

EMPOWERING TRIBAL COMMUNITIES THROUGH ECO-FRIENDLY FARM PONDS AND RAINFED FISHERIES

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The Inspiring Story of Mr. KILLO GASI

Killo Gasi, a 54-year-old member of the Kotiya tribal community, resides in Poddaguda village of SOVVA Gram Panchayat, Dumbriguda Mandal, ASR District, Andhra Pradesh. He lives with his wife, Champa, and 2 children. Interestingly, while Killo and his children speak Telugu, Champa speaks only Oriya, having grown up in an Odisha border village. The Gasi family owns a total of 4 acres of land, comprising 3 acres of rainfed uplands (Mettu) and 1 acre of paddy fields.



In 2012, Killo converted 1 acre of his Mettu land into a mango orchard under NABARD's TDF program, facilitated by VIKASA NGO. However, the remaining 2 acres of Mettu land are more productive, yielding Ragi, Sama, Ginger, Rajma, and vegetables. Notably, the family's primary income source is the sale of crops from these Mettu lands at the local Araku weekly market. In contrast, paddy is mainly for household consumption, and the mango orchard

generates minimal income due to fruit fly damage and low market demand.

Disheartened by the mango orchard's performance, Killo plans to replace it with a more viable alternative. Often, the family harvests unripe mangoes for pickling, but finds few buyers. This challenge has prompted Killo to explore new opportunities for sustainable livelihood.

Community-Led Planning and Farm Pond Development

In 2019, WASSAN and SANJEEVINI facilitated a Gram Panchayat planning exercise across 17 habitations in SOVVA Gram Panchayat. During this process, Mr. Killo expressed interest in converting a portion of his orchard land into a small farm pond to harvest rainwater and utilize it for vegetable cultivation during the *Rabi* season.

Identifying Potential Sites and Securing Funding

The village-level plans were consolidated, identifying 45 potential sites for farm pond excavation, including Mr. Killo's land. A proposal was submitted to Coromandel International Pvt Ltd, securing financial assistance under their Corporate Social Responsibility (CSR) initiative. In 2020, Mr. Killo and 44 other farmers established farm ponds, with Mr. Killo converting 10 cents of his orchard land.



Securing Water Source and Introducing Fisheries

Mr. Killo diverted spring water from nearby uplands into his farm pond, ensuring a reliable water source. In 2021, WASSAN geo-tagged potential farm ponds, including Mr. Killo's, for fisheries activities. He participated in planning meetings with farmers to estimate fingerling requirements. WASSAN facilitated linkages between fingerling suppliers and farmers.





Killo began his journey into fish farming in September 2021 by purchasing 200 fingerlings and introducing them into his pond, with his first harvest of 20 kg shared among family and relatives. In 2022, he attended WASSAN's training programs, gaining insights into feeding practices and pond management techniques. Through these sessions, Killo learned about bund intensification, an **"Eco farm pond"** approach, by planting crops such as papaya, banana, red gram, cucurbits, and marigold along the pond's bunds. He implemented this by growing banana, cassava, and chilies, enhancing both his pond's productivity and ecological sustainability.

In August 2023, Killo introduced 300 high-quality fish fingerlings, including Catla, Grass Carp, and Common Carp, into his 10-cent farm pond in a 4:3:3 ratio. His wife, Champa, was instrumental in the project, handling tasks such as weed removal and regular feeding. Their combined efforts improved household food security and set an inspiring example of teamwork and resource sharing.

Killo's success piqued the interest of neighbouring farmers in fish farming, and he readily shared his experience, becoming a knowledgeable resource and mentor for others in the community.

Mr. Killo and his wife Champa diligently applied all the practices they learned during training, including regular feeding, monitoring fish growth, and conducting trial nettings to check progress. They used cow dung as a natural manure and chopped cabbage and banana leaves as feed, achieving an average fish growth of up to 0.75 kg each over seven months. The technical guidance they received proved invaluable, enabling Killo to maintain optimal water quality and deepen his understanding of fish farming practices.

After seven months, they harvested 45 kg of fish, which sold for Rs. 150 per kg, generating Rs. 7,000. 9,500 in the local market. Altogether, income from both fish and vegetable sales totalled Rs. 16,500 from just 10 cents of waterbody area. By cultivating additional vegetables on 20 cents of land irrigated with farm pond water, they earned an extra Rs. 10,000, bringing the total income from the water ecosystem to Rs. 26,500.

INCOME FROM BUND INTENSIFICATION

Sl.No	Name of the Vegetable	Total (in kgs)	Cost (per Kg)	Amount (in Rs)
1.	Banana	10	250	2500
2.	Cassava (<i>Karrapendalam</i>)	525 (15 bags)	11.43	6000
3.	Tomato	10	50	500
4.	Green chilly	5	100	500
	Total Income			9500

Introducing Indigenous Fish Mola Carplets (*Amblypharyngodon mola*)

During a WASSAN training program, a discussion emerged on introducing Mola fish into smaller waterbodies, leveraging their natural auto-breeding mechanism. Intrigued by this opportunity, Mr. Killo expressed interest in adding Mola fish to his farm pond. He was enthusiastic about the potential of watching Mola fish breed autonomously in his pond, eager to see the benefits of integrating this species. In August 2024, he stocked his pond with 2,000 Mola fingerlings, combining them with Indian major carps (IMCs) and Exotic major carps (EMCs) to create a polyculture system. Following all recommended feeding practices and monitoring fish growth, Mr. Killo worked alongside fisheries experts, who guided him through trial netting to observe the unique auto-breeding characteristics of the Mola fish by October. This approach enabled him to learn first-hand about the growth and reproduction dynamics of these fish, adding valuable knowledge to his fish farming practice.



Mr. Killo and his wife, Champa, are thrilled with their success in the polyculture fish farming system, which they credit as the second-highest income source for their household. With rainfed fisheries and Eco farm pond methods now transforming their family income, Mr. Killo feels the effort has been a true game changer. His journey highlights the potential of integrated fish and vegetable farming not only to enhance livelihoods and food security but also to stimulate local economic growth.

CONVERTING POND TO ECO-FARM POND



[Before]



[After]

GROWTH CHECKING OF FISH



ERADICATING OF WEED ON THE DIKE



SELLING OF MARKET SIZE FISH



A woman with grey hair tied in a bun, wearing a pink short-sleeved shirt and a blue sari with a large floral pattern, is crouching at the edge of a pond. She is holding a piece of wood or a root in her hands. The pond is calm, reflecting the surrounding greenery. In the background, there is a blue netting structure supported by wooden poles, and a person in a red shirt is visible in the distance. The overall scene is a rural, natural setting.

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