

ACHIEVEMENT REPORT

(2019-2020)



LAND RESOURCES, SOIL & WATER CONSERVATION DEPARTMENT
(Government of Mizoram)



Contents

1. Introduction	1
1.1 Present Status of Officer	3
1.2 Function	3
1.3 Aim	3
1.4 Objective	4
2. Projects Taken Up By The Department	4
2.1 Hillside Terracing under Run-off Retarding Scheme	4
2.2 Water Harvesting Tanks/Ponds under Water Resources Conservation and Development	5
2.3 Soil Conservation Engineering Works	5
2.4 Cash Crop Plantation under cash crop & Spices Development Scheme	6
3. Departmental Performances During 2019-2020	11
3.1 Sectoral Overview	11
3.2 Activities of the Department in the fiscal year	11
3.2.1 R.K.V.Y	11
3.2.2 NABARD RIDF	14
3.3.3 Rubber Training	15
4. Opportunity And Prospects	16
5. Funding And Policy Issues	16

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MESSAGE

I am happy to learn that Land Resources, Soil & Water Conservation Department is bringing out E-Book that features some of the important achievements of the Department during the year 2019-2020.

The Department shoulders the responsibility for taking up soil conservation and land resource development works within the State for some decades. During this time, there has been considerable improvement in soil conservation and water resources management within the State owing to the dedication and enthusiasm of the Officers and Staff under the Department; nevertheless, there are still rooms for improvement.

I hope the content of this E-book will prove to be a useful tool not only in exhibiting the achievement of this Department but also to strengthen the relationship between the Department and the Citizens.

A handwritten signature in black ink, appearing to read 'Lalzirliana'.

(R. LALZIRLIANA)

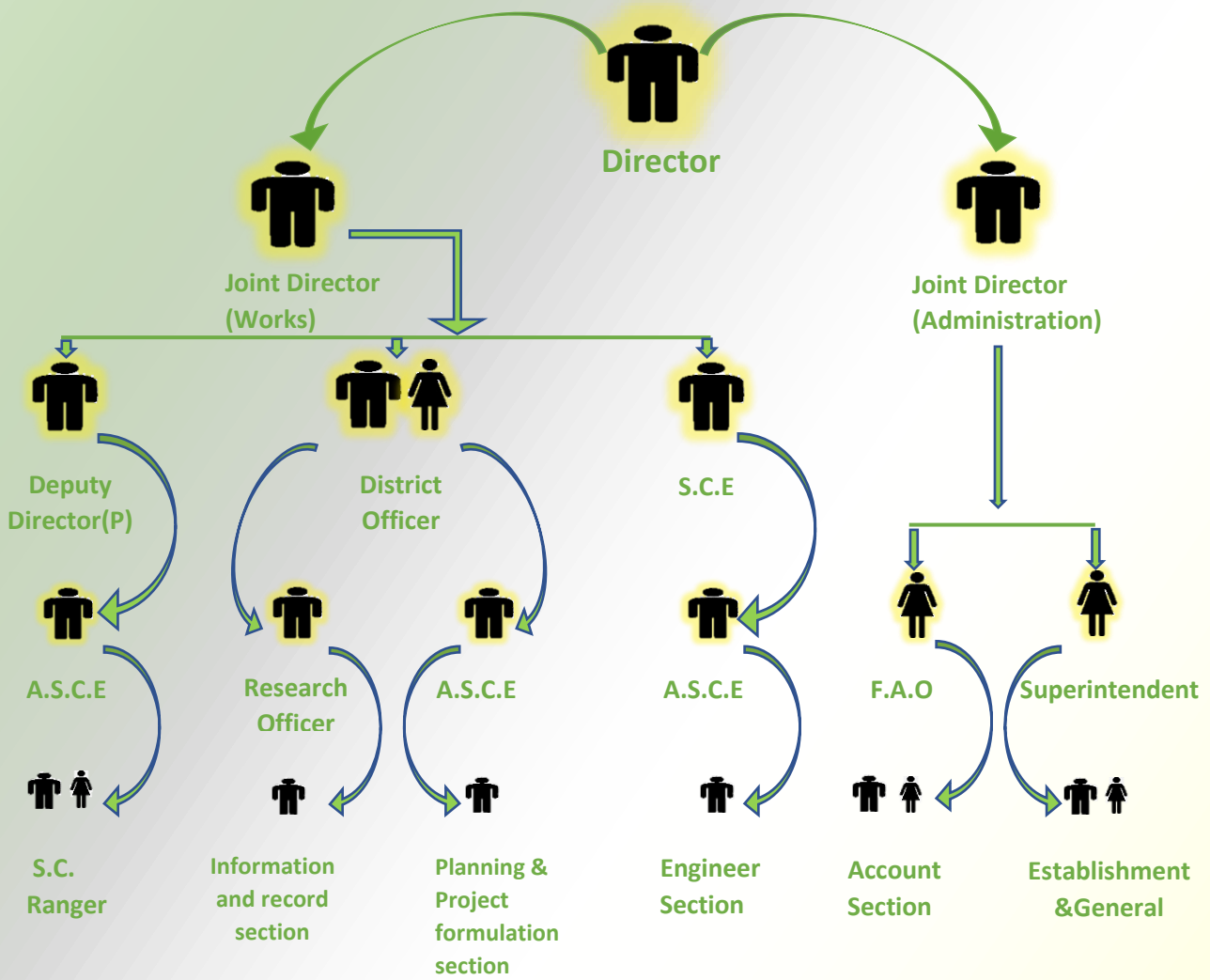
1. INTRODUCTION

Soil & Water Conservation activities with specific objectives of Jhum control on, 'Pilot Project' were introduced in the erstwhile Mizo District of Assam State under Forest Jhum Control Division of Assam Forest Department in 1954-1955. The main objectives are proper land use through Soil & Water Conservation measures like afforestation of barren and steep slopes, terracing on middle slopes for cash crop plantation, and land shaping for wet rice cultivation in the valley bottomland.

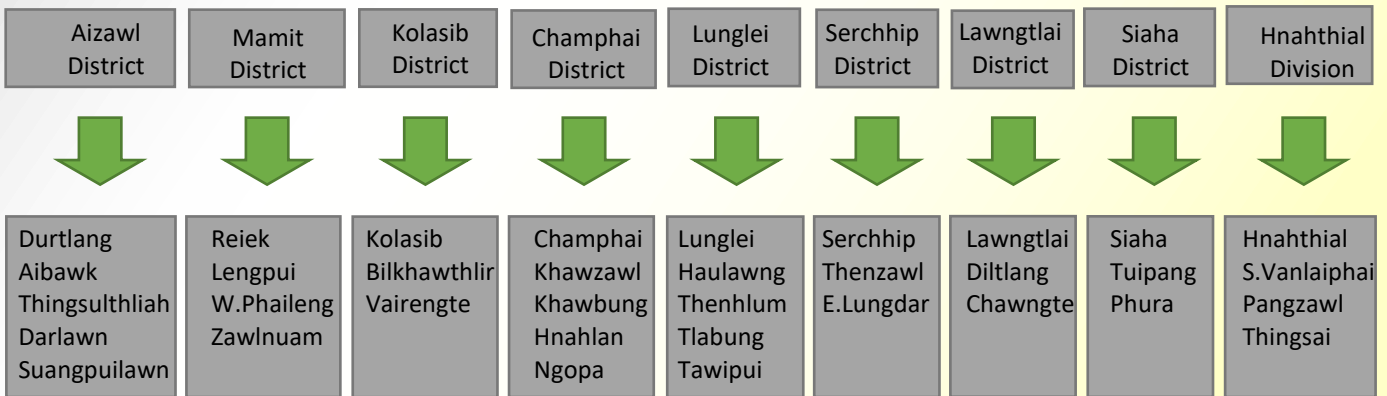
On 18.10.1985, Soil Conservation Department was declared as a full-fledged Department by the Government of Mizoram. Since then, the department has been expanded to 5(five) S.C. Division which is now redesigned as district Office viz. Aizawl, Lunglei, Mamit, Kolasib, Serchhip, Champhai, Lawngtlai, and Hnahthial Division.

Extreme weather exists due to climate change are creating environmental problems, accelerating the rate of erosion and threatening agriculture production needed for food security. The State Government has felt the need for establishing the corresponding department for Land Resources in Mizoram by way of renaming the existing Soil & Water Conservation Department to effectively take up the various scheme evolving from the Department of Land Resources, Ministry of Rural Department, Government of India. On 21.06.2017, Soil & Water Conservation Department was declared as Land Resources, Soil & Water Conservation Department.

Organization Chart



Administrative Chart



1.1 Present status of Officers and Staff are as follows:

Sl no.	Group	Sanction Post	Fill Up	Vacant
1	A	31	16	15
2	B(Gazetted)	36	17	19
3	B (Non-Gazetted)	52	33	19
4	C	296	135	161
5	D	53	22	31
	Total	468	223	245

1.2 Function

To execute and carry out various works and businesses allocated through Officers and staff, monitor and review from time to time following the government policies, rules, and regulations.

1.3 Aims

The Department aims at Conservation, Protection, and Efficient Management of the natural resources in the State viz. – Soil, Water, and Vegetation for livelihood security.

1.4 Objectives

- Protection, conservation, improvement of land for sustained production, and profitable uses.
- Protection and enhancement of water resources for irrigation, drinking, power, domestic, industrial, and other productive uses.
- Protection from flood/sediment damages to farmlands, reservoirs, properties, highways, etc.
- Improvement/enhancement of soil of its fertility, productivity, and capability for sustained production.
- To wean away from the menace of shifting cultivation by providing viable alternatives.
- Training of farmers and other stakeholders for technical options etc.

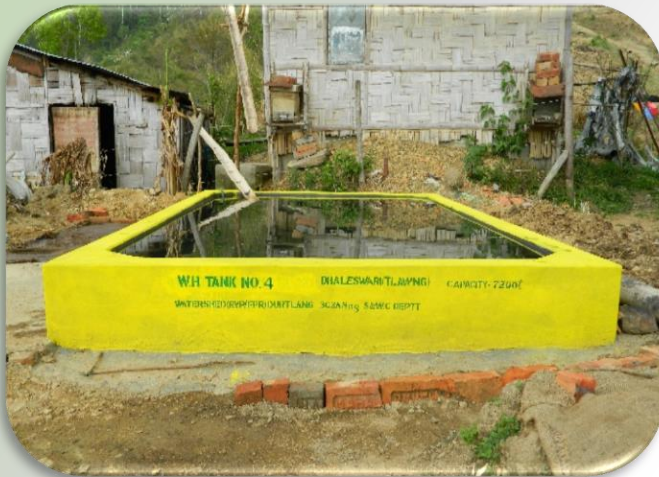
2 PROJECTS TAKEN UP BY THE DEPARTMENT

2.1 Hillside Terracing under Run-off Retarding Scheme

This breaks the length of the slope, reduces the erosive force of runoff water, retain topsoil materials and water, improves soil moisture regimes, fertility, and productivity for enhancing sustained crop production. Hillside terracing is widely required for any agri-based activity on sloping lands.



2.2 Water Harvesting Tanks/Ponds under Water Resources Conservation and Development



The main purpose is to store as much excess rainwater, reduce the quantum of run-off, enhance soil moisture regime, and availability of water in the lean season for sustained crop production. These are done either across the small streams, natural depression in farmlands, or at any convenient

place in the farm where water is drawn from a nearby perennial stream through a pipe or earthen channel.

2.3 Soil Conservation Engineering Works

Under these, silt retention Dam/check Dam, Gabionic Structures, Stream Bank Erosion Control Works, etc. are done to minimize scouring of streamflow and impound water for a longer period, retain silts and



debris, recharge groundwater to down streams, prolong streamflow for irrigation and enhance water availability for crop production.

2.4 Cash Crop Plantation under cash crop & Spices Development Scheme

The main objectives of this scheme are the creation of plantation to demonstrate the package and practices, post-harvesting management to educate the public. The scheme was started since the 1960s, the plantation is very old and yield is becoming low and as such regeneration and improvement of the plantation are required to obtain better yield and higher revenue for the department.

Coffee:

Nursery:



Plantation:



Rubber:

Nursery



Plantation



Processing



Broom:

Plantation

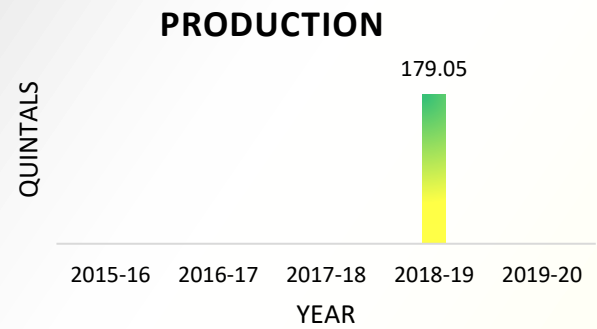
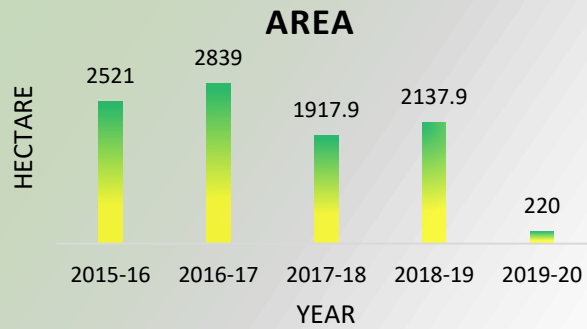


Harvesting

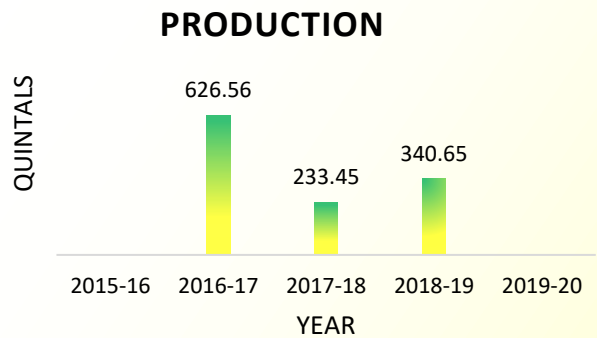
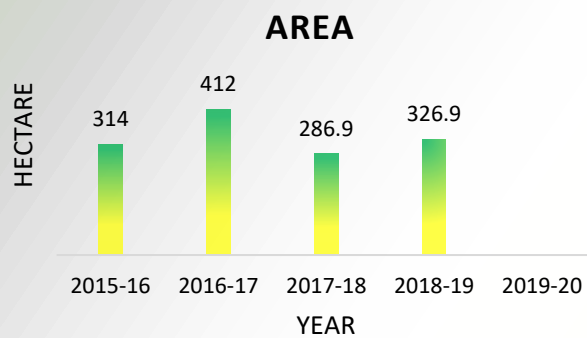


Cash Crop Plantation Under LR,S&WC Department between 2016-2020

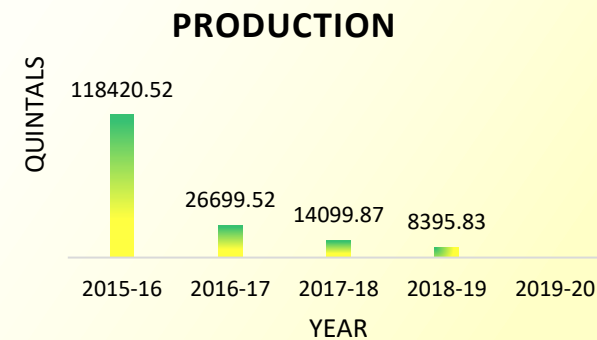
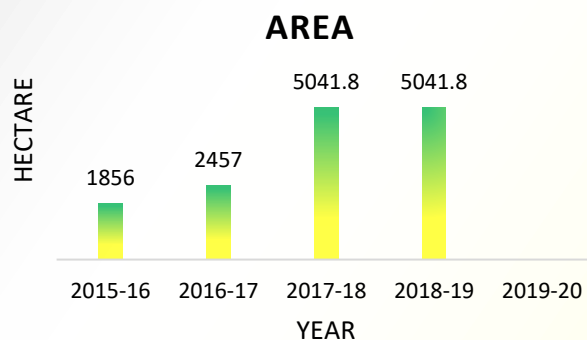
1) Rubber



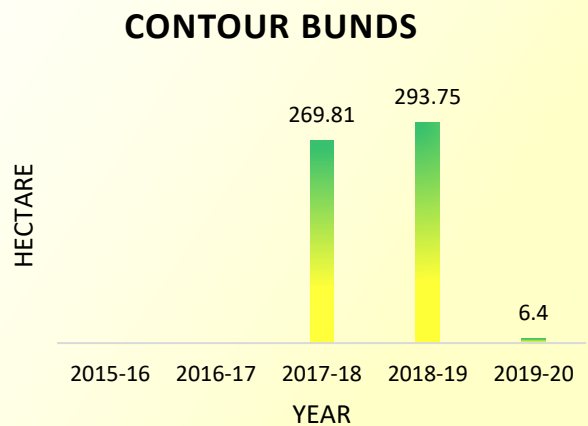
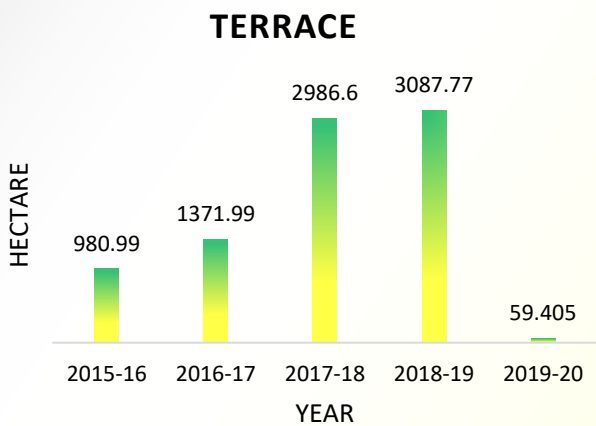
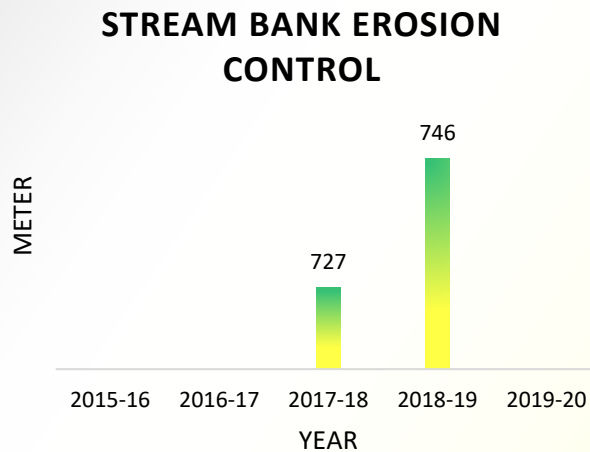
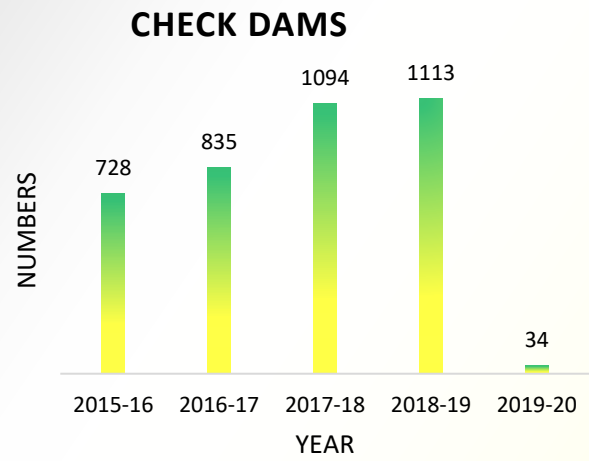
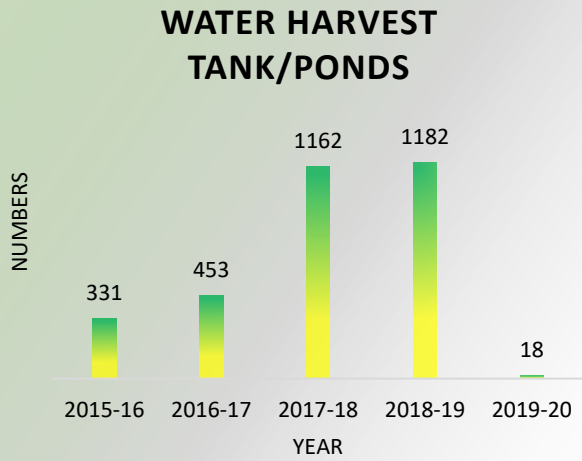
2) Coffee



3) Broom



Soil Conservation Works Under LR,S&WC Department between 2016-2020



3. DEPARTMENTAL PERFORMANCES DURING 2019-2020

3.1 Sectoral Overview

- a) Total fund allocation for the year 2019-2020 - Rs. 1958.14 lakhs
- b) Block Grant - Nil
- c) CSS flagship scheme - Nil
- d) Other central earmarked - Nil

3.2 Activities of the Department in the fiscal year:

3.2.1 R.K.V.Y

It is implemented on a watershed basis and in an integrated approach. The main approach is controlled by stream bank to prevent erosion of paddy land or increase of rice production and construction of check dam across the stream to retain silt debris and to improve groundwater recharging.

The physical and financial progress in respect of LRS&WC Department under RKVY-RAFTAAR 2019-20 (1st installment of Rs. 37.50 lakh) under central share are given below :

Sl no.	Name of the Project	Target		Achievement	
		Physical	Fin. (in lakh)	Physical	Fin. (in lakh)
1.	Leitlapawp micro-watershed, Bungzung				
	a) Checkdams	10 no.	2.840	10 no.	2.840
	b) Bench terrace	2.325 Ha.	0.465	2.325 Ha.	0.465
	c) Community water storage tank	1 no.	6.07	1 no.	6.07
2.	Chite Phai micro-watershed, Virengte				
	a) Vegetative spur for wrc land protection	9 no.	2.430	9 no.	2.430

	b) vegetative check dams	16no.	1.60	16no.	1.60
	c) Bench terrace	8.675 ha.	1.735	8.675 ha.	1.735
	d) Water harvesting	5 no.	2.410	5 no.	2.410
	e) Contour trench	3 ha.	0.15	3 ha.	0.15
	f) Diversion drains	3 ha.	0.750	3 ha.	0.750
	g) Pipe water conveyance	3 ha.	0.30	3 ha.	0.30
3.	Tuiphal zau micro-watershed, Lawngtlai				
	a) Checkdams	3 no.	0.852	3 no.	0.852
	b) Bench terrace	3.545 ha.	0.709	3.545 ha.	0.709
	c) Water harvesting	2 no.	0.964	2 no.	0.964
	d) pipe water conveyance	6 ha.	0.60	6 ha.	0.60
4	Ramkhek & Lungding zau micro-watershed, Sialsuk				
	a) Vegetative spur for wrc land protection	1 no.	0.393	1 no.	0.393
	b) Checkdams	5 no.	1.420	5 no.	1.420
	c) Bench terrace	20 ha.	4	20 ha.	4
	d) Water harvesting	6 no.	2.892	6 no.	2.892
	e) Contour trench	3.40 ha.	0.170	3.40 ha.	0.170
	f) Pipe water conveyance	5 ha.	0.50	5 ha.	0.50
	Flexi fund				
5.	Tuiphal zau micro-watershed, Lawngtlai				
	a) Bench terrace	4.01 ha.	0.802	4.01 ha.	0.802
	b) Water harvesting	4 no.	1.928	4 no.	1.928
	c) Diversion drains	4 ha.	1	4 ha.	1
	d) Dug out pond(non-lined)	4 no.	2.520	4 no.	2.520
	Grand Total =		37.500		37.500

The physical and financial progress in respect of LRS&WC Department under RKVY-RAFTAAR 2019-20 (1st installment of Rs. 4.17 lakh) under State share is given below :

Sl no.	Name of the Project	Target		Achievement	
		Physical	Fin. (in lakh)	Physical	Fin. (in lakh)
1.	Leitlapawp micro-watershed, Bungzung				
	a) Checkdams	10 no.	2.840	10 no.	2.840
	b) Bench terrace	2.325 Ha.	0.465	2.325 Ha.	0.465
	c)Community water storage tank	1 no.	6.07	1 no.	6.07
2.	Chite Phai micro-watershed, Virengte				
	a) Vegetative spur for wrc land protection	9 no.	2.430	9 no.	2.430
	b) vegetative check dams	16no.	1.60	16no.	1.60
	c) Bench terrace	8.675 ha.	1.735	8.675 ha.	1.735
	d) Water harvesting	5 no.	2.410	5 no.	2.410
	e) Contour trench	3 ha.	0.15	3 ha.	0.15
	f) Diversion drains	3 ha.	0.750	3 ha.	0.750
	g) Pipe water conveyance	3 ha.	0.30	3 ha.	0.30
3.	Tuiphal zau micro-watershed, Lawngtlai				
	a) Checkdams	3 no.	0.852	3 no.	0.852
	b) Bench terrace	3.545 ha.	0.709	3.545 ha.	0.709
	c) Water harvesting	2 no.	0.964	2 no.	0.964
	d)pipe water conveyance	6 ha.	0.60	6 ha.	0.60
4	Ramkhek & Lungding zau micro-watershed, Sialsuk				
	a) Vegetative spur for wrc land protection	1 no.	0.393	1 no.	0.393
	b) Checkdams	5 no.	1.420	5 no.	1.420
	c) Bench terrace	20 ha.	4	20 ha.	4
	d) Water harvesting	6 no.	2.892	6 no.	2.892
	e) Contour trench	3.40 ha.	0.170	3.40 ha.	0.170
	f) Pipe water conveyance	5 ha.	0.50	5 ha.	0.50
	Flexi fund				
5.	Tuiphal zau micro-watershed, Lawngtlai				
	a) Bench terrace	4.01 ha.	0.802	4.01 ha.	0.802
	b) Water harvesting	4 no.	1.928	4 no.	1.928
	c) Diversion drains	4 ha.	1	4 ha.	1
	d) Dug out pond(non-lined)	4 no.	2.520	4 no.	2.520
	Grand Total =		37.500		37.500

3.2.2 NABARD RIDF

Rubber plantation development project at Rengdil & Kanghmun (Mamit District) has been considered under RIDF XXIII vide HPC meeting minutes held on dt. 11.8.2107 and approved by NABARD. The projects have been started during 2018-2019 as first year. Expenditure Sanction obtained during 2019-20 are as tabulated below:

Sl no.	Project	A/A accorded Amount	E/S Concurred		
			Loan 2018-19	SMS	Total
1.	Rubber Plantation and Development Project at Rengdil	Rs. 493.36	Rs. 93.74	Rs. 5.02	Rs.98.76
2.	Rubber Plantation and Development Project at Kanghmun	Rs. 48.14	Rs. 9.15	Rs. 0.48	Rs. 9.63
	Total	Rs. 541.50	Rs. 102.89	Rs. 5.5	Rs. 108.39

The total area to be covered under the rubber plantation is 200 ha. and 20 ha. for Rengdil and Kanghmun respectively.

Land resources, Soil & Water Conservation Department has taken up rubber crop as one of the crops that would uplift the economy of Mizo farmers who are interested in Rubber Plantation and Marketing and most importantly for the conservation of soil erosion in the hilly terrain of Mizoram. For this, LR,S&WC Department has been preparing projects for many years back. Through these projects, Rubber Plantation has been largely taken up accordingly by the beneficiaries under NLUP, NEDP & SEDP.

The Department in collaboration with Mizoram Rubber Planters Association (MIRPA), afford has been given for easy marketing of Rubber produce, promoting skill development among the rubber grower, on-farm demonstration of rubber tapping and latex processing, etc. Apart from this, Rubber processing materials have been provided to Rubber Growers by subsidy and infrastructure like smokehouse and rolling machines are also provided by the department.

3.2.3 Training on Rubber Tapping and Latex Processing

LR,S&WC and MIRPA had organized Rubber training for Rubber growers and departmental Staff at EXODUS Rubber farm, Khamrang from February 11, 2020. The training aim at improving the farmer's skills and technique at tapping and latex processing. The training duration is 4 days for one batch, farmer's are selected district wise along with the departmental staff. The training was plan for ten batch, each batch containing 50 trainees, but due to the on-going pandemic, this training cannot be carried on, only 5 batch were able to trained. Nevertheless, it was a successful training, the on-farm demonstration has been benefitted by many farmers from a different district.



4. OPPORTUNITY AND PROSPECTS

The current practice of shifting cultivation makes the soil deteriorated by run-off and directly exposed to the sun due to the absence of vegetation to cover the soil. In areas with depletion of trees and vegetation, soil particles are more likely to get lifted and transported by rain, water, and wind. Bare soil not sheltered by plant life or vegetation is most prone to environmental circumstances such as downpour. So, by planting cash crops like rubber, coffee, and broom, the soil will be prevented from erosion because they keep the soil strong and bonded to the land. Planting of cash crop not only prevent soil erosion but also will help in economic upliftment of the farmer by profiting from the sell of produces cash crops.

Watershed management activities such as check dams, bench terrace, spurs, contour trench, etc. aim to restore ecological balance by utilizing, conserving and developing degraded natural resources such as soil, vegetation and water and helps in the prevention of soil run-off, regeneration of natural vegetation, rainwater harvesting and recharging of the groundwater table. These advantages enable farmers to introduce multi-cropping and start diverse agro-based activities, which can help provide sustainable livelihoods to a large number of people residing in the watershed area.

5. FUNDING AND POLICY ISSUES

The schemes and projects taken up by LR,S&WC department are under the nodality of another department, therefore the department has to implement schemes and projects with a limited amount of funding. If the amount of funding can be increased at a certain level, the department will be more capable of preventing the soil loss and manage the land at a larger scale which in turn will be beneficial for the farmer and the state as well.