWMP-VII, IWMP-VIII, IWMP-IX, IWMP-X.	Mawkynrew, Mawsynram, Mawphlang, Shella Bholaganj, Pynursla, Mawsynram.	7000	1050	954	105	1023	6816	27	184	1050	7000
2	West Khasi Hills- IWMP-III, IWMP-IV, IWMP-V, IWMP-VI, IWMP-VII.	Mawthadraishan, Mawshynrut, Nongstoin, Ranikor, Mairang.	15000	2250	2025	225	2246	14971	4	29	2250	15000
3	Jaintia Hills- IWMP-III, IWMP-IV, IWMP-V.	Thadlaskein, Laskein, Amlarem.	12000	1800	1620	180	1785	11902	15	98	1800	12000
4	Ri-Bhoi- IWMP-IV, IWMP-V, IWMP-VI.	Umsning, Jirang, Umling.	4000	600	540	60	568	3785	1	3	568	3788
5	East Garo Hills- IWMP-III, IWMP-IV, IWMP-V, IWMP-VI.	Songsak, Resubelpara, kharkutta, Rongjeng.	5000	750	675	75	749	4991	1	9	750	5000
6	West Garo Hills- IWMP-V, IWMP-VI, IWMP-VII, IWMP-VIII, IWMP-IX.	Rongram, Zikzak, Dalu, Selsella, Tikrikilla.	5000	750	675	75	742	4948	8	52	750	5000
7	South Garo Hills- IWMP-III, IWMP-IV.	Baghmara, Gasuapara.	4000	600	540	60	600	4000	0	0	600	4000
Grand Total			52000	7800	7029	780	7712	51414	56	375	7768	51789

**LIST OF SANCTIONED IWMP PROJECTS OF MEGHALAYA STATE DURING THE YEAR 2011-12 VIDE SANCTION LETTER NO.K.11013/1/2011/IWMP (Meghalaya),
dt.30.06.2011**

Batch III(2011-2012) Rupees in Lakhs

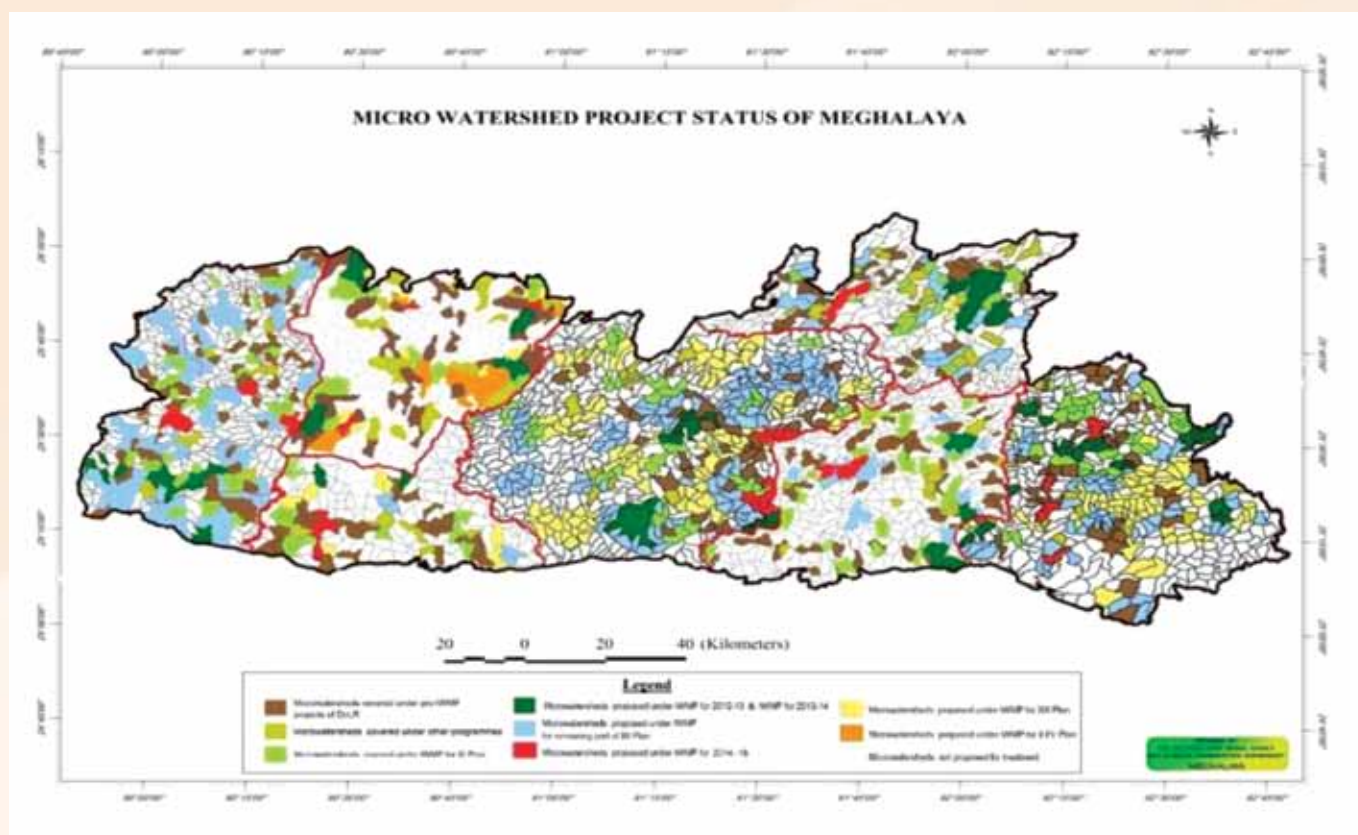
Sl. No	District	Name of C&RD BLOCK	Area for treatment (ha)	Total Project Cost	Central Share 90%	State Share 10%	Achievement upto 2017-18		Achievement for 2018-19		Cumulative Achievement upto 2018-19	
							Financial	Physical	Financial	Physical	Financial	Physical
1	East Khasi Hills- IWMP-XI, IWMP-XII.	Mawphlang- Mawkynrew- Mawryngkneng, Shella- Bholaganj- Mawsynram.	5000	750	675	75	404	2694	176	1176	581	3870
2	West Khasi Hills- IWMP- VIII, IWMP- IX.	Nongstoin, Mawshynrut.	5000	750	675	75	463	3086	62	412	525	3498
3	Jaintia Hills- IWMP- VI, IWMP-VII.	Laskein- Thadlaskein, Laskein.	8000	1200	1080	120	728	4851	102	677	829	5528
4	Ri-Bhoi- IWMP-VII	Umling, Jirang.	2500	375	338	38	245	1636	59	394	304	2030
5	East Garo Hills- IWMP-VII, IWMP- VIII.	Resubelpara- Samanda, Kharkutta- Rongjeng.	5000	750	675	75	506	3373	107	712	613	4085
6	West Garo Hills – IWMP-X, IWMP-XI, IWMP-XII.	Rongram, Selsella- Tikrikilla- Dadenggre, Zikzak-Dalu- Gamnegre.	8000	1200	1080	120	796	5303	175	1166	970	6469
7	South Garo Hills- IWMP-V, IWMP-VI.	Chokpot, Rongara	4000	600	540	60	401	2673	80	530	480	3203
Grand Total			37500	5625	5063	563	3542	23615	760	5067	4302	28682

**LIST OF SANCTIONED IWMP PROJECTS OF MEGHALAYA STATE DURING THE YEAR 2012-13 VIDE SANCTION LETTER NO.K-11013/4/2012/IWMP (MEGHALAYA).
dt. 26.03.2013 & NO.K-11 013/4/2012/IWMP (MEGHALAYA) . dt. 28.03.2013
Batch IV(2012-2013) Rupees in Lakhs**

Sl. No	District	Name of C&RD Block	Area for treatment (ha)	Total Project Cost	Central Share 90%	State Share 10%	Achievement upto 2017-18		Achievement for 2018-19		Cumulative Achievement upto 2018-19	
							Financial	Physical	Financial	Physical	Financial	Physical
1	East Khasi Hills-IWMP-XIII	Pynursla	4970.0	745.5	671.0	74.6	136.9	912.4	35.2	234.0	172.1	1146.4
2	West Khasi Hills-IWMP-X, IWMP-XI.	Nongstoin, Mawkyrwat.	10900.0	1635.0	1471.5	163.5	328.8	2192.0	9.8	65.0	338.6	2257.0
3	Jaintia Hills- IWMP-VIII, IWMP-IX	Thadlaskein, Laskein.	6000.0	900.0	810.0	90.0	179.7	1197.3	11.7	78.0	191.3	1275.3
4	Ri-Bhoi- IWMP-VIII	Umsning, Umling.	5000.0	750.0	675.0	75.0	105.1	700.9	18.8	125.0	123.9	825.9
5	East Garo Hills-IWMP-IX, IWMP-X	Samanda, Rongjeng.	4000.0	600.0	540.0	60.0	120.2	801.1	15.2	101.0	135.3	902.1
6	West Garo Hills-IWMP-XIII, IWMP-XIV	Gambegre, Dalu-Zikzak.	4000.0	600.0	540.0	60.0	120.0	799.5	13.6	91.0	133.6	890.5
7	South Garo Hills-IWMP-VII, IWMP-VIII	Baghmara, Chokpot.	4000.0	600.0	540.0	60.0	120.0	800.0	13.6	91.0	133.6	891.0
Grand Total			38870.0	5830.5	5247.5	583.1	1110.7	7403.1	117.9	785.0	1228.6	8188.1

**LIST OF SANCTIONED IWMP PROJECTS OF MEGHALAYA STATE DURING THE YEAR 2013-14 VIDE SANCTION LETTER
NO.K•11 013/4/2012/IWMP (MEGHALAYA). dt. 26.03.2013 & NO.K•11 013/4/2012/IWMP (MEGHALAYA). dt. 28.03.2013
Batch V(2013-14) Rupees in Lakhs**

Sl. No.	District	Name of C&RD Block	Area for treatment (ha)	Total Project Cost	Central Share 90%	State Share 10%	Achievement upto 2017-18		Achievement for 2018-19		Cumulative Achievement upto 2018-19	
							Financial	Physical	Financial	Physical	Financial	Physical
1	East Khasi Hills- IWMP-XIV, IWMP XV	Mawryngkneng, Mawkynrew	5035.0	755.3	679.7	75.5	45.3	302.1	0.0	0.0	45.3	302.1
2	West Khasi Hills	-	-	-	-	-	-	-	-	-	-	-
3	South West Khasi Hills- IWMP-IV	Ranikor	5567.0	835.1	751.5	83.5	50.1	334.0	0.0	0.0	50.1	334.0
4	Ri-Bhoi- IWMP IX	Umsning & Umling	5000.0	750.0	675.0	75.0	45.0	300.0	0.0	0.0	45.0	300.0
5	East Jaintia Hills- IWMP- I	Saipung	2160.0	324.0	291.6	32.4	0.0	0.0	0.0	0.0	0.0	0.0
6	West Jaintia Hills- IWMP-X, IWMP-XI	Amlarem & Laskein	5910.0	886.5	797.9	88.7	72.6	484.2	0.0	0.0	72.6	484.2
7	East Garo Hills	-	-	-	-	-	-	-	-	-	-	-
8	North Garo Hills- IWMP-IV, IWMP-V	Resubelpara & Kharkutta	4500.0	675.0	607.5	67.5	40.5	270.0	0.0	0.0	40.5	270.0
9	South Garo Hills- IWMP- IX	Chokpot	3590.0	538.5	484.7	53.9	32.3	215.4	0.0	0.0	32.3	215.4
10	West Garo Hills	-	-	-	-	-	0.0	-	-	-	-	-
11	South West Garo Hills- IWMP-II	Zikzak-Gambegre	3980.0	597.0	537.3	59.7	35.8	238.8	0.0	0.0	35.8	238.8
Grand Total			35742.0	5361.3	4825.2	536.1	321.7	2144.5	0.0	0.0	321.7	2144.5





Name Of Activity	: Awareness Programme Under Capacity Building
Location	: Korepara Village
C& RD Block	: Resubelpara
Watershed	: Chijagang
Project	: IWMP III
District	: North Garo Hills



Peripheral Bunding Under Wah Umlingdoh IWMP IX, East Khasi Hills



Activity- Countour Bunding, Batch-II (IWMP-IV) | Watershed - Lower Umpih Watershed
Village- Mawtari Myrdon | C&Rd Block-Umsning | District- Ri Bhoi



Bench Terracing at Mawlum Rim Under Umrapiong Watershed IWMP-IV, East Khasi Hills



Irrigation Dam at Upper Aju
Micro Watershed IWMP-XII, Sanjengpara, West Garo Hills



Water Harvesting Structure at Chidekgre, Ringgi Bisik Micro Watershed , IWMP-V, West Garo Hills

2.5 Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) – Har Khet Ko Pani erstwhile (AIBP)

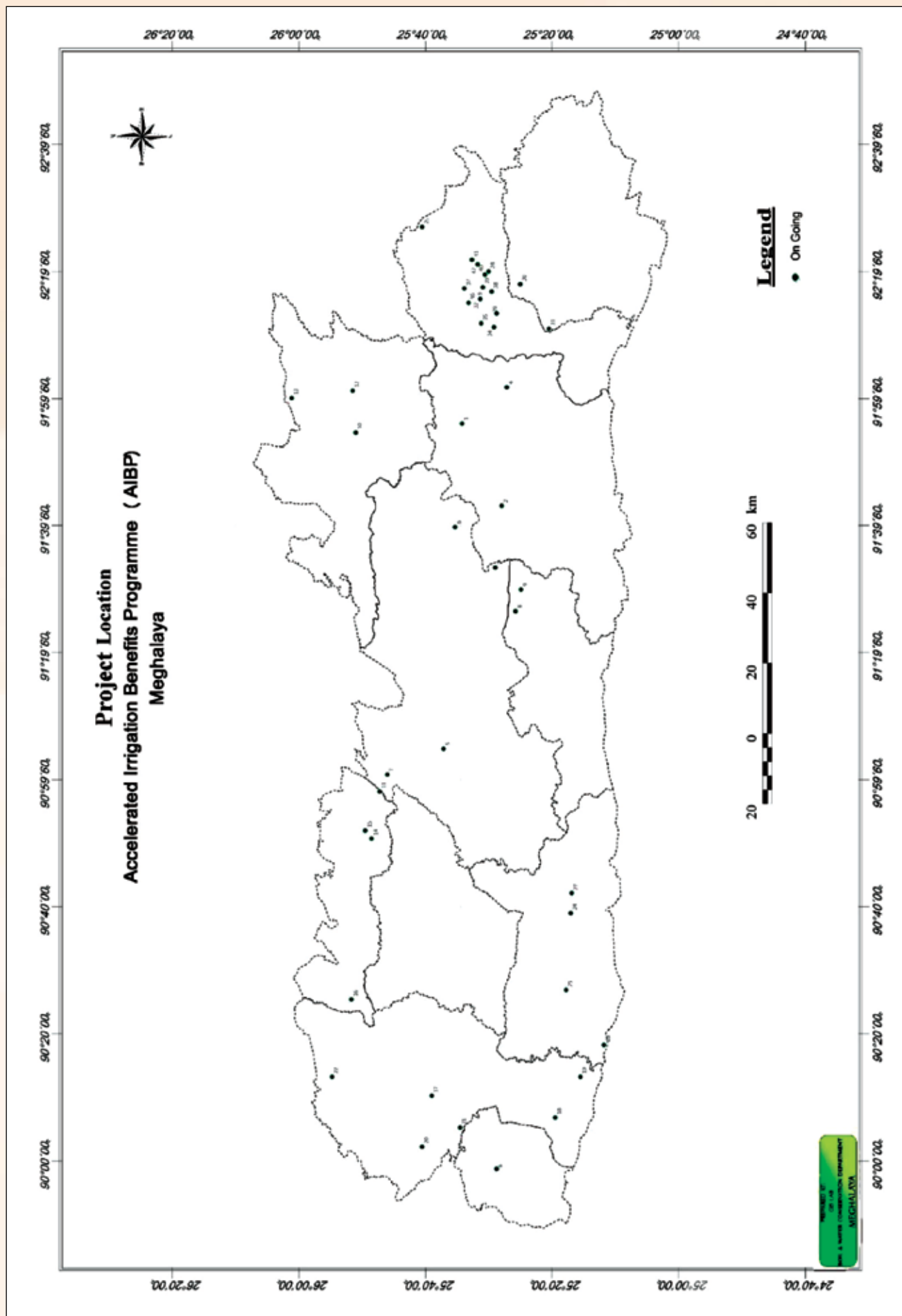
STATEMENT SHOWING THE PROGRESS AND STATUS OF THE 42 NOS. ONGOING PROJECTS UNDER PMKSY - HAR KHET KO PANI IMPLEMENTED BY SOIL AND WATER CONSERVATION DEPARTMENT, GOVT. OF MEGHALAYA

Name of District & Project	Name of C&RD Block	Total Project Cost Sanctioned			Total Potential Irrigation Area to be created (Hectare)	Expenditure incurred UPTO 2018-19 in 2013-14 and 2016-17)			Potential created UPTO 2018-19	BALANCE FUND			Potential Yet to be created
		(Rs. in Lakh)				(Rs. in Lakh)				(Rs. in Lakh)			
		CS	SS	Total		CS	SS	Total		CS	SS	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
East Khasi Hills													
Umladew	Mawryng-kneng	113.28	12.59	125.87	260.00	45.30	5.03	50.33	104.00	67.98	7.56	75.54	156.00
Wah Khimmurah	Mawphlang	204.13	22.68	226.81	151.20	81.62	9.07	90.69	60.00	122.51	13.61	136.12	91.20
Wahtyrkhang	Mawphlang	246.41	27.38	273.79	184.00	98.53	10.95	109.48	74.00	147.88	16.43	164.31	110.00
Umrangshim-Umjaipieh	Mawkynrew	571.55	63.51	635.06	431.00	228.55	25.40	253.95	172.00	343.00	38.11	381.11	259.00
Umphaliang-Wah Jaroit	Mawryng-kneng	368.03	40.89	408.92	280.00	147.17	16.36	163.53	112.00	220.86	24.53	245.39	168.00
West Khasi Hills													
Upper Khri	Mairang	502.59	55.84	558.43	367.00	200.98	22.33	223.31	146.00	301.61	33.51	335.12	221.00
Langdongdai	Mawshynrut	176.44	19.60	196.05	136.00	70.56	7.84	78.40	54.00	105.88	11.76	117.65	82.00
South West Khasi Hills													
Umkynja	Mawkyrwat	349.97	38.89	388.86	374.00	139.96	15.55	155.51	150.00	210.01	23.34	233.35	224.00
Upper Umrilang	Mawkyrwat	815.37	90.60	905.97	607.00	326.06	36.22	362.28	242.00	489.31	54.38	543.69	365.00
Ri-Bhoi													
Umsaw	Umling	403.20	44.80	448.00	500.00	161.24	17.91	179.15	200.00	241.96	26.89	268.85	300.00
Middle Umran	Umsning	401.49	44.61	446.10	260.00	160.55	17.84	178.39	104.00	240.94	26.77	267.71	156.00
Umkei	Umsning	300.40	33.38	333.78	219.00	120.13	13.34	133.47	88.00	180.27	20.04	200.31	131.00
Amparling	Umling	812.80	90.31	903.11	590.00	325.02	36.12	361.14	236.00	487.78	54.19	541.97	354.00

Name of District & Project	Name of C&RD Block	Total Project Cost Sanctioned			Total Potential Irrigation Area to be created (Hectare)	Expenditure incurred UPTO 2018-19 in 2013-14 and 2016-17)			Potential cre-ated UPTO 2018-19	BALANCE FUND			Potential Yet to be created	
		(Rs. in Lakh)				(Rs. in Lakh)				(Rs. in Lakh)				
		CS	SS	Total		CS	SS	Total		CS	SS	Total		
		(1)	(2)	(3)		(4)	(5)	(6)		(7)	(8)	(9)		(10)
North Garo Hills														
	Middle Ildek													
	Middle Chil													
	Rajing													
West Garo Hills														
	Mongalgre-Dichinggre													
	Middle Grim													
	Bakla													
	Dongdonga													
	Lower Pilgi													
	Roni-Dabong													
South West Garo Hills														
	Muji													
South Garo Hills														
	Nengkong Rongdik													
	Dareng Warima													
	Lower Bugi													
	Rongai													

Name of District & Project	Name of C&RD Block	Total Project Cost Sanctioned			Total Potential Irrigation Area to be created (Hectare)	Expenditure incurred UPTO 2018-19 (Fund received in 2013-14 and 2016-17)			Potential cre-ated UPTO 2018-19	BALANCE FUND			Potential Yet to be created
		(Rs. in Lakh)				(Rs. in Lakh)				(Rs. in Lakh)			
		CS	SS	Total		CS	SS	Total		CS	SS	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
East Jaintia Hills													
Lower Myntdu	Khliehriat	512.37	56.93	569.30	449.00	204.89	22.77	227.66	180.00	307.48	34.16	341.64	269.00
West Jaintia Hills													
Upper Umplu	Thadlaskein	413.14	45.90	459.04	310.00	165.21	18.35	183.56	124.00	247.93	27.55	275.48	186.00
Middle Myntdu	Thadlaskein & Khliehriat	889.15	98.80	987.95	660.00	355.56	39.50	395.06	264.00	533.59	59.30	592.89	396.00
Amrayang Umshyru	Amlarem	359.36	39.93	399.29	290.00	143.70	15.97	159.67	116.00	215.66	23.96	239.62	174.00
Middle Myntang Group													
Parmupiang Cluster	Thadlaskein	322.75	35.86	358.62	292.00	129.07	14.33	143.40	116.00	193.68	21.53	215.22	176.00
Wah Synshar Cluster	Thadlaskein	242.94	26.99	269.94	216.00	97.15	10.79	107.94	86.00	145.79	16.20	162.00	130.00
Thlu Ummu-long Cluster	Thadlaskein	406.02	45.11	451.14	371.00	162.36	18.04	180.40	148.00	243.66	27.07	270.74	223.00
Umpawai Cluster	Thadlaskein	522.90	58.10	581.00	441.00	209.10	23.23	232.33	176.00	313.80	34.87	348.67	265.00
Nartiang Cluster	Thadlaskein	190.82	21.20	212.02	170.00	76.31	8.48	84.79	68.00	114.51	12.72	127.23	102.00
Nongingi Cluster	Thadlaskein	92.65	10.29	102.95	83.00	37.05	4.12	41.17	33.00	55.60	6.17	61.78	50.00
Wah Sabkhat Cluster	Thadlaskein	412.03	45.78	457.81	528.00	164.77	18.31	183.08	211.00	247.26	27.47	274.73	317.00

Name of District & Project	Name of C&RD Block	Total Project Cost Sanctioned			Total Potential Irrigation Area to be created (Hectare)	Expenditure incurred UPTO 2018-19 in 2013-14 and 2016-17)			Potential created UPTO 2018-19	BALANCE FUND			Potential Yet to be created
		CS	SS	Total		CS	SS	Total		CS	SS	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Lower Myntang Group													
Sasein Cluster	Thadlaskein	264.64	29.40	294.05	236.00	105.83	11.76	117.59	94.00	158.81	17.64	176.46	142.00
Myntwa Cluster	Laskein	217.93	24.21	242.15	175.00	87.15	9.68	96.83	70.00	130.78	14.53	145.32	105.00
Wah Yiangkar Cluster	Laskein	182.69	20.30	202.99	149.00	73.06	8.11	81.17	60.00	109.63	12.19	121.82	89.00
Wah Sawian Cluster	Laskein	49.77	5.53	55.30	42.00	19.90	2.21	22.11	16.00	29.87	3.32	33.19	26.00
Grand Total : 42 Nos.		20132.05	2236.90	22368.95	16336.85	8050.50	894.50	8945.00	6529.00	12081.55	1342.40	13423.95	9807.85
Note: No expenditure was incurred in 2014-15, 2015-16, 2017-18 and 2018-19													





C.C. Head Water Dam At Umkei, Wah Umbam Forest, Ri Bhoi



Protection Wall at Sohlaitem, Umsaw, Ri Bhoi



Before



After

DISTRICT : WEST GARO HILLS.
PROJECT : BAKLA AIBP
STRUCTURE : RCC DAM & CHANNEL

VILLAGE : KARONGGRE
BENEFITTED AREA : 42.089 HA.
NO. OF BENEFICIARIES : 14 NOS.



DISTRICT : EAST KHASI HILLS
 PROJECT : WAH TYRKHANG
 TYPE OF STRUCTURE : CC CHANNEL

LOCATION & VILLAGE : WAHUMEIT /LAITSDAD
 BENEFITTED AREA : 2.25HA
 NO OF BENEFICIARIES : 5 NOS.

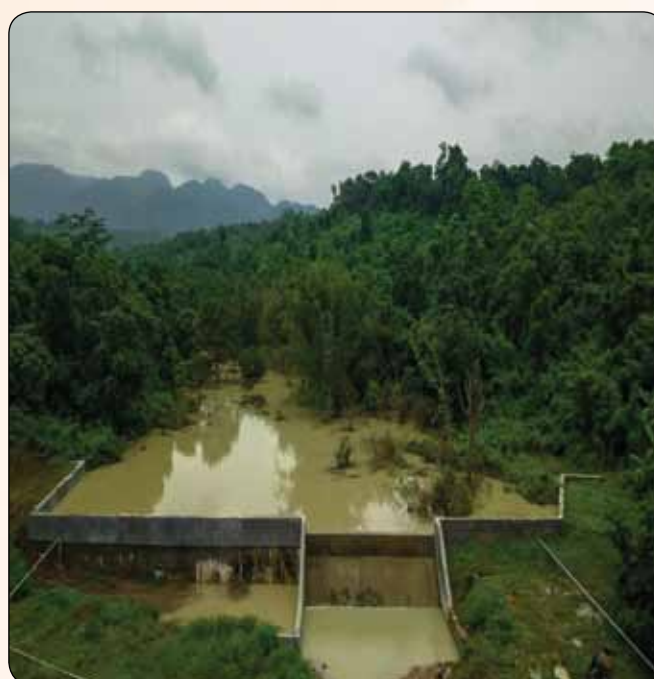


DISTRICT : EAST KHASI HILLS
 PROJECT : WAH KHEMMURAH PROJECT (AIBP)
 TYPE OF STRUCTURE : WATER HARVESTING

LOCATION & VILLAGE : RANGSKHEN
 BENEFITTED AREA : 2.83 HA
 NO OF BENEFICIARIES : 5 NOS.



During



After

DISTRICT : SOUTH GARO HILLS
 LOCATION & VILLAGE : DARING STREAM AT WARIMA
 PROJECT : DARENG WARIMA AIBP

TYPE OF STRUCTURE : RCC IRRIGATION DAM
 BENEFITTED AREA : 39.77 HA
 NO OF BENEFICIARIES : 20 NOS



Before



After

DISTRICT	: SOUTH WEST KHASI HILLS
PROJECT	: AIBP
TYPE OF STRUCTURE	: WATER HARVESTING STRUCTURE
LOCATION AND VILLAGES	: DOMBAH/ SAKWANG
BENEFITED AREA	: 2 HA.
NOS. OF BENEFICIARIES	: 3



CC PROTECTION WALL CUM CHANNEL AT MEGUA SONGMA UNDER LOWER BUGI AIBP, SOUTH GARO HILLS



CONSERVATION DAM AT PAR UMKIANG, EAST JAINTIA HILLS



R.C.C DAM AT THWAI SIEJ UNDER LETEIN AIBP, WEST JAINTIA HILLS

2.6 Community Water Reservoir (In Convergence with MGNREGA):

Sl. No.	District / Item of Works	C & RD Block	Village / Location	Convergence during 2018-19		
				Soil & Water Conservation	C&RD (MGNREGA)	Total
1	2	3	4	5	6	7
A. East Khasi Hills						
1.	Intake Structure	Shella-Bholaganj	Dongshyap, Laitryngew	48,146	72,219	1,20,365
2.	Water Harvesting Structure	Shella-Bholaganj	Dongshyap, Laitryngew	4,43,554	6,65,356	11,08,910
3.	Water Harvesting Structure	Shella-Bholaganj	Khliehshnong, Sohra	15,08,300	22,62,500	37,70,800
	Total EKH			20,00,000	30,00,075	50,00,075
B. West Khasi Hills						
1.	Drinking Water Reservoir	Nongstoin	Marskuin	13,75,000	9,50,150	23,25,150
2.	Dug Out Farm Pond	Mairang	Langkyrteng	3,37,720	2,74,700	6,12,420
3.	RCC Dam	Mawthadraishan	Laitkseh, Ramtyngngai	2,87,280	8,58,550	11,45,830
	Total WKH			20,00,000	20,83,400	40,83,400
C. South West Khasi Hills						
1.	Water Plus Initiative	Mawkyrwat	Photsokhynra, Ngunraw	6,90,132	2,87,790 (MGNREGA) 26,900 (Community)	10,04,822
2.	Water Plus Initiative	Mawkyrwat	Shrah Mawriar, Phottdiei	6,07,368	2,84,532 (MGNREGA) 10,300 (Community)	9,02,200
3.	Improvement of RCC Weir/ Reservoir for Impounding Water	Mawkyrwat	Mawkohboi, Wahsiej	1,68,410	79,640	2,48,050
4.	Conservation Dam	Mawkyrwat	Kynroh, Sohkhylam	5,34,090	4,50,690	9,84,780
	Total SWKH	20,00,000	11,39,852	31,39,852		

1	2	3	4	5	6	7
D. Ri-Bhoi						
1.	Water Harvesting Pond with CC Corewall	Umling	Langthel, Jyntru	2,37,480	3,56,220	5,93,700
2.	RCC Water Harvesting Pond	Umling	Jyrsong, Jyntru	3,12,520	4,68,780	7,81,300
3.	Water Harvesting Pond with CC Corewall	Jirang	Warmawsaw	2,32,760	3,49,140	5,81,900
4.	RCC Water Harvesting Pond	Jirang	Umsorbar	3,17,240	4,75,860	7,93,100
5.	Water Harvesting Pond with CC Corewall	Umsning	Umlaiteng	2,33,840	3,50,760	5,84,600
6.	RCC Water Harvesting Pond	Umsning	Umlaiteng	3,16,160	4,74,240	7,90,400
7.	Water Harvesting Pond with CC Corewall	Umsning	Mawlyndep	3,50,000	5,25,000	8,75,000
	Total RB			20,00,000	30,00,000	50,00,000
E. East Jaintia Hills						
1.	Community Water Reservoir with CC Channel	Khliehriat	Mukhaialong	20,00,000	28,75,185	48,75,185
	Total EJH			20,00,000	28,75,185	48,75,185
F. West Jaintia Hills						
1.	Community Drinking Well	Thadlaskein	Moodymmah Wahskur	2,95,500	4,43,250	7,38,750
2.	Community Drinking Well	Thadlaskein	Mukhla Nongrim, Umjet	2,46,200	3,69,300	6,15,500
3.	Community Drinking Well and Fencing	Thadlaskein	Mukhla Nongrim, Umdaitysiar	7,80,500	11,70,750	19,51,250
4.	Community Drinking Well and Fencing	Thadlaskein	Lad Mukhla, Wah Tongum	4,41,300	6,61,950	11,03,250
5.	Community Drinking Well	Thadlaskein	Sohmynying-Wahthangbru	2,36,500	3,54,750	5,91,250
	Total WJH			20,00,000	30,00,000	50,00,000
G. East Garo Hills						
1.	RCC Irrigation Dam and CC Channel	Songsak	Rongap Songgital	9,00,000	1,53,800	10,53,800
2.	RCC Irrigation Dam and CC Channel	Rongjeng	Nengbret	5,00,000	1,53,800	6,53,800
3.	CC Irrigation Dam and Earthen Channel	Rongjeng	Rongmil	2,00,000	24,320	2,24,320
	Total EGH			16,00,000	3,31,920	19,31,920

1	2	3	4	5	6	7
H. North Garo Hills						
1. RCC Dam		Kharkutta	Mendima	16,00,000	23,98,550	39,98,550
Total NGH				16,00,000	23,98,550	39,98,550
I. West Garo Hills						
1. Community Water Reservoir		Rongram	Watregre Songittal	3,20,000	1,92,000	5,12,000
2. Community Water Reservoir		Rongram	Bawegre, Jengjal	3,20,000	1,92,000	5,12,000
3. Community Water Reservoir		Selsella	Upper Sasatgre	3,20,000	1,92,000	5,12,000
4. Community Water Reservoir		Tikrikilla	Upper Rembegre	3,20,000	1,92,000	5,12,000
5. Community Water Reservoir		Gambegre	Chigitchakgre	3,20,000	1,92,000	5,12,000
Total WGH				16,00,000	9,60,000	25,60,000
J. South West Garo Hills						
1. CC Core Wall Earth Filled Dam		Damalgre	Balalgre	4,00,000	7,783	4,07,783
2. CC Core Wall Earth Filled Dam		Damalgre	Dengnakpara	4,00,000	49,232	4,49,232
3. RCC Water Harvesting Structure		Zikzak	Anchenggre	4,00,000	22,806	4,22,806
4. RCC Water Harvesting Structure		Zikzak	Tewaligre	4,00,000	15,928	4,15,928
Total SWGH				16,00,000	95,749	16,95,749
K. South Garo Hills						
1. Earthen Embankment with CC Core Wall		Gasuapara	Kolapara	4,00,000	2,40,000	6,40,000
2. Earthen Embankment with CC Core Wall		Gasuapara	Kapasipara	4,00,000	2,40,000	6,40,000
3. Earthen Embankment with CC Core Wall		Chokpot	Balwatgre	4,00,000	2,40,000	6,40,000
4. Earthen Embankment with CC Core Wall		Baghmara	Bamonsonggitcham	4,00,000	2,40,000	6,40,000
Total SGH				16,00,000	9,60,000	25,60,000
GRAND TOTAL				2,00,00,000	1,98,44,731	3,98,44,731



COMMUNITY WATER RESERVIOR AT TEWALIGRE UNDER CONVERGENCE SCHEME,SOUTH WEST GARO HILLS



C.C. CORE WALL EARTH FILLED DAM AT BALALGRE UNDER CONVERGENCE SCHEME,SOUTH WEST GARO HILLS

2.7 Springshed Development: Rejuvenation and Climate Proofing of Spring-sheds for Livelihood, Water and Food Security

Project Objective:	To revive impaired and critical springs to ensure enhanced water, food and livelihood security as a climate change adaptation strategy of vulnerable communities through scientific and participatory development of spring-sheds
Project Duration:	Four Years.
Project Location:	306 Spring-sheds spread across all the districts.
District:	11 Districts of the State.
Total Project Cost	Rs. 22,91,54,400/-

Project Components:

- Vulnerability assessment and spring-shed Inventorisation
- Spring rejuvenation and structural measures
- Livelihood interventions
- Capacity building
- Project management

Project Background:

The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) has indicated that “the negative impacts of climate change on freshwater systems outweigh its benefits”, with runoff declining in most streams and rivers. Impacts of climate change on the hydrology of an area depend on physiographical and hydro-geological characteristics of its catchment area and amount of lake or groundwater storage in the catchment.

The Springshed Development Project has been conceptualized to address the issues of degradation of water sources i.e. the spring sources which are also the feeder sources of all streams and rivers in the State.

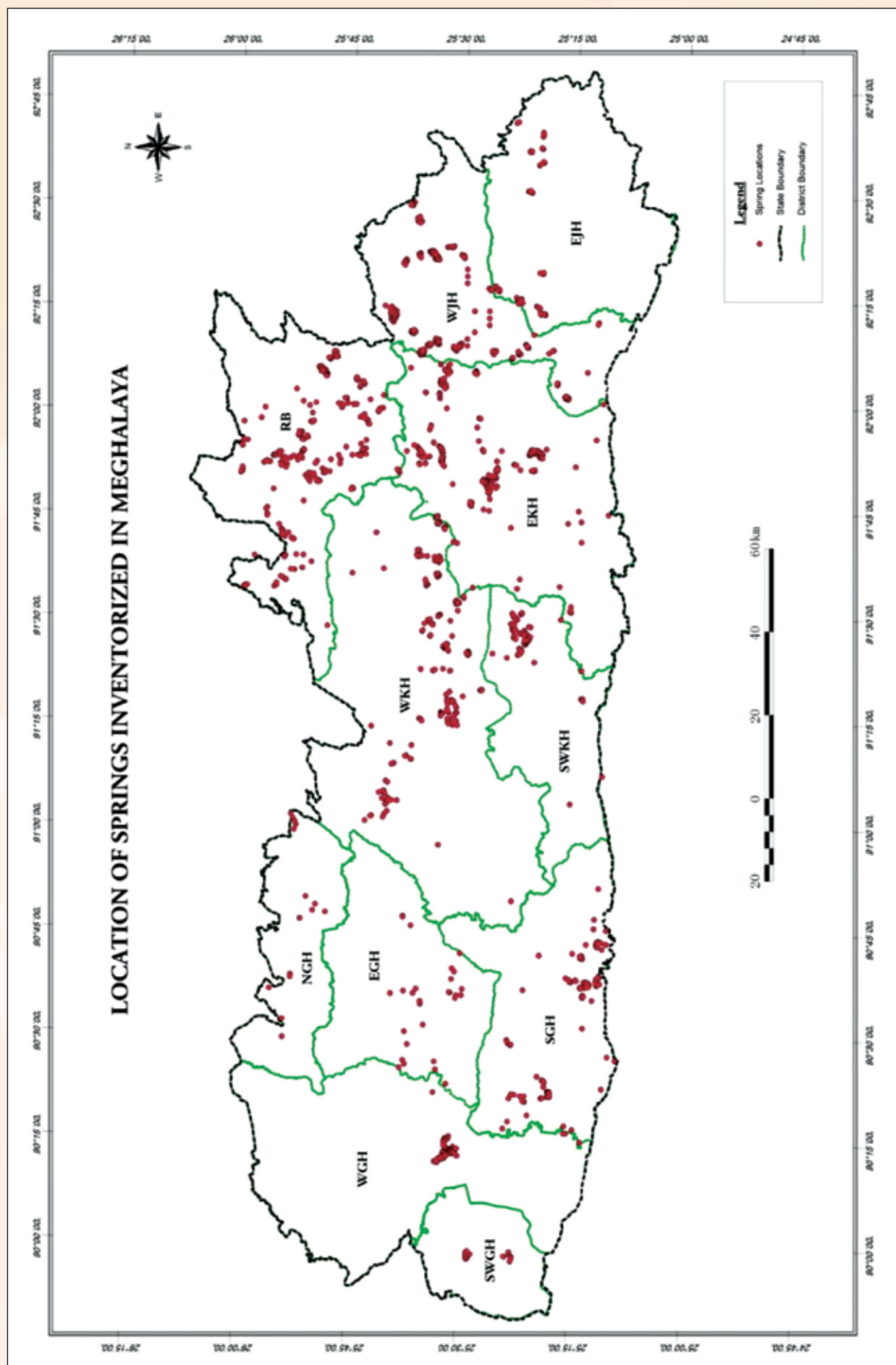
According to the estimates, the State has over 60,000 springs. A sample survey of 714 springs (MINR, 2015) has revealed that over 54% of the springs have either dried or water discharge from them has significantly reduced (<50%). Impaired springs have caused widespread water stress in the rural landscape, adversely affecting agriculture, livestock and other allied livelihood activities of the people and causing hardship and drudgery. Despite heavy rainfall, many areas are water-stressed, especially during the dry months (November to April) due to increase in demand-supply gap which may lead to a surge in the use of ground water.

Under the Springshed Project, critical springs were identified and detailed surveys conducted. A total of 412 springs falling under 306 Springsheds has been identified for treatment. The recharge zone of each of these 412 springs have been identified and mapped. Appropriate structural and vegetative interventions are being undertaken to restore the impaired springs.

Status Report of Springshed Development Project:

Sl. No	Name of component and activity	Name of component and activity	Unit	Fund Released (2018-19)	Cumulative Achievement Upto (2018-19)
1	Component 1: Inventorisation of springsheds and prioritization	1.1 Springshed Hydrological Survey/ Inventorisation of additional springs not to be included in the Springshed rejuvenation 1.2 Social Profile Mapping 1.3 Spring Monitoring (to estimate flow, recharge area, transmissivity) through a landscape approach 1.4.1 Data Analysis and Finalization of Spring-sheds for structural measures (District) 1.4.2 Data Analysis and Finalization of Spring-sheds for structural measures (PMU-STATE LEVEL)	Spring-shed (Nos.)	5640000	10743845
		Total		5640000	10743845
2	Component 2: Development of detailed landscape based climate resilient springshed development plan for the most vulnerable springs	2.1 Structural Measures:-Construction of check dams,DugOut percolation, trenches, spring Chambers 2.2 Afforestation measures 2.3 Village water Security plan	Spring-shed (Nos./Ha)	78928364	66153315
		Total		78928364	66153315
3	Component 3: Livelihood interventions in agriculture and allied sectors	3.1 Fodder / Animal feed/ Agri-based inputs promotion (as per requirement of springshed) 3.2 Fruit Tree Plantation (Temperate & sub Tropical) 3.2.1 Fruit Tree Plantation (Temperate) 3.2.2 Fruit Tree Plantation (Sub-Tropical) 3.3 Livestock Promotion 3.3.1 Livestock Promotion (Piggery) 3.3.2 Livestock Promotion (Poultry) 3.3.3 Livestock Promotion (fishery) 3.3.4 Livestock Promotion (Apiculture)	Spring-shed (Nos./Ha)	6000000	2685000
		Total		6000000	2685000

Sl. No	Name of component and activity	Name of component and activity	Unit	Fund Released (2018-19)	Cumulative Achievement Upto (2018-19)
4	Capacity building for creating a cadre of para-hydro-geologists, PIA officials and user bodies for preparation of Village Water Security Plan	<p>4.1 State Level - Training of PIA Personnel on Springshed Development /Management/ Workshops (Springshed mapping, geological mapping, hydrology, recharge zone identification, Village Water Security Planning, Water Budgeting etc.</p> <p>4.2 District Level</p> <p>4.21.Capacity Building & Training of Village Level/ Springshed Level stakeholders on Water Management/Springshed concept/ springshed rejuvenation/ Springshed management /water security/ water quality management/ creating a cadre of para-hydro-geologists/IEC materials, etc;</p> <p>4.2.2 Capacity Building & Training of Village Level/ Springshed Level stakeholders/beneficiaries on sustainable livelihood options/ improved technologies on agriculture and allied fields, etc</p>		3185749	3020916
		Total		3185749	3020916
		Grand Total		9,37,54,113	8,26,03,076





ACTIVITY NAME	: TRENCHES
SPECIFIC LOCATION	: UMTNGER
SPRINGSHED NAME	: LIAR UMPATHER
VILLAGE	: RNGAD
C&RD BLOCK	: KHLIEHRIAT
DISTRICT	: EAST JAINTIA HILLS



ACTIVITY NAME	: SPRING CHAMBER	VILLAGE	: IEWDUH, LYNGKYRDEM VILLAGE
SPECIFIC LOCATION	: LOWER SYNRRANG PYRHAI	C&RD BLOCK	: PYNURSLA
SPRINGSHED NAME	: LOWER & UPPER SYNRRANGPYRHAI	DISTRICT	: EAST KHASI HILLS



ACTIVITY NAME	: TRENCHES	C & RD BLOCK	: GASUAPARA
SPRINGSHED NAME	: MAKBILKOLGRE-1	DISTRICT	: SOUTH GARO HILLS
VILLAGE	: MAKBILKOLGRE-1		



ACTIVITY NAME : CHECK DAM
 SPECIFIC LOCATION : UM MYNSO
 SPRINGSHED NAME : UM MYNSO

VILLAGE : LARNAI
 C & R D BLOCK : THADLASKEIN
 DISTRICT : WEST JAINTIA HILLS



ACTIVITY NAME : CHECK DAM
 SPRINGSHED NAME : CHAKU SPRINGSHED
 VILLAGE : ANOGRE

C & R D BLOCK : RONGRAM BLOCK
 DISTRICT : WEST GARO HILLS

CHAPTER- III

BRIED REPORT ON GOOD PRACTICES UNDER SPRINGSHED DEVELOPMENT PROJECT BEING IMPLEMENTED BY SIMSANGGRE SOIL & WATER CONSERVATION DIVISION IN EAST GARO HILLS DISTRICT

INTRODUCTION:

Springshed Development Project funded by National Adaptation For Climate Change, Ministry of Environment, Forest & Climate Change Through Nabard was initiated during the year 2016-17. The main objective of the project was to revive critical and impaired springs through spring-shed development works in a landscape approach to increase base-flow of water in the springs; to ensure water security for the villagers through the scientific and participatory management techniques and reduce vulnerability of dependent communities due to climate change.

In East Garo Hills district, 21 springsheds were identified for the project covering 21 villages with the total dependent families of 893 nos. The details of the project is given below:

Sl.No	No. of Villages	No of Springsheds				Total Project cost (Rs. In Lakh)	Total fund received (Rs. In Lakh)
		Category I	Category-II	Category-III	Total		
1	21	10	5	6	21	155.91258	77.29617

PRE-PROJECT SCENARIO:

About 2/3rd of its population in the Project area depend on agriculture particularly Shifting cultivation for their livelihood. 85 to 90% of village households depend on springs as main source of water for household and irrigation purposes. A preliminary survey of 21 spring sheds revealed that more than 50% of the springs face the immediate threat of being either dried or water discharge from them has significantly reduced. Impaired springs have caused widespread water stress in the rural landscape, adversely affecting agriculture, livestock and other allied livelihood activities of the people and causing hardship and drudgery. Despite heavy rainfall, many areas are water-stressed due to increase in demand-supply gap leading to a surge in the use of ground water.

Sl. No	MAJOR HEAD	ACTIVITIES	PHYSICAL UNITS
1	STRUCTURAL MEASURES	Spring Tapped Chamber	19 Nos
		Ringwell	2 Nos
		Staggered Trenches	2600 Nos
		Dugout (Recharge Pits)	1300 Nos
	AFFORESTATION	Total area	58 Ha
		No of Plants	75400 Nos
	LIVESTOCK PROMOTION	Piggery Unit	10 Units
		Poultry Unit	08 Units

RESULTS:

A) Enhance ground water recharge:

The project has been able to motivate the community to take up ground water recharging activities namely., Staggered trenches and recharge pits. By taking up these activities, about 93.6 Lakh Litres of rainwater could be harvested which in turn facilitated recharging of ground water.

B) Improvement in Water discharge Rate & Water Level:

Due to various interventions for ground water recharge under Springshed Development Project, the average discharge rate (Litre per minute) from 21 springs shows an improvement of 1.76 LPM which is 40.45% increase against the Pre-Project Scenario. The ground water level was also monitored for 8 ringwells from the surrounding areas of the springshed which also indicate 0.28 m (22.40%) increase in the water level. Thus, it can be safely mention that various ground water recharging activities namely, trenches, Recharge Pits and Check Dams have the capacity to provide instant positive results.

Sl no	Name of source	Elevation (m)	Discharge Rate (LPM) (Average)		Ground Water level (m) (Average)		Remarks
			Pre- Project	Post Project	Pre- Project	Post Project	
1	Springs	250-440	4.35	6.11			40.45% improvement in discharge Rate (Average of 21 springs)
2	Ringwell		-	-	1.25	1.53	22.40% increase in the water level was observed (average of 8 ringwells from the surround springshed areas)

C) Better Water Storage facility for Daily Use:

Prior to project intervention, there was very limited facility for storage of spring water. With project intervention, spring tapped chamber and ringwells were constructed which provide opportunity for storing 96,000 litres of water at one time which was able to provide daily water requirement for 950 persons (considering average daily water usage of 100 litres per person). In addition, people were able to use clean water as compared to open spring water source. The average Water quality parameters taken from 21 springs indicates that the water quality is within the permissible limit and is safe for human consumption. The detail result of the water quality parameters are as below:

Sl no	No of Springs Monitored	WATER QUALITY PARAMETERS (Average)				
		Temp (°C)	pH	TDS (ppm)	EC (mS)	Salinity (ppm)
1	21 Nos	22.7	6.6	55.46	81.88	44.50
2	Permissible limit		6.5-8.5	Upto 500 ppm	0 – 800 μ S/cm	100 ppm

D) Improving vegetative cover:

75400 Nos of forest seedlings were planted in 58 Ha area which are primarily fallow land. Locally available forest species raised in the community nurseries were selected for plantation. There was overwhelming community participation during plantation drive with the participation of nearly 3000 people during world environment day celebration-cum-plantation drive.

CONCLUSION:

The project has been able to instill the importance of water conservation and proper use of springs among the people. A very encouraging outcome from the entire implementation process is the level of acceptance by the people for taking up activities like trenching and recharge pits which are not common. The effectiveness of water conservation activities initiated under the project has been widely accepted and had seen widespread replication under MGNREGA in the district.



BEFORE



AFTER

Activity Name	: Spring Chamber
Specific Location	: Darusak
Springshed Name	: Matchanapram Springshed
Village	: Darusak
Latitude	: 25.6271 N
Longitude	: 90.7890 E
C&Rd Block	: Rongjeng
District	: East Garo Hills
Cost Of Work	: Rs.1,24,180/-



Activity Name	: Staggered Trenches
Specific Location	: Tebilbonegre
Springshed Name	: Grimchang Springshed
Village	: Tebil bonegre
Latitude	: 25.655021 N
Longitude	: 90.600404 E
C&Rd Block	: Songsak
District	: East Garo Hills
Cost Of Work	: Rs.44,250/-



Activity Name : Afforestation
 Specific Location : Askipattal
 Springshed Name : Matcha napram Springshed
 Village : Darusak
 Latitude : 25.3857 N
 Longitude : 90.4798 E
 C&Rd Block : Rongjeng
 District : East Garo Hills



Activity Name : Spring Chamber
 Specific Location : Kakdap
 Springshed Name : Chimandal Springshed
 Village : Kakdap
 Latitude : 25.61234 N
 Longitude : 90.76420 E
 C&Rd Block : Rongjeng
 District : East Garo Hills
 Cost Of Work : Rs.1,24,180/



Activity Name	: Staggered Trenches
Springshed Name	: Nengsam Springhed
Village	: Nengsamgre
Latitude	: 25.605478 N
Longitude	: 90.60169 E
C&Rd Block	: Songsak
District	: East Garo Hills
Cost Of Work	: Rs.29,580/-

SPRINGSHED DEVELOPMENT PROJECT

Tura Soil and Water Conservation (T) Division under National Adaptation Fund for Climate Change, Ministry of Environment Forest and Climate Change through NABARD as National Implementing Entity implemented Springshed Development Works. The main objective of the project was to rejuvenate springs which was deteriorating and to create generally awareness of the importance of springs, to make people understand how springs play a major role in bringing balance to the ecosystem and to the community of the region.

Tura Soil and Water Conservation (T) Division under this flagship programme initially selected 24 Springsheds to implement this project spread across five C&RD Blocks of West Garo Hills covering around 20 villages.

Citing one Springshed as reference – Chipra Springshed which falls under Tekmanpara village, the development and improvement it has achieved has been immense. This particular Springshed is located at a distance of 60 kms. from District Headquarter Tura and it falls under Dalu C&RD Block of West Garo Hills District.

Under Springshed Project works taken up for rejuvenation of Springs are construction of springs chamber, loose boulder checked dam, trenches, percolation pit and afforestation plantation works.

Initially before Springshed development works intervention the condition of the Chipra spring in this particular village was in pathetic and deteriorating condition. The quality of spring water was very poor, the pH level was below normal which was not fit for human consumption and the discharge volume of water recorded was low during peak period which was considered quite low for the size of the catchment area. However, since certain specific interventions were implemented in this Springshed there has been vast improvement and development in the quality of water, the pH level has also come down to a level which can be considered fit for human consumption and the discharge of volume of water has also increased during peak period.

Under Springshed development project, works which were implemented play a major role. The development and improvement of Chipra spring interventions are as follows:-

Activity 1 : Staggered Trenches



In order to improve rain water infiltration and to increase discharge rate of Chipra spring, staggered trenches and percolation dug-out have been constructed in the catchment area. Such interventions also help in improving soil moisture content. By implementing such kind of intervention has helped the community to become aware that by constructing staggered trenches and percolation dug-out run-off rainwater can be harvested to recharge ground water.

Activity 2 : Percolation Dug-out



Activity 3: Loose Boulder Check Dam



A Loose Boulder Check dam has been constructed on the catchment area to protect the further degradation of soil. Siltation has been controlled and soil erosion has also been checked. Apart from such measures the velocity of rain water run-off has also been reduced which has helped in infiltration and rejuvenation of deteriorated spring.

Activity 4: Spring Chamber



With the construction of spring chamber and the above mentioned interventions we can clearly note that there has indeed been major improvement in the quality and discharge volume of spring water. The water where pH level was around 6.0 has now been improved to 6.9 which can be considered fit for human consumption. Apart from that we can also see how the discharge of spring water has increased from 5.1 litres/minute to 13.0 litres/minute.

Activity 5: Afforestation



Afforestation works has also been done in the spring catchment area where indigenous tree species has been planted with an aim that after few years there will be more improvement and vegetation with anticipation that the people of the community will be taking care of the catchment area and there will be more improvement in the quality and discharge of spring water.

The above mentioned interventions under Chipra Springshed has not only improved and developed Springshed catchment area but it has also helped the people of the community to realise how important it is to safeguard the natural resources and to conserved the water for their generation and for their future generation.

SUCCESS STORIES UNDER MUJI AIBP PROJECT, SOUTH WEST GARO HILLS DISTRICT:

Introduction:

Muji AIBP Project lies between 25°27'30.83"N - 25°29'45.40"N Latitude and 89°56'27.39"E - 90°00'46.33" E Longitude and covers 8 (Eight) villages Murchapani, Masangpani, Chigitchakgre, Bolchugre, Sasatbolgre, Hatisil, Salbari and Baladinggre under Betasing C&RD Block, South West Garo Hills district.

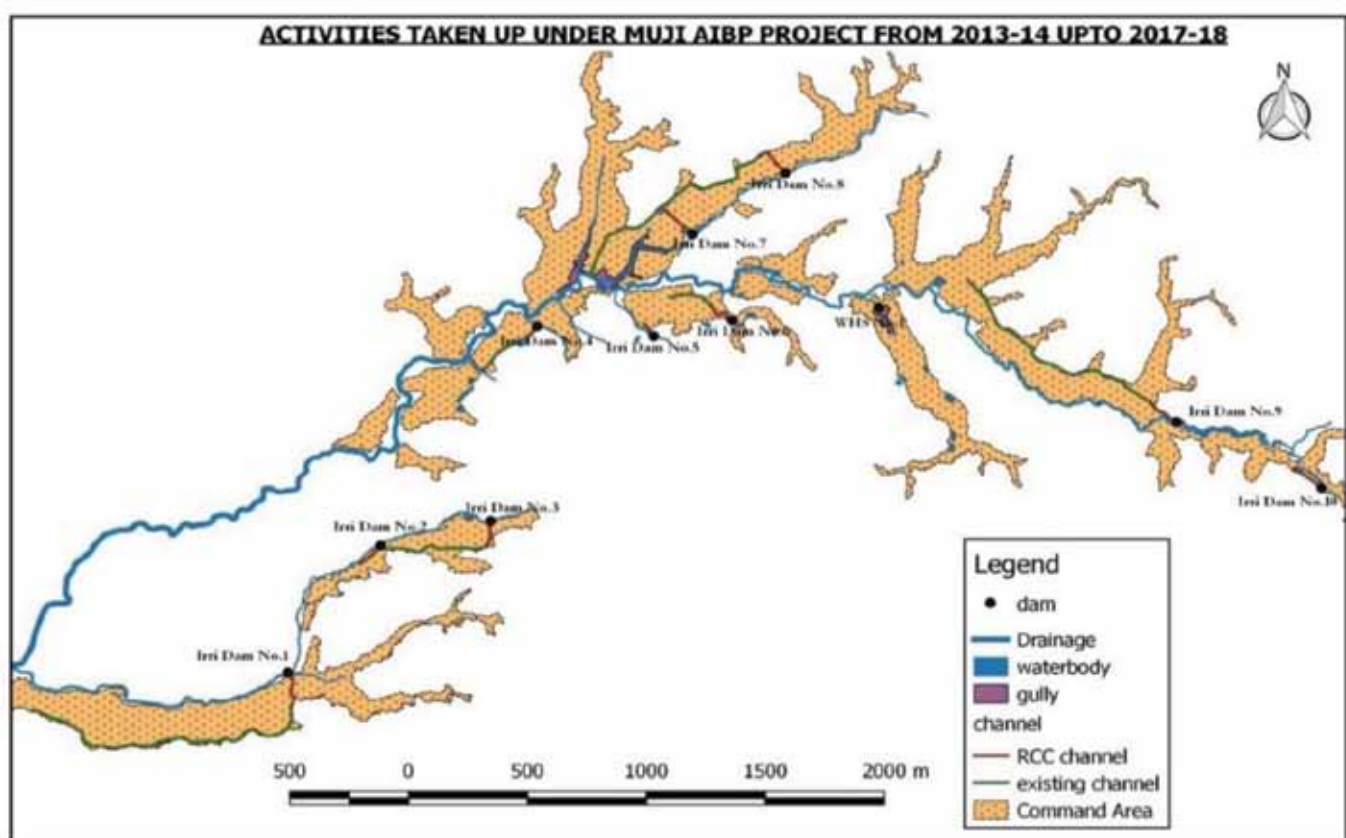
Pre-Project scenario:

Agriculture in the project villages were completely rainfed though number of perennial streams exist in the area. To mitigate the affect of erratic rainfall on crop production, the villagers' resort to construction of temporary vegetative dams that normally get damage during heavy rain. Large portion of cultivated land were kept barren due to lack of irrigation.

Implementation Process:

AIBP project was taken up in these villages with the objective to provide Water (irrigation) to agricultural area through conveyance system (lead channel) thereby tapping the water sources and conserve it for the lean period. The project started during the year 2013-14 and had received 40% of the total project fund from MOWR & State Government. Major activities include:

- a) Irrigation Dam with Channel : 12 Nos
- b) Water Harvesting Structure : 1 No
- c) Irrigation Channel : 1 No



Outcome:

The project has been able to provide irrigation to 306.44 Ha of cultivated area covering 212 farming households. Assured irrigation has prompted the farmers to cultivate their abandon farmland. In some of the project village (eg: Salbari), the farmer themselves had created new terraces after commissioning of the dam due to assurance of irrigation. Overall crop production per unit has also increased in the area due to decrease in crop failure. Improved water conservation has also provided opportunity fishery development. Some of the major activities are listed in detail:

A) IRRIGATION DAM WITH CHANNEL AT CHIGITCHAKGRE:

Located at 25°27'53.92"N Latitude and 89°57'37.39"E Longitude, RCC Irrigation Dam was constructed at Chigitchakgre village under Muji AIBP Project, Betasing Block, South West Garo Hills during the year 2017-18.

Prior to construction of the Dam, farming was totally dependent on monsoon. With erratic monsoon, crop failure was common and large chunk of the cultivated land was kept barren due to non-availability of water.

With this perspective, RCC Dam at Chitgitchakgre was constructed at a total cost of Rs. 70.00 Lakh to irrigate 36.72 Ha cultivated land. 190 metres of RCC Channel was constructed to convey water to the field. Altogether, 47 households have been benefitted. Construction of Dam not only ensures improved irrigation but also provided opportunity for fishery development.



FIG: IRRIGATION DAM AT CHIGITCHAKGRE UNDER MUJI AIBP PROJECT



FIG: CONVEYANCE SYSTEM AT CHIGITCHAKGRE VILLAGE



Fig: BENEFITTED AREA AT CHIGITCHAKGRE VILLAGE

B) IRRIGATION DAM WITH CHANNEL AT BALADINGGRE:

RCC Dam at Baladinggre was constructed at 25.482487°N Latitude and 89.975663°E Longitude at a total cost of Rs.61.222 Lakh during the year 2013-14. Through construction of this dam, 25.17 Ha area of cultivated land was brought under assured irrigation benefitting 23 households. 170 metres of RCC channel was also constructed to convey water to the field. There has been increase in cultivated land by 2-3 ha area since some of the abandoned farmland was brought under cultivation again due to assurance of irrigation water. This dam has also act as a water conservation structure which had a beneficial affect on ground water regime.



FIG: RCC DAM & CHANNEL AT BALADINGGRE VILLAGE UNDER MUJI AIBP PROJECT

C) IRRIGATION DAM WITH CHANNEL AT SALBARI:

RCC Dam at Salbari was constructed at 25°28'29.72"N Latitude and 89°59'38.27"E Longitude at a total cost of Rs.51.00 Lakh during the year 2017-18. Through construction of this dam, 26.98 Ha area of cultivated land was brought under assured irrigation benefitting 19 households. 244 metres of RCC channel was also constructed to convey water to the field. There has been increase in cultivated land by 4-5 ha area due to creation of new terraces after commissioning of the dam. This dam is located at the upper ridge of muji stream and has been effective in controlling soil erosion and harvested water has been use for fishery development.



FIG: RCC DAM WITH CHANNEL AT SALBARI

RECLAMATION OF DEGRADED LAND THROUGH COMMUNITY BASED AFFORESTATION AT DARUGRE VILLAGE UNDER INTEGRATED MANAGEMENT PROGRAMME (IWMP) – A SUCCESS STORY

BACKGROUND:

Darugre village which falls under Zikzak C&RD Block was included as one of the project village under Daru Microwatershed Project for taking up development activities under Integrated Watershed Management Programme (IWMP) funded by Department of Land Resources, MoRD, Govt of India during 2010-11. The village is located at a distance of 8.55 km from the district headquarter, Ampati. The Microwatershed was selected based on following criteria:

1. Pre ponderance of degraded land/wasteland
2. Lack of assured irrigation facilities
3. High percentage of small and marginal farmers
4. Productivity potential of the land.

PRE PROJECT SCENARIO ON VEGETATIVE COVER:

Continuous clearing of natural forest cover for agriculture activity and horticulture development has created a large area of degraded land in the village. Decreased in vegetative cover not only exposes the land to various erosion problems thereby decreasing its productivity but has resulted in loss of biodiversity as well. Overall the decrease in vegetative cover has its major impact on the water regime due to the fact that the village is strategically located in area which feed Daru River, the main river in South West Garo Hills through its tributaries namely, Chidare-bokman & Mara-gandi Stream.

With these perspectives, the villagers came together and formed Village Watershed Committee under the Project to undertake the responsibility of decision making, implementation and creating awareness on ecological degradation to the mass. Apart from various activities relating to NRM, Livelihood development and production system, the Committee in particular finds it imperative to include afforestation as one of the main activity of NRM.

AFFORESTATION WORK IN THE VILLAGE:

During the initial phase (2010-11), Watershed Committee in its meeting took the decision to demarcate degraded land for afforestation activity and was included in their perspective action plan. The actual afforestation started during the year 2012 with the project contribution of Rs. 108000/- in 4.04 Ha area of degraded land which lies at a height of 62-89 metres above MSL. Significant contribution from the community was made in terms of labour for initial site clearance, pit digging and planting. Initially, about 4850 Nos of seedlings were planted and local spp were retained. After 4th year of planting, a total number of 2950 standing trees are present at the site. The details of the present status of afforestation programme at Darugre village is given in the table below:

AREA (Ha)	LOCATION	TYPE OF LAND SELECTED BY THE COMMUNITY FOR AFFORESTATION	TREES SPECIES SELECTED FOR AFFORESTATION		No OF SURVIV- ING TREES (after 4TH year)	CRITERIA FOR SELECTION OF SPP
			BOTANICAL NAME	LOCAL NAME		
4.04	25° 26' 15.9481" N Lat 89° 59' 42.3643" E Long	-Highly degraded land -Main catchment area for chidare-bok- man stream, one of the first order stream in Daru catchment area.	Gmelina arbo- rea	Gambare	750 Nos	-Fast growing spp -Timber value
			Trema orientalis	Pakkram	1800 Nos	-Fast growing -Nitrogen fixing -Good fuelwood
			Michelia cham- paca	Tetachap	Nil	-Timber value
			Tectona grandis	Segun	400 Nos	-Timber value
					2950 Nos	

CONSTRAINTS AND OUTCOME:

The Watershed Committee faced various constraints during the initial stage of afforestation programme with the survival rate of merely 19-20%. Among various factors, the degraded soil fertility and biotic interference were some of the major reasons for such meagre success. However, with their constant effort, the community of darugre village has been able to nurture 1150 Nos of timber valued trees ie., Gmelina + Tectona. Besides, about 1800 Nos (Trema orientalis) which has grown as natural secondary species was retained along with the timber spp. The retention of Trema orientalis would have positive impact on the existing plantation which being a fast growing is a good nitrogen fixing tree spp. Being a good fuelwood spp, it would also supplement the fuel requirement of the village. Overall, the project has been successful in restoring fairly good canopy cover of 50-55% after 4th year of plantation.

CONCLUSION:

With ever increasing population which at present stands at 660 persons (Darugre village- Census, 2011), there is always a tremendous pressure on existing land for other developmental activities thereby demoting the importance of maintaining forest areas as secondary. Thus, the eagerness of the community to respond to the need of maintaining community forest in itself is an achievement.

PHOTOGRAPHS OF AFFORESTATION AT DARUGRE VILLAGE UNDER IWMP



PHOTO I: COMMUNITY BASED
AFFORESTATION

PHOTO II: GROWTH AFTER 4TH YEAR
PLANTATION (*Gmelina arborea*)



PHOTO IV: A GOOD GROWTH OF
Trema orientalis (L.N. Pakkram)

SUCCESS STORY

RUBBER PLANTATION OF SHRI GUJENG MARAK. AT DAMJONGGRI

Scheme	:	Rubber Plantation (Departmental)
Name of the Beneficiaries	:-	Shri. Gujeng Marak and family.
Area	:-	10 ha.
Village	:-	Damjonggri Village.
Location	:-	N 25° 37.006 E 90° 02.258
Block	:-	Selsella.
Year of creation	:-	1986 - 87
Yield per annum	:-	4 to 9 tones (approx.)

The Department of Soil and Water Conservation , Government of Meghalaya in its endeavour to wean jhuming in the State have taken up the various Schemes including Cash and Horticulture Crops Plantation since early 1950's. Since then certain crops like Rubber , Cashew etc. gained popularity and have changed mindset of many jhummys to take up such sustainable agriculture in place of jhuming . One of such jhummys turned into a progressive Rubber Growers is Shri Gujeng Marak of Damjonggri.

Shri. Gujeng Marak was born and brought up at Damjonggri village . He was married and had a son and a daughter. He was having a hardship life as a jhummys n daily labour worker and could hardly manage his family and educate his children.



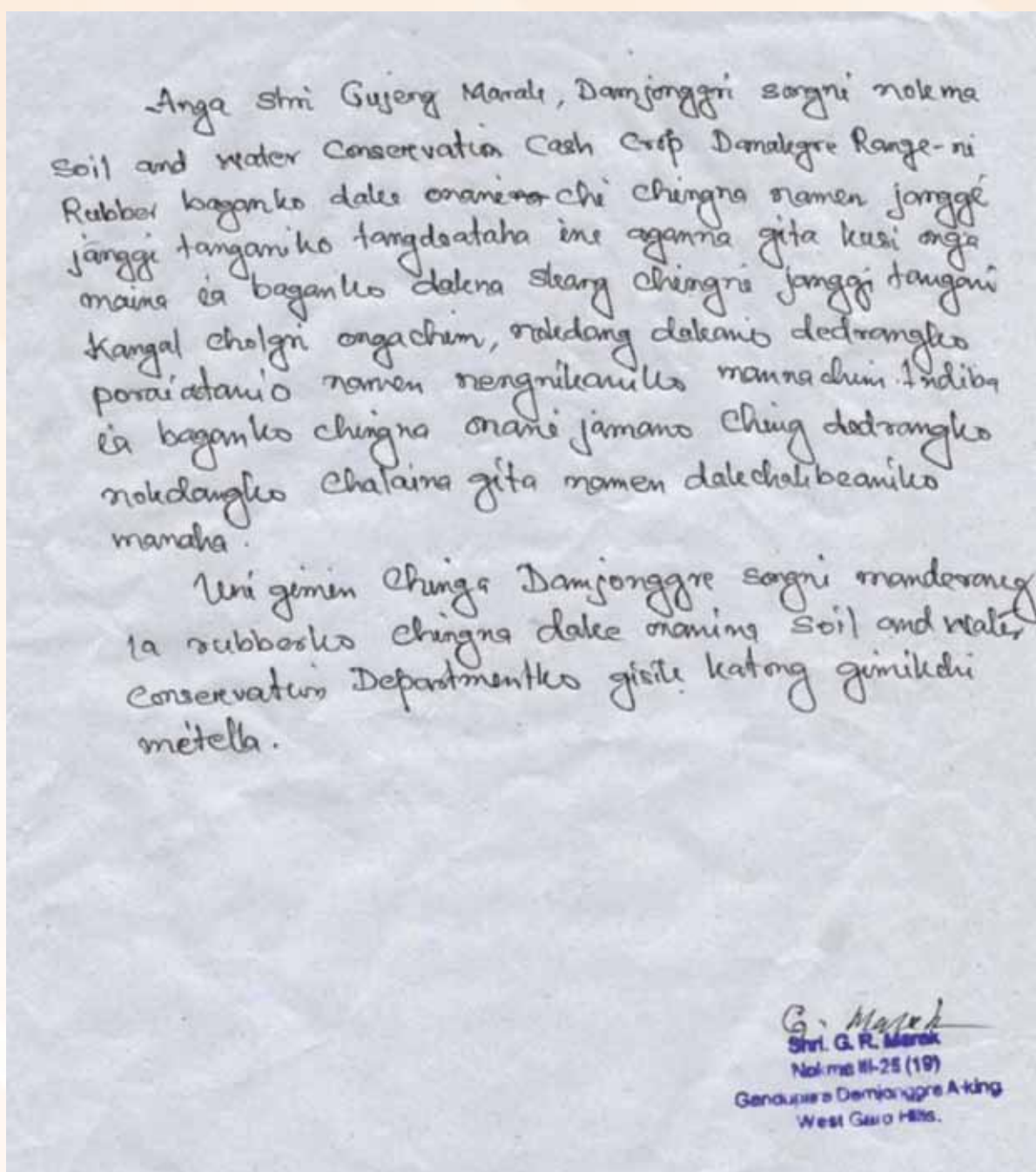
Rubber Plantation of Shri. Gujeng Marak at Damjonggre. (Area :- 10 ha.)

In the year 1986 – 87 The Department of Soil and Water Conservation Cash Crop Division has created a Rubber Plantation (Department) of about 10 ha. at Damjonggri to Shri. Gujeng Marak and his family. Under the guidance and supervision from the Department the plantation was created and financial assistance was provided to Him for the maintenance. It was a real success and annually he is getting 4 to 9 tones (approx.) of amounting to Rs.4,40,000 to 9,90,000 /-Life after taking up the Rubber Plantation, a tremendous change could be seen in the life of Shri Gujeng Sangma and his family. He has turned a progressive Rubber Grower from a professional jhummia. He could support his family and could give better education for

his son and daughters. He has expanded from Assam –type house to a well furnished palatial R.C.C. house and has owned a vehicle. His lifestyle and way of living has changed . He has created great scope of Job avenues for the daily wage labours of his own A'kingland and neighbouring villages. Presently he is engaging 6 (six) Rubber Tappers for the management of his Rubber Plantation. Besides it is worth mentioning that the plantation has replaced the Jhuming and also helped indirectly deforestation and reduced the soil erosion and the surrounding vegetation gets enough moisture to flourish.

Shri. Gujeng Marak through his sincerity and hard work has become one of the most successful Rubber Growers of the present decade which has become the source of inspiration to many jhumias around to switch over to such sustainable cultivation from primitive, uneconomic and destructive type of cultivation – the Jhuming. He is really grateful and thankful to the Department of Soil and Water Conservation C.C. Division for its assistance and guidance that it has really uplift his livelihood activity of his life and has improved his socio economic status.

The feedback appreciation letter to the Department of Soil and Water Conservation C.C. division by Shri Gujeng Marak of Damjonggri is given below :-



SUCCESS STORY

RUBBER PLANTATION AT DAMJONGGRI

Scheme	: Rubber Plantation (Departmental)
Name of the Beneficiaries	:- Damjonggri Gara Mahari Association.
Area	:- 40 ha.
Village	:- Damjonggri Village
Location	:- N 25° 37.005 E 90° 02.258
Block	:- Selsella.
Year of creation	:- 1984 - 1985
Yield per annum	:- 12 to 19 tones (approx.)

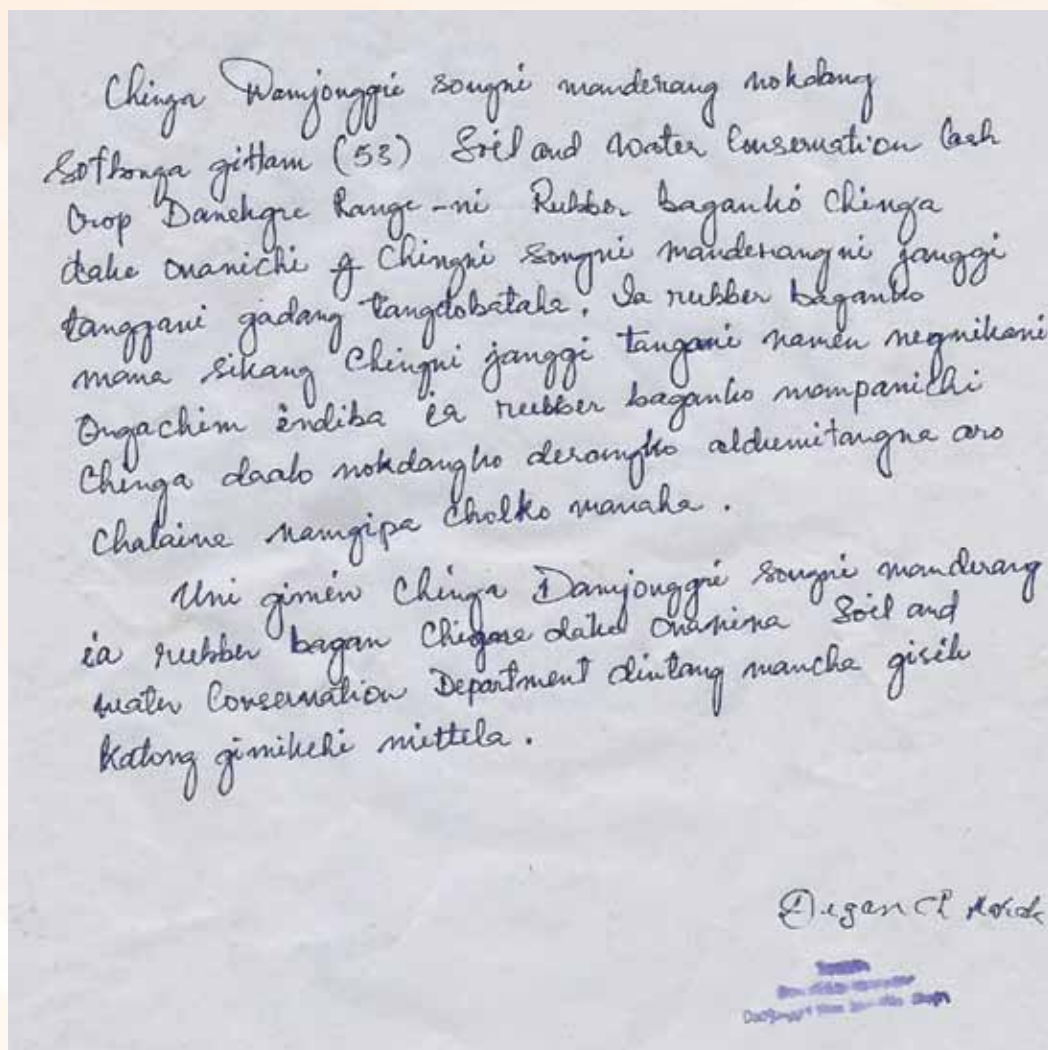


Rubber Plantation at Damjonggri with the Beneficiaries (area – 40 ha.)

The Department of Soil and Water Conservation , Government of Meghalaya has created a Rubber Plantation of about 40 ha.in the year of 1984 – 1985 financial year at Damjonggiri which was run and maintained by the Damjonggri Gara Mahari Association. The work was carried out jointly by the Department and the Villagers, under the supervision, guidance and financial assistance. Nearly about 53 household villagers were dependent on the plantation for the daily wages. They

have their own smoke and processing house for the production of raw rubber. They have appointed 9 permanent rubber tappers to look after the plantation and for extracting and collecting the rubber latex. The mode of payment for the Rubber Tappers is done on the basis of the finished rubber (smoked) they have collected @ Rs. 35 / Kg. Later in the Year 1999 the Rubber Plantation was completely handed over to the Damjonggri Gara Mahari Association by the Department of Soil and Water Conservation. They have elected the Executive Member for better maintaining and for keeping a proper records of Plantation , the Executive Members are :- the Shri. Monsing M. Marak as President , Shri. Balason R. Marak as Vice President , Shri. Degan Ch. Marak as Secretary , Shri. Susen Marak as Joint Secretary , Shri. Sembal Marak as Accountant , Shri. Miseng R. Marak as Treasure , Shri. Denang Ch. Marak as Auditor. They are receiving annually 12 to 19 tones (approx) (Rs. 13,20,000 to 20,90,000 /- approx). The finished smoked rubber was sold and the amount they have received were equally distributed to the beneficiaries and some amount were kept for the maintenance . After creation of the Rubber Plantation the livelihood standards of the 53 household has improved and economically elevated . They can give a better education to their children and can meet the daily needs of their families. They have also learned that Jhuming not only deteriorates the land but also destroys the ecosystem and thereby causing imbalance to the environment and climatic change i.e resulting a Global Warming, so by adapting this Rubber Plantation they said that, they have made a right choice. Besides , Plantation act as a Vegetation cover and has replaced the wasteland areas and has also helped indirectly in reducing the soil erosion , micro-climatic is also created and surrounding vegetation gets enough moisture to flourish. They were really grateful and appreciating the Soil and Water Conservation for creating the Rubber plantation because it has really improved their socio economic status and their standard way of living.

Feedback by the beneficiaries were noted below :-



WAH KHEMMURAH AIBP SUCCESS STORIES

DESCRIPTION

NAME OF BENEFICIARY	:	SMTI. BELINDA KHARKRANG AND PARTY
VILLAGE	:	KYNDONG LAITMAWBAH
COORDINATES	:	25° 26' 46.61" N 91° 42' 27.21" E
C & RD BLOCK	:	MAWPHLANG
STRUCTURE	:	RCC DAM WITH CC CHANNEL
ESTIMATED AMOUNT	:	Rs. 313400/- (RCC DAM) : Rs. 128500/- (CC CHANNEL)
AREA BENEFITTED	:	5.70 HA
NOS OF BENEFICIARIES	:	5 NOS

GOALS

- Provide Irrigation.
- Enhance agriculture crop activity.
- Per unit area enhancement of agriculture crop productivity.

OUTCOME

- Assured Irrigation throughout the year.
- Increase agriculture crop production.
- Per unit area enhancement of agricultural crop production due to increase crop intensity.
- Improve food security and livelihood opportunities.

Impact:- This Activity has a tremendous impact to the Livelihood income generation activities of the Farmer Community. The types of vegetables grown are Paddy which are domestically consume by the farmers themselves while vegetable crops such as Potato, Peas, beans, cabbage, cauliflower etc. are being sold to the nearby market at Mawngap and Shillong Market at lewduh .

The average income before implementation and after implementation of project :

Sl. No.	Types of vegetables	Before implementation			After implementation		
		Area	Yield	Income	Area	Yield	Income
1	Paddy	3	20 Qtls	40,000	5	30 Qtls	60,000
2	Potato	1	40Qtls	40,000	1.5	80 Qtls	60,000
3	Peas	1	3 Qtls	12,000	2	6 Qtls	24,000
4	Cauliflower	0.5	15 Qtls	15,000	0.5	15 Qtls	15,000
6	Cabbage	0.5	15 Qtls	15,000	0.5	15 Qtls	15,000
	Total			1,22,000	Total		1,74,000

Replication and up-scaling:- It can be easily replicated and up scaling of the activity will definitely bring about an impact/ change in the farmers which traditionally depends only in a single activity for income generation.

➤ For up scaling it requires:

1. Partnering with the Department of Veterinary & Animal Husbandry.
2. Capacity Building in the form of training and exposure visits for imparting knowledge from experts from the above field.
3. Technical and Scientific support from the partnering department.

Sustainability:- From analysis and data collected, the farmer generates an income of ₹ 2,26,000/- approx. annually which is sustainable. Further, they can increase their income by increasing the areas under vegetables and also introduction of other exotic vegetables in their multi cropping method.

Linkages: Direct Market Linkage. Till today the activity is still being sold largely not only at Mawngap but also Shillong Market which further improve the sustainability.

PHOTO BEFORE IMPLEMENTATION



PHOTO AFTER IMPLEMENTATION



SUCCESS STORY UNDER WEST KHASI HILLS

Name of Work : C.C Dam
Location : Khah
Village : Khah



Majority of the population of Khah village are totally dependent on Agriculture for their livelihood. The CC Dam was constructed for irrigating a cultivable area of about 2.5 Ha belonging to Smir K.Thangmaw (Beneficiaries) including 2 other beneficiaries. The people mainly cultivate paddy in this area during monsoon season, about 2 Ha is also utilized for cultivation of vegetables during winter season. During the monsoon season, there is fairly adequate rainfall for cultivation of crops. However, the productivity of their crops is quite low that is only about 6 quintals/Ha of paddy. But for Rabi crops they have to depend on the residual moisture in the soil since there was no irrigation facility. Due to the lack of irrigation facilities and the effects of low soil moisture particularly during the winter season, the productivity of such crops was also low.

Hence, under the Upper Khri AIBP Project, a C.C. Head Dam was constructed during 2016-17 to provide sufficient irrigation to the particular area. The estimated cost of this Dam was ₹ 1, 98,860/- only. The Dam was able to deliver irrigation water to about 2.5 Ha areas.



BENEFITTED AREA

By construction of this Dam, the farmers are now able to cultivate different crops in different seasons accordingly without any problem or shortage of irrigation water needed for their crops. They have increased the cultivation area by cultivate different types of vegetables like potato, cabbage, cauliflower to 2.5 Ha and have also started growing vegetable crops during the Rabi season. The farmers are really grateful and are able to cultivate and also harvest more crops. The yield of Paddy has increased to 18 quintals and during winter season Rabi crop has increased up to 12 quintals/Ha.

SUCCESS STORY UNDER WEST KHASI HILLS

Name of Work : C.C Dam
Location : Laitdombah
Village : Laitdom

The work has been constructed under A.I.B.P (Upper Khri) during the year 2016-17, which was Implemented by Soil & Water Conservation Department, Nongstoin Division of an amount of ` 1, 05,498/-. This Dam irrigates an agricultural land of about 3.5 Ha. Prior to its construction, the production of Agricultural crops is low but now there has been an increased up to 1.5 quintal/Ha in the production of paddy. Besides Agricultural Production it stores a sufficient amount of water that can be utilized at any time by the cultivators.

Hence, it is expected that through the construction of this Dam it would be a great blessing to the farmers and the local inhabitants in many ways especially during winter season when they can cultivate vegetables.



C.C Dam at Laitdom Village



Benefited Area

3.3 Right to Information (RTI)

Disposal of Information Requests by Public Information Officer Reporting Year : 2018 (January to December)

Name of Department along with Public Authority	No. of Requests Pending at end of Last Year	No. of Requests Received during the year	Total No. of Requests	No. of Requests Disposed	No. of Requests Rejected	No. of Requests deemed to be Refused: 7 (2)	% of Cases Access to Information Denied*
i	ii	iii	iv	v	vi	vii	viii
Soil & Water Conservation	Nil	30	30	30	Nil	Nil	Nil

Information Requests Rejected by Public Information Officer Reporting Year : 2018 (January to December)

Name of Department along with Public Authority	Total No. of Requests Rejected	No. of Requests Rejected Section 8	No. of Requests Rejected Section 9	No. of Requests Rejected Section 11	No. of Requests Rejected Section 24	No. of Requests Rejected Other Sections
i	ii	iii	iv	v	vi	vii
Soil & Water Conservation	Nil	Nil	Nil	Nil	Nil	Nil

Disposal of First Appeals by Designated Appellate Officers Reporting Year : 2018 (January to December)

Name of Department along with Public Authority	No. of First Appeals pending with the Appellate Officers	No. of First Appeals preferred during the Year	Total No. of First Appeals with Appellate Officers	No. of First Appeals Disposed	No. of First Appeals Rejected	% of First Appeals Rejected	No. of First Appeals pending for more than 45 Days
i	ii	iii	iv	v	vi	vii	viii
Soil & Water Conservation	Nil	Nil	3	3	Nil	Nil	Nil

Summary of Costs, Fees & Charges Collected by Public Authorities Reporting Year : 2018 (January to December)

Name of Department along with Public Authority	Cost Collected Section 4 (4)	Fee Collected Section 6 (1)	Fee Collected Section 7 (1)	Fee Collected Section 7 (5)	Other Charges Collected (Specify)	Total Collection
i	ii	iii	iv	v	vi	vii
Soil & Water Conservation	Nil	Rs.190	Rs. 366	Rs. 10	Rs. 20	Rs. 586

**Significant Initiatives by Government/Public Authorities to Implement the RTI Act:
Record Management, Computerization & Networking, Suo moto disclosure etc.
Reporting Year : 2018 (January to December)**

Department/ Public Authority	Key Initiatives undertaken during the Year
Soil & Water Conservation	All relevant records are kept properly in documentation. As such information sought by applicant under RTI Act, 2005 could be disposed. SUO MOTO DISCLOSURE Prompt action taken on all queries.

3.4 CONSERVATION TRAINING INSTITUTE (CTI), BYRNIHAT

The Conservation Training Institute (CTI) is one of the oldest Institutes in the North Eastern Region of India. It has immensely and consistently contributed to soil and water conservation in the region since its establishment in 15th October, 1973, by meeting the training requirements of the Department and allied organizations of the state as well as the region as a whole both at the Soil and Water Conservation Demonstrator/ Forester Level and Range Officer Level.

The Conservation Training Institute mainly conducts two long term training programmes, namely:-

1. Field Assistant Training Programme:- The Field Assistant Training Programme is designed for Field Executives in the Rank of Soil & Water Conservation Demonstrator Junior-I and equivalent. Altogether 13 (thirteen) Nos. currently undergoing training under the 46th Batch Field Assistant Training Programme 2018-2019. The total number of trainees trained under the programme during 45th Batch Field Assistant Training Course 2017-2018 is 51 (Fifty-one) Nos.

2. Middle Level Technician Training Programme: - The 32nd Batch MLTTP Course which is of 5 and a half months duration, i.e. from 15th June to 30th November, 2019 consisted of 12 numbers.

3.5 Meghalaya Commercial Crops Development Board (MCCDB)

The Meghalaya Commercial Crops Development Board (MCCDB) came into being vide an Act called the Meghalaya Commercial Crops Development Board Act, 1996 effected from 1st June, 1997. However, the MCCDB actually formally inaugurated its office at Dhankheti, Shillong on the 3rd August, 2001 and its nucleus Branch at Tura was inaugurated on the 21st May, 2002. The activities of the Board include the promotion of commercial crops cultivation, processing and marketing in the State.

Particular of Rubber Seedling Nurseries:

- i. Raising of Bud wood nursery (Maintenance) 2018-19. 77, 000 nos
- ii. Rubber Seedling (Maintenance) 2018-19 Nil



RUBBER PLANTATION AT UMDAP, MARNGAR, RI-BHOI DISTRICT



RUBBER PROCESSING UNIT AT LUBIA, SHELLA, EAST KHASI HILLS DISTRICT

CHAPTER- IV

4.0 E-GOVERNANCE

Initiatives taken under e-governance by the Department:

1. Departmental website – [www. Megsoil.gov.in](http://www.Megsoil.gov.in)
 - Main Content
 - Why Soil and Water Conservation
 - Basic Information
 - Major Programmes
 - Guidelines for Central Schemes
 - Training Institute
 - Achievements
 - Annual Report
 - Citizens' Charter
 - Right to Information - Suo Moto Disclosure under RTI Act.
 - IWMP (Integrated Watershed Management Programme)- Detailed Project Report
 - MCCDB (Meghalaya Commercial Crops Development Board)
 - Others
 - Notice Board
 - Picture Gallery
2. Management information system (MIS) IWMP.
3. Public Financial Management System (PFMS).
4. Process Monitoring Software (PMS).
5. DPR, Estimation & Hydrogeology Application IWMP.
6. BHUVAN - Drishti-Srishti.

4.1 Training / Workshop & Seminar 2018 - 2019.

- (I) Workshop on “Mahila Kisan Sashatikaran Pariyojana (MKSP) Roll-Out plan” held on 19th – 20th March, 2018 at Eldorado Dhankheti, Shillong is attended by Shri N.J.S. Kharmalki, Soil & Water Conservation Officer (MEU).
- (II) Workshop on “Alternate Agricultural production pathways in Changing Climates” held on 28th May, 2018 at ICAR, Umiam is attended by Smti V. Papang, Director of Soil & Water Conservation Department.
- (III) The Department deputed Shri P. Rapphap, Division Soil & Water Conservation Officer, Engineering Division to attend the course on “e-Governance services and Digital Financial Transaction” at NIRD-NERC, Guwahati with effect from 6th to 8th June, 2018.
- (IV) The Department has deputed Shri D.K. Khonglah, Joint Director Soil & Water Conservation (Tura) to attend the Regional on Skill Development in Agriculture for North East region at Guwahati on 5th October, 2018.

- (V) The following Officers have attended Forestry Training and Capacity Building with effect from 20th to 30th November, 2018 at ICAR, Umiam:
1. Shri J.J. Lakiang, Senior Assistant Soil & Water Conservation Officer, Jowai Territorial Division.
 2. Shri M. Sun, Assistant Soil & Water Conservation Officer, Shillong Cash Crop.
- (VI) Workshop on Training Needs Assessment for preparation of the “Annual State Capacity Building Plan under RGSA 2018- 2022, Meghalaya” is attended by the following Officers during the month of September, 2018.
1. Smti M. Ch. Momin, Division Soil & Water Conservation Officer, Tura Cash Crop Division.
 2. Shri P. Rapthap, Division Soil & Water Conservation Officer, Engineering Division.
- (VII) The Department has deputed Shri A. Lamare, Division Soil & Water Conservation Officer, Tura Territorial Division to attend the workshop on Identification of Drivers of Deforestation on 29th January, 2019 at N.E.H.U Conference Hall, Shillong.

