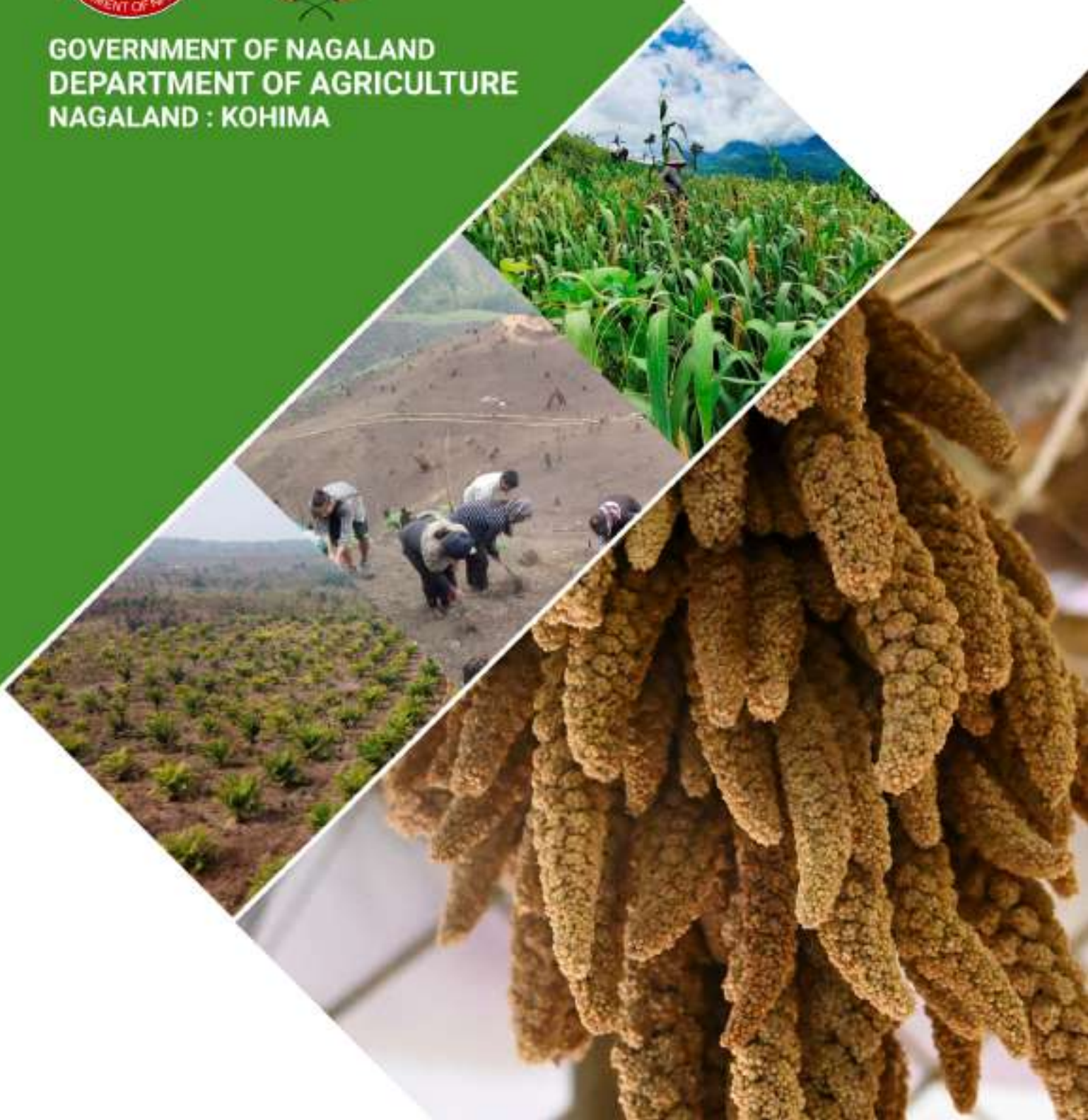
ANNUAL ADMINISTRATIVE REPORT 2023-2024

GOVERNMENT OF NAGALAND
DEPARTMENT OF AGRICULTURE
NAGALAND : KOHIMA



PREFACE

It is with great pleasure and a sense of accomplishment that the Agriculture Department presents the Annual Administrative Report for the year 2023-2024. This comprehensive document encapsulates the relentless efforts and innovative initiatives of the Department in fostering agricultural growth in the State.

While implementing key projects and programs that have shaped the agricultural landscape of Nagaland, the Department has navigated through various challenges by adapting to changing dynamics through a judicious blend of traditional knowledge and modern technologies.

The strides made in mechanization have not only improved efficiency but also empowered farmers with tools to enhance productivity. From the adoption of smart farming techniques through Digital Agriculture which augments our ability to harness data driven insights for optimal resource utilization to the promotion of organic agriculture under the MOVCD-NER scheme, the Department's commitment to sustainable, resilient and eco-friendly practice remains unwavering.

The Department has been promoting the cultivation of Oil palm since 2015-16 with the objective of replacing low value crop for the benefit of small and marginal farmers. The targeted areas for Oil Palm cultivation are the foothill areas of the State without disturbing the natural forest including bio-diversity with the intention of framing a regulatory framework of Oil Palm Act. Our initiatives in Oil Palm cultivation aim not only for economic prosperity but also emphasize on sustainable practices fostering environment stewardship.

Furthermore, promotion of crop diversification in Jhum fields not only has the potential to improve the livelihoods of the farmers but also underscores the importance of varied agriculture landscape for food security and promoting resilience in the face of evolving climate change.

The Department keeps on actively engaging with farmers through capacity-building programs, training sessions, and extension services, empowering them with the knowledge and skills necessary to meet the challenges of a rapidly evolving agricultural sector.

ADMINISTRATIVE SET UP

The Department of Agriculture is one of the oldest and premier departments in the state of Nagaland. At present, it is headed by the Agriculture Production Commissioner (APC) as the Administrative Head of the Department and is being assisted by the Additional Secretaries, Joint Secretary, Deputy Secretary, Under Secretaries, Section Officer, Junior Section Officers and Secretariat Assistants.

The Directorate of Agriculture is headed by the Director, who is the Head of the Department. He is assisted by the Additional Directors, Joint Directors, Superintending Engineer (Agriculture), Deputy Directors, Subject Matter Specialist and host of Junior Level Officers. The Department of Agriculture has established offices at the district headquarters headed by the District Agriculture Officers, Sub Divisional Offices headed by the SDAOs, Block Offices headed by the Agriculture Officers (AOs), Administrative Circle headed by the Agriculture Inspectors and the Agriculture Field Assistants at village level.

MANPOWER STATUS IN AGRICULTURE DEPARTMENT:

Sl. No.	Grade	Man Power
1.	Special Grade	1
2.	Higher selection Grade	2
3.	Selection Grade	19
4.	Senior Grade	30
5.	Class-1(jr)	72
6.	Class-II	118
7.	Class-III	827
8.	Class-IV	376
	Sub-Total	**1445**
9.	Casual/Work Charge (Fixed Pay)	99
10.	ATMA	271
11.	KVK	64
	Grand Total	**1893**

I.DIRECTORATE:

Sl. No.	Grade	Man Power
1.	Director	1
2.	Additional Director	2
3.	Joint Director	6
4.	Deputy Director	14
5.	Subject Matter Specialist(SMS)	13

II. SUBSIDIARY ESTABLISHMENTS:

There are 5 subsidiary establishments, out of which 2 are in the Joint Director level and 3 are in the Deputy Director level assisted by Deputy Directors, Subject Matter Specialist/ Lecturers, Agriculture Officers (AOs), Agriculture Inspectors (AIs) and Agriculture Field Assistants (AFAs) in each of the under mentioned establishments.

i. Principal, Integrated Extension Training Centre (IETC) and Director, SAMETI Medziphema
ii. Joint Director, State Agriculture Research Station (SARS) Yisemyong, Mokokchung
iii. Deputy Director, Agri Expo, 4th Mile, Chumoukedima
iv. Deputy Director, State Seed Farm Merapani, Wokha
v. Deputy Director, Central Store, Dimapur

III. DISTRICT LEVEL:

In the District Level, the District Agriculture Officer (DAO) in the rank of Joint Director (selection Grade) heads the establishment assisted by Deputy District Agriculture Officer (DDAO) in the rank of Deputy Director (Class-I Senior Grade) and Sub Divisional Agriculture Officer (class-I Junior Grade), Agriculture Officers (AOs) Class-II, Agriculture Inspector (AIs) Class-III and Agriculture Field Assistants (AFAs).

IV. SUB- DIVISIONAL LEVEL:

In the Sub- Divisional Level, there are 22 Sub- Divisional Agriculture Officers who are assisted by the Agriculture Officer Class-II, Agriculture Inspector and Agriculture Field Assistants.

MISSION POLICY STATEMENT:

OUR VISION:

- A feasible and economically viable agriculture by 2030 A.D.

OUR MISSION:

- Promote organic agriculture in the hilly terrains
- Pioneering the state in Rain-fed Farming System
- Transform subsistence a
- griculture to commercial agriculture in a sustainable manner by extending demand driven services to farmers
- Scaling up agriculture through farm mechanization in a cluster approach

OUR GOALS:

- Achieve food security by 2030 A.D
- Empower and improve living standards of farming community
- Empowerment of small and marginal farmers considering gender equality
- Increase crop production and productivity
- Promote farm mechanization
- Resilient agriculture

STRATEGIES:

1. Adopt ICT in agriculture
2. Adoption of seed village and seed infrastructure development
3. Adoption of SRI, Line transplanting and Direct seeding in paddy
4. Advocate soil amelioration
5. Capacity building and up-scaling of skills
6. Commercialization of selected agriculture crops
7. Emphasize Integrated Pest Management
8. Identification and promotion of local cultivars
9. Improve farm water management
10. Mechanization of agriculture
11. Practice of double, inter, relay, mixed cropping and Integrated Farming System
12. Promote indigenous practices in context with climate change
13. Promote Integrated Nutrient Management
14. Promote Women in Agriculture
15. Promotion of organic farming in promising areas
16. Promotion of Post-Harvest Management technologies for agriculture marketing
17. Stabilization & intensification of jhum practices
18. Strengthening of extension services for effective transfer and adoption of appropriate technology
19. Strengthening of Research and Development of Rain-fed Agriculture
20. Timely distribution of quality seeds and to enhance seed replacement rate

A. BASIC INFORMATION:

1.	Total population	: 19,78,502
	Rural population	: 14, 07,536
	Urban population	: 5, 70,966
	Total farming household	: 2, 50,360
2.	Total geographical area	: 16,579 sq.km
	Total cultivable area	: 10, 06,204 ha
	Gross cropped area (2022-23)	: 3, 78,860 ha
	Double cropped area (2022-23)	: 95,020 ha
	Net cropped area (2022-23)	: 2, 83,840 ha
	Gross irrigated area (2022-23)	: 1, 22,394 ha
	Net irrigated area (2022-23)	: 1, 17,799 ha
3.	Food-grain production (2022-23)	: 6, 98,759 MT (Achievement)
4.	Oilseeds production (2022-23)	: 41,080 MT (Achievement)
5.	Commercial production (2022-23)	: 4, 17,681 MT (Achievement)
6.	Food grain productivity	: 2311kg/ha (Achievement)
7.	Food grain production (2023-24)	: 7,15'567 MT (Anticipated)
8.	Oilseed production (2023-24)	: 42,221 MT (Anticipated)
9.	Commercial crop production (2023-24)	: 4,32,537 MT (Anticipated)
10.	Food grain productivity	: 2328 Kg/ha (Anticipated

B. PHYSICAL TARGET AND ACHIEVEMENT OF FOOD GRAIN PRODUCTION DURING THE LAST 5 (FIVE) YEARS

Sl. No	Year	Area (in '000 ha)		Production (in '000 MT)		Remarks
		Target	Achievement	Target	Achievement	
1	2019-20	349.95	342.28	799.75	748.87	Achievement
2	2020-21	356.28	344.33	833.77	755.59	Achievement
3	2021-22	362.88	197.821	870.32	328.414	Achievement
4	2022-23	309.191	302.334	710.976	698.759	Achievement
5	2023-24	314.720	307.403	741.464	715.567	Anticipated

C. AREA, PRODUCTION AND YIELD OF CROPS IN THE STATE (AREA IN '000' HA, PRODUCTION IN '000' MT & YIELD IN KG)

Sl. No	Crops	Achievement 2022-23			Target 2023-24			Anticipated Achievement 2023-24		
		Area	Prod	Yield	Area	Prod	Yield	Area	Prod	Yield
1	Cereals	269.459	660.169	2450	281.121	699.882	2490	280.073	681.851	2435
2	Pulses	32.875	38.590	1174	33.598	41.582	1238	27.330	33.716	1234
Food grains		**302.334**	**698.759**	**2311**	**314.720**	**741.464**	**2356**	**307.403**	**715.567**	**2328**
3	Oilseeds	39.500	41.080	1040	40.164	43.987	1095	39.953	42.221	1057
4	Commercial Crops	37.026	417.681	10490	39.547	414.702	10486	39.265	432.537	11016
Total all Crops		**378.860**	**1157.520**	**3019**	**394.431**	**1200.153**	**3043**	**386.621**	**1190.325**	**3079**

SCHEMES IMPLEMENTATED DURING 2023-24

During the 12th five year plan, GoI launched various National flagship programmes to revitalize agriculture sector and to improve the economic conditions of the farming community. The intervention of CSS programs such as Agriculture Statistics & Census, RKVY components like RAD, SMAM, PDMC, Agro Forestry, Crop Diversification, and under Krishonnati Yojana programmes like ATMA, NFSNM, NMEO-OP & OS, MOVCD-NER, DAM, PM-KISAN and KVK has contributed significantly towards agriculture development in the state. The Department implemented these programmes in line with the GoI guidelines benefitting the farming community at large on convergence mode in some of the flagship programmes.

A. STATE PLAN(DIVISIBLE POOL)

1. NABARD Negotiated Loan (Community Agri- Farm Road)
2. Education & Training.

B. CENTRALLY SPONSORED SCHEMES(CSS)

1. Agriculture Economics & Statistics
2. Agriculture Census
3. Rashtriya Krishi Vikas Yojana (RKVY) DPR & AAP
   - i) RKYY-DPR
   - ii) RKY-AAP
     - a. Rainfed Area Development (RAD)
     - b. Sub Mission On Agricultural Mechanization (SMAM)
     - c. Per Drop More Crop (PDMC)
     - d. Agro Forestry
     - e. Crop Diversification Program (CDP)
4. Krishonnati Yojana (KY)
   - a. Agriculture Extension - ATMA
   - b. National Food Security & Nutrition Mission
   - c. National Mission on Edible Oil- Oilpalm (NMEO-OP)
   - d. National Mission on Edible Oil- Oilseeds (NMEO-OS)
   - e. Mission Organic Value Chain Development for NER (MOVCD-NER)
5. Digital Agriculture Mission
6. PM-KISAN
7. Krishi Vigyan Kendra (KVK)

A. STATE PLAN (DIVISIBLE POOL)

1. NABARD NEGOTIATED LOAN (COMMUNITY AGRI-FARM ROAD)

The Department of Agriculture has taken up construction of 65 numbers of Community Agri. Farm Road in various District/ Village in across Nagaland, funded by NABARD UNDER RIDF – XXVI.

The State Department of Agriculture proposed to provide and improve the infrastructure under a large rural road building program to enhance Agriculture & Horticulture Production.

These rural road network will enable farming community to gain access to the program and improve economy portfolio, this will subsequently help in the adoption of modern Agriculture technologies.

This farm road will connect to major district roads and this will help skilled-Labour use, enabling efficient mobility of Agricultural workers by integrating village labour markets across space, for transport of agriculture inputs as well as marketable surplus produce to reach the market.



LAKHUTI CAFR, WOKHA



KHEHOI CAFR DIMAPUR



CAFR RUSOMA VILLAGE, KOHIMA

Proper road connectivity will ensure a long term social and economic benefits besides meeting need of the farming community, hence, construction of rural road will go a long way in uplifting the rural economy of the state.

2. EDUCATION & TRAINING

Education and Training is a Non-Plan Scheme under the State Plan designed to provide stipends, book grants, thesis grants, and other forms of supports to students pursuing Graduate and Post-graduate degrees in Agriculture both within and outside the state. The scheme also supports Agriculture Extension Trainees (AETs), who are enrolled in a two-year certificate course at IETC, Medziphema, a subsidiary of the Agriculture Department.

Another crucial component of the Department work is Human Resource Development which raises staff proficiency and knowledge and boosts productivity. Officers and functionaries are required to participate in workshops, study tours, and other activities based on the Department needs both within and outside the state.

Some of the achievements under Education & Training Scheme during the year 2023-24 are listed below: -

1. Under Graduate Programme: - A total number of 244 B.Sc. Agri. (Hons.) students were enrolled in various Agricultural Universities and Colleges.
2. Master's Degree: - A total of 65 M.Sc. Agri. students pursuing various Agriculture fields both within and outside the state were sponsored by providing stipends, book grants, thesis grants etc.
3. RAWEP: - The Department contributed 25% of state share as RAWE fee to the ICAR's 75% share for B.Sc. Agri. final year students of SAS, NU Nagaland.
4. Training of Officers and Functionaries: - Officers and field functionaries were sponsored for undergoing various online and offline training.

PRESENT STATUS OF STUDENTS IN AGRICULTURE DISCIPLINE

Sl. No	YEAR/ BATCH	NUMBER OF STUDENTS	NAME OF THE INSTITUTION
1	B.Sc. Agri. 1st year	48	NU SAS-Medziphema, Allahabad, Rajasthan, Chandigarh, Dehradun, Haryana, Meghalaya, Imphal and Jorhat.
	B.Sc. Agri. 2nd year	52	
	B.Sc. Agri. 3rd year	67	
	B.Sc. Agri. 4th year	77	
2	M.Sc. Agri. 1st year	13	
	M.Sc. Agri. 2nd year	52	
	Total:	**309**	

B. CENTRALLY SPONSORED SCHEME (CSS)

1. AGRICULTURAL ECONOMICS AND STATISTICS

The Agricultural Economics and Statistics deal with statistical matter relating to Agricultural activities in the Department in order to provide/feedback information in formulating agricultural development plans and programme etc. for which realistic estimates are necessary, basing on the facts and figures collected at field level. The man power required under statistical discipline is provided by the Department of Economics and Statistics, but the borrowing department bears salaries, TA/DA, OE and honorarium for maintenance of the Cell as per the decision of the State Planning Board, Government of Nagaland.

MAIN ACTIVITIES OF THE SECTION

1) To collect and compile Area, Production and Yield of all principal crops in the State during the agriculture year for furnishing Agricultural Statistical Return
2) To conduct 'Crop Cutting' survey of some major crops for estimation of yield rate so as to estimate crop area for formulation of different schemes/programmes in the annual plan etc.
3) To collect Weather Watch Report Weekly on crop sowing area coverage and production prospect/supply of inputs viz. information on diseases/pest incidents/condition of crops rainfall information etc.
4) Agricultural Village Profile data
5) Collect and compile other miscellaneous data as and when need arise

In addition to normal state plan scheme, the Department has taken up centrally sponsored scheme (CSS) for improvement of Agricultural Statistics namely Establishment of agency for Reporting Agricultural Statistics (EARAS) with a funding pattern of cent percent grant in aid by the Ministry of Agriculture & Cooperation and Farmers Welfares, Government of India.



CROP CUTTING EXPERIMENT ON POTATO



2. AGRICULTURE CENSUS

Agriculture Census is a Central Sector Plan Scheme which is being implemented in the State on quinquennial basis since 1970-71. The Government of India is conducting Agriculture Census as part of the World Census of Agriculture (WCA) on recommendation of the Food and Agriculture Organization (FAO) of the United Nations.

The Government of India provides financial aids for 7 (seven) nucleus staff headed by a Deputy Director. Technical guidelines and expertise for implementation of the scheme were provided by the Ministry of Agriculture and Farmers Welfare. There are 3 (three) different surveys - Phase-I on details of operational holders, Phase-II on land utilization, cropping pattern etc and Phase -III on Input Survey. The reference year is from 1st July to next 30th June of the following year.

11th AGRICULTURE CENSUS 2021-22 (Phase-I):

Accordingly, the 11th series of Agriculture Census 2021-22 had been conducted and the State level training for primary workers had been imparted in September 2022. The digital survey for complete enumeration (100%) for all villages has been completed covering 1421 villages spread over 16 districts and 74 blocks.

OBJECTIVES:

- To bring out farmers data base with special reference to 5 different size classes, social group, gender, land use, cropping pattern etc.;
- To provide benchmark data up to the lowest geographical level (District/Block/ Village which is needed for formulating new Agricultural development programs and for evaluating progress; and
- To provide statistical frame of Operational Holdings for carrying out future agricultural surveys.

The phase –I data has been finalized provisionally in the recently held Regional Workshop in Shillong, Meghalaya. The training on Phase- II & III for the next survey has been imparted as well during the workshop. The field survey would be initiated with 20% sample villages soon.



REGIONAL WORKSHOP FOR FINALIZATION OF PHASE-I AS WELL AS TRAINING ON PHASE- II & III IN SHILLONG, MEGHALAYA

3. RASHTRIYA KRISHI VIKAS YOJANA (RKVY)

The Rashtriya Krishi Vikas Yojana (RKVY) was launched in the year 2007-08 with an aim to achieve 4% increase in annual growth of Agri. & Allied Sectors. The scheme aims to achieve this by providing financial assistance to states for various activities related to agriculture and rural development.

OBJECTIVES OF RKVY:

RKVY aims at achieving and sustaining desired annual growth by ensuring holistic development of agriculture and allied sectors. To recapitulate, the main objectives of the schemes are:

1. To incentivize the states so as to increase public investment in agriculture and allied sectors
2. To provide flexibility and autonomy to states in the process of planning and executing agriculture and allied sector schemes
3. To ensure the preparation of agriculture plans for the districts and the states based on agro-climatic conditions, availability of technology and natural resources
4. To ensure that the local needs/crops/priorities are better reflected in the agricultural plans of the states
5. To achieve the goal of reducing the yield gaps in important crops through focused interventions
6. To maximize returns to the farmers in agriculture and allied sectors
7. To bring about quantifiable changes in the production and productivity of various components of agriculture and allied sectors by addressing them in a holistic manner

The scheme RKVY is implemented by the Agri & Allied departments along with three Missions, Marketing Board and IFAD-FOCUS in the state in a convergence manner with Agriculture department as the nodal department.

Altogether 89 villages on Cluster basis are covered on all the Districts and Sub-divisions which is being implemented under RKVY during 2023-24 to 2024-25.

i. RKVY-DPR

a. RKYV- POWER TILLER PATH (PTP)

Farming system in Nagaland is mostly TRC/WTRC and settled Jhum farming with terraces which are the main fields for food grain production and farm revenues, which are located in hills and foot hills ranging from slope percentage of 30 to 60. In Hill Agriculture System, accessibility of mechanized tools and machineries is a huge

challenge as connectivity of Agri link roads to all potential cultivable/cultivating areas are absent. The need of power tiller paths was therefore conceptualized and is found to be of great help and relief to farmers as their fields and other compact cultivated areas which were not linked with Agri link roads can be linked with power tiller paths where farmers can move power tillers and other farm machineries freely from the nearest point of Link road to their field.



POWER TILLER PATH, HEKHESHE VILLAGE

b. RKVY – RURAL AGRICULTURE MARKET INFRASTRUCTURE

Agricultural Marketing is one of the components of Rashtriya Krishi Vikas Yojana (RKVY) and the main objective of this Centrally Sponsored Scheme is to facilitate our marginal farmers to dispose off their surplus produces in time with remunerative return to enhance the rural economy. Under this scheme, financial assistance are provided for development of Marketing Shed and Collection Store at strategic cluster areas so as to enable the farmers in selling off their surplus produces directly to the consumers and also for aggregating their produces for exporting it to various towns and cities.





c. RKVY - INTEGRATED PEST MANAGEMENT (IPM)

Integrated Pest Management programme is a broad based approach that integrate practices for economic control of pests which has been instrumental in creating awareness among the farming community on the harmful effects of chemical pesticides residues and indiscriminate use of pesticides in the farmer's field.





During 2023-24, under Integrated Pest Management Programme, 38 Nos. of season long Farmer's Field School was conducted in all the Districts and Sub-divisions. Distribution of inputs such as knapsack sprayers, tools for intercultural operations and bio-pesticides in all the districts and sub-divisions was also achieved.









d. RKVY – STRENGTHENING OF INTEGRATED EXTENSION TRAINING CENTRE (IETC) & STATE AGRICULTURE RESEARCH STATION (SARS)

i. INTEGRATED EXTENSION TRAINING CENTRE (IETC)

The Integrated Extension Training Centre (IETC), Medziphema was established in the year 1964 -65 with the objective of providing a two years Agriculture Extension course programme to youths having keen interest to engage themselves in agriculture sector as an Agriculture Field Assistant of the department for self employment. The present infrastructures such as the office building, training halls, classrooms, Library, Staff quarters, girls & boys hostels with basic amenities and farms and orchards were also developed during the establishment.

Moreover, short term training courses are also being organized with various departmental schemes and institutes like SASRD, ICAR and ¬EEI, Jorhat and the allied departments.



MAIZE DEMO PLOT



BETEL NUT PLANTATION



DRIP IRRIGATION AT TOMATO DEMO PLOT

ii. STATE AGRICULTURE RESEARCH STATION (SARS), YISEMYONG

The State Agriculture Research Station (SARS), Yisemyong was established in 1988 and since then has been conducting need based location specific researches, trial and demonstrations. It is located under mid hill condition at an altitude of 1650 M MSL. Two SARS sub-Station are located at Wokha (1310 m MSL) and Tuli (320 m MSL). Other activities beside normal research works include Tea technology, bio diversity, model watershed and conservation of paddy germplasm and conduct of trainings round the year for farmers, NGOs and educational Institutes.

MANDATE

- To conduct location specific and need based research
- Germplasm Conservation
- To study climate resilient technology for traditional farming systems
- To develop alternative land use options for shifting cultivation
- To build upon traditional agriculture to modern production system
- To undertake collaborative research works and conduct capacity building programmes

SARS ACTIVITIES DURING 2023-24:

SARS activities are supported by the Department mainly through RKVY and State Plan, some of the activities of SARS are listed as under:

a. Research/Adaptability Trials/Demonstrations
b. Monitor SARS Sub-Stations
c. Maintenance of paddy Germplasm
d. Commercial & Seed Production
e. Management of Tea husbandry
f. Model watershed cum bio-diversity garden
g. Meteorological station
h. Landscape and crop cafeteria
i. Extension, Training & Visit
j. Library
k. Farmers' hostel
l. Publication of research papers/bulletins

EXPERIMENT & TRIALS DURING KHARIF AND RABI 2023-24:

1. Mixed intercropping compatibility trial with SARS -5 Upland Paddy
2. Evaluation on performance of indigenous Finger millets (Eleusine coracana)
3. Observational trial on black soybean (Glycine max)
4. Trial on soyabean as cover crop in orchard
5. Seed multiplication of SARS series paddy
6. Breeder seed multiplication of four new variety of upland paddy
7. Observational trial of buckweed
8. Trial on direct seeding of paddy in TRC
9. Trial on different maize varieties
10. Trial on Capsicum cultivation under protected structure
11. Observation trial on Direct Seeding of TRC paddy
12. Trial on Paddy cum Duck
13. Trial on Rearing of Catfish in HDPE Pond
14. Trial of performance of different fruit crops (20 types) in 0.5 Ha.
15. Trial on different cole crops using different organic fertilizers (Nitromax, Annapurna and Bokashi)
16. Trial on wheat, linseed and mustard
17. Trial on different legumes (Lentil, Black gram, Lathyrus, gram)
18. Study on Intercropping of Broccoli with cole crops
19. Performance of Lathyrus sativus var Prateek (chickling pea) in comparison to other pea varieties
20. Effect of intercropping of Maize (Zea mays) with soybean (Glycine max) on growth and yield
21. Trial on Direct seeding of Paddy
22. Production of Broccoli and other cole vegetables
23. Production of Capsicum and Naga king chilli under protected shade
24. Study on Intercropping of Maize with Soyabean
25. Trial on ARC of potatoes with CPRS Shillong
26. Trial on response of Toria to INM



LAND PREPARATION FOR RESEARCH DURING KHARIF AND RABI



KHARIF MAIZE INTERCROPPED WITH SOYABEAN



RABI MAIZE INTERCROPPED WITH PEAS



BROCCOLI INTERCROPPING WITH COLE CROPS



SUNFLOWER INTERCROPPED WITH LEGUMES



TORIA IN RESPONSE TO INM



PERFORMANCE OF DIFFERENT LEGUMES

GENE BANK

- Maintenance of 254 Rice cultivars in the mini Gene Bank
- Efforts being made to include other crops



MAINTENANCE OF GERMPLASM IN MINI GENE BANK

COMMERCIAL SEED PRODUCTION

- Mehouro – (WRC)
- Manen Tsuk - (Jhum)
- Sungmangtsuk – (Jhum)
- Coarse Cereals - Job'stear



SEED MULTIPLICATION OF TRC PADDY, JHUM PADDY AND JOB'STEAR

EXTENSION:

- Imparted various trainings and exposure visits at SARS to farmers and students
- Entered into an MoU with Skill Tree Consulting Pvt. for providing Vocational Education to students of Mangkolemba Govt. Middle School
- Entered into an MoU with SoCRAN for Training and Demonstration of farmers under FOCUS-IFAD
- Participated in Exhibition during the Republic Day 2023 and Indian Independence Day 2023



EXPOSURE VISITS OF STUDENTS



TRAINING OF FARMERS



EXHIBITION ON REPUBLIC DAY



EXHIBITION ON INDEPENDENCE DAY

OTHERS:

Besides the above activities, SARS also maintains the following:

- Maintenance of a Commercial section for production of seasonal vegetables and crops
- Maintenance of Demonstration of Orchard of different fruit trees in 0.5 ha area
- Tea husbandry in 3 Ha Area with regular Maintenance of tea bushes and Production of Hand Made Tea

- Maintenance of fishery ponds, crops and orchard in Model Watershed Cum Bio Diversity Garden measuring 4 ha area
- Meteorological Station maintained as per the Agromet specification standard
- Maintenance of seasonal flowers in Landscape model in 0.4 area.
- Maintenance of Library with Books/journals/periodicals/Magazines relevant to Agriculture
- Maintenance of Farmers' Hostel with facility to accommodate 30-40 persons, with catering service and conference room meant for farmer trainees



WATERSHED CUM BIODIVERSITY GARDEN



LANDSCAPE



MODEL ORCHARD



COMMERCIAL SECTION



METEOROLOGICAL STATION



FARMERS' HOSTEL

e. STRENGTHENING OF AGRICULTURE LABORATORIES

i. BIO-FERTILIZER LABORATORY, MEDZIPHEMA

The Bio-Fertilizer Laboratory, Medziphema which is under the Department of Agriculture, Nagaland was set up in the year 2000 but was inaugurated and made fully functional in the year 2002. At present, the laboratory is producing four types of Bio-fertilizers viz., Rhizobium for legumes and pulses; Azotobacter for cereals, oilseeds, vegetables; Azospirilium for cereals, vegetables and Phosphotika which is used for all crops.

The Bio-Fertilizers are living organisms present in carrier material (charcoal powder), which is prepared in laboratory by culturing certain strains of bacteria. The Bio-Fertilizers are considered as component of organic farming, which are used for treating seeds before sowing in the field and also as soil application by mixing it with compost manure.

The production of Bio-Fertilizers is carried out twice a year well ahead of Kharif and Rabi seasons. Since the shelf life of Bio-Fertilizers is usually up to 6 months only, the laboratory go for production of the Bio-Fertilizers depending on the demand, especially from ICAR, KVKs, ATMAs, IFAD, Research Stations, State Farms and farmers from different parts of the state through their respective DAOs and SDAOs.

The laboratory is also in the process of producing Liquid Bio-Fertilizer. As the shelf life of Liquid Bio-Fertilizer is even up to 24 months, it can go for mass production even during off-season to meet the requirements of the farmers.

The laboratory besides producing Bio-Fertilizers, also gives training to farmers, students, NGOs, entrepreneurs etc.

Sl.No	BIO-FERTILIZER	TOTAL PRODUCTION		CROPS COVERED
		2022-23	2023-24	
1	*Rhizobium*	960 packets	7757 packets	Legumes, pulses.
2	*Azotobacter*	2100 packets	7547 packets	Cereals, vegetables, oilseeds
3	*Azospirilium*	1250 packets	8507 packets	Cereals, vegetables
4	*Phosphotika*	2000 packets	21831 packets	All crops



Bio-agents produced at Bio- Fertilizer Laboratory, Medziphema.

ii. STATE AGRICULTURE CHEMISTRY LABORATORY, MEDZIPHEMA

The State Agriculture Chemistry Laboratory was established in the year 1974 at IETC Medziphema. This is the oldest laboratory in the department for soil nutrient analysis for N, P, K, soil pH, Organic Carbon and Micro Nutrients of the collected soil samples from farmers' fields through the DAOs, SDAOs, allied departments, NGOs and also individual farmers.

Objectives:

- To determine the nutrient status of soil like N,P, K, Organic Carbon, soil pH and Micro – nutrients like S, Zn, Cu, Mn, Mg & Fe content etc.
- According to the result of the analysis, recommendations for the cultivation of suitable crops, use of accurate dose of fertilizers/organic manures or lime (Agri) are made in the Soil Health cards which are then issued free of cost in the interest of our farmers
- To identify soil types relating to problems like salinity, alkalinity, acidity, etc. and suggest appropriate reclamation/ amelioration measures





iii. BIO CONTROL LABORATORY, MEDZIPHEMA

The State Bio Control Laboratory, Medziphema under the Department of Agriculture, Government of Nagaland, was inaugurated in the year 2000 with the objective of mass production of bio-agents for control of pest and diseases. The production of bio agents started in the year 2001.

The laboratory produces five species of Trichogramma *(Trichogramma japonicum, Trichogramma chilonis, Trichogramma brassicae, Trichogramma pretiosum, Trichogrammatoidea bactrea)* used for controlling lepidopteran pest In the microbiological section, the laboratory produces *Trichoderma harzianum* and *Pseudomonas flourescens* used for controlling soil borne diseases.

The bio agents produced at the laboratory are distributed free of cost to the farmers through the various District Agricultural Offices, Sub Divisional Offices and Research stations located throughout the state. Positive feed backs have been received from the farmers across the state.





BOD INCUBATOR



HOT AIR OVEN UV



CORCYRA REARING CAGES



TRICHO CARDS



BIO-AGENTS PRODUCTS