REPORT ON AGRICULTURE DEPARTMENT'S ACHIEVEMNTS FOR 5 (FIVE) YEARS, DURING 2019 TO 2023

Name of Scheme : **KVK Mamit District**

Sl. No.	Year	Components	Achievements		Remarks
			Phy	Fin (Rs. in lakh)	
1	2019-20	a) On-Farm Trial (OFT) b) Frontline Demonstration (FLD) c) Training	11 9 74	8,22,300	
		PKVY		3,16,000	
		Kshamta		62,500	
		Kisan Mela		52,500	
		RKVY		15,000	
		STRY	2	84,000	
		PMKSY		2,48,500	
		Swatchta Abhiyan		41,860	
		Plantation Programme		10,000	
		HRD		75,000	
		ASCI	3	4,31,600	
		TOTAL		**21,59,260**	
2	2020-21	a) On-Farm Trial (OFT) b) Frontline Demonstration (FLD) c) Training	11 11 114	10,78,500	
		HRD		75,000	
		Hydroponics		1,00,000	
		KSHAMTA		50,000	
		NARI		50,000	
		RKVY(Skill development)	2	2,20,000	
		Scientific Bee keeping	1	4,60,575	
		STRY (MAMETI)	1	42,000	
		Swachta Action Plan		40,500	
		TOTAL		**21,57,075**	
3	2021-22	a) On-Farm Trial (OFT) b) Frontline Demonstration (FLD) c) Training	12 11 92	9,89,475	
		NFSM (Oil seed)		3,03,800	
		Orientation training		2,32,200	
		Poshan abhyan & tree plantation		7,000	
		Swatchta Abhyan		41,400	
		Scientific Bee keeping	1	4,60,575	
		Farmers outreach programme		14,104	
		TSP Project		30,000	
		NARI		25,000	
		KSHAMTA		25,000	
		HRD		50,000	

		Hydroponics		50,000	
		TOTAL			
4	2022-23	a) On-Farm Trial (OFT) b) Frontline Demonstration (FLD) c) Training	13 9 114	10,17,500	
		HRD		20,000	
		Kisan Mela		1,00,000	
		Out scaling of Natural farming		2,62,944	
		PM Kisan Saman Sammelan		1,91,650	
		Poshan Mah		4,000	
		Swachta Action Plan		46,200	
		TOTAL		**16,42294**	
5	2023-24	a) On-Farm Trial (OFT) b) Frontline Demonstration (FLD) c) Training	17 12 90	5,39,000	
		TOTAL		**5,39,000**	

SUPPORTING PHOTOGRAPHS

Pic. 1- Training on Vermicomposting under STRY

SUCCESS STORIES

1. Modern Beekeeping for Sustainable livelihood at Mamit District

Hnamte V., Rinawma C., Rohit S., Lalmuanpuii R. Vanlalhruaia and Pachuau R.
KrishiVigyan Kendra, Mamit District, Lengpui, Mizoram , kvk.mamitdistrict@gmail.com

Situation Analysis

Mamit District, especially Reiek Block and W.Phaileng Block are known to be hilly area with limited agricultural land and a need for subsidiary income was required. Reiek block was known to practice beekeeping through traditional methods and the profit not beneficiary for the farms. A need for a modern technique with more profitable outcome was great.

Technology, Implementation and Support

KVK Mamit District, Lengpui, under the initiative of Dr. C Rinawma with the help of NABARD, Mizoram region a training and practice of Modern Beekeeping was started. The villages that were targeted were the villages that had previously practiced the traditional methods, the villages include Saithah, West Phaileng (I & II), Hmunpui, Lengpui, Tuahzawl, Rulpuihlim, Chhungtlang, West Lungdar and Reiek

Uptake, Spread and Benefits

Under KVK Mamit Ditrict, the farmer were exposed to different modern techniques and practices and a development of ideas erupted. With the help of NABARD ,modern bee boxes were distributed. An exposure visit to Nagaland was arranged by KVK Mamit District where farmers learned different techniques and practices.

The highest producer of honey from the startup of the project was Reiek and Saithah producing an average of 102 kg and 17kg.

Before intervention –	Rs 51000/-	(VBKC-Reiek village)
	Rs 8500/-	(VBKC Saithah village)
After intervention –	Rs 1,22,500/-	(VBKC- Reiek village)
	Rs 26000/-	(VBKC- Saithah Village)

With special emphasis to Reiek and Saithah, they are now producing 245kg of honey and the latter 52 kg. Branding of honey production and FSSAI certificate for public access and marketing was issued under two separate Mamit district RD blocks namely Reiek and West Phaileng.

2. Effect of KVK Intervention on Farm Women

Name of farmer: C. Rinsangpuii
Address: Rulpuihlim, Mamit, Mizoram
Mobile Number: 9856106208
Age: 34 year
Education: 8th pass
Size of land holding (in acre): 1

1) Before Intervention

Component Description		Benchmark			
Components	Names	Area (Acre)/Number	Production (Q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)
Field Crop 1	Maize	1	12	21600	9500
Hort. Crop 1	Bitter gourd	0.2	10	15,000	9000
Hort. Crop 2	Cowpea leaves	0.2	10	12000	7000
Livestock 1	Pig	1	0.75	15000	6000
Livestock 2	Poultry	11	0.16	2240	1150
Total		**1.4**	**32.91**	**65,840**	**36250**

2) Status in 2020

Component Description		Period 2020-21				% increase over base year	
Components	Names	Area (Acre)/No	Production (Q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)	production	income
Field Crop 1	Maize	1	18	36000	19000	50.00	100.00
Hort. Crop 1	Bitter gourd	0.2	11.2	16,800	9700	12.00	7.78
Hort. Crop 2	Cowpea leaves	0.2	10.5	12600	7200	5.00	2.86
Livestock 1	Pig	1	0.85	17000	9600	13.33	60.00
Livestock 2	Poultry	10	0.15	2100	1840	-6.25	60.00
Other enterprise (Specify)	Pickle Making	3600	3.6	180000	89000	>100	>100
Total		1.4	40.7	264,500	136340	23.67	276.11

Brief: : The farmer used to get annual income of Rs. 65,840 from maize, bitter gourd, cowpea backyard poultry and piggery, etc.She faced problems like lack of technical knowhow and marketing of their produced etc. With DFI interventions like training of pickle making and demonstration etc., he is getting annual net income of Rs. 264,500. In addition, there is cost saving of Rs. 24,300 in the production of pickles of local fruits & vegetables.

3. Effect of KVK Intervention on cultivation of Tomato

- Name of farmer: Mr. Vanlalkunga, Lengte Village, Mamit District.
- Contact No. 9436385212
- Agro-ecological/farming situations : Rainfed
- Hardship faced by the farmer: Water scarcity, low soil fertility, low productivity and lack of quality seeds.
- Technological intervention(s) by the KVK - Trainings and demonstration of micro-irrigation and improved varieties of Tomato, viz. Arka Abhed and Arka Samrat. The farmer learnt about the high yielding varieties and modern techniques through trainings and awareness programmes given by KVK Mamit, Lengpui.
- Economic impact: Earlier his annual income is only 80,000. Now his income is more than 2 lakh.
- His future plan: Round year cultivation of vegetables.

Component	*Gross cost (in Rs.)*	*Gross return (in Rs.)*	*Net return (in Rs.)*	*B: C Ratio*
Before intervention				
Rice	32000/ha	54000/ha	22000/ha	1.69
After intervention				
Tomato	71000/ha	238000/ha	167000/ha	3.35

4.SUCCESS REPORT ON PROMOTION OF INTEGRATED FISH FARMING IN MAMIT DISTRICT UNDER NABARD, MIZORAM

Name of Project: Promotion of Integrated Farming System in Mamit District.
Details of project sanctioned: 10 lakhs
Duration of project: 2019-2021
Name of PIA: KVK Mamit district
Project area (Mamit district)- Village Name
1) Darlak
2) Bangva
3) Nalzawl
Total area: 4.8 ha.
No. of Beneficiaries: 25
Objectives of the project: 1) To enhance fish production through better management practices
2) To increase the income per unit area of fish pond
3) To introduce a well establish polyculture system to ensure better production

INTRODUCTION

Integrated fish farming is a process of farming where you produce fish in combination with other farm products and livestock, centered on the fish farm. The system links each of the involved sub-systems in it, such as fish, crops, and livestock, in such a way that the waste or byproduct from one sub-system can be used as an input for the next system. An integrated agriculture system can ensure the maximum utilization of all resources, such as land, water and feed, and also minimizes waste. Having several types of crops on the same farmland is often referred to as polyculture. Though polyculture often requires more labor, it has several advantages over monoculture.

In a properly integrated fish, livestock and crop farming system, the waste, excretion and manure from animals can be used as feed for the plants and the leftover waste from plants can be used to feed animals. Excrement from fish and livestock is high in ammonia and nitrogen, which acts as a high-quality fertilizer for farmlands. Water and the bottom silt of fish ponds are also rich in nutrients and can be good sources of fertilizer for irrigating the crop land.

Therefore it is possible to integrate a variety of sub-systems in a small area to produce a variety of products such as fish, meat, vegetables, fruits, eggs, fodder etc. resulting in lower production costs and wastage.

In this project, the application of Piggery as well as horticulture which revolves around a fish pond will be introduced. The fishes could consume 70% of piggery waste as feed, with the 30% could be used for nourishment of the pond, for the growth of phytoplanktons and zooplanktons which serves as a natural feed for the fishes, resulting in lower spending on artificial feed. The enriched soil and water of the pond would be used for

the horticulture based plants, like papaya or mulberry which would provide a much needed shade for the pond. The horticulture based produce will also provide a subsidiary income in case of off seasons.

In this context, the present project aims to undertake a promotion and demonstration of integrated fish farming system in the fish farming communities of Mamit District of Mizoram, which is a high fish producing district in the state as well as an aspirational distict, to enhance the fish production and increase the income of the farmers.

DISTRIBUTION OF PAPAYA PLANTLING

Papaya plantlings were distributed on 29th April, 2020. A total of 450 plantlings were distributed amounting to 18 plantlings per farmer. The papaya Variety is "Red Lady". The papaya were planted along the banks of the pond to provide a subsidiary income to the famers during off seasons. The papaya would also provide shade to the pond as well as food for the pigs.

Fig 1: Distribution of Papaya plantlings

DISTRIBUTION OF FISH SEEDS

Fish seeds were distributed to the farmers on 29th October, 2020. Each farmer receiving 2500 fish seeds which constitute of Grass carp, silver carp, rohu, common carp and mrigal. A total of 62,500 fish seeds were distributed. A polyculture carp system would be established so as to occupy every feeding niche in the pond ecosystem which would insure optimum growth of the fish and well as maximizing the income of the farmer.

Fig 2: Distribution of Fish Seeds

CONSTRUCTION OF PIG STY AND DISTRIBUTION OF PIGS

Pig sty were constructed on the banks of each of the farmers ponds on the instruction of the Project Investigator so as to utilize the pig waste and feed for the fishes which would in turn minimize the cost of feed for the fishes.

Local pig was distributed to the farmers with each farmer receiving a total of 2 pigs each amounting to a total distribution of 50 pigs.

Fig 3: Construction of pig sty and distribution of piglets

DISTRIBUTION OF FISH FEED AND PIG FEED

Fish feed was distributed at 160kg to each farmer amounting to a total of 4tons and Pig feed as distributed at 200kgto each farmer making the total 5 tons of pig ration.

Fig 4: Distribution of fish feed and pig feed

ESTABLISHMENT OF IFS

Integrated Farming system where fish, livestock and crop farming system is established, the waste, excretion and manure from animals can be used as feed for the plants and the leftover waste from plants can be used to feed animals. Excrement from fish and livestock is high in ammonia and nitrogen, which acts as a high-quality fertilizer for farmlands. Water and the bottom silt of fish ponds are also rich in nutrients and can be good sources of fertilizer for irrigating the crop land.


Fig 5: Establishment of IFS

TRAINING AND MONITORING

Training and monitoring were done quarterly with advice and recommendation of the Project Implementing and monitoring Committee.


Fig 6: Training and Monitoring

CONCLUSION

A Project on "Popularization of Integrated Farming System in Mamit District" was carried out successfully during the year 2019-2021 under financial assistance from NABARD, Aizawl, Mizoram. The demonstration of IFS were the integration of livestock and horticulture in fish culture is highly promising for enhancing the income of the rural people of the state. However, the importance of dedication and hardwork by the concern farmer could highly influence the outcome of the farming. It could be suggested that Integrated farming system could highly enhance the income per unit area of farming. Therefore the technology may be popularized on large scale to ensure livelihood improvement among the farming communities of the state of Mizoram.

SUCCESS STORIES:

Mr. C. Lallianzama
Location: Darlak
Total Area: 0.2 Ha

Sl.no	Particular	Yield/Produced	Value (Rs)
1	Fish	500kg	1,00,000
2	Papaya	50kg	2500
3	Pig	89kg	35,000
	Cost Benefit Ratio	**2.29**	


Fig : Integrated Farming System of Mr. C. Lalzamliana

Mr. Lalfakzuala
Location: Bawngva
Total Area: 0.3 ha

Sl.no	Particular	Yield/Produced	Value (Rs)
1	Fish	480kg	96,000
2	Papaya	58kg	3000
3	Pig	92kg	36,800
	Cost Benefit Ratio	**2.26**	


Fig: Integrated Farming System of Mr. C. Lalfakzuala

Mrs Hmingthanzami
Location: Darlak
Total Area: 0.4ha

Sl.no	Particular	Yield/Produced	Value (Rs)
1	Fish	600kg	1,20,000
2	Papaya	62kg	3500
3	Pig	98kg	39,200
	Cost Benefit Ratio	**2.7**	


Fig: Integrated Farming System of Mrs Hmingthanzami