

# UPDATE

SECTOR - FISH

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## Bringing improved fish feed to the market

Manufactured feed is an important part of modern commercial aquaculture. Balanced nutrition, in the form of granules or pellets, is required by fish throughout their life cycle. However, most of the smallholder fish farmers in Nepal are not aware of the benefits of using external feed. They usually let fish feed in their natural habitat, or provide inappropriate feeds such as household waste and other animal feed, which is not sufficient for proper growth.

Using a market systems development approach, Samarth-NMDP has started working with private companies to improve the productivity of pond aquaculture, through improved fish feed. Samarth-NMDP has been helping to innovate new business



models for feed manufacturers, to diversify their product offerings and develop viable distribution/marketing mechanism.

## The business innovation

The ready-made fish feed market in Nepal is still in its infancy. Existing feed manufacturers have a low production capacity and their products are available in limited quantities. There are only two fish feed manufacturers in Nepal - one based in Morang, in eastern Nepal, and the other in Rupandehi, in western Nepal. Due to the scattered distribution of farmers; lack of a formalized distribution channel; and manufactured feed being a fairly new concept in Nepal, these manufacturers were having difficulty calculating demand, which would allow them to invest further.

Samarth-NMDP's first step, therefore, was to conduct a market research aimed at persuading the industry that there is a huge potential customer base for fish feed and that a more price-competitive product can be developed to 'tap into' this market. This study has now been completed and Samarth-NMDP will soon be disseminating findings to other feed companies not yet producing fish feed - who have the potential to 'crowd in' to the market to make it more competitive.

"The market study on carp fish feed focused on 11 Terai districts - which produces over 70% of total fish production in Nepal. Currently, use and awareness of commercial fish feed is very low or negligible, with fish farmers primarily using traditional feed. Research indicates that there is a gap between requirement and usage of fish feed. 3/4<sup>th</sup> of the farmers mention that they have the resources for expansion, which means the demand for fish feed is going to increase. If one can combine extension activities, including training (which many farmers have not received); proper dissemination on usage/benefits; and ensure availability, businesses engaged in fish feed production have a large untapped market on their hands."

**Ashish Shrestha**  
Director, Solutions Consultant (Research Company)

At the same, Samarth NMDP partnered with Annapurna Krishi Maal (AKM), one of the two fish feed manufacturers of Nepal, to conduct demonstration ponds, to test the quality of their product and its commercial viability for the poorer smallholder target groups.

In order to raise farmers' awareness about fish feed and feeding practices, AKM partnered with VIRBAC - a private company dedicated to animal health - and successfully completed feed tests in the field. The preliminary field test results have shown significant increase in the yield. AKM has held 7 interaction programs to date, to raise farmers' awareness about the fish feed and feeding practices in key pocket areas: 3 in Morang, 2 in Sunsari and 2 more outside the intervention districts in Siraha and Dhanusha. The participation of farmers in these interaction programs has gradually started to build: over 300 farmers have already participated, which has led to increased fish feed demand in the market.

AKM has gained significantly from their test activities and interaction programs. They have discovered the market potential, prompting them to install a new production plant that produces extruded floating feed. The new plant is set to begin its operations from the last week of February. AKM is now distributing feed through at least 3 new sub-dealers, who were identified through this test period. The manufacturer has also diversified their feed product for all stages of fish rearing and improved their packaging by offering their products in different sizes - 20 kg, 10 kg, 5 kg and 1kg packages. This will help small scale farmers gain access to feed by being able to purchase feed in smaller quantities.



“After partnering with Samarth, we tried a new business model in which the fish farmers themselves used and tested the feed product in their private ponds. Upon successful completion of the test, these farmers were active in promoting and marketing the feed product to their neighboring farmers and also acted as sub-dealers to distribute our product to other farmers. This model has been beneficial to all involved.

As a result, our sales have increased by 600 % in the past 6 months. We have changed our technology from mesh feed production to floating pellets. This will help farmers reduce feed loss by up to 30% and will also prevent pond contamination. Farmers are excited about this new product and new orders have been placed even before commercial production has begun. We are also aiming to further expand our plant capacity within the next year to double the production.”

**Govinda Pokhrel**  
**General Manager, Annapurna Krishi Maal (AKM)**

“I am satisfied with the feed. Using manufactured feed is easy and has saved me a lot of time as I don't have to worry about sourcing ingredients and mixing them like I previously did. I made a good profit this season. However, I think if the price was lower, I could have significantly increased my profit.”

**Sogarath Mandal**  
**Fish Farmer**

## Achieving scale

Samarth-NMDP's strategy is to stimulate a variety of choice for farmers for ready-made feed and given that there is still a lot of unmet demand from fish farmers, the next challenge is to convince additional manufacturers to invest in the fish sector; widen manufactured feed service provision to ensure maximum reach to small scale farmers; and support an effective distribution network.

## About Samarth-NMDP

Samarth-NMDP is a five year DFID-funded program that aims to reduce poverty in Nepal. The programme follows a market systems development approach, addressing underlying causes in the performance of the market systems, to bring about more competitive and sustainable markets that work better for the poor.

## Samarth- NMDP in the Fish sub-sector

Samarth-NMDP is working with Devtec Nepal P. Ltd to facilitate the development of pond aquaculture in Nepal, in order to increase the pond productivity of farmers, through the use of improved feed and quality seed.