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RICE BASED LOWLAND INTEGRATED FARMING SYSTEM FOR WEST COAST REGION OF INDIA

Lead Developer : **Dr. Paramesha V.**

Associate Developers : Parveen Kumar, Dr. Manohara K. K., T. Mayekar, G. B. Sreekanth, Gokuldas P. P., Gopal R. Mahajan, K. Vishwanatha Reddy

TECHNOLOGY DETAILS

- A rice-based farming system integrating crops, dairy, poultry, and fish has been established on a **0.5 ha area** in Goa. This integrated farming system (IFS) realized a **net return of Rs. 1.68 lakh/annum**.
- Compared to traditional farming practices (rice-fallow), the IFS increased production, profitability, and employment while reducing production costs. Notably, the IFS achieved a remarkable **238% increase in yield and 112% increase in net income compared to the Rice-fallow system**. Additionally, the energy efficiency and profitability of the IFS were favorable, with a net energy gain of 103,311 MJ and an energy profitability of 1.63 MJ.

IMPACT

- Demonstrated this IFS system on **60 ha at 35 locations in Goa**. Generating an net income of 1.45 lakh per year in a 0.5 ha area and generating employment of 325 man-days. The adoption of IFS system enhanced production by 53%, profitability by 58%, employment by 42%, and reduced production cost by 31.2% compared to the rice-fallow practice.
- This IFS system holds great potential to improve livelihood of **~ 40,000 small and marginal farm families** covering an area of **22000 ha of rice-fallow** in the west coast region with **additional income of Rs. 370 crores/annum**.

PUBLICATION

- Paramesh, V.**, et al. 2019. Sustainability, energy budgeting, and life cycle assessment of crop-dairy-fish-poultry mixed farming system for coastal lowlands under humid tropic condition of India. Energy.188,116101. **(NAAS rating: 14.86)**
- Paramesh, V.**, et al. 2020. Impact of integrated farming system on residue recycling, nutrient budgeting and soil health. Indian Journal of Agricultural Sciences. 91, 44-48. **(NAAS rating: 6.37)**



INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Certified that

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of

**ICAR-Central Coastal Agricultural Research Institute
Old Goa**

has developed the technology

**Rice based lowland integrated farming system
for west coast region of India**

16th July, 2023
New Delhi


(Rajbir Singh)

Assistant Director General (A&AF)



(S.K. Chaudhari)

Deputy Director General (NRM)