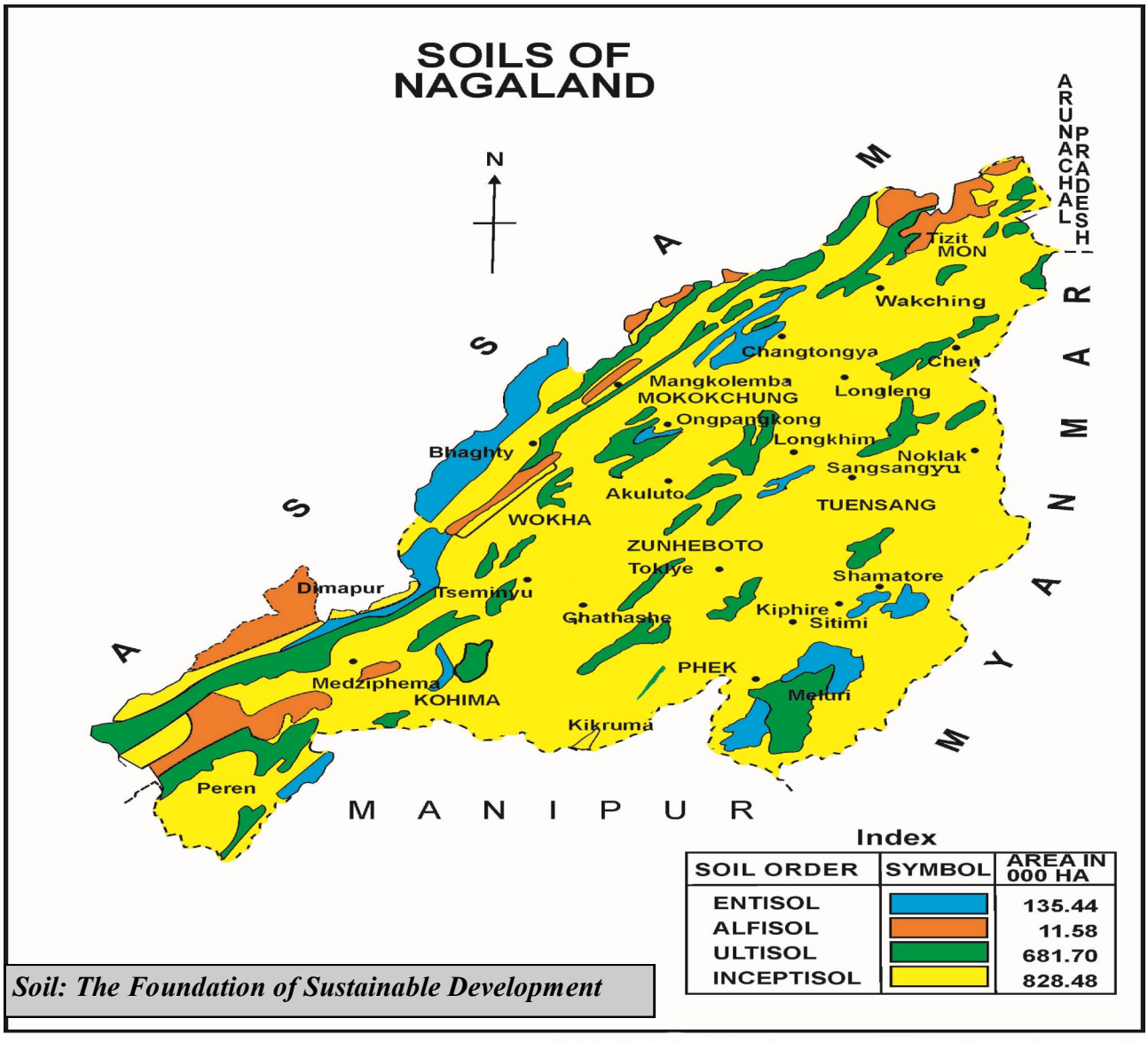
GOVERNMENT OF NAGALAND

Annual Administrative Report 2017-18



Soil: The Foundation of Sustainable Development

Department of Soil & Water Conservation
Nagaland : Kohima

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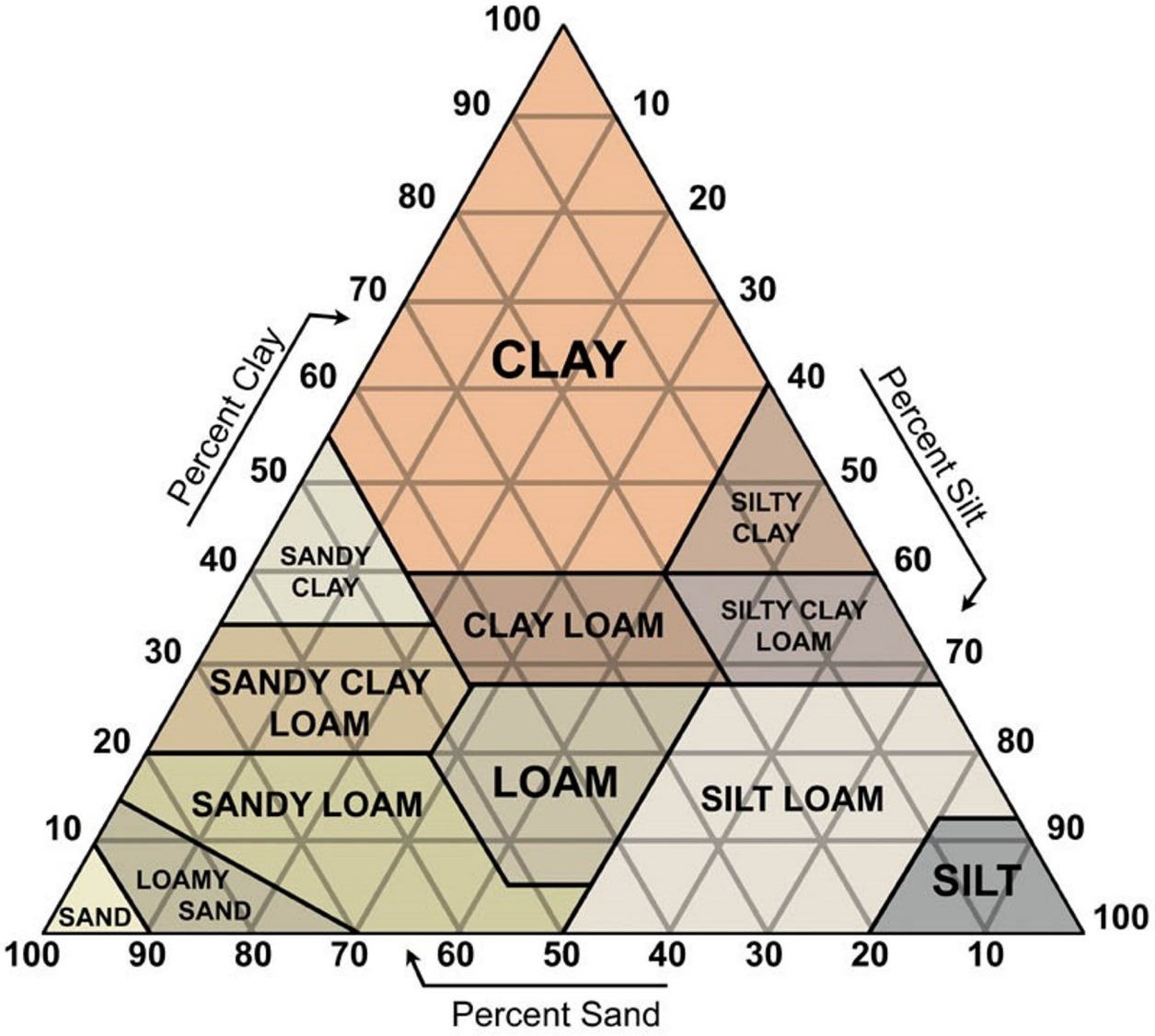


"For, only rarely have we stood back and celebrated our soils as something beautiful, and perhaps even mysterious. For what other natural body, world-wide in its distribution,has so many interesting secrets to reveal to the patient observer?"

-Les Molloy

CONTENT

"While the farmer holds the title to the land, actually it belongs to all the people because civilization itself rests upon the soil."

-Thomas Jefferson

I
GENERAL INTRODUCTION

The state of Nagaland is agriculturally one of the most backward with low productivity and poor in livestock production. The topography is dissected into hill ranges which further breaks into spurs and ridges, coupled with high rainfall during the monsoon rendering the region very sensitive to heavy runoff and soil erosion. The state's economy is closely linked to its natural resource base and climate sensitive sectors such as agriculture and forestry, which faces an increased risk of the negative impacts of climate change. Land development for economic cultivation is, therefore, a huge challenge under prevailing conditions. Compounding to the problem is extensive Jhum cultivation, which is the major land use in the state.

The focus of Soil and Water Conservation Department is, therefore, to tackle these problems effectively through suitable soil and water conservation interventions in the catchments so as to protect and treat both the unaffected as well as affected lands and render the area productive and sustainable besides mitigating flood and riverbank erosion and reduction of sediment deposition downstream. It also envisages recharging of drinking water sources and hydro-power generation sources through catchment/watershed treatment approach.

It is estimated that the extensive practice of *Jhum* cultivation in the hill slopes results in average soil loss of 30.62 Mt/ha/year. The ultimate consequences is, therefore, turbulent velocity of runoff and soil erosion resulting to destruction of prime agricultural and forest lands in the form of erosion, landslides, flash floods and sedimentation. The removal of top soil in the *Jhum* land reduces the fertility and productivity of the soil besides rendering poor moisture holding capacity in the soil regime.

Towards this end, the department has been endeavoring to facilitate transfer of technology to the masses at farm level, through various state and centrally sponsored schemes and periodic training programs for farmers and staffs. Adoption of conservation technology is, therefore, imperative in achieving the ultimate aim of doubling farmers' income and sustainable food security.

Identified problems:

The commitment and the endeavour of the Department is to bring about sustainable development in harmony with nature through optimum development and judicious utilization of natural resources by overcoming the following problems :-

1. Hilly natural terrain highly susceptible to soil erosion:

Nagaland is a young mountainous hilly state, highly dissected featuring high hills, sharp crest, ridges, deep gorges, narrow valleys and a few hundred square Kilometers of plains along the foot hills in the western part of the state (8.48%).

2. High annual rainfall with excessive surface run-off during summer and drought like situation in winter:

The annual rainfall of the state varies from 150cm to 220 cm, which is a blessing if optimally harnessed but also a problem under prevailing topography and land use in the state. High erosive velocity of surface runoff washes away the fertile top soil and inundates the streams and rivers, resulting in flash floods, thereby reducing the productivity of land and hampering the recharge of ground water.

3. Extensive practice of shifting cultivation:

Shifting cultivation is the major land use in the state involving 1,35,339 rural households and covering about 947.37 Sq. km which constitutes 5.71% of total geographical area. This vast area under traditional Jhum results in soil degradation, which ultimately affects production and productivity of land.

Policy and vision:

The policy of the department is therefore to optimize the land capability through various technological interventions and improving upon traditional practices in conserving the scarce natural resources on catchment/watershed basis. This will result in better environmental protection and enhance farmers' income, which will ultimately ensure peace, progress and prosperity in the state.

Strategy and approach

The strategy and approach of the Department is :-

1. Strengthening and upgradation of existing Meteorological observatories and also to establish weather stations in key locations for monitoring and documentation of daily weather conditions, for dissemination to stake holders.

2. Strengthening soil survey, soil testing laboratories and Cartography to establish an inventory of land resources as per its capabilities for a realistic land use plan.

3. Capacity building programs for pre-service, in-service employees and farmers' training programs on soil and water conservation technologies.

4. Land shaping in the form of bench terrace, half moon terrace, bunding, trenching, etc, for slope reduction and manage surface run-off. This will improve soil moisture regime and retain soil fertility thereby improving productivity per unit area and encouraging settled cultivation.

5. Reduce soil erosion and rehabilitate non-arable land which can potentially cause hazards and reclaim it for cultivation and other purposes such as drinking water and irrigation source, etc, through contour trenching, gully control structures, conservation forestry, etc.

6. Develop water harvesting structures such as embankments, dams, de-silting structures, farm ponds, rain water harvesting structures, etc for multipurpose use like irrigation, fishery, ground water recharge, etc.

7. Reclamation of degraded soils by application of soil amendments and liming of acidic soils for enhanced nutrient availability, which will boost crop growth and production.

The action slogan:

In keeping with the action slogan, **"Scientific development, conservation and management of land and water resources for sustainable economic development and healthy natural environment of the state",** the department has been taking up broad based conservation activities through various state and centrally sponsored schemes, throughout the state. In the supporting services sector, soils of the state are being surveyed and tested for determining the health and capability status. In addition, daily weather conditions are being monitored through 17 Meteorological Observatories, 9 Automatic Weather Stations and 22 Automatic Rain Gauges established at different Agro-climatic zones throughout the state. The knowledge of which, are pre-requisite for planning and execution of various developmental activities.

Administrative strength of the Department:

The Department is headed by Commissioner & Secretary as the Administrative Head and supported by a full complement of ministerial staff at the secretariat level. While the set-up at the Directorate level is as under:-

1.	Director	1 no.
2.	Additional Director	1 no.
3.	Project Director	1 no.
4.	Joint Director	5 nos.
5.	Deputy Director	4 nos.(Directorate)
6.	Senior Soil Survey Officer	1 no. (Directorate)
7.	District Soil Conservation Officer	11 nos.
8.	Mechanical Engineer (Soil Cons.)	1 no.
9.	Sub-Divisional Officer	16 nos.(Soil Cons.)
10.	Soil Survey Officer	9 nos.
11.	Soil Chemist	1 no.
12.	Assistant Soil Conservation Officer (forest)	1 no.
13.	Assistant Soil Cons. Officer (Research)	1 no.
14.	Assistant Soil Conservation Officer (Engg.)	1 no.
15.	Sub-Divisional Officer (Mech./Soil Cons.)	1 no.
16.	Assistant Mechanical Engineer (Soil Cons.)	1 no.
17.	Assistant Engineer (Civil/Soil Cons.)/ Water Bodies	2 nos.
18.	Cartographer	1 no.
19.	Class – II Officers	72 nos.
20.	Registrar	1 no.
21.	Stenographer Gr.I	1 no.
22.	Superintendent	4 nos.
23.	Assistant Superintendent	4 nos.
24.	Ministerial staff	156 nos.
25.	Technical staff	285 nos.
26.	Grade – IV staff	199 nos.

SCHEMES IMPLEMENTED DURING 2017-18 AT A GLANCE

Sl. No	Name of the Scheme/Project	Outlay for 2017-18
A.	**STATE PLAN**	
1.	Soil Survey & Land Use Planning	10.00
2.	Nursery Development	5.00
3.	Integrated Watershed Management Project (IWMP)	40.00
4.	Disaster Management	2.00
5.	State Land Use Board (SLUB)	3.00
6.	Mechanized Land Development (MLD)	15.00
7.	Land Development (Additional)	100.00
8.	Education & Training	5.00
9.	Capital Outlay (Buildings)	20.00
	Total:	**200.00**
B.	**SCHEMES UNDER EARMARKED SECTOR**	
10.	Integrated Land Development (ILD)	150.00
11.	Anti erosion works on River Duilwalgwa at Heningkunglwa	100.00
	Total:	**250.00**
	Total (A+B):	**450.00**
	(Rupees four hundred fifty lakhs) only	
C.	**SCHEMES UNDER NEC**	
12.	Development of WHP for Augmentation of Irrigation in Nagaland	149.77
13.	Watershed Management for Sustainable Agriculture Production and Improved Livelihood	298.89
14.	Establishment of State Soil Testing laboratory Building and Equipment in Kohima	111.11
	Total:	**559.77**
D.	**CSS SCHEMES**	
15.	Integrated Catchment Area Treatment (Flood Management Programme)-AIBP	2318.57
16.	Rashtriya Krishi Vikas Yojana (RKVY) Scheme	276.00
	Total (D):	**2594.57**

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

-Aldo Leopold

II
SCHEMES UNDER STATE PLAN

1. Soil Survey and Land Use Planning:

The purpose of Soil Survey and Testing is to classify the land into various land capability classes so that the land can be put to various uses such as agriculture, forestry, horticulture, agro-forestry and mixed land use system as per their capability. It involves multi-disciplinary and inter-related section viz. Soil Survey, Meteorology, Soil Testing, Cartography, Remote Sensing and Land Use Planning.

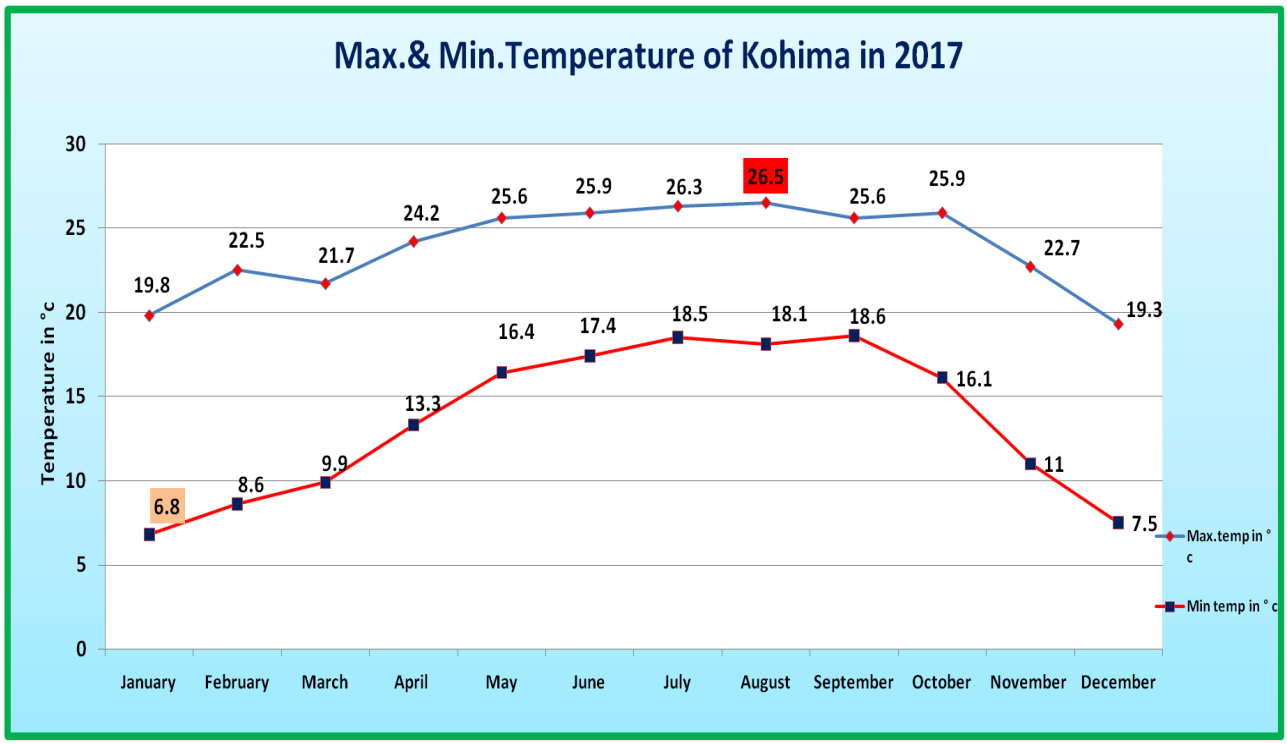
(a) **Soil Survey-** During 2017, training programme on Soil Sample Collection and Analysis was conducted for JSCO and Field Assistants from three (3) districts viz. Kohima, Phek & Mon. Another weeklong training programme was attended by two (2) officers on "Techniques of Soil Analysis for Mapping & Fertility Evaluation" at Soil & Land Use Survey of India, Kolkata. Besides this, testing for soil fertility status for various agencies and research scholars were also carried out.

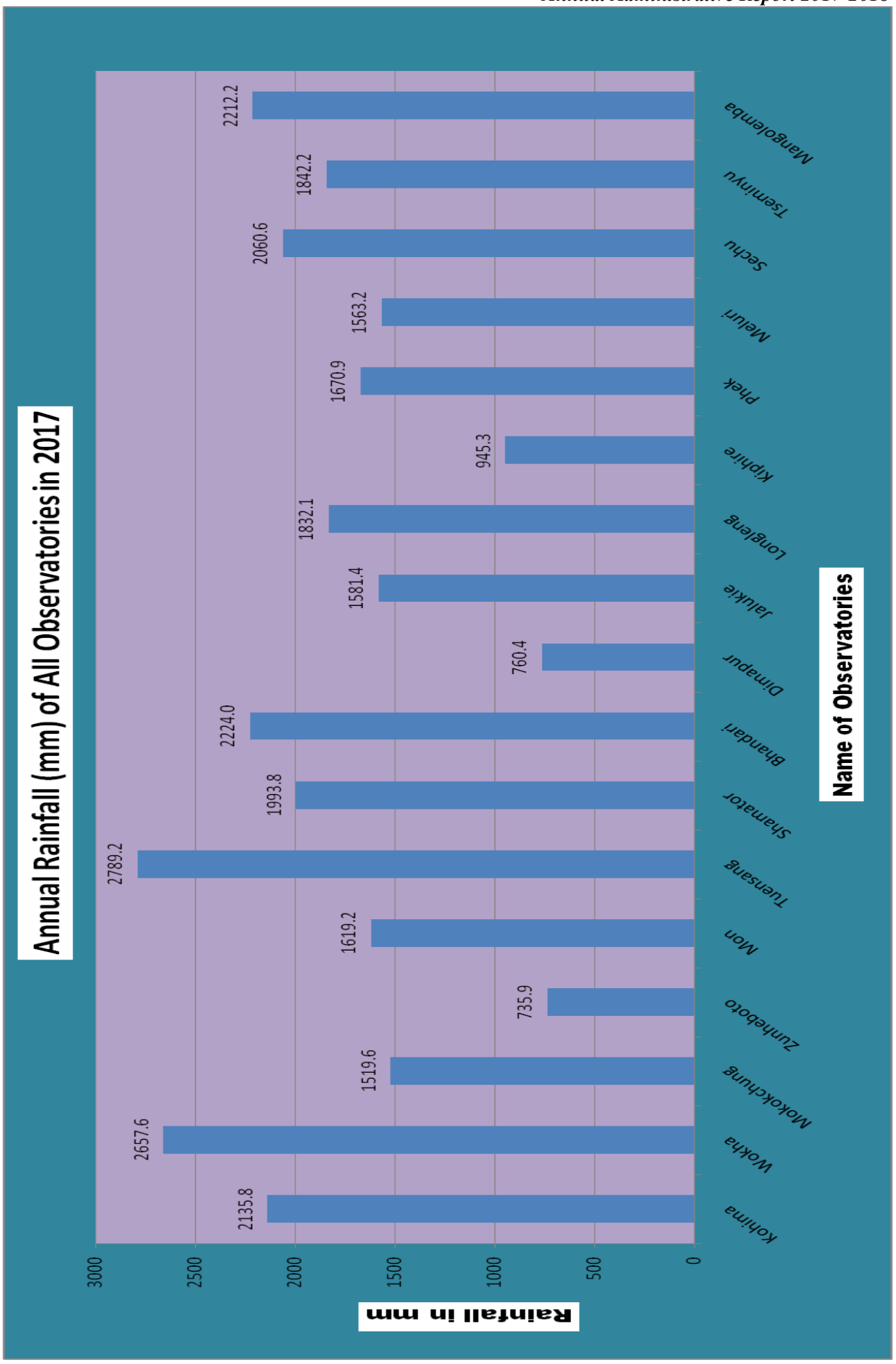
Training programme on Soil Sample Collection and Analysis

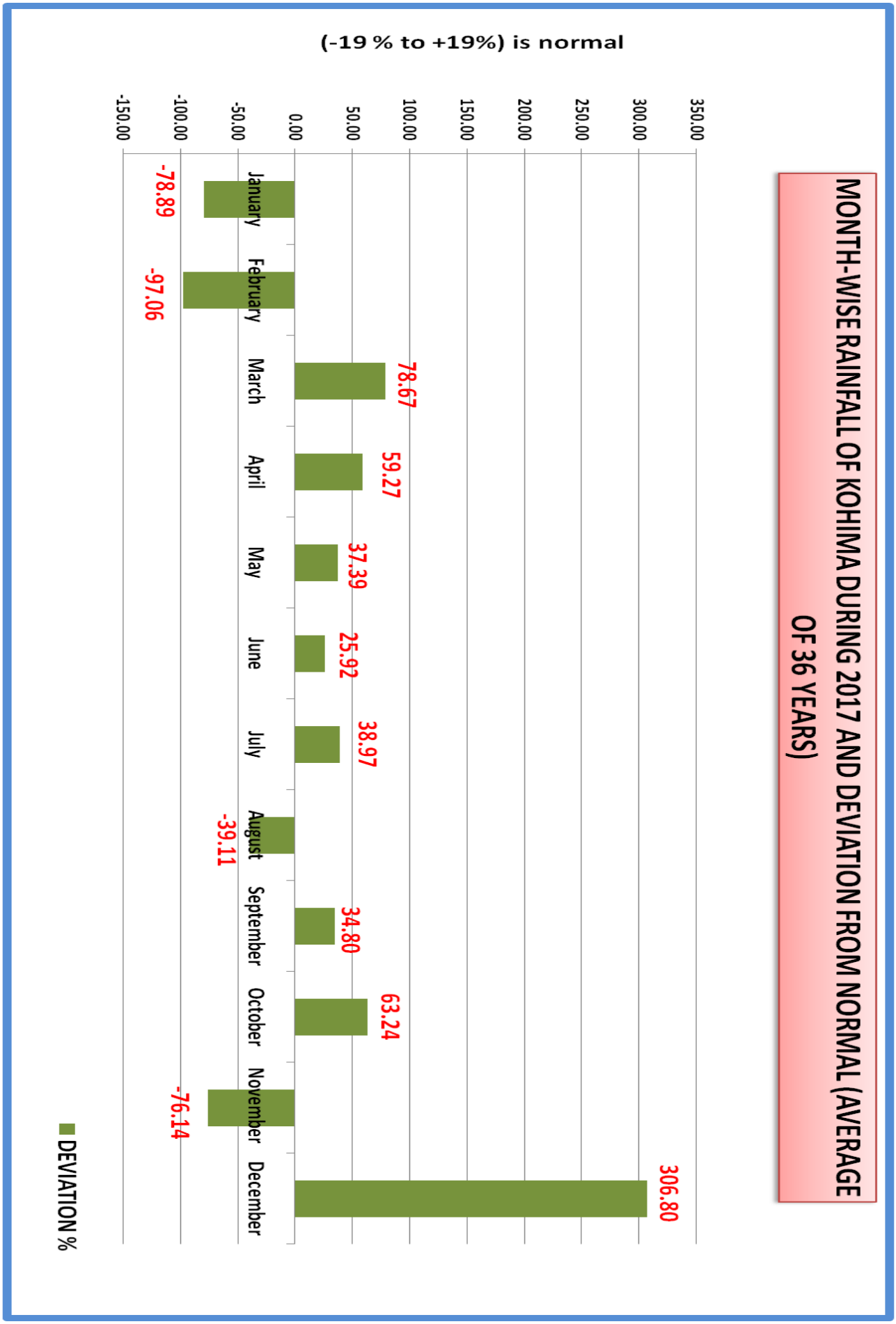
(b) Meteorology- The meteorological data received by the Department from the 17 Meteorological observatories located at different altitudes of the state are being used not only by the land user departments but also by the media viz. Doordarshan and local news dailies.

(c) Remote Sensing- The application of Remote Sensing Technology is indispensible in recent times in acquiring latest information on the earth's surface and its resources. Remote Sensing satellite data is multi-temporal, broad synoptic and compatible for digital manipulation and capable of generating multi-thematic maps for integrated planning and implementation.

An amount of ` **10.00 Lakhs** is spent during the year 2017-2018 under Soil Survey and Land Use Planning scheme.




Annual Rainfall (mm) of All Observatories in 2017
Rainfall in mm
3000
2500
2000
1500
1000
500
0
Name of Observatories
Kohima
Wokha
Mokokchung
Zunheboto
Mon
Tuensang
Shamator
Bhandari
Dimapur
Jalukie
Longleng
Kiphire
Phek
Meluri
Sechu
Tseminyu
Mangolemba
2135.8
2657.6
1519.6
735.9
1619.2
2789.2
1993.8
2224.0
760.4
1581.4
1832.1
945.3
1670.9
1563.2
2060.6
1842.2
2212.2


MONTH-WISE RAINFALL OF KOHIMA DURING 2017 AND DEVIATION FROM NORMAL (AVERAGE OF 36 YEARS)
(-19 % to +19%) is normal
-150.00
-100.00
-50.00
0.00
50.00
100.00
150.00
200.00
250.00
300.00
350.00
January
February
March
April
May
June
July
August
September
October
November
December
-78.89
-97.06
78.67
59.27
37.39
25.92
38.97
-39.11
34.80
63.24
-76.14
306.80
DEVIATION %

2. Nursery Development:

Nursery is a place where horticultural and forestry plants like fruit plants, ornamental plants, flowering plants, plantation plants and seedlings are raised, multiplied, propagated and supplied to growers. The importance of mass production of nursery plants is to distribute healthy pest and disease free plant materials amongst the masses that have little knowledge about the techniques of raising plants. Nursery also helps in introduction of exotic species and its multiplication. Mass production of nursery plants is the surest method of artificial regeneration on poor and barren sites.

The Department of Soil & Water Conservation has established nurseries in various districts and geographical location to cater the need of healthy planting materials to be planted in the departmental projects. In order to promote faster rate of vegetative coverage, sufficient quality planting materials are required. Advocating tree as a component crop of jhum field improves the tree cover after abandoning the jhum plot, thereby maintaining soil fertility.

The Department has concentrated in raising ornamental trees, horticultural crops and economic trees species, to take up a noble scheme for road side plantation. The concept and policies will be in conformity with the National policies on road plantation drive. The concept is to improve road stability including preventing landslides which is common phenomenon in the State resulting into road blockage for several days and leading to economic losses. This initiative will not only add to the scenic beauty but also provide shelter from the rain during monsoon season and heat during summer.

This scheme is to involve entire technically trained staff posted in all the districts covering the State. The existing infrastructure will help not only lessening the cost of planting materials for the project but provide healthy, less mortality and already acclimatized saplings to each and every district road.

At present there are 5 existing nurseries viz. Central Nursery at Seithekiema, Dimapur; nursery at directorate compound; district nursery at Wokha; district nursery at Chinmeleng, Tuensang; district nursery at Atoizu , Zunheboto; nursery at training centre , Sechu and 4 newly established nursery at Kuchera and Chozuba, Phek district; district nursery at Tuli, Mokokchung; district nursery at Chui , Mon and district nursery at Kiphire.

An amount of ` **5.00 lakhs** is spent to raise planting materials in the Department nurseries.

3. Integrated Watershed Management Project (IWMP):

Watershed approach of development in hilly topography is the appropriate way to optimize production per unit area. This ensures sustainable natural resources management in harmony with the environment for achieving desired production without degrading natural resources. 1 (one) model project from each district and training centre Sechu-Zubza area of 200 ha has been identified on the basis of suitability survey and investigation The list of projects under implementation is given in Annexure- I.

During 2017-18, an amount of ` **40.00 lakhs** is anticipated to be spent for development of 36 Ha under land shaping, 48 ha under orchard development, cash crop and agro forestry, 12 units of vermi-compost and 12 SHGs.

4. Disaster Management:

Nagaland is highly prone to multiple hazards. It falls under seismic zone V and is very susceptible to landslides. About 15,551 Sq.Km. of the geographical area is under landslide zone. Earthquake is also one of the major disasters which has been striking this region (small scale tremors) in recent times. Also frequent fires are being encountered in the State due to various reasons.

An amount of ` **2.00 lakhs** is spent for procurement of emergency equipments and maintenance of existing equipments during the year 2017-18.

5. State Land Use Board (SLUB):

The main objective of the SLUB scheme is to initiate healthy and scientific management of the State's land resources (Planning and monitoring). Imparting awareness on land resources and generation of action plan based on ground truth data collected from the field.

An amount of ` **3.00 lakh** is sanctioned during the year 2017-2018 mainly for the field data collection and thematic map information generation.

6. Mechanized Land Development:

Machines are becoming essential needs for development of physical field works, without which works could not be completed. Soil and Water Conservation Department's main objectives are conservation and protection of top fertile soils as well as existing available agricultural lands. For more productivity, different conservation measures are taking place which need heavy machineries. Presently, 2 nos. of Bulldozers and 2 nos. of JCBs are under operational conditions.

An amount of ` **15.00 Lakh** is spent during 2017-18 for the maintenance of these machineries.

7. Land Development (Additional):

The objective of land development is to control soil erosion, recharge ground water which will increase the soil fertility for sustainable crop production and land development such as terracing, contour bunding, contour trenching etc. Land development is unavoidable for the development in the field which can uplift the soil condition for production of fruits, vegetables and plantation crops which shows increases in soil fertility status and reducing the run-off, soil erosion etc.

An amount of ` **100.00 lakh** is spent during 2017-18**.**

8. Education & Research:

Soil and Water Conservation Training Centre is located at Sechu (Zubza), offering two years (2) training Course to pre-service Soil Conservation Assistant (SCA). Soil and Water Conservation is an integral part of sustainable natural resources management and sustainable agriculture. The capacity building and human resources development in the field of Soil and Water Conservation Technology is of paramount importance particularly for hilly region like Nagaland. Till date 20 batches have completed two (2) years training course, also providing in-service refreshers course and farmers training on regular basis. In addition, some demonstration plots particularly on water conservation measures have been developed. Even the basic infrastructure such as administrative building, training hall, library, computer room and hostels etc. are also been upgraded.

An amount of ` **5.00 lakhs** is spent under the scheme during the year 2017-18.

9. Capital Outlay (Buildings):

The requirement for infrastructure has been a long felt need of the Department since the existing buildings are inadequate for smooth functioning of the Department. Most of the district and sub-divisional offices and quarters are in dilapidated and irreparable conditions necessitating new constructions. Moreover, with the creation of three more districts in the State, it has become imperative to construct District HQ office buildings, Officers and Staff Quarters in these districts.

An amount of ` **20.00 lakhs** is spent for construction of two Type-IV SDO(SC) quarters at Mangkolemba and Pughoboto during 2017-18.

SDO(SC) quarter at Pughoboto

Over view of Administrative Building, Training Centre

20th Batch SCA Trainees

Heavy machineries of the Department

Photos: Nursery Development

III
SCHEMES UNDER EARMARKED SECTOR

10. Integrated Land Development under Negotiated Loan (ILD):

Land and Water are the most vital natural resources that provide the needs of the food, fiber, timber etc. The State is confronted with a situation in which not only soil has to be conserved but also a sustainable infrastructural development that will built upon traditional jhum, enabling the farmers to produce sufficient food grain for their sustenance, growth and well being in addition to conservation of ecology and environment.

One of the surest ways of achieving these objectives is to moderate the land slope through different conservation engineering measures such as terracing, land development in rolling terrain, etc according to slope percentage. Therefore, large scale land development, Water Harvesting Pond (WHP) and Vermi-composting is imperative. The water management has been taken up as a State Earmarked Sector Scheme in order to create infrastructure for increasing crop production and to stabilize the degradation under Rural Infrastructure Development Fund (RIDF), Negotiated Loan from NABARD has sanctioned with an outlay of ` 1538.40 lakhs. The Department has taken up 716 Ha. of land for permanent Bench Terracing development, 48 Nos. of Rain Water Harvesting Pond for water management and 315 Units of Vermi-composting for organic manure inputs in 62 Projects involving 107 Villages in the State.

An amount of ` **150.00 lakhs** is spent under the scheme during 2017-2018.

11. Anti Erosion works on river Duilwalgwa at Heningkunglwa:

Duilwalgwa river which is the life line of the villagers by serving the purpose of irrigation, drinking water and other domestic uses is fast degrading in the recent years due to heavy silt load and river bank erosion. The main cause for this problem is the uncontrolled exploitation of the upper river catchment. With heavy rainfall and extensive clearing of forest for *jhum* and extraction of other forest products, there is increased rate of runoff and erosion during the monsoon period. Most of the top fertile soils are being carried away and deposited into the river as silt load and thereby reducing the carrying capacity of the river. The runoff flow in the river is scouring away the river bank thereby damaging the valuable agricultural land and irrigation channels located at the vicinity of the river. It is also posing threat to other infrastructures that are constructed at the downstream of the river.

An amount of **`100.00 Lakhs** is anticipated to be spent for 50 ha gap plantation, construction of 107 units of conservation engineering structures and 76 units of bio engineering measures during 2017-18.

Land Development in rolling terrain at Posing Lingka, Mokokchung

Land Development in rolling terrain at Tsurongmang ILDP, Mokokchung

Land Development in rolling terrain at Ming-Chu, Mokokchung

IV
NEC SCHEMES

12. Development of WHP for Augmentation of Irrigation in Nagaland:

Though the State of Nagaland receives sufficiently large quantum of rainfall during the monsoon/rainy season, the farmers except during the peak period face scarcity of water during the dry period and remains unemployed. This is due to lack in adoption of conservation technology particularly the rain water harvesting technology. Conservation and harnessing of rain water during the rainy season for use in the dry season will boost employment in the farmers' field as they have water to irrigate their crops. The excess rain water that are drained to the rivers and streams as runoff can be reduced considerably thereby reduce numerous atrocities of runoff that cause erosion, meandering of rivers/stream banks, sedimentation and flood downstream. Conservation of rain water can help in recharging the ground water apart from creating favourable soil moisture regime for plants growth and development thereby also maintain ecological balance. The use of harvested rain water can augment irrigation in production of off season crops and will help in doubling the farmer's income apart from ensuring sustainability.

Thus, the Soil and Water Conservation Department, Govt. of Nagaland with an objective to help the farmers of the region to adapt most effective rain water harvesting technology by incurring them atleast 50% of financial assistance of their total investment, took up the noble project on Development of Water Harvesting Pond for Augmentation of Irrigation in Nagaland under NEC scheme on a pilot project basis covering Kohima and Phek district consisting of 13 and 15 villages, respectively replicating Kikruma Technology of WHP known as Zabo.

An amount of ` **149.77 lakhs** is spent during 2017-18.

13. Watershed Management for Sustainable Agriculture Production & Improved Livelihood:

The development of land and water resources cannot be considered independent of each other for sustainable natural resources management. Conservation and management of rainwater holds the key for sustainable agriculture. In a watershed, there are interactions between resource users, the resources themselves, and the institutions that govern their access, use and management. It is, therefore, impossible to envisage or implement sustainable solutions for development of land and water resources and their management without active and full participation of local community. Development of land and water together with sustainable production systems when confined to a small natural drainage unit such as watershed leads to sustainable development. Watershed management has, therefore, emerged as a new paradigm for planning, development and management of land, water and biomass resources with a focus on social and institutional aspects apart from bio-physical aspects following a participatory "bottom-up" approach. Considering the above facts, the Department of Soil and water conservation has prepared DPR on Watershed management for sustainable agriculture production and improved livelihood with an objective to provide holistic land treatment programme to ensure alternative, multi disciplinary, subsidiary, eco friendly and adaptable innovative technology to for sustainable agriculture production and improved livelihood. It also envisage attenuating jhum practices and prevent the environment from further degradation, create rural employment opportunities and

awareness in the contiguous/ adjacent watersheds and neighboring villages.

An amount of ` **298.89 Lakhs** is anticipated to be spent for conservation and stabilization works during 2017-18.

14. Establishment of State Soil Testing Laboratory Building and Equipment in Kohima :

Regular updation of the soil physico-chemical properties is a necessity so as to determine its capability and productivity. To realize this objective, soil testing laboratory is required to be constructed, strengthened and upgraded with the state of the art infrastructures. The laboratory also has to be equipped with more compatible equipment to analyze macro nutrients as well as micro nutrients so that the farmers and other stakeholders are provided with concrete and reliable information on soil health and its management by means of issuing soil health cards. In meeting the above, the production and productivity of the limited land resources is enhanced considerably per unit time with further intensification of agriculture.

Therefore, taking the above case into consideration, the department has prepared DPR on Establishment of State Soil Testing Laboratory Buildings & Equipment at Kohima with the project outlay of ` 371.70 lakh with project duration of 2 years i.e. 2017-18 & 2018-19, respectively.

An amount of ` **111.11 Lakhs** is anticipated to be spent under the scheme during 2017-18.

Phesachodou village, Phek

Porba village, Phek

Kikruma village, Phek

V
CENTRALLY SPONSORED SCHEMES

15. Integrated Catchment Area Treatment (Flood Management Programme):

The presence of extensive hilly terrain in the State except for a narrow belt of foothills plains bordering Assam, coupled with high rainfall during the monsoon encourages the region to be very sensitive to heavy runoff and soil erosion. In addition, the extensive practice of jhum cultivation in the hill slopes also tends to contribute to those factors. The ultimate consequences is therefore, turbulent velocity of runoff and soil erosion resulting to destruction of prime agricultural and forest lands in the form of erosion, landslides, flash floods and sedimentation. The removal of top soil in the jhum land is reducing the fertility and productivity of the soil besides rendering poor moisture holding capacity in the soil regime.

The focus of Soil and Water Conservation, as envisaged is therefore, to tackle these problems effectively through Integrated Catchment Area Treatment involving the most suitable soil and water conservation interventions in the river catchments so as to protect and treat both the sensitive as well as affected lands and render the area productive and sustainable besides rendering help in mitigation of flood and riverbank erosion and reduction of sediment deposition downstream. It also envisages recharging of drinking water sources and hydro-power generation sources through catchment area treatment approach.

As such, the Department of Soil & Water Conservation out of 12 proposed projects on Mitigation of Flood and River Bank Erosion through Integrated Catchment Area Treatment, on a pilot project basis was sanctioned for 3 prioritized projects namely Upper Sidzu in Kohima and Phek Districts, Nanga-Mela Ghoki in Zunheboto district and Dzuma sub-watersheds in Dimapur district by the Ministry of Water Resources, River Development and Ganga Rejuvenation under Flood Management Programme(AIBP).

An amount of ` **2318.57 lakhs** is anticipated to be spent under the scheme during 2017-18.

16. Rashtriya Krishi Vikas Yojana (RKVY) Scheme (CSS) :

The Department of Soil & Water Conservation is implementing flagship RKVY programme through out the State with emphasis on conservation of natural resources for increase food production. Various conservation technologies are being executed at field level such as Bench terracing, WHP, vermin-composting, farm drainage, spur/embankment and reclamation of acidic soil. These measures are undertaken to reduce soil erosion, arrest surface run-off to the extent possible and impound water for multiple purposes thereby increasing crop productivity, improve soil moisture regime and restoring the health of the environment.

An amount of ` **276.00 Lakhs** is spent under the scheme to develop 384 Ha. under land development, 120 units of WHP, 61 units of vermin-composting and reclaiming 213 ha of acidic soil for productive cultivation.

Narrow terrace across the slope at Sechu-Zubza

Farm pond under RKVY

Run-off collection pond under RKVY

VI
ANNEXURES

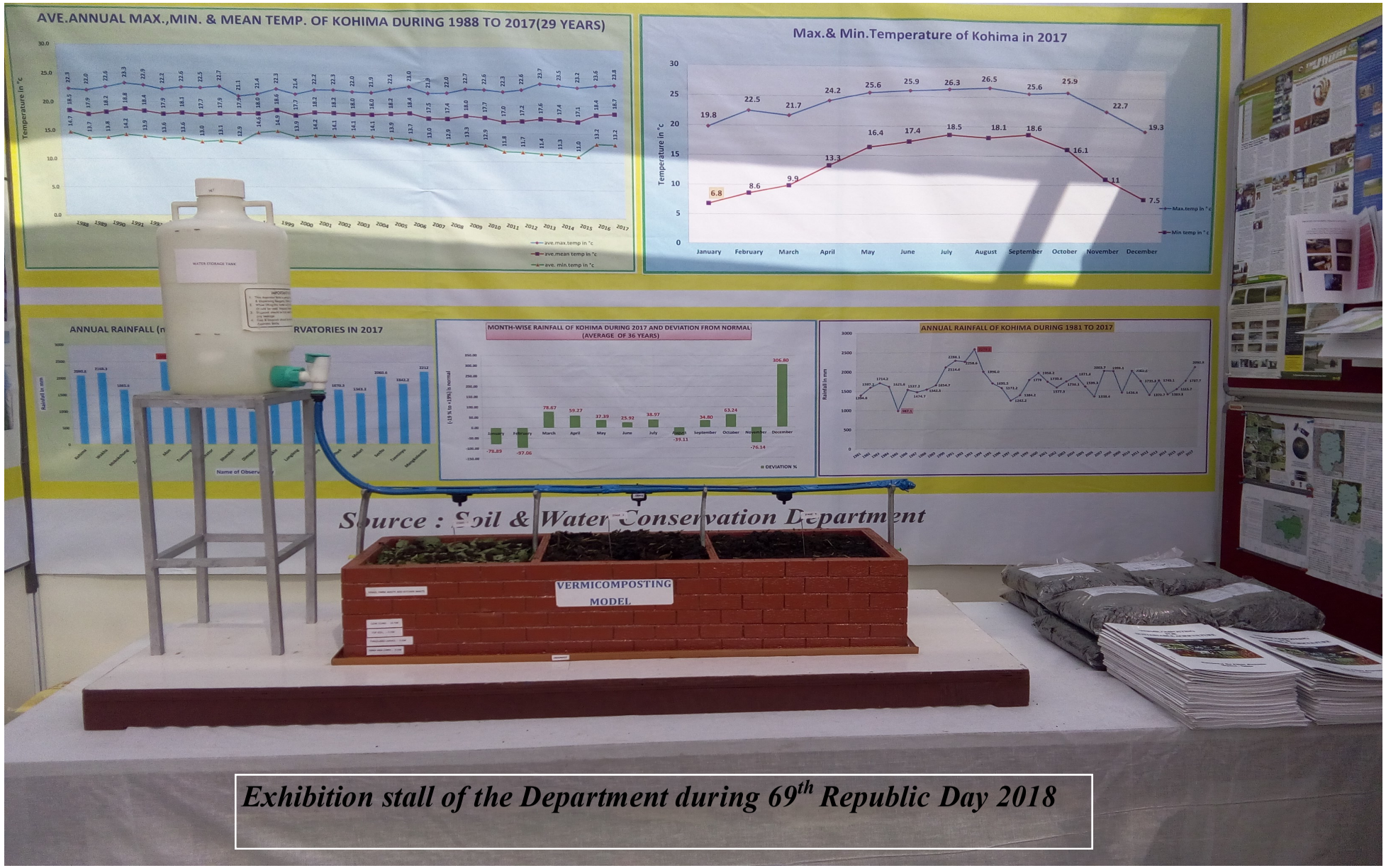
Annexure-I- List of Projects under Model IWMP During the 2017-18 to 2019-2020

Sl. No.	District	Village	Name of Project	Remarks
1	Mokokchung	Chungtia	Tsuza	
2	Wokha	Longsa	Thukrokchu	
3.	Mon	Yuching	Ngatnyuyong	
4.	Peren	Benreu	Ningpi	
5.	Kiphire	Kiphire Village	Okey	
6.	Dimapur	Hovishe	Azukuqu	
7.	Longleng	Yongshei	Nyamphoi	
8.	Tuensang	Ngangpong	Lemki	
9.	Zunheboto	Phulesheto	Angothiboto	
10.	kohima	Nerhema	Garu	
11.	Phek	Kizari	Kizari	
12.	Kohima Training & research Centre	Sechu-Zubza	South Sechu	

Annexure-II: List of Projects involved, Potential areas for Development under Integrated Land Development Project (ILDP) in Nagaland during 2017- 2018 to 2019 - 2020

Sl. No	Name of Project	Name of Villages involved	Name of District
1.	Dzüdza-Sanuo	Kohima village	Kohima
2.	Lower -Dzü	Kijumetouma Touphema,Dihoma	-do-
3.	Upper –Dzü Valley	Kidima ,Sakhabama Kezoma ,Kezo Basa	-do-
4.	Dzüdza West Bank	Mengujuma, Thekrejuma Mezo-Basa Jotsoma,Zubza	-do-
5.	ZukumNra Valley	Sendenyu , Phenshunyu	-do-
6.	Khakheli-Tsonso-Ghozhu	Kandinyu,Tesopenyu,Tronso, Nsunyu	-do-
7.	Thor-rü	Nerhema Model, Nerhema , Nerhi Pheza	-do-
8.	Ayonglanglu	Chuchuyimlang, Yaongyimsen	**Mokokchung**
9.	LowerTsurang Valley	Longjemdang, Changdang, New Longjemdang	-do-
10.	KupokSura-Mentsu	Ungma,Mangmetong	-do-
11.	Sachanemen	Aliba, Chungtia	**Mokokchung**
12.	PosingLingka	Tsurmen, Akhomen Aonokpuyimsen	-do-
13.	ArAtokLempak	Merangkong Kangtsungyimsen	-do-
14.	Upper Tsurang Valley	Medemyim,Chungtia Yimsen, Watiyim	-do-
15.	Ming-chu	Khar	-do-
16.	Tsurong mang	Waromung, Debuia Monchen, Mangkolemba	-do-
17.	Satsuphen	Longsa	**Wokha**
18.	SolungthaNiyipchu	Wokha Village	-do-
19.	Tssorronchu	Bagthy, Lakhuti	-do-
20.	Rampangthachu	Yimpang, Alikhum Liphi	-do-
21.	Hayimong	New Longidang	-do
22.	Longpa Valley	Akahika Khaktato, Amboto	-do-
23.	Kholazu-koto	Lizutomi,Stami, Kukhishe	**Zunheboto**
24.	Tsuthaqa-Mukoti	Khekiye, Rotomi	-do-
25.	Muzamuza	Lutshumi	-do-

Sl. No	Name of Project	Name of Villages involved	Name of District
26.	Tizuqa	Kivikhu	**Zunheboto**
27.	Kheniki	Kitami	-do-
28.	Deinyu	Tuensang Village	***Tuensang***
29.	Kiding	Lirise	*-do-*
30.	Jet	Noklak Village	*-do-*
31.	Alothsuh-Yea	Leangkongru, Sekiur	*-do-*
32.	Thoktsur-Kelong	Thoktsur, Sanglao	*-do-*
33.	Upper Zingki	Pang	*-do-*
34.	Mayimong	Choklangan	*-do-*
35.	Shimloyalao	Mon Village,Totok chingkhu	***Mon***
36.	LhejanPesham	Ukha	*-do-*
37.	Shonglong-sakha	Changlang, Chenlosho	*-do-*
38.	Chomtang-Tizit	Tizit Village, Lapa	*-do-*
39.	Suthida	Losami	**Phek**
40.	Luzazu	Chesezu	-do-
41.	Chokhulesha	Lephori	-do-
42.	Zale-phrü	Chozuba,Yoruba	-do-
43.	Lucho	Meluri	-do-
44.	Taku	Kütsapo	-do-
45.	Nihoi	Nihoi	**Dimapur**
46.	Vihuto	Vihuto	-do-
47.	Nizhevi	Nizhevi Village	**Dimapur**
48.	Chathe Valley	Medziphema, Pherima, seithekima C	-do-
49.	Lower Chathe Valley	Showba(O&N), Kihekhu	-do-
50.	Tainiaseu	Ngwalwa, Peren(N)	***Peren***
51.	Nguiki	Ngam	*-do-*
52.	Ngonzam	Nzau, Ikiesinggram	*-do-*
53.	Upper Chathe	Poilwa, Hiningkowla,	*-do-*
54.	Sumthoya	New Risethsi	***Kiphire***
55.	Phuluti	Cedeyevong	*-do-*
56.	Zaong	Zaonger	*-do-*
57.	Youngha kilo	Old Monger,Yingpgire	*-do-*
58.	Makshushinga-hom	Kangching, Tamlu	***Longleng***
59.	Monyu	Yimchong	*-do-*
60.	Meipham-odang	Yongya, Orangkong	*-do-*
61.	Lakki Valley	Bora Namsang	*-do-*
62.	Yongyakh	Yongpang	*-do-*



Exhibition stall of the Department during 69th Republic Day 2018

CELEBRATING 50 GLORIOUS YEARS

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