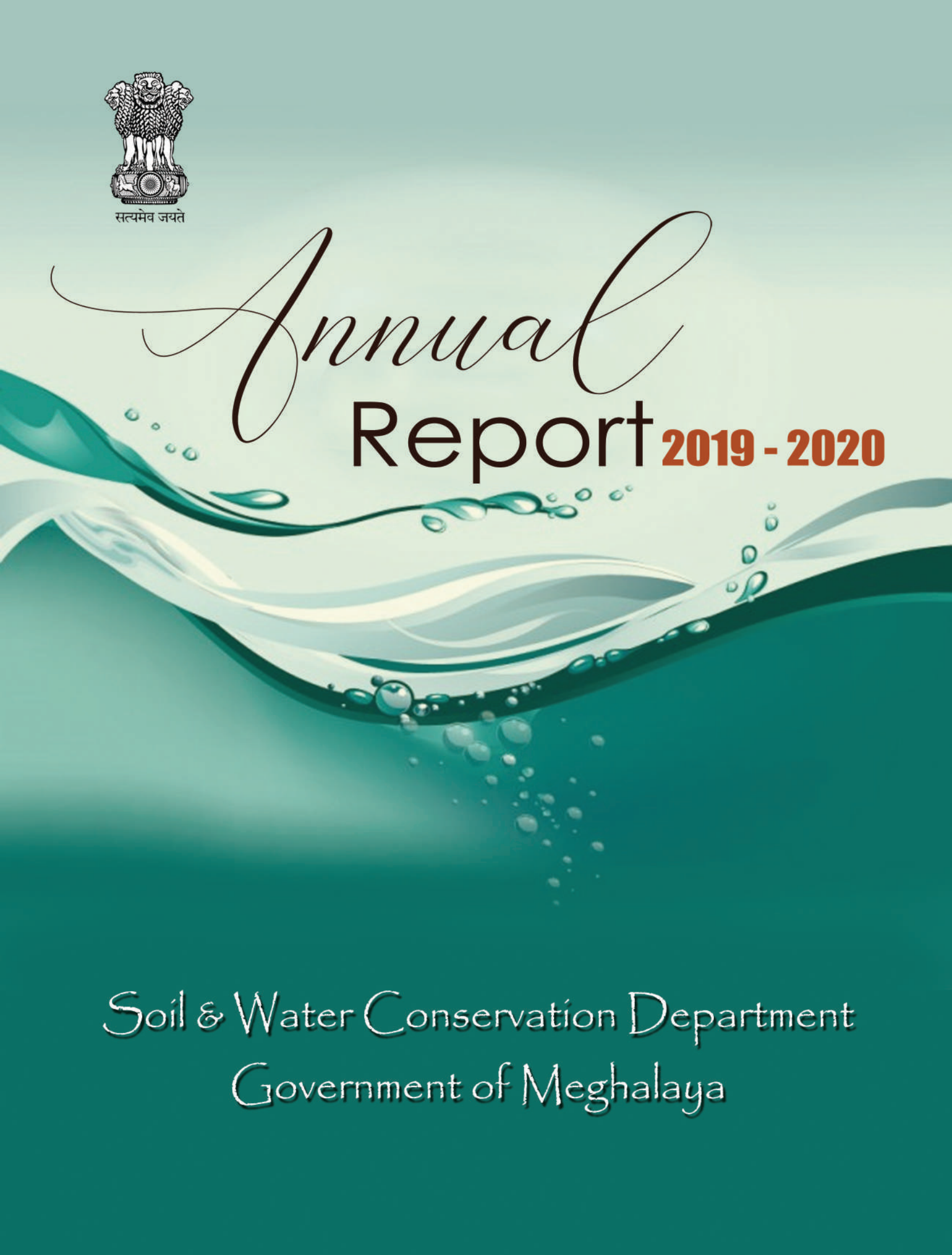
सत्यमेव जयते
Annual
Report 2019 - 2020
Soil & Water Conservation Department
Government of Meghalaya

सत्यमेव जयते

ANNUAL REPORT
2019-2020

SOIL & WATER CONSERVATION DEPARTMENT
GOVERNMENT OF MEGHALAYA

Contents

Preface

The Annual Report 2019-20 of the Soil & Water Conservation Department is an official journal portraying the policies, concepts and principles as well as the progress made during the period in various fronts of activities undertaken by the department. It is in effect an account of efforts put in by the Department in the matter of conservation and management of natural resources as well as other associated goals such as the underlying socio-economic and livelihood promotion activities particularly of the farming community and rural population.

Conservation of soil and water resources is important for sustainability of agriculture and environment. Soil and water resources are under immense pressure due to ever increasing population thereby ensuing growing demand for food, fiber and shelter. Also, the resources are being deteriorated due to different anthropogenic and natural factors. Soil erosion is one of the several major deteriorative processes which results in deterioration of the soil. Deforestation, over-grazing, intensive cultivation, mismanagement of cultivated soils and intensive urbanization are major factors triggering the soil erosion. For sustainable agriculture and environment, it is pertinent to protect the soil resources against erosion. Different control measures should be adopted to protect the soil resources against erosion. It is therefore pre-requisite that soil conservation practices should be adopted.

There have been changes in the modes of implementation of the projects and schemes, wherein, there is transparency and the stakeholders were made partners in the developmental activities of the department. Also visible are the adoption of new technologies and Management Information Systems in the execution and implementation of the works. The adoption of such activities, thus, would propel the success of the projects undertaken by the department.

I am confident that the Annual Report will serve the purpose for which it is being published and that what had been manifested therein would propel the Department to greater heights in its endeavor to conserve, manage and protect our resources.

(L. N. Marak)
Editor & Director Soil & Water Conservation
Meghalaya, Shillong

सत्यमेव जयते

Message

It gives me immense pleasure to know that the Soil & water Conservation Department is publishing its Annual Report 2019-20, wherein, various works undertaken by the department and its success stories are being documented.

The performances of the department as shown here in the Annual Report reflects the comprehensive and extensive efforts of the Department towards implementation of the schemes and projects and also its impacts, particularly among the rural community. It is heartening to see that the Department is not only focusing on the conservation practices but is also addressing the issues pertaining to empowerment of the community as a whole.

I am confident that the Department will pursue its endeavors to offer high quality sustainable services and continue to serve the people of the State.

(Dr. Vijay Kumar)
Commissioner & Secretary
to the Government of Meghalaya
Soil & Water Conservation Department

Hamletson Dohling
Minister,
Information Technology & Communication,
Community & Rural Development and
Soil and Water Conservation Departments,
Meghalaya, Shillong.
Room No. 412, Yojana Bhavan,
Meghalaya (C) Secretariat,
Shillong - 793001.

सत्यमेव जयते

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Message

I am immensely happy to learn that the Soil & Water Conservation Department is publishing its Annual Report 2019-2020.

I am confident that this Annual Report will exhibit the vision and mission undertaken by the Department for management as well as conservation of the natural resources of the state. I also feel that the Annual Report will reflect the endeavor of the Department to implement the schemes and projects in the greater interest of the general public and particularly the farming community of the State.

I would further urge the officers and staffs of the Department while acknowledging the past achievements, to forge ahead as there is always room for improvement and this can only be achieved by the teamwork of the Department.

My sincere appreciation goes to the members of the Editorial Board, the Officers and Staff of the Department for meticulously collecting the facts and figures for publishing this Annual Report.

(Hamletson Dohling)

CHAPTER- I

Introduction

Agriculture remains one of the largest sectors in the economy both in terms of its contributions to the GDP and generating employment. Soil and Water are indispensable for survival of all terrestrial life and, efficient soil management is a must, not only for agriculture, but also in development as it can have a huge impact on addressing issues of poverty and food security. Therefore, it is substantial to exercise environmental rehabilitation, such as reducing soil erosion, for survival and development by implementing appropriate approaches and technology. Soil erosion hampers agricultural productivity by deteriorating soil quality. Even though the effects of soil erosion vary by management and location, soil erosion deteriorates the chemical property of soil by loss of organic matter and loss of minerals containing plant nutrients. Soil erosion also exposes subsoil minerals with low fertility or high acidity. Development and adoption of improved technologies, judicious use of natural resources and effective management practices are the need of the hour for protection of soil and water from degradation.

The Soil & Water Conservation Department, since its inception have focused primarily on evolving strategies for controlling land degradation (through watershed approach), targeting area specific problems, demonstration of technologies for popularization and imparting training besides developing technologies for water harvesting and recycling.

Mandate

Natural resource 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

- To promote sustainable utilization of soil, water and vegetation resources
- Sustainable food support and water needs
- To 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
- Enhancing agricultural crop productivity
- Promoting integrated farming system
- Promoting livelihood and gainful employment opportunities

Prerequisites

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.

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.

Sl 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.
		Shillong Soil and Water Conservation (Plantation Crop) Division, Shillong	1. Shillong Soil and Water Conservation (Plantation Crop) Range, Shillong
		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.
		Jowai Soil and Water Conservation (Plantation Crop) Division, Jowai	1. Amlarem Soil and Water Conservation (Plantation Crop) Range, Amlarem
			2. Namdong Soil and Water Conservation (Plantation Crop) Division, Namdong
			3. Lumshnong Soil & Water Conservation (Plantation Crop) Range, Lumshnong.
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.
			3. Sonidan Soil & Water Conservation Range, Sonidan.
			4. Marngar Soil & Water Conservation (Plantation Crop) Range, Marngar
		Beat Office	1. Umroi Soil & Water Conservation Beat Office, Umroi.
5	West Khasi Hills District	Nongstoin Soil and Water Conservation Division	1. Riangdo Soil & Water Conservation Range, Riangdo.
			2. Mairang Soil & Water Conservation Range, Mairang.
			3. Nongstoin Soil & Water Conservation Range, Nongstoin.
			4. Watershed Management Soil & Water Conservation Range, Nongstoin.
		Beat Office	1. Sonapahar (Plantation Crop) Beat Office, Sonapahar
6	South West Khasi Hills District	South West Khasi Hills Soil and Water Conservation Division, Mawkyrwat	1. Mawkyrwat Soil & Water Conservation Range, Mawkyrwat.
			2. Border Areas Soil & Water Conservation Range, Ranikor.

7	West Garo Hills District	Tura Soil and Water Conservation (Territorial) Division,Tura	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
			5. Jongchipara Soil & Water Conservation Range, Jongchipara.
			6. Watershed Management Soil & Water Conservation Range, Tura.
		Tura Soil and Water Conservation (Plantation Crop) Division,Tura	1. Danakgre Soil & Water Conservation (Plantation Crop) Range, Danakgre
		Beat Office	1. Dadengre Plantation Crop Soil & Water Conservation Beat Office, Dadengre
8	South Garo Hills District	South Garo Hills Soil and Water Conservation Division, Baghmara	1. Baghmara Soil & Water Conservation Range, Baghmara
			2. Chokpot Soil & Water Conservation (Plantation Crop) Range, Chokpot
		Beat Office	1. Rongara Soil & Water Conservation Plantation Crop Beat Office, Rongara
9	South West Garo Hills District	South West Garo Hills Soil and Water Conservation Division, Ampati	1. Damalgre Soil & Water Conservation Range, Damalgre
			2. Zikzak Soil & Water Conservation Range, Zikzak
10	East Garo Hills District	Simsanggre, Soil and Water Conservation, Division, Williamnagar	1. Eastern Soil & Water Conservation Range, Songsak Bonegre.
			2. Watershed Management Soil & Water Conservation Range, Williamnagar.
			3.Williamnagar Soil & Water Conservation (Plantation Crop) Range, Williamnagar
		Beat Office	1. Rongjeng Plantation Crop Beat Office, Rongjeng
11	North Garo Hills District	North Garo Hills Soil and Water Conservation Division, Resubelpara	1. Mendipathar Soil & Water Conservation Range, Mendipathar.
			2. Northern Soil & Water Conservation Range, Wageasi.
			3. Wageasi Soil & Water Conservation Plantation Crop Range, Wageasi
		Beat Office	1. Adokgre Soil & Water Conservation Beat Office, Adokgre.
			2. Kharkutta Plantation Crop Beat Office, Kharkutta

ORGANISATIONAL SET-UP OF THE SOIL & WATER CONSERVATION

CHAPTER- II

Budget Outlay of the Department during 2019-20

STATEMENT INDICATING THE BUDGET OUTLAY AND EXPDENDITURE IN RESPECT OF DEVELOPMENT EXPENDITURE BUDGET 2019-20

(Rs. in Lakh)

Major/Minor Head of Deptt./Scheme	*Budget Outlay (Devp.)* *2019-20*	*Expenditure upto 31.03.2020* *2019-20*	*Remarks*
(1)	*(2)*	*(2)*	*(3)*
REVENUE HEAD			
SOIL & WATER CONSERVATION SECTOR			
2216. HOUSING - STATE SCHEMES			
07. HOUSING			
800. Other Expenditure			
(01) Construction	0.00	0.00	
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	551.50	386.09	
(03) Soil Conservation Range Offices	70.50	52.57	
(05) Project Formulation Cell			
(06) Soil Conservation Engineering Division			
(08) Cash Crop Division			
(10) Soil Conservation Survey Division			
TOTAL 001	**622.00**	**438.66**	
102. SOIL CONSERVATION SCHEME			
(04) Erosion Control Works			
(06) Afforestation	250.00		
(08) Water Conservation & Distribution Works / Irrigation			
(09) Cash Crop Development Works	430.45		
(10) Construction works in Urban Areas			
(11) Water Harvesting Works / Farm ponds, etc.			
(12) Avenue Plantation			
(13) SCA for Development of Rubber Plantation			
(14) Integrated Watershed Management Programme (IWMP) (STATE SHARE)	350.00		
(15) Convergence Fund			

(16) Scheme under Convergence with Community Led Ecosystem Management Project (CLEMP)			
(17) Scheme under the Ministry of Tribal Affairs			
(18) Commnunity Water Reservoir (in convergence with MGNREGA)			
(21) Soil Conservation Scheme under NABARD Loan	800.00	500.00	
(22) Integrated Wasteland Development Programme (IWDP)			
(23) Accelerated Irrigation Benefits Programme (AIBP) **(State Share)**	350.00		
TOTAL 102	**2180.45**	**500.00**	
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			
(02). Construction & Maintenance of Departmental Non-Residential Buildings			
TOTAL (02)	**0.00**	**0.00**	
(06). Meghalaya Commercial Crops Development Board			
31. Grants-in-aid (Salary)	30.00	30.00	
36. Grants-in-aid General (Non-Salary)	20.00	0.24	
TOTAL (06)	**50.00**	**30.24**	
(08) Soil Conservation Scheme under NABARD Loan			
TOTAL (08)	**0.00**	**0.00**	
(13) Accelerated Irrigation Benefits Programme (AIBP) **(STATE SHARE)**			
TOTAL (13)	**0.00**	**0.00**	
(14) Integrated Watershed Management Programme (IWMP)			
TOTAL (14)	**0.00**	**0.00**	
TOTAL 800	**50.00**	**30.24**	
TOTAL STATE SCHEMES	**2853.45**	**969.90**	
CENTRALLY SPONSORED SCHEMES			
102. SOIL CONSERVATION			
(14) Integrated Watershed Management Programme (IWMP) (**CENTRAL SHARE**)	7250.00		
TOTAL (14)	**7250.00**	**0.00**	
(23) Accelerated Irrigation Benefits Programme (AIBP) **(CENTRAL SHARE)**	-	-	
TOTAL (14)	**0.00**	**0.00**	
(22) Integrated Wasteland Development Programme (IWDP)			
TOTAL (22)	**0.00**	**0.00**	

(23)Accelerated Irrigation Benefit Programme (AIBP) (CENTRAL SHARE)	7250.00		
TOTAL (23)	**7250.00**	**0.00**	
TOTAL 102	**14500.00**	**0.00**	
800. OTHER EXPENDITURE			
(13) Accelerated Irrigation Benefit Programme (AIBP) **(CENTRAL SHARE)**			
TOTAL (13)	**0.00**	**0.00**	
TOTAL 800	**0.00**	**0.00**	
TOTAL CENTRALLY SPONSORED SCHEMES	**14500.00**	**0.00**	
TOTAL 2402	**17353.45**	**969.90**	
2415. AGRICULTURAL RESEARCH & EDUCATION			
01. Soil Conservation Research Centre	4.60	4.60	
TOTAL 2415	**4.60**	**4.60**	
TOTAL REVENUE HEAD	**17358.05**	**974.50**	
CAPITAL HEAD			
4416 CAPITAL OUTLAY ON HOUSING			
01. GOVERNMENT RESIDENTIAL BUILDING			
700. OTHER HOUSING			
(01) Construction and maintenance of Departmental Residential Building			
21. Supplies and Materials			
50. Other Charges			
53. Major Works	0.00	0.00	
Total (01)	**0.00**	**0.00**	
TOTAL 4216	**0.00**	**0.00**	
4402. SOIL & WATER CONSERVATION			
102. SOIL CONSERVATION			
(01) Construction of Departmental Non Residential Building			
53. Major Works	113.95	81.95	
Total (02)	**113.95**	**81.95**	
TOTAL 4402	**113.95**	**81.95**	
TOTAL CAPITAL HEAD	**113.95**	**81.95**	
GRAND TOTAL	**17472.00**	**1056.45**	

(1)	*(2)*	*(2)*	*(3)*
UNDER RURAL DEVELOPMENT SECTOR			
Integrated Wasteland Development Programme (IWDP) (Central Share)	1800.00		
Integrated Wasteland Development Programme (IWDP) (State Share)	200.00		
TOTAL IWDP	**2000.00**	**0.00**	**0.00**

Achievements under various Schemes for 2019-20 (Physical/Financial)

WATERSHED DEVELOPMENT COMPONENT OF THE PRADHAN MANTRI KRISHI SINCHAYEE YOJANA (PMKSY-WDC) [erstwhile Integrated Watershed Management Programme, IWMP)

The Programme is the result of the new and unified approach of the GOI for treatment and development of the new generation watersheds in a realistic and holistic manner. The Government of India through the National Rainfed Area Authority (NRAA) has evolved the Common Guidelines, 2008 (revised 2011) for implementation of the Watershed Development Projects, The major areas 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, constitution of District and Project Level Institutions for implementation of the projects for the Participatory Watershed Projects with financial, social and economic empowerment to the watershed communities in close coordination with the local institutions. Another aspect is the equity and participatory resources management with due regards to the economically weaker section within the village community. It is a multi-sectoral and multidimensional in nature which hinges on convergence for its success. The Central and State share for the IWMP projects is in the ratio of 90:10.

Objectives:

The main objectives of the programme are as follows:

i. To dissipate soil and water erosion and surface run-off.

ii. To harvest/ recycle surface runoff and rainwater.

iii. To enhance soil moisture regime/ water holding capacity.

iv. To promote sub-surface flow, base flow and ground water recharge.

v. To improve soil health and tilth.

vi. To improve production and productivity.

vii. To promote generation and gainful employment opportunities.

Rationale:

The PMKSY-WDC, erstwhile IWMP is being implemented in the state in all of the 11 districts of the state. There are a total of 5 Batches containing 84 projects which were initiated from 2009-10 where Batch I & II has been completed whereas Batches III, IV and V are still ongoing with 23 projects (14 projects for Batch III, 12 projects for Batch IV and 11 projects for Batch V) to be implemented in the state.

Activities taken under various components of the programme:

i. **Entry Point Activity (EPA):** Under Entry Point Activity activities like Link Road/Approach Road, Spring Tapped Chamber, Drinking Well, Foot Bridge, Public Toilet, Foot Path, Drinking Water Tank etc. are taken up.

ii. **Arable Land Treatment:** Under this component, activities like bench terrace, improvement of existing paddy fields, Peripheral bunding, Plantation of plantation and horticultural crops etc. are taken up.

iii. **Non-Arable Land Treatment:** Under this component, activities like Afforestation, improvement of degraded forest, Agro-Forestry activities etc. are taken up.

iv. **Drainage line Treatment:** Under this component, activities like Water Harvesting Structure, Check dams, Dug-out ponds, Irrigation Channels, protection walls etc. are taken up.

v. **Livelihood Activities:** Under this component, activities like Vegetables Production/ Kitchen Gardening, Composting, Tailoring, Carpentry, Weaving, Masonry/ Hollow Block Making etc. are taken up.

vi. **Production system and micro-enterprise:** Under this component, Poultry Farming, Piggery Farming, Pisciculture, Apiculture, Mushroom cultivation Floriculture, Betel nut Processing etc. are taken up.

vii. **Capacity Building and Training:** Capacity Building is one of the most important components under the Watershed Programme. Capacity Building and Training is done at all levels – State Level, District Level, Project Level and the Watershed Level. Capacity Building is carried out throughout the project period right from the Preparatory Phase, Watershed Work Phase, and the Consolidation and Withdrawal Phase.

viii. **Monitoring, Evaluation and Learning:** Monitoring and evaluation of the projects are carried out at each of the Phases (Preparatory, Watershed Work Phase, and the consolidation and Withdrawal Phase) by empaneled agencies as approved by the Department of Land Resources, MoRD, NEHU, SIRD, ICAR, NIRD etc. and also through Con-current Third-Party Monitoring and Evaluation (North Eastern Development Finance Corporation Ltd. (NEDFI)

Completed Batches:

- Batch I which was initiated in 2009-2010 with total projects 18 nos. has been completed in the year 2018-2019.
- Batch II which was initiated in 2010-2011 with total projects 29 nos. has been completed in the year 2018-2019.

Ongoing Batches:

- Batch III which was initiated in 2011-2012 with total projects 14 nos. is ongoing.
- For Batches IV and V which was initiated in 2012-2013 and 2013-2014 respectively with total projects 12 nos. and 11 nos. respectively, implementation has stopped, due to non-release of funds by the Government of India.

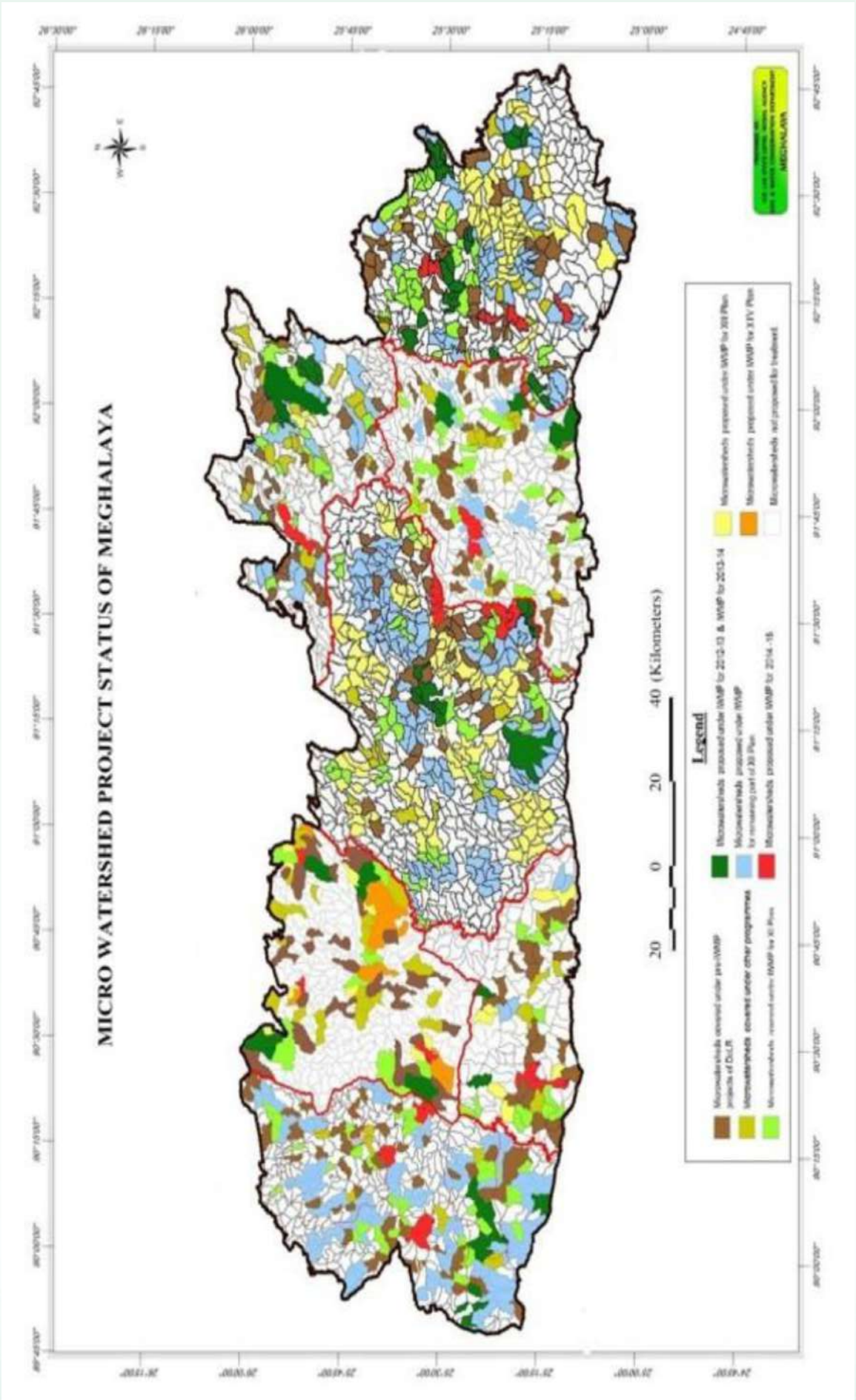
Meghalaya State Watershed and Wasteland Development Authority (MSWWDA)

The Integrated Watershed Management Programme (IWMP) is the result of the new and unified approach of the GOI 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 Centre
- 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 quality online monitoring of watershed projects in the state
- Prepare State Specific Process Guidelines, Technology Manuals, etc. in coordination with the Nodal Ministry/NRAA and operationalize the same.


MICRO WATERSHED PROJECT STATUS OF MEGHALAYA
Legend
20
0
20
40 (Kilometers)

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 up to 2018-19		Achievement for 2019-20		Cumulative Achievement up to 2019-20	
							Financial	Physical	Financial	Physical	Financial	Physical
1	East Khasi Hills- IWMP-XI, IWMP-XII.	Mawphlang-Mawkynrew-Mawryngkneng, Shella- Bholaganj-Mawsynram.	5000	750	675	75	580.51981	3870	120.902329	806	701.42214	4676
2	West Khasi Hills- IWMP-VIII, IWMP- IX.	Nongstoin, Mawshynrut.	5000	750	675	75	524.57165	3498	143.62022	957	668.19187	4455
3	Jaintia Hills-IWMP-VI, IWMP-VII.	Laskein-Thadlaskein, Laskein.	8000	1200	1080	120	829.1703168	5528	318.396605	2122	1147.566922	7650
4	Ri-Bhoi- IWMP-VII	Umling, Jirang.	2500	375	337.5	37.5	304.48325	2030	40.50343	270	344.98668	2300
5	East Garo Hills- IWMP-VII, IWMP-VIII.	Resubelpara-Samanda, Kharkutta-Rongjeng.	5000	750	675	75	612.8441	4085	112.92421	752	725.76831	4837
6	West Garo Hills – IWMP-X, IWMP-XI, IWMP-XII.	Rongram, Selsella- Tikrikilla-Dadenggre, Zikzak-Dalu-Gamnegre.	8000	1200	1080	120	970.40919	6469	162.30141	1082	1132.7106	7551
7	South Garo Hills- IWMP-V, IWMP-VI.	Chokpot, Rongara	4000	600	540	60	480.45620	3203	89.63034	598	570.08653	3801
Grand Total			**37500**	**5625**	**5062.5**	**562.5**	**4302.45451**	**28682**	**988.278539**	**6587**	**5290.733049**	**35269**

PHOTOGRAPHS

Wet Terrace under Umkyrpiang-Umkaduh Watershed, Ri Bhoi

Dug-out Farm Pond under Ganchenggre Watershed, West Garo Hills

Wet Terrace under Umkyrpiang-Umkaduh Watershed, Ri Bhoi

Dug-out Farm Pond under Ganchenggre Watershed, West Garo Hills

PRADHAN MANTRI KRISHI SINCHAYEE YOJANA HAR KHET KO PANI (erstwhile Accelerated Irrigation Benefits Programme, AIBP)

Sanctioned by the Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation, Government of India, this Surface Minor Irrigation (SMI) schemes with irrigation potential less than 2000 hectare were included under (AIBP) for providing Central Assistance (CA) since 1999-2000 for Special Category States including Meghalaya with Central Assistance of 90 % and 10 % State Share.

Objectives:

The aims and objectives of this scheme are:-

i. To provide assured water availability all year round for agriculture and allied activities.

ii. Enhance the productivity level of land and water resources in the context of irrigated agriculture and its allied activities.

iii. Improve the socio-economic set up of the people within the Project Area.

iv. To safely dispose off surface runoff without causing soil erosion.

v. Restore and stabilize the water table and moisture content and thereby increase crop productivity.

vi. Have sustainable development through conservation and management of soil and water.

However, since the Financial Year 2015-16, the SMI Schemes were brought under the umbrella of Pradhan Mantri Krishi Sinchayee Yojana – Har Khet Ko Pani (PMKSY-HKKP).

The work components include construction of:

i. Irrigation Dams / Water Distribution Structures.

ii. Water Harvesting Structures of two types, i.e.

- Impounding type
- Dug out type

iii. Protection Walls / Retaining Walls of cultivated fields, i.e., of Stone Masonry, Gabion Structure, Spurs, etc.

iv. Irrigation Channels, Aqueducts, etc.

Benefits from the Schemes:

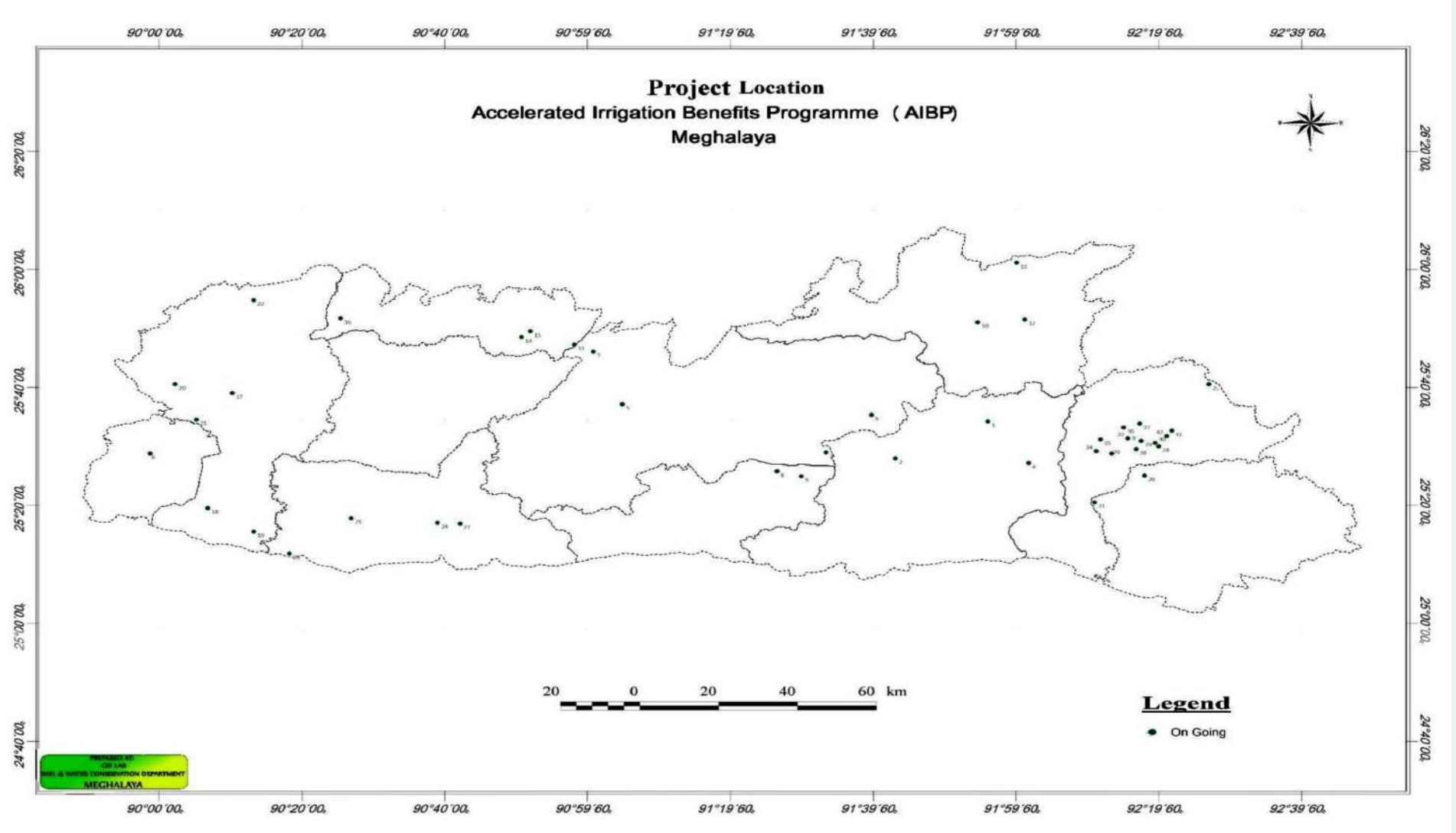
i. Assured irrigation throughout the year

ii. Yield of agriculture crops enhanced due to increased cropping intensity

iii. Better water harvesting system will be evolved

iv. Improved income levels of the farmers

v. Changing cropping pattern from mono cropping to multiple cropping


Project Location
Accelerated Irrigation Benefits Programme (AIBP)
Meghalaya
90°00'00"
90°20'00"
90°40'00"
90°59'60"
91°19'60"
91°39'60"
91°59'60"
92°19'60"
92°39'60"
26°20'00"
26°00'00"
25°40'00"
25°20'00"
25°00'00"
24°40'00"
20 0 20 40 60 km
Legend
On Going
MEGHALAYA

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	Expenditure incurred UPTO 2019-20			Potential created UPTO 2019-20	BALANCE FUND			Potential Yet to be created
		CS	SS	Total		CS	SS	Total		CS	SS	Total	
		(Rs. in Lakh)			(Hectare)	(Rs. in Lakh)			(Hectare)	(Rs. in Lakh)			(Hectare)
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14
East Khasi Hills													
Umladew	**Mawryngkneng**	113.28	12.59	125.87	260	45.3	5.03	50.33	104	67.98	7.56	75.54	156
Wah Khimmurah	**Mawphlang**	204.13	22.68	226.81	151.2	81.62	9.07	90.69	60	122.51	13.61	136.12	91.2
Wahtyrkhang	**Mawphlang**	246.41	27.38	273.79	184	98.53	10.95	109.48	74	147.88	16.43	164.31	110
Umrangshim-Umjapieh	**Mawkynrew**	571.55	63.51	635.06	431	228.55	25.4	253.95	172	343	38.11	381.11	259
Umphaliang-Wah Jaroit	**Mawryngkneng**	368.03	40.89	408.92	280	147.17	16.36	163.53	112	220.86	24.53	245.39	168
West Khasi Hills													
Upper Khri	**Mairang**	502.59	55.84	558.43	367	200.98	22.33	223.31	146	301.61	33.51	335.12	221
Langdongdai	**Mawshynrut**	176.44	19.6	196.05	136	70.56	7.84	78.4	54	105.88	11.76	117.65	82
South West Khasi Hills													
Umkynja	**Mawkyrwat**	349.97	38.89	388.86	374	139.96	15.55	155.51	150	210.01	23.34	233.35	224
Upper Umrilang	**Mawkyrwat**	815.37	90.6	905.97	607	326.06	36.22	362.28	242	489.31	54.38	543.69	365
Ri-Bhoi													
Umsaw	**Umling**	403.2	44.8	448	500	161.24	17.91	179.15	200	241.96	26.89	268.85	300
Middle Umran	**Umsning**	401.49	44.61	446.1	260	160.55	17.84	178.39	104	240.94	26.77	267.71	156
Umkei	**Umsning**	300.4	33.38	333.78	219	120.13	13.34	133.47	88	180.27	20.04	200.31	131
Amparling	**Umling**	812.8	90.31	903.11	590	325.02	36.12	361.14	236	487.78	54.19	541.97	354

Name of District & Project	Name of C&RD Block	Total Project Cost Sanctioned			Total Potential Irrigation Area to be created	Expenditure incurred UPTO 2019-20			Potential created UPTO 2019-20	BALANCE FUND			Potential Yet to be created
		CS	SS	Total		CS	SS	Total		CS	SS	Total	
		(Rs. in Lakh)			(Hectare)	(Rs. in Lakh)			(Hectare)	(Rs. in Lakh)			(Hectare)
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14
North Garo Hills													
Middle Ildek	Kharkutta	354.38	39.37	393.75	262.5	141.71	15.74	157.45	105	212.67	23.63	236.3	157.5
Middle Chil	Kharkutta	440.85	48.98	489.83	326.55	176.29	19.58	195.87	130	264.56	29.4	293.96	196.55
Rajing	Resubelpara	567	63	630	420	226.74	25.19	251.93	168	340.26	37.81	378.07	252
West Garo Hills													
Mongalgre-Dichinggre	Dadenggre	240.97	26.78	267.75	178.5	96.36	10.71	107.07	72	144.61	16.07	160.68	106.5
Middle Grim	Dalu	418.17	46.46	464.63	310	167.21	18.59	185.8	124	250.96	27.87	278.83	186
Bakla	Dalu	862.74	95.86	958.6	638.4	344.99	38.34	383.33	255	517.75	57.52	575.27	383.4
Dongdonga	Selsella	878.85	97.65	976.5	651	351.43	39.06	390.49	260	527.42	58.59	586.01	391
Lower Pilgi	Selsella	576	64	640	426.7	230.34	25.59	255.93	170	345.66	38.41	384.07	256.7
Roni-Dabong	Tikrikilla	708.75	78.75	787.5	525	283.42	31.49	314.91	210	425.33	47.26	472.59	315
South West Garo Hills													
Muji	Betasing	1034.53	114.95	1149.48	728	413.69	45.97	459.66	291	620.84	68.98	689.82	437
South Garo Hills													
Nengkong Rongdik	Baghmara	305.27	33.92	339.19	700	122.07	13.57	135.64	280	183.2	20.35	203.55	420
Dareng Warima	Chokpot	1367.56	151.95	1519.51	965	546.86	60.77	607.63	386	820.7	91.18	911.88	579
Lower Bugi	Gasuapara	1267.37	140.82	1408.19	894	506.8	56.31	563.11	358	760.57	84.51	845.08	536
Rongai	Rongara	764.76	84.97	849.73	540	305.81	33.98	339.79	216	458.95	50.99	509.94	324
East Jaintia Hills													
Lower Myntdu	Khliehriat	512.37	56.93	569.3	449	204.89	22.77	227.66	180	307.48	34.16	341.64	269

Name of District & Project	Name of C&RD Block	Total Project Cost Sanctioned			Total Potential Irrigation Area to be created	Expenditure incurred UPTO 2019-20			Potential created UPTO 2019-20	BALANCE FUND			Potential Yet to be created
		CS	SS	Total		CS	SS	Total		CS	SS	Total	
		(Rs. in Lakh)			(Hectare)	(Rs. in Lakh)			(Hectare)	(Rs. in Lakh)			(Hectare)
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14
West Jaintia Hills													
Upper Umplu	Thadlaskein	413.14	45.9	459.04	310	165.21	18.35	183.56	124	247.93	27.55	275.48	186
Middle Myntdu	Thadlaskein & Khliehriat	889.15	98.8	987.95	660	355.56	39.5	395.06	264	533.59	59.3	592.89	396
Amrayang Umshyrpu	Amlarem	359.36	39.93	399.29	290	143.7	15.97	159.67	116	215.66	23.96	239.62	174
Parmupliang Cluster	Thadlaskein	322.75	35.86	358.62	292	129.07	14.33	143.4	116	193.68	21.53	215.22	176
Wah Synshar Cluster	Thadlaskein	242.94	26.99	269.94	216	97.15	10.79	107.94	86	145.79	16.2	162	130
Thlu Ummulong Cluster	Thadlaskein	406.02	45.11	451.14	371	162.36	18.04	180.4	148	243.66	27.07	270.74	223
Umpawai Cluster	Thadlaskein	522.9	58.1	581	441	209.1	23.23	232.33	176	313.8	34.87	348.67	265
Nartiang Cluster	Thadlaskein	190.82	21.2	212.02	170	76.31	8.48	84.79	68	114.51	12.72	127.23	102
Nongjngi Cluster	Thadlaskein	92.65	10.29	102.95	83	37.05	4.12	41.17	33	55.6	6.17	61.78	50
Wah Sabkjat Cluster	Thadlaskein	412.03	45.78	457.81	528	164.77	18.31	183.08	211	247.26	27.47	274.73	317
Sasein Cluster	Thadlaskein	264.64	29.4	294.05	236	105.83	11.76	117.59	94	158.81	17.64	176.46	142
Myntwa Cluster	Laskein	217.93	24.21	242.15	175	87.15	9.68	96.83	70	130.78	14.53	145.32	105
Wah Yiangkar Cluster	Laskein	182.69	20.3	202.99	149	73.06	8.11	81.17	60	109.63	12.19	121.82	89
Wah Sawian Cluster	Laskein	49.77	5.53	55.3	42	19.9	2.21	22.11	16	29.87	3.32	33.19	26
Grand Total : 42 Nos.		20132.05	2236.9	22368.95	16336.85	8050.5	894.5	8945	6529	12081.55	1342.4	13423.95	9807.85

PHOTOGRAPHS

RCC Irrigation Dam & Channel under Balda RVP, South Garo Hills

RCC Irrigation Dam with Channel under Middle Chill AIBP Project, North Garo Hills

CC Channel Structure under Wah Tyrkhang AIBP Project, South West Khasi Hills

CC Dam under Nongjngi AIBP Project, West Jaintia Hills

SPRINGSHED DEVELOPMENT WORKS FOR REJUVENATION OF SPRINGS FOR CLIMATE RESILIENT DEVELOPMENT IN WATER STRESSED AREAS OF MEGHALAYA

Project on Spring-Shed Development Works for Rejuvenation of springs for climate resilience development in the water stressed areas of Meghalaya, a financial assistance under National Adaptation Fund for Climate Change (NAFCC), Ministry of Environment, Forests & Climate Change, GOI & National Implementing Entity of NAFCC, NABARD. The project functions under the guidance of the Planning Department, the Meghalaya Basin Development Authority (MBDA) being the Project Management Unit (PMU) and the Department being the actual Project Implementing Agency (PIA). The project development objective is to strengthen community-led natural resources management in selected landscapes in the State.

Rationale:

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.

Aims:

The project aims to revive springs through spring-shed developmental works in a landscape approach. This will maintain base-flow of springs to ensure water security, food security and economy in general for the stakeholders, through scientific and participatory management techniques, and also reduce vulnerability of dependent communities.

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 districts
District:	**11 Districts of the State**
Total Project Cost:	**₹ 22,91,54,400/-**

Project Components:

i. Vulnerability assessment and spring-shed inventorisation
ii. Spring rejuvenation and structural measures
iii. Livelihood interventions
iv. Capacity building
v. Project management

Project Interventions:

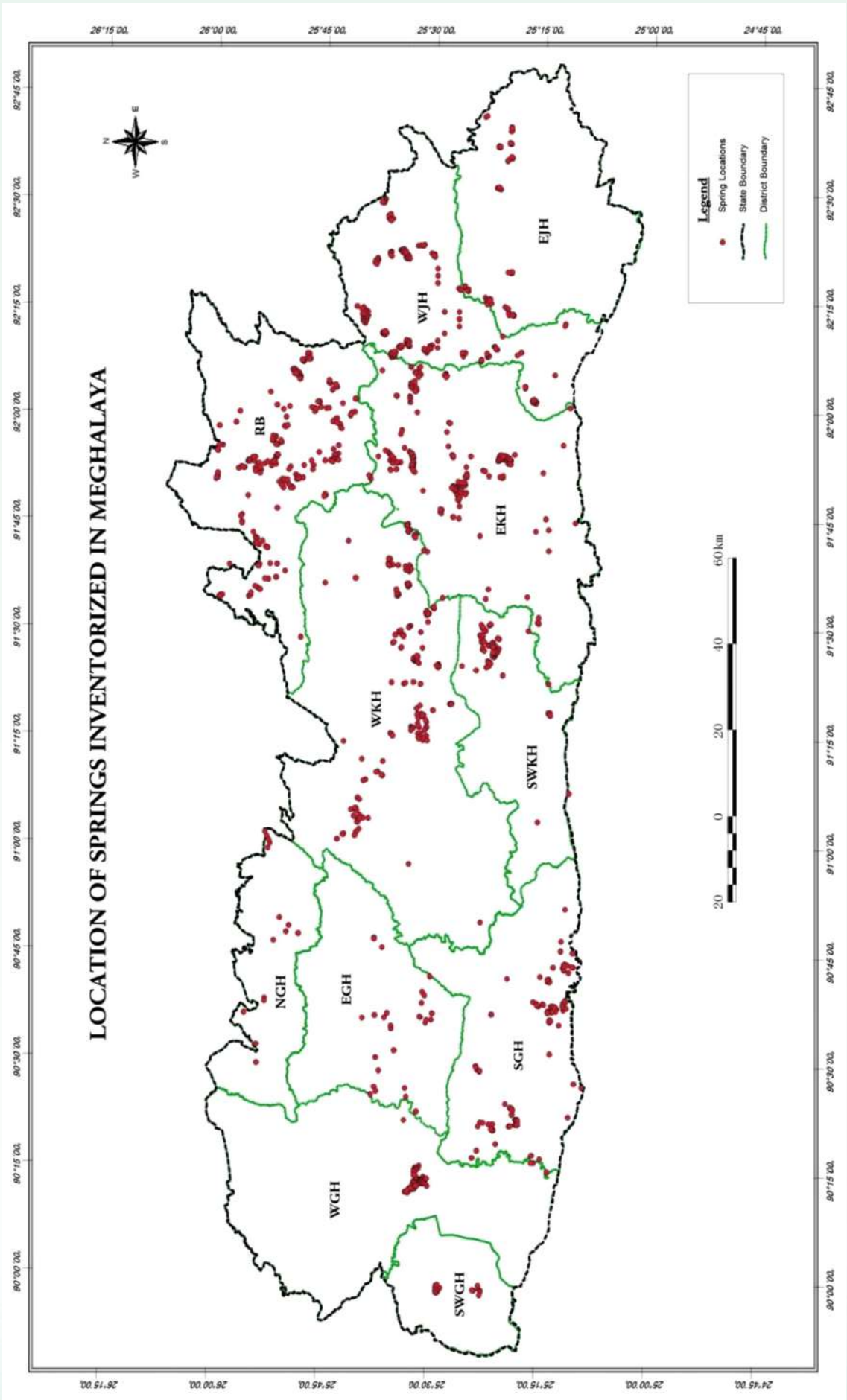
Under the Springshed Project, upto the financial year 2018-2019, critical springs were identified and detailed surveys conducted. A total of 412 springs falling under 306 Springsheds has been identified for treatment. The recharge zone of each of these 412 springs have been identified and mapped. Appropriate structural and vegetative interventions are being undertaken to restore the impaired springs.

Rejuvenation works of springs will be taken up in the near future by the Department targeting 100 springsheds per year (10 per district) tentatively. Interventions such as catchment protection, soil moisture conservations, drainage line treatments, erosion control works, groundwater recharge, plantation activities and wherever feasible livelihood promotion will be encouraged. These assets created will ensure serving the purpose over the long term.

STATEMENT SHOWING THE PROGRESS AND STATUS FOR SPRINGSHED DEVELOPMENT PROJECT

Project Components & Activity	Unit	Fund Released (2019-20)	Cumulative Fund Released (2019-2020)	Cumulative Achievement (2019-2020)
Component 1: Inventorization of spring sheds & prioritization 1.1 Springshed Hydrological Mapping 1.1.1 Spring Survey/ Inventorisation of additional springs not to be included in 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 Springsheds for structural measures (District) 1.4.2 Data Analysis and Finalization of Springsheds for structural measures (PMU - State Level)	Spring-shed (Nos.)	0.3566053	1.4309898	1.4309898
Total		**0.3566053**	**1.4309898**	**1.4309898**
Component 2: Development of detailed landscape based climate resilient spring shed 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)	4.5531395	11.168471	11.168471
Total		**4.5531395**	**11.168471**	**11.168471**
Component 3: Livelihood interventions in agriculture and allied sectors 3.1 Fodder/ animal feed/ Agro-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)	1.5003393	1.7688393	1.7688393
Total		**1.5003393**	**1.7688393**	**1.7688393**

Project Components & Activity	Unit	Fund Released (2019-20)	Cumulative Fund Released (2019-2020)	Cumulative Achievement (2019-2020)
Component 4: Capacity building for creating a cadre of para-hydro-geologists, PIA Officials and user bodies for preparation of Village Water Security Plan 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. 4.2 District Level 4.2.1 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. 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.		0.0784885	0.3805801	0.3805801
Total		**0.0784885**	**0.3805801**	**0.3805801**
Component 5: Project Execution Cost including Knowledge Management		0.4237826	0.4598607	0.4598607
Total		**0.4237826**	**0.4598607**	**0.4598607**
Grand Total		**6.9123552**	**15.2087409**	**15.2087409**


LOCATION OF SPRINGS INVENTORIZED IN MEGHALAYA
Legend
Spring Locations
State Boundary
District Boundary
RB
WJH
EJH
EKH
WKH
SWKH
NGH
EGH
SGH
WGH
SWGH
60 km
40
20
0
20

PHOTOGRAPHS

Loose Boulder Dam to trap runoff and facilitate infiltration

Loose Boulder Dam with trenches

Percolation Pits in Recharge Area

Spring-Chamber with Storage Tank

Afforested area with fencing

Tree plantation by one of the village beneficiary

Village Level Awareness and Training Programme on Springshed at village level

Village Level Training Programme

RURAL INFRASTRUCTURE DEVELOPMENT FUND (RIDF), NABARD LOAN

The Department implemented Scheme under Rural Infrastructure Development Fund (RIDF) - NABARD Loan from the year 2000-2001 onwards. The basic objective of the scheme is to enhance the productivity of agriculture and its allied activities and in small river valleys, thereby improving the socio-economic set up of the people in the rural areas. Besides these, the scheme also envisages to promote sustainable development through conservation and management of soil and water. The Soil and Water Conservation Department, Meghalaya has proposed to implement 35 nos. of projects under the NABARD loan (RIDF XXVI) which will cover all the districts of the state.

Aims and Objectives:

1. To reduce soil erosion and land degradation so as to maintain soil health, as well as conserving moisture thereby resulting in increase on productivity.
2. To enhance the existing productivity of available land.
3. To generate employment as well as to increase income of the rural people.
4. To enhance the knowledge and skill of the farmers through capacity building and training.

Strategies:

1. Adoption of watershed approach for treatment of degraded areas as cluster and contiguous manner.
2. Integration of sectoral measures for comprehensive development and maintenance.
3. Consolidation treatment efforts through projectised approach with proper choice of treatment measures.
4. Multi-disciplinary approach at district and project level while evolving program measures and conducting farmer training, involving various line departments.
5. To mitigate ill effects of unfocused cultivation by introducing appropriate land use as per land capability and adoption of improved technologies.

Scheme Interventions:

1. Water Harvesting Structures / Farm Ponds.
2. Head Water Dam / Diversion Dam, etc.
3. Protection Wall / Retaining Wall / Gabion Structure.
4. Bench Terraces / Contour Bund.
5. Improvement of existing paddy fields, etc.
6. Micro –Irrigation for increasing crop production

Anticipated Outcomes:

1. Assured irrigation throughout the year
2. Increased agricultural crop production
3. Per unit area enhancement of agricultural crops productivity due to increase in crop intensity
4. Improved food security and livelihood opportunity
5. Better water harvesting system will be evolved
6. Maintain stability of drainage flow
7. Improved income levels of the farmers
8. Improved drinking water availability
9. To facilitate transport of agriculture produce to the nearest market

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 2019-20(Rs. in Lakh)			Area treated during 2019-20 (Hectare)	Area yet to be treated (Hectare)
		NABARD Loan	State Share	Total		NABARD Loan	State Share	Total		
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
	East Khasi Hills									
1	Wah Lyngkien Phase-I	258.15	13.59	271.74	166.00	62.31	3.28	65.59	40.00	76.00
	West Khasi Hills									
2	Kyrshai Cluster-I	190.24	10.01	200.25	167.00	45.92	2.42	48.34	40.00	77.00
3	Them Lawbyrtun Cluster-I	284.70	14.98	299.68	338.00	68.72	3.62	72.34	82.00	155.00
	East Jaintia Hills									
4	Umdot-Umlaru	285.91	15.05	300.96	156.00	69.00	3.63	72.63	38.00	71.00
	West Jaintia Hills									
5	Ramut Umpaai	283.54	14.92	298.46	125.00	68.43	3.60	72.03	30.00	57.00
	North Garo Hills									
6	Andok	278.57	14.66	293.23	320.00	67.24	3.54	70.78	77.00	147.00
	West Garo Hills									
7	Lower Sugri	283.58	14.92	298.50	199.00	68.44	3.60	72.04	48.00	91.00
8	Upper Sugri	103.31	5.44	108.75	72.50	24.94	1.31	26.25	17.00	33.50
	Grand Total : 8 Nos.	**1968.00**	**103.57**	**2071.57**	**1543.50**	**475.00**	**25.00**	**500.00**	**372.00**	**707.50**

Note : All the above 8 nos. Projects are ongoing.

PHOTOGRAPHS

RCC Dam and Channel under Ramut-Umpaai RIDF-XXIV, Wah Lynger, West Jaintia Hills

CC Head Water Dam under Them Lawbyrtun Cluster-I RIDF-XXIV, Wahskei, West Khasi Hills

Water Harvesting Structure under Lower Sugri RIDF-XXIV, Balupara, West Garo Hills

Foot Bridge Structure (Infrastructure Development) under Wah Lyngkien Phase-I RIDF-XXIV, Ramklang, East Khasi Hills

RASHTRIYA KRISHI VIKAS YOJANA-REMUNERATIVE APPROACHES FOR AGRICULTURE AND ALLIED SECTOR REJUVENATION (RKVY-RAFTAAR)

The area of focus of this programme is for the development of Rainfed Farming Systems in and outside watershed areas as also integrated development of watershed areas, wastelands, river valleys and for activities relating to enhancement of crop production and popularization of micro-irrigation systems. The thrust area is to protect the loss of topsoil, improving soil fertility, enhancing crop production, land and water productivity of watershed areas comprising of wastelands, river valleys and the eco-system as a whole. The programme is implemented with the Department of Agriculture as the Nodal Agency.

Aim:

RKVY-RAFTAAR aims at making farming a remunerative economic activity through strengthening the farmer's effort, risk mitigation and promoting agri-business entrepreneurship. Its major focus is on pre and post-harvest infrastructure, besides promoting agri-entrepreneurship and innovations.

Objectives:

i. To strengthen the farmers' efforts through creation of required pre and postharvest agri-infrastructure that increases access to quality inputs, storage, market facilities etc. and enables farmers to make informed choices.

ii. To provide autonomy, flexibility to States to plan and execute schemes as per local/ farmers' needs.

iii. To promote value chain addition linked production models that will help farmers increase their income as well as encourage production/productivity

iv. To mitigate risk of farmers with focus on additional income generation activities - like integrated farming, mushroom cultivation, bee keeping, aromatic plant cultivation, floriculture etc.

v. To attend national priorities through several sub-schemes

vi. To empower youth through skill development, innovation and agri-entrepreneurship based on agribusiness models that attract them to agriculture

The proposed schemes under RKVY mainly comprise of the following:

i. Soil and Water Conservation for enhancing crop production and productivity in river valley/ valley bottom lands

ii. Soil and Water Conservation for improving crop production and productivity of cultivated Jhum and Bun lands including abandoned Jhum and Bun lands

iii. Soil and Water Conservation for restoring and reclaiming cultivable wastelands affected by mining and quarrying

iv. Soil and Water Conservation for improvement of traditional water conservation and distribution system for enhanced crop production

Scheme Interventions:

i. Land development works such as terracing, contour bunding, improvement of paddy fields for control of soil erosion and moisture conservation, for increasing area under agriculture and for enhancing crop production and crop productivity in river valley/valley bottom lands and lower slopes

ii. Erosion control works such as Gabion structures, retaining walls/protection walls, etc. near to the streams and river banks to protect cultivated fields from stream bank erosions. Gully plugs/check dams for gully control

iii. Construction of small diversion structures, check dams and water harvesting structures at strategic locations and conveyance structures/field channels to provide perennial and assured water availability to the developed lands (terraced). The water harvesting structures will harness the rain water and surface runoff which can be used for irrigating the agriculture field besides providing other opportunity for other activities to the farmers such as fisheries and meeting domestic water needs

Anticipated Outcomes:

i. Protection of cultivable lands in the state against the hazard of soil erosion

ii. Area under cultivation will be increased

iii. Enhanced crop production and productivity

iv. Water saving techniques through established micro irrigation facilities

v. Improve water availability during lean season

vi. Increase of income of the farmers with the increased in livelihood activities such as pisiculture, animal husbandry, etc.

PROGRESS OF PROJECTS IMPLEMENTED BY SOIL & WATER CONSERVATION SECTOR UNDER RKVY-RAFTAAR DURING THE YEAR 2019-2020

Sl. No.	Name of Projects/Scheme	Target		Achievement	
		Financial (in lakhs)	Physical (ha)	Financial (in lakhs)	Physical (ha)
1	Area Expansion of Boro Paddy developing 272 ha of land in Selsela Block in West Garo Hills @ 1.24 lakhs/ha for 100 ha	124.00	100.00	124.00	100.00
2	Mustoh RKVY Project East Khasi Hills District	9.91	8.25	9.91	8.25
3	Nonglangkait RKVY Project, West Khasi Hills District	9.69	5.00	9.69	5.00
4	Damjonggre RKVY Project, West Garo Hills District	10.00	24.77	10.00	24.77
5	Wah Lalip RKVY Project, West Jaintia Hills District	27.83	17.10	27.83	17.10
6	Norwan RKVY Project, East Jaintia Hills	16.10	10.00	16.10	10.00
	Total	**197.53**	**165.12**	**197.53**	**165.12**

PHOTOGRAPHS

Conveyance Structure under Wah Lalip RKVY, Shangpung Moosyiem, West Jaintia Hills

Diversion Structure under Wah Lalip RKVY, Shangpung Moosyiem, West Jaintia Hills

Before

During

After

Area Expansion of Boro Paddy of land, Abima Village in Selsella Block in West Garo Hills

NATIONAL BAMBOO MISSION IN MEGHALAYA

The National Bamboo Mission (NBM) was launched as a Centrally Sponsored Scheme in 2006-07 and was subsumed under Mission for Integrated Development of Horticulture (MIDH) during 2014-15 and continued till 2015-16.

Objectives:

i. To increase the area under bamboo plantation in non-forest Government and private lands to supplement farm income and contribute towards resilience to climate change as well as availability of quality raw material requirement of industries. The bamboo plantations will be promoted predominantly in farmers' fields, homesteads, community lands, arable wastelands, and along irrigation canals, water bodies etc.

ii. To improve post-harvest management through establishment of innovative primary processing units near the source of production, primary treatment and seasoning plants, preservation technologies and market infrastructure

iii. To promote product development keeping in view market demand, by assisting R&D, entrepreneurship & business models at micro, small and medium levels and feed bigger industry

iv. To rejuvenate the under developed bamboo industry in India

v. To promote skill development, capacity building, awareness generation for development of bamboo sector from production to market demand

vi. To realign efforts so as to reduce dependency on import of bamboo and bamboo products by way of improved productivity and suitability of domestic raw material for industry, so as to enhance income of the primary producers

Strategy under NBM in Meghalaya:

The following are the thrust points aimed for intervention under the mission:

i. Mapping of the available resources of bamboo is crucial, including a comprehensive value chain mapping to evolve feasible plans for setting up of processing units which can utilize the existing available raw materials. The outcomes will enable the state to formulate comprehensive plans for development of the bamboo sector as well as aid entrepreneurs for setting up bamboo based units and also avail credit linkages.

ii. Creation of a platform for sharing of the traditional knowledge and exchange of ideas among the artisans from various parts of the state, towards evolution of the best techniques and products from the existing conditions for local utilization in the state and region.

The NBM Meghalaya is seeking financial assistance from NEC for achieving this objective. This is aimed at documentation of the traditional practices and products of the state, facilitate exchange of information towards upgrading the existing traditional knowledge among the different tribes, generate awareness on product refinement/standardization and the advanced technologies available, exposure to new products and markets, and encourage upcoming artisans and entrepreneurs for upscaling of operations with assistance from the mission.

Intervention in the form of new designs, new products, with assistance or collaborations from reputed organizations that can help build up the artisans to produce products that can help augment their income and quality of products

iii. Simultaneous conversion of bamboo from a natural vegetation into a crop will be encouraged at the different levels. The use of improved management, varieties, species, along with optimal selection of land for bamboo cultivation will help build up the availability of quality raw materials for various utilities.

There is much bamboo resources in the state, but the development of the sector needs to be done in a planned manner. At present the units planned for establishment under NBM will be utilizing the natural bamboo resources available. After these units are established, depots, godowns, haats and markets will be developed in the vicinity of the bamboo areas to act as aggregation centres. These will also act to regulate the quality and quantity of raw materials that will be sourced. Simultaneously, development of the bamboo units will be taken up in the form of clusters, duly incorporating the relevant ancillary units, bamboo plantations, etc. to ensure minimal waste generation, maximize the utility of the resource and sustainable, overall upliftment of the farmers and entrepreneurs in the clusters.

iv. Ensuring progressive growth of the sector in a sustainable manner, taking into account the availability of the appropriate raw materials, availability of technology, prevalent level of utility of the raw materials, existing processing/ value addition works, demand, upscaling and refining of traditional skill, quality standard, entrepreneurs, etc.

DETAILS OF PROGRESS UNDER NBM MEGHALAYA DURING 2019-20 (AAP 2018-19)					
Sl. No.	**Activity**	**Target**		**Achievement**	
		Physical (No/ Ha)	**Financial (Rs lakh)**	**Physical (No/ Ha)**	**Financial (Rs lakh)**
A	**Propagation and Cultivation**				
	Nursery (Big -1.0. Ha)	6	96	6	96
	Nursery (small - 0.5 Ha)	1	10	1	10
	Block Plantation	32 Ha	9	32 Ha	9
	High Density Plantation	4.5 Ha	2.25	4.5 Ha	2.25
	TOTAL of A		**117.25**		**117.25**
B	**Promotion of bamboo treatment and preservation**		**0.00**		
C	**Product development and processing**				
	CFC	2 units	50	2 units	50
	Processing Unit	7 units	87	3 units	48
	TOTAL of C		**137**		**98**
D	**Promotion and development of infrastructure for bamboo market**		**0.00**		
E	Technological enhancement of indigenous tools, etc.	9 units	18	9 units	18
	Import of tools, equipment & machinery in CFC	2 units	20	2 units	20
	TOTAL of D		**38**		**38**
F	**Skill development and awareness campaign**				
	Training of farmers/artisans		7.5		7.5
	Training of field functionaries		2.25		2.25
	Organizing workshop/ seminars at State		1.37		1.37
	Organizing workshop/ seminars at District		3.3		3.3
	TOTAL of E		**14.6125**		**14.6125**
G	**Research and development**		**0.00**		**0.00**
H	**Project management (up to 5%, 100% Govt)**		**15.3597**		**12.9509**
	TOTAL (A+B+C+D+E)		**322.0297**		**280.6209**

PHOTOGRAPHS

Bamboo Nursery under NBM at Namdong, West Jaintia Hills

Bamboo Block Plantation under NBM at Sonidan, Ri Bhoi

Bamboo Plantation under NRM at Naregre, East Garo Hills

CHAPTER - III

SUCCESS STORIES / VOICES OF THE PEOPLE

PARTICIPATORY APPROACH IN COMMUNITY PLANTATION AT MUKHROH VILLAGE UNDER WJH-IWMP-VII - KHLIEH UMKHIRMIH WATERSHED

The Khliehumkhirmih Watershed Committee had played a great role in the success of raising a plantation in Mukhroh Village in West Jaintia Hills district. The Watershed Committee under the Leadership of its Chairman, Shri.LamsukSten, have decided to undertake the plantation of the area under community ownership in the village.

The Watershed Committee made efforts to make the people aware about the importance of having green environment in their locality and the various benefits that can be derived from it. They enlighten the people about the usefulness of having green canopy around the village and reminded them about the social obligations that one owes the environment by helping in conserving it. Also trees help in providing habitat to wildlife and can provide non-timber products for use in households needs.

The Watershed Committee had decided and proposed the community land at Mukhroh village as the site for the plantation. The site is a degraded forest land atop a hillock. Its geographical location is Latitude N 25^{o} 37.066' and Longitude E 92^{o} 28.680'. The area taken up for plantation covers approximately 2.5 Ha.

The plantation activity was taken up in the year 2015-2016 under the 3rd installment. The species planted were Toonaciliata and Micheliachampaca. About 3000 nos of saplings were planted thanks to the co-operation of the people of the village who turned up to do the work of planting. The Watershed Committee had supervised the plantation work along with the WDT members who helped in putting up a proper alignment and spacing for systematic and proper planting. About 90 village members from different household took part in the planting programme. The people brought their own digging tools and equipment.

The work was taken up in 3 stages and lasted for 4 days. Firstly, forest clearance was undertaken in right earnest. The forest floor was cleared. However, existing young poles, sapling and trees were left as such for further growth. Then, alignment was taken up by a different group and marking done. Then lastly, pits were dug and saplings planted. The villagers have even helped in fencing the area by using poles and bamboo from the nearby forest.

Operation and maintenance: The village have selected volunteers from time to time to help in cleaning, weeding, soil working of the area around each sapling to assist in its growth. Also they see to it that the area is properly fenced and repaired undertaken whenever necessary. The people are advised to keep cattle and goats away from the area to prevent grazing and trampling of the young sapling.

Impact: The whole exercise of planting and making people aware about the benefits of raising a plantation has brought about a positive outlook in the mind of the people. It has helped in restoration of their land, prevent its deterioration and erosion, utilize the barren land for some purpose, provide habitat for wildlife and small animals, improve the micro-climate of the vicinity and help in improving the aesthetic purpose. Now, through the participation, they are brought closer to each other, decisions are taken within the group, discussions have brought them closer together. It have helped the people in decision making and confidence building.

SUCCESS STORY

SUCCESSFUL HANDICRAFT WORK OF IAKREHLANG SHG UNDER WJH-IWMP-VI

Iakrehlang SHG consists of 10 members comprising of 4 females and 6 males hailing from Lapangap village under Mynksi Watershed, West Jaintia Hills district. Hardship brought them together and formed this group in the year 2013. All the members of the group have similar historical background and are like-minded. Each member of the group made a monthly contribution of Rs.30/- which was saved in their passbook. Initially they started a small handicraft and weaving business of which cane was the main raw material used. Their handmade items include baskets, stools or moorahs, serving trays, furniture, serving trays, etc. They sell their finished products at Jowai, Ummulong and Khanduli Market.

In the year 2014 Iakrehlang SHG received infrastructural support of Rs.16,000 (sixteen thousand) from the Department of Soil and Water Conservation office under IWMP schemes. They utilised this grant in purchasing 50 Kg of cane which costs at Rs. 250/- Kg. which enabled them to weave several products. They also sell their products at various Exhibitions and Trade-Fairs conducted at the state or district level. Since then their business has picked up and with their hard work and determination they are now able to earn a profit of Rs. 50,000/- annually but depending on the orders they receive their earnings even goes up to Rs.1,00,000/- per annum. Through their earnings from this activity each member of Iakrehlang SHG has now become a pillar of growth and support for their family members.

SUCCESS STORY

SUCCESSFUL POULTRY ACTIVITY OF IAIDSHAPHRANG SHG UNDER WKH-WMP-IX

Poultry is an activity which has potential to generate employment and improve socio economic condition of the people. Prior to this, chickens were bought from Nongstoin Town, West Khasi Hills. As an initiative was thus taken to make chickens available for domestic consumption and export, Iaidshaphrang SHG, Seinduli received Rs. 30,000/- only as financial assistance during 2019-20 for poultry activity under IWMP IX.

The SHG bought around 600 chicks annually at the cost of Rs. 32,100/- amounting to Rs. 53.50 per chick. The matured chickens are then sold at an average rate of Rs. 500/- per chicken thus amounting to Rs. 3,00,000/- and thus profiting Rs. 1,50,000/- approx annually. The generated income is used to provide loan to the members and the balance deposited to the group's account.

SUCCESS STORY

PHOTUMDOHKHA RKVY UNDER PHOTTDEI VILLAGE

The construction of Protection wall at Kynthangniang which belongs to Shri. Minglan Thongni of Phottdei Village, South West Khasi Hills District at the cost of Rs. 99,410 under Photumdohkha has benefitted the farmers having paddy fields located downstream of this wall. Before the construction of this protection wall, every year the farmers suffer loss of crops due to the water flowing through their paddy fields especially during rainy season. This wall serves as a water barrier for paddy fields. Immediate beneficiary is Shri. Minglan Thongni, others are Shri. Sendar Marthong, Shri. Karbok Marwein, Smt. Deibashisha Lyngkhoi, Smt. TrillianDkhar and Shri. Krell Myrthong approximately 6 Ha. The implementation of this scheme is highly appreciated by the villagers.

Before Construction

After Construction

Benefitted Area

SUCCESS STORY

WAH LALIP R.K.V.Y UNDER SHANGPUNG MOOSVIEM VILLAGE

General Description: The village include in this project is Shangpung Moosyiem Village which falls under the jurisdiction of Laskein C&RD Block at a distances of approximately 30 Kms from the District H.Q Jowai, West Jaintia Hills district. The farmers usually practice wet cultivation in which Paddy is grown as a major crop. Majority of the farmers are not financially sound to construct irrigation-based structures even though they have their own agriculture land.

Pre-project Scenario: Due to insufficient water available for irrigation, the farmers are not able to practice multi-cropping and to reclaim their agricultural land. This also caused the farmers to practice farming only during the monsoon season. This results in low productivity of crops and generates low income. The agricultural area available before intervention of the scheme is approximately 11 Ha and the only crop grown is Paddy. Roughly the income generated during pre-project is Rs. 17 lakhs.

Post-project Scenario: After implementation of the project, i.e., construction of 1 No. of Diversion Structure (Irrigation Weir), 2 Nos. of Water Conveyance Structures (Irrigation Canals) and 5.60 Ha Bench Terrace at a total cost of 27.828 lakhs, the farmers were able to get enough water where they have been able to expand their agricultural area, practiced multi-cropping and grown vegetables during Rabi season. Together with bench terraces constructed, around 6 Ha of agricultural area was reclaimed which. Hence, the total agricultural area available at present is approximately 17 Ha. This is a great bonus to the farmers which accelerate their annual income to Rs. 25lakhs

Brief Description of the Proiect

1. Name of the Project: Wah Lalip R.K.V.Y.
2. Name of Structure: (1) Diversion Structure (2) Water Conveyance Structure No 1&2 (3) Bench Terrace.
3. Location: Shangpung Moosyiem, West Jaintia Hills
4. Starting date of the Project: 04-05-2020
5. Completion date of the Project:11-06-2020
6. Project funding: Ministry of Agriculture, Government of India
7. Cost of construction: 27.828 Lakhs.
8. Name of Household benefit: 11 (eleven) household.
9. Benefitted area: 17.00 Hectare

Diversion Structure

Conveyance Structure No. 1

Conveyance Structure No. 2

Bench Terrace

BRIEF REPORT ON GOOD PRACTICES UNDER SPRINGSHED DEVELOPMENT PROJECT BEING IMPLEMENTED BY EAST JAINTIA HILLS SOIL & WATER CONSERVATION DIVISION, KHLIEHRIAT

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 Jaintia Hills district, 28 springsheds were identified for the project covering 6 villages with the total dependent families of 580 Households. 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	28	10	8	10	28	200.34681	191.43332

PRE-PROJECT SCENARIO:

About 2/3rd of its population in the Project area depend on agriculture particularly Shifting cultivation for their livelihood. 70 to 80% of village households depend on springs as main source of water for household. A preliminary survey of 60 springs revealed that more than 50% of the springs face the immediate threat of being either dried or water discharge from them has significantly reduced. The number of springs catering to village households is depleting, thereby causing water stress in many of the villages especially in the dry season since many of the springs which were perennial have turned seasonal in nature. Scarcity of water have caused hardships to the village community, impairing their livelihood in the villages.

ACTIVITIES TAKEN UP:

With the aim to rejuvenate the impaired springs, following activities were taken up:

Sl. No	MAJOR HEAD	ACTIVITIES	PHYSICAL UNITS
1	**STRUCTURAL MEASURES**	Spring Tapped Chamber	28 Nos
		Staggered Trenches	5600 Nos
		Dugout (Recharge Pits)	1120 Nos
		Check Dam	46 Nos.
2	**AFFORESTATION**	Total area	76 Ha
		No of Plants	98,800
3	**LIVESTOCK PROMOTION**	Piggery Unit	14 Unit
		Poultry Unit	11 Unit
		Fodder Plantation	5 Ha
		Horticulture Plantation	27 Ha

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 110 Lakh Litres of rainwater could be harvested which in turn facilitated recharging of ground water.

B) Improvement in Water discharge Rate:

Due to various interventions for ground water recharge under Springshed Development Project, the average discharge rate (Litre per minute) from 28 springs treated shows an improvement of 1.00 LPM which is 47 % increase against the Pre-Project Scenario. These results have been quantified from the discharge data collected from all the 28 springs treated from 2018 to 2020. 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	Cluster	Discharge Rate (LPM) (Average)		Remarks
			Pre- Project	Post Project	
1	Moochut Spring	Iongkaluh Cluster	4.7	6.6	40% improvement in discharge Rate (From 2018 to 2020)
2	Mukoi Spring	Lumputhoi Cluster	4.0	5.8	45% improvement in discharge Rate (From 2018 to 2020)

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, 28 spring tapped chamber were constructed which provide opportunity for storing 80,000 litres of water at one time which was able to provide daily water requirement for 800 persons (considering average daily water usage of 100 litres per person). In addition, people were able to use cleaner water as compared to open spring water source. The average Water quality parameters taken from 28 springs indicates that the water quality is within the permissible limit except in pH where it is found to be slightly acidic. The detail result of the water quality parameters are as below:

Sl. No.	No of Springs Monitored	WATER QUALITY PARAMETERS (Average)			
		pH	TDS (ppm)	EC (mS)	Salinity (ppm)
1	28 Nos	**5.7**	40.5	50.5	29.8
2	*Permissible limit*	*6.5-8.5*	*Upto 500 ppm*	*0 – 800 µS/cm*	*100 ppm*

D) Improving vegetative cover:

98800 Nos of forest seedlings were planted in 76 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 the people from the village community during world environment day celebration-cum-plantation drive.

CONCLUSION:

The project has been able to infuse a message to the people of the village community the importance of water conservation and proper use of springs among the people. The community have reported an improvement in the springs that have been treated. 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.

PHOTOGRAPHS:

Activity: Trenches

Village: Tuber Shohshrieh

Activity: Trenches

Village: Lamputhoi

Springshed Name: Pohtngaip

Activity: Contour Trenches

Village: Wahbear

PHOTOGRAPHS:

Activity: Dug-out Series
Village: Tuber Kmai Shnong
Springshed Name: Lurim

Activity: Check Dam
Village: Iongkaluh

Activity: Spring Chamber
Village: Iongkaluh

PHOTOGRAPHS:

Activity: Spring Chamber
Village: Tuber Shohshrieh

Activity: Spring Chamber
Village: Lamputhoi

Activity: Afforestation in the recharge area
Village: Rngad

PHOTOGRAPHS:

Activity: Piggery

Village: Tuber Kmai Shnong

Activity: Fodder Grass Plantation

Village: Tuber Shohshrieh

BRIEF REPORT ON GOOD PRACTICES UNDER SPRINGSHED DEVELOPMENT PROJECT BEING IMPLEMENTED BY EAST KHASI HILLS SOIL & WATER CONSERVATION DIVISION, SHILLONG

Springshed intervention in Lyngkyrdem Cluster: Springshed is implemented in Lyngkyrdem Cluster with an aimed to increase the discharge of the springs besides increasing the duration of discharge. There are about 22 numbers of spring-shed and 32 numbers of springs in these three clusters. The number of households will benefit from the scheme is 324 Nos./ 152 HH.

Intervention: The primary intervention undertaken were mobilizing the communities, to ensure active participation aimed at inviting efforts to prevent the catchment area from mining activities and further degradation. Series of capacity building and training of the local community were also organized. With the advent of the scheme and active participation of the village communities the different activities like staggered trenches, loose boulder/gabion check dam/dugout/recharge pit/ percolation tank; afforestation made the communities perception towards proper water management practices. The spring tap chamber provided the inhabitants with safe and clean water. The entire catchment area has been brought under trenching and vegetative cover by planting local species. As a result erosion and soil loss have been controlled and water conserved, can be seen from the increased discharge of springs in the low lying areas.

Potential Outcome: Monthly discharge of the spring is being continuously mapped and monitored by village Para hydrologist to actually compare with the flow rate before and after the springs rejuvenation works. The impact assessment of the different interventions taken up at the initial period, show improvement in surface water table and soil moisture Content but the final outcome will be published after completion of the project. The implement of the scheme is still in progress.

PROFILE :

In Lyngkyrdem Cluster, 22 spring-sheds were identified for the project covering 1 village with the total dependent families of 1507 Nos. The details of the project is given below:

Sl. No.	No. of Villages	No. of Springsheds				Total Fund Received (Rs. in Lakhs)	Total Fund Utilised (Rs. in Lakhs)
		Category I	Category-II	Category-III	Total		
1	1	15	3	4	**22**	125.92220	114.83619

ACTIVITIES TAKEN UP:

With the aim to rejuvenate the impaired springs, following activities were taken up:

Sl. No	Major head	Activities	Physical units
1	STRUCTURAL MEASURES	Spring Tapped Chamber	22 Nos
		Check Dam	51 Nos
		Staggered Trenches	5500 Nos
		Dugout (Recharge Pits)	1045 Nos
2	VEGETATIVE MEASURES	Afforestation	63.399 Ha
		Fruit Tree Plantation - Temperate	15 Ha.
		Fodder	5.1916 Ha
3	LIVESTOCK PROMOTION	Piggery Unit	10 Units
		Poultry Unit	08 Units
		Fisheries	6 Units
		Apiculture	40 Units

OVERALL IMPACT:

- The activities under taken has considerably widen the perspective of the impact
- Capacity building of the local residents has been provided as to the importance of maintaining cleanliness of springs and its upkeep.
- During tree plantation / afforestation process it was realized that fencing was mandatory for preventing the cattle from free grazing/destroying the plants.
- Impact on beneficiaries like increases water availability, increase agricultural productivity and cropping intensity.
- Stakeholder/beneficiaries participation and their role and responsibilities of farmers and water user group in operation and maintenance of the asset created.

Activity: Staggered Contour Trenches

Village: Iewduh Langkyrdem

Springshed Name: Perkseh

Activity: Loose Boulder/ Gabion Check Dam

Village: Iewduh Langkyrdem

Springshed Name: Wah Shynjar

Activity: Dug-out/Recharge Pit

Village: Iewduh Langkyrdem

Springshed Name: Wah Shynjar

Activity: Spring Chamber
Village: Iewduh Langkyrdem
Springshed Name: Wah Edret

Activity: Afforestation
Village: Iewduh Langkyrdem
Springshed Name: Wah U Ram

Activity: Fodder Development
Village: Iewduh Langkyrdem
Springshed Name: Perkseh

Activity: Fruit Tree Plantation

Village: Iewduh Langkyrdem

Springshed Name: Krem Myrsing

Activity: Poultry

Village: Iewduh Langkyrdem

Springshed Name: Wah Shyngiar

Activity: Piggery

Village: Iewduh Langkyrdem

Springshed Name: Shangkaitor East

SUCCESS STORY

THEM LAWBYRTUN RVP UNDER RIDF XXIV

Smt. Tinoris L.Nonglait of Mawkyllei village and her neighbours owned a land of 2 ha approx which is used for paddy cultivation and the yield is about 20 quintal per year and a total income of Rs 40,000 (Rs. 20/kg) which is quite low and this is due to lack of proper irrigation facility. However, with the implementation of the Them Lawbyrtun RVP under RIDF XXIV, RCC Dam was constructed and with proper irrigation facilities, additional 3 ha of land is brought under cultivation, thereby increasing the production of upto 35 quintals for the first year and an income of Rs.75,000 (Rs.20/kg). Initially single cropping was practiced but now double cropping is practiced whereby vegetables and potatoes are planted.

Vegetable cultivation

Sl No	Plant	Area	Yield	Rate	Amount
1	Potato	1 ha	10 quintal	30	30000
2	Vegetables	0.5 ha	3 quintal	40	12000

RCC Dam at Mawkyllei village

SUCCESS STORY

NATIONAL BAMBOO MISSION (NBM)
SOUTH WEST GARO HILLS, AMPATI

National Bamboo Mission (NBM) was implemented in South West Garo Hills in the year 2018-2019 by the Soil and Water Conservation Department, Ampati Division. Two components of the mission are being actively carried out actively by the division i.e.

1) Plantation (Block Plantation)

2) Technological enhancement of indigenous tools, equipment and machinery.

Component 1 - Plantation (Block Plantation)

The bamboo seedlings and saplings were acquired from a certified nursery (Hi-tech Nursery, Cash Crop Division, Tura). So far, 12 Ha area has been covered and 4,800 nos. of Bambusa tulda (Wa·ge) has been planted. This bamboo species was selected based on its use in bamboo craft which will prove beneficial to the artisans in easy availability of raw materials and it also has marketing potential.

Component 2- Technological enhancement of indigenous tools, equipment and machinery

The identified beneficiaries (21 nos.) from three clusters viz, Zikzak, Betasing and Rerapara has undergone training at CBTC, Assam. The tools, equipment and machinery recieved through this component is being utilised by the artisans to make bamboo crafts such as stool, chair, table, baskets, tray, bed, stands, sofa set, musical instruments, decorative items, etc. These finished products are being sold in the local market.

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. The total number of trainees trained under the programme during 47th Batch Field Assistant Training Course 2019-2020 is 20 (Twenty) Nos.

2. Middle Level Technician Training Programme: - The 32nd Batch MLTTP Course which is of 5 and a half months duration ,i.e. from 17th June to 29th November, 2019 consisted of 11 numbers.

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.

CHAPTER- IV

E-GOVERNANCE

Initiatives taken under e-governance by the Department:

1. Departmental website – 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. Management Information System (MIS) NBM
3. Public Financial Management System (PFMS).
4. BHUVAN - Drishti-Srishti.

Education and Training 2019 – 2020 (April 2019 upto March 2020)

A. Field Assistant Course: The on–going 47th Batch of the 11 Months F.A. Training Course which commenced on the 15th October, 2019, has 20 nos. of Trainees.

B. Training of Gazetted Officers:

1. The Department deputed (i) Shri A. Lamare, Divisional Soil & Water Conservation Officer Soil Survey (ii) Smti I. Rynjah, Divisional Soil & Water Conservation Officer Shillong (PC) to attend the Crisis Workshop held on 15th May, 2019 at Pinewood Hotel, Shillong.

2. The Department deputed Shri H. S. Kharpran, Divisional Soil & Water Conservation Officer, Ri-Bhoi to attend Awareness Creation and Community Education Activities (Jan Andolan) held on the 15th July, 2019 at DSEL, Conference Room, Laitumkrah, Shillong.

3. The Department deputed Shri N. J. S. Kharmalki to attend Workshop on Opportunities in Water Tourism and linked Livelihood in Meghalaya on the 19th July, 2019 at Asian Conference Centre, Laitumkrah, Shillong.

4. The Department deputed the following incumbent to attend the training on "Personal Development & Stress Management" held on 8th and 9th August, 2019

   (i) Shri. K. Syiem, Superintendent Directorate.

   (ii) Smti. L. Khongbri, U. D. A. Directorate.

   (iii) Shri. D. Lyngdoh Nonglait, L. D. A. Directorate.

5. The Department deputed Shri. Bergomi Tangsal B. Sangma, L. D. A Directorate, to attend the Training on "Communication & Presentation Skills to be held on 27th August, 2019 at MATI, Shillong.

6. The Department deputed the following Officers to attend the training on "General Awareness about Rights & Welfare of Persons with Disabilities" held on 23rd – 24th September, 2019.

   (i) Shri. D. K. Khonglah, Jt. Director Soil & Water Conservation (HQ).

   (ii) Shri. W. G. K. Kharkongor, U. D. A. Directorate.

7. The following Officers have attended the training on Earthquake Risk Mitigation for sager Built Environment held on 25th – 27th September, 2019 at Shillong Club

   (i) Shri. P. Rapthap, Divisional Soil & Water Conservation Officer, Engineeing Division.

   (ii) Shri. M. Kharbani, Sr. Assistant Soil & Water Conservation Officer, Shillong (T) Division.

8. The Department deputed following Officers to attend the Training Programme for JE /AE /AEE / EE on "Geobag and Geo Textiles application in Water Resources Management held w.e.f. 22nd – 24th October, 2019 at NERIWALM, Tezpur.

   (i) Shri. Marcel Kharbani, Sr. Assistant Soil & Water Conservation Officer, Shillong (T) Division.

   (ii) Shri. Mangkara Syiem, Assistant Soil & Water Conservation Officer, Soil Survey Division.

   (iii) Smti. Theirilyne Rapthap, Soil & Water Conservation Ranger (Overseer), Engineering Division.

   (iv) Shri. Telling R. Marak, Soil & Water Conservation Ranger (Overseer), Tura (T) Division.

9. The Department deputed Shri. J. Marbaniang, Assistant Engineer to attend 1(one) day training on National quality Assurance Framework held on 15th November, 2019 at Shillong Club, Conference Hall.

10. The following Officers have attended the Training on "Urban Risk Mitigation" at Moreau Institute of Integral Training (MIIT), Brookdene Dhanketi, Shillong held on 9th – 10th December, 2019.

    (i) Shri. H. S. Kharpran, Divisional Soil & Water Conservation Officer, Shillong (T) Division.

    (ii) Shri. M. Kharbani, Sr. Assistant Soil & Water Conservation Officer, Shillong (T) Division.

11. The Department deputed the following Officers as Resource Person for Topics on "Environment Protection, Ecological Conservation, Promotion"

    (i) Shri. E. Kharkrang, Sr. Assistant Soil & Water Conservation Officer as Resource Person on 21.02.2020 at Madonna Convent Nongkseh.

    (ii) Shri. N. J. S. Kharmalki, Planning Officer as Resource Person on 28.02.2020 at Magnificat Convent, Umpling.


SOIL & WATER CONSERVATION DEPARTMENT MEGHALAYA
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