

Participation in Global Workshop: Nutrition Sensitive Fish Agri-food System, Siem Reap, Cambodia

The four days global workshop: Nutrition-sensitive fish agri-food systems, ended with commitment to enabling environment for new research on fish for nourishment held from 5-8 December 2017 in Siem Reap Cambodia.

Two participants from Nepal were invited in this workshop; Mr. Khop Narayan Shrestha, Executive Director from MDI Nepal and Prof. Dr. Sunila Rai from Agriculture and Forestry University (AFU), Rampur, Chitwan.

The main purpose of this workshop was to heighten the understanding of nutrition-sensitive fish agri-food systems approaches, develop action plans for implementation, identify methods for monitoring and evaluation, and advocate and influence global and country strategies.

The event was opened by H.E. Dr. Yim Chhay Ly, Deputy Prime Minister and Chairman of Council for Agricultural and Rural Development (CARD), Royal Government of Cambodia

The event saw 150 participants from 20 countries discussing a need to shift from fish production approaches to fish agri-food systems that are more geared to nutrition-sensitive outcomes.

Participants at the workshop, including representatives of governments, UN organizations, NGOs and research institutes reflected that fish agri-food systems were not as well researched as other areas of agriculture making informed decisions on how to invest difficult.

On behalf of MDI Nepal, Mr. Shrestha presented the successful case on breeding of common carp (*Cyprinus carpio*) in 2500 m altitude of Jumla through the rigorous efforts of 3 years (2014-2017). Participants in the workshop were found very much interested to see this innovation and expected to contribute fish in nutrition sensitive agri-food system for the highland dwellers of Nepal. Mr. Shrestha in his brief presentation remarked that 'This is the tiny battle we have won; A large battle is yet to be fought for its wider application in the highland of Nepal'.



Workshop venue



Key Personalities from left Ms. Sabi Gurung, Bangladesh; Prof. Dr. Sunila Rai, AFU; Prof. Dr. Shakuntala Thilsted, WorldFish, Mr. Khop N. Shrestha, MDI



Participant of the workshop observing flyer on MDI's research work



MDI Nepal

A successful breakthrough on breeding of common carp (Cyprinus carpio) in highlands of Nepal: A hitherto unexplored bid

(Towards improving food security and nutrition of highland dwellers)
Mr. Khop N. Shrestha, Mr. Rahul Ranjan, Mr. Raghu B. Thapa and Mr. Top B. Shahi

Background

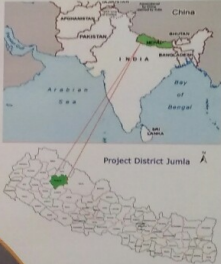
Poverty and associated malnutrition, particularly among children and women, is rampant in Nepal both from regional and global perspective. Hill and highland dwellers are suffering a major brunt from this poverty menace. Though fish is said to be the cheapest source of protein, it rarely reaches the table of upland people. Most of the ponds (94%) are located in terai of Nepal where warm climate prevails. The policy makers generally seem to believe that highlands fish farming is totally unsuitable and unrealistic, a complete waste of effort and resources. Thus, the production potentials of cold water aquaculture in highland areas have always been grossly ignored.

The purpose of this experiment was to explore the possibilities of common carp culture and its breeding in such remote areas so that the supply of quality fish seed is ensured which remained always daunting task impeding the overall development of aquaculture in highlands.


Methods

This experiment was conducted in Tatopani village of Jumla located at 2500 m altitude using the small cemented tank (6 m²) of Mr. Bal Bir Mahat. 50 common carp fries were stocked on 21 June 2014 giving local feeds mixed with maize flour, ricebran and Jumli

bean having 14% CP with some pellet feeds 1-2 months prior to breeding time. The brood stocks were reared for a period of almost 3 years while breeding was done following semi-artificial methods. The weight of the brood stock was almost 1 kilogram in average. Water quality and temperature was recorded as needed.



Project District Jumla



Breeding cycle in Jumla

Rs. 297 per kilogram. The current market price is Rs. 500 a per kilogram in Jumla. Similarly, 5000 hatchlings were produced for the first time during April/May 2017. The owner sold 2500 fries @ Rs. 5/fry and received a gross income of Rs. 12,500.

Conclusion

This indicates that common carps are most viable species for growing in colder regions. With this experiment, the obstacles have been identified and the worth of the enterprise has been proven beyond doubt. The stage is set for interested newcomers who is expected to enter the program. For this to happen, there must be immediate financial support in the form of specific aquaculture-flagged funding from the government and other donors.

Results

The growth rate of these stocks was found satisfactory. The survival rate was 76% with mean growth of 0.54 g/day, and extrapolated gross fish yield 34.72 kg/ha/day. The feed conversion ratio was found to be 5.93 with a total feed cost of

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