

SOWING SEEDS OF SUCCESS-IN A TRIBAL ZONE

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ABSTRACT

Mrs. St. Khuwntha of Lambung village under ICAR-KVK, Chandel, started adopting smart and climate resilient agriculture in her field so as to maximize her farm productivity and income by incorporating the technological interventions through effective Integrated Farming System as propagated by KVK Chandel, ICAR Research Complex for NEH Region, Manipur Centre, under NICRA Project. She shunned the typical traditional mono-cropping system widely prevalent in the district and instead adopted Integrated Farming System for enhancement of livelihood at 1.5 ha area of land. Besides the primary crop of rice, she incorporated groundnut, soybean, duckery, piggery, vegetables (cabbage, coriander, broccoli, radish, French beans). She pioneered the composite fish farming in her farm pond (*Catla:Rohu:Common Carp* (30:30:40)). She could earn the Rs.1,22,600/annum from different enterprises and remains as a shining example in the entire district. In the backdrop of the present climate change and erratic and unreliable rainfall, her smart and integrated farming system truly proved to be true boon in the district.

KEYWORDS; Climate Resilience, Integrated Farming, Farm Income, Livelihood and Tribal farmer

INTRODUCTION

Chandel district lies in the south-eastern part of Manipur at 24°40' N Latitude and 93°50' E Longitude. It is the border district of the state with an area of 2,100 sq. km. It shares its borders with Myanmar (erstwhile Burma) on the south and east, Ukhrul district on the north, Churachandpur district on the south and west, and Thoubal district on the north. It is about 64 km. away from Imphal. The farmers of the district traditionally practice mono-cropping, monoculture of pig without proper housing/ poor hygiene and local breed, monoculture of fish without proper utilization of space and feeds. Besides low income, the district is prone to high erosion losses especially in the fields with steep slopes (Singh, 2021). Due to inadequate alternative farming patterns and a lack of irrigation facilities in rain-fed regions like the Chandel districts, farmers mostly rely on rainfall to cultivate their crops. Adopting a suitable package of practices can significantly raise crop productivity in the area (Chongloi *et al*, 2025).

The smart system of Integrated Farming System (IFS) has proven to be a powerful tool for ensuring income, employment, livelihood security through multiple uses of natural resources such as land, water, nutrients and energy in a complementary way thus giving scope for round the year sustainable income from various enterprises. The productivity of a diversified cropping system always tends to increase when it is integrated with piggery, dairy, poultry or fishery components. Adoption of IFS rates are limited and unevenly spread among farmers.

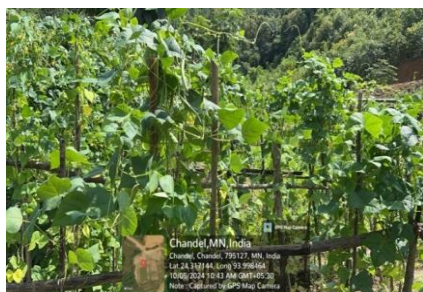


BACKGROUND

Mrs. St. Khuwnghtha Anal, W/o Hl. Morden Anal, aged 64 years is an energetic farm woman with a progressive mind set and indomitable spirit having 10-15 years of experience in farming from Lambung village of Chandel district, Manipur. She owns 1.2 ha of agricultural land. She used to grow traditional crops on her farm with below average yields of various crops which was sufficient for the family but was not able to bring in additional income, before coming in contact with scientists and technical staffs of KVK, Chandel.

Training and motivational support

Lambung being the model village of NICRA Project, KVK, Chandel, the staff regularly organises trainings, demonstrations, exposure visits and were provided related literatures from time to time. During one such training on Integrated Farming System (IFS), Mrs.Khuwngtha became one of the beneficiaries of NICRA project. Thereafter, she also got exposed to latest improved new technical knowledge on cultivation of HYVs and Nutri rich paddy varieties, vegetable crops, and use of different women friendly improved tools and equipments. With the support of KVK Chandel, she adopted Horti-Fishery-Piggery based Integrated Farming System (IFS) to bring in continuous source of income.



Impact and economic gains

Mrs. Khuwngtha Anal developed an integrated farming system within a year comprising of 2 pigs (Cross breed Hampshire), 20 ducks (white Pekin), one pond for composite fishery (Rohu, Grass carp, Silver carp, Catla), seasonal vegetable cultivation like cabbage, coriander, beans radish etc, along with paddy and oil seeds cultivation like groundnut and soybean. Within two years her livestock components multiplied manifold. She practiced mulching in rabi vegetables and also recycled organic waste through vermicomposting.



Fishery

Technology adopted/ demonstrated	Production/ year*	Selling price (Rs)	CoC (Rs/unit)	GR (Rs./unit)	NR (Rs./unit)	BCR
Composite fishery Catla: Common (30:30:40)	345 kg	Rs. 220/kg	Rs.29500	Rs.65000	Rs.35500	2.2

Piggery

Technology adopted	BW/animal	Selling price (Rs/animal)	Cost production (Rs/animal)	Gross returns (Rs./unit)	Net Return (Rs./unit)	BCR
Cross breed Hampshire	110-120 kg/ animal	@ Rs. 380/kg	Rs.18000	Rs.45600	Rs.27600	2.5

Duck Rearing



Livestock		Av. Body wt. Gain at maturity		% increase	Profitability		% increase
		NICRA	NON-NICRA		NICRA	NON-NICRA	
White Duck	Pekin	3.1kg	1.8-2.2kg	40.9%	Rs.1240/duck	Rs. 880/duck	40.9%

Crop component

Crops grown	Area(ha)	Productivity(kg/ha)
Paddy	0.6	3750
Groundnut	0.12	240
Soybean	0.08	160
Cabbage	0.04	175
Coriander, Broccoli, Radish, French beans.	0.04	3500

System profit: Rs.122600/annum

CONCLUSION

Her effective recycling of paddy straw for mulching has been effective in increasing the yield specially king chilli which is a major boost of her income. This tallies with the findings of Singh *et al*, 2026. Her success in Integrated Farming System, where she integrates different farm components such as crops and livestock to improve productivity and income has a profound influence on others in her community. Her hands-on training sessions and willingness to share her experiences have empowered others, especially women, to take up IFS as a sustainable and profitable livelihood option. Presently, in the backdrop of the present climate change and erratic and unreliable rainfall, her smart and integrated farming system truly proved to be true boon in the district. There is a growing interest in integrated farming among the farmers requesting the KVK staff to organise more trainings on IFS practices, to improved livelihoods within the community.

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