



Success Story

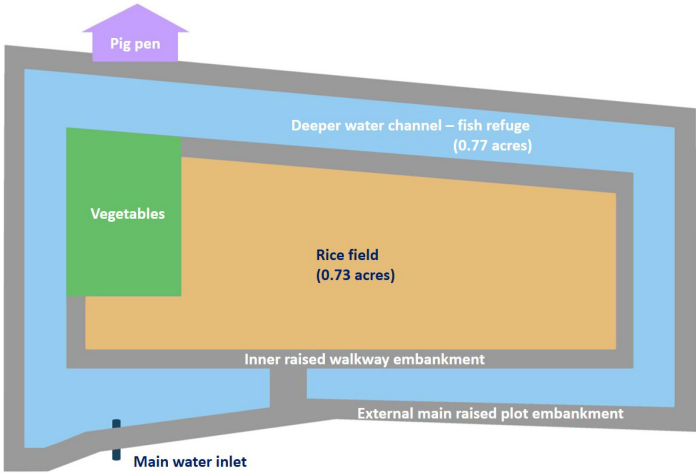
Pilot rice-fish plot in Kengtung proves profitable

Myanmar Sustainable Aquaculture Programme

In December 2019 MYSAP supported U Sai Sum Tip, Mikesili Koon Village, Kengtung Township, Eastern Shan State, to modify his rice field plot which already had a large peripheral water canal into an improved pilot rice-fish plot, through the rental of a mechanical digger. The total field area was 0.6 hectares (1.5 acres) of which 0.31 ha (0.77 acres) was fish refuge area and 0.29 ha (0.73 acres) was rice field area with a configuration similar to the diagram below.

MYSAP normally recommends a fish refuge area of typically 5-10% of a rice-fish production system. U Sai Sum Tip with 51.3% deeper fish refuge channel and 48.7% rice field area was atypical and was based on an original field modification done many years back.

SR456 (Shew Pyi Aye) rice was planted in the irrigated dry summer season which can be harvested after only 120 days. On 18 February 2020 MYSAP supported the stocking of 830 genetically improved farmed tilapia or GIFT tilapia fingerlings (2.5 – 3.5 cm) and 80 common carp advanced fingerlings (10.0 – 14.0 cm) into the pilot rice-fish plot. On 06 March an additional 1,460 GIFT tilapia fingerlings were stocked into the pilot rice-fish plot, making a total of 2,370 fish being 2,290 GIFT tilapia and 80 common carp stocked.



The irrigated summer rice was harvested in May 2020. 2,320 kg (71.17 baskets) of rice paddy was harvested without the use of any pesticides, giving an income of MMK 696,000. With rice production costs of MMK 167,750 U Sai Sum Tip made a net cash profit of MMK 528,250 from the irrigated rice crop. In 2019 the rice paddy yield was 1,680 kg (51.53 baskets). This year in 2020, U Sai Sum Tip’s field yielded 38.1% more rice paddy than the previous year.

The monsoon season rice was harvested in November 2020 and again without the use of any pesticides yielded 2,080 kg (63.8 baskets) of rice paddy giving an income of MMK 546,000 and a cash net profit of MMK 445,750 after deducting investment costs for the rice of MMK 100,250.



U Sai Sum Tip beside the rice-fish plot during rice transplantation



Releasing MYSAP supplied GIFT tilapia fingerlings into the pilot rice-fish

The Myanmar Sustainable Aquaculture Programme (MYSAP) is funded by the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ) and is implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Department of Fisheries. WorldFish Myanmar is realizing the MYSAP Inland component under a GIZ grant agreement. Field activities are conducted in collaboration with Ar Yone Oo, BRAC Myanmar and Malteser International as sub-contracted implementing partners.



U Sai Sum Tip says that his total rice yield from the 2 crops (irrigated summer season and monsoon crops) was 32% up after properly preparing the plot following MYSAP guidelines and stocking GIFT tilapia and common carp fingerlings into the rice-fish plot.

U Sai Sum Tip conducted a partial fish harvest in November 2020 and he was extremely pleased with the size of both the GIFT tilapia and the common carp which were an average of 271 g and 1,358 g. U Sai Sum Tip conducted his final fish harvest on 21-23 February 2021.

The total investment in fish fingerlings and fish feed cost U Sai Sum Tip MMK 547,803 but the value of the fish sold, given away to relatives and friends and eaten was MMK 1,883,250 giving a cash profit of MMK 1,335,447.

Cash transaction	Rice culture season		Fish in rice culture	Total rice-fish plot
	Irrigated summer rice	Monsoon rice		
Investment (MMK)	167,750	100,250	547,803	813,803
Income (MKK)	696,000	546,000	1,883,250	3,125,250
Net cash profit (MMK)	528,250	445,750	1,335,447	2,309,447

At the final fish harvest after one year of culture, the GIFT tilapia and the common carp were an average of 310 g and 1,371 g respectively, with survival being 77% and 79% for the GIFT tilapia and common carp respectively over the 1 year culture period.



Common carp harvested from the pilot rice-fish plot in Kengtung



GIFT tilapia harvested from the pilot rice-fish plot in Kengtung

With MYSAP support U Sai Sum Tip's 0.6 ha (1.5 acre) pilot rice-fish plot, Mikesili, Koon Village, Kengtung Township in one year yielded 4,400 kg (135 baskets) of rice, being 2,320 kg (71.17 baskets) of irrigated summer SR456 rice and 2,080 kg (63.8 baskets) of monsoon RO428 rice without the use of any pesticides which is beneficial for the environment and a total of 689.5 kg (423 viss) of fish being 546 kg (335 viss) of tilapia, 86.5 kg (53 viss) of common carp and 57 kg (35 viss) of wild snakehead, catfish and SIS.

The total net cash profit from growing 2 crops of rice (irrigated summer rice and monsoon season rice) and one crop of GIFT tilapia and common carp was MMK. 2,309,447 (€ 1,372.38) over a one year production period. The 2 rice crops combined yielded 42.2% of the net profit (irrigated summer rice 22.9% and monsoon rice 19.3%), while the single crop of fish yielded 57.8% of the net profit.