



भारत सरकार
GOVERNMENT OF INDIA
मत्स्यपालन विभाग
Department of Fisheries



AquaReach

Aquapreneurship Acceleration Program

Hands-on training to help households start aquaculture income models

Organized by

MANAGE - FISHub

In collaboration with



**Acharya Narendra Deva University of
Agriculture & Technology (ANDUAT)**



11-09-2026



College of Fisheries, Kumarganj, Ayodhya, UP





Program Background

MANAGE-FISHub, in collaboration with the Acharya Narendra Deva University of Agriculture & Technology (ANDUAT), Kumarganj, Ayodhya, Uttar Pradesh organized the Aqua Reach – Aquapreneurship Acceleration Programme at the College of Fisheries, Uttar Pradesh. The programme aimed to provide participants with practical exposure to scientific aquaculture practices while promoting fisheries entrepreneurship, innovation, and sustainable livelihood opportunities.

The programme was coordinated by Dr. Saravanan Raj, Director (Agricultural Extension), MANAGE & CEO, MANAGE-FISHub, and Ms. Jaini Jeshwanthi, Business Executive, MANAGE-FISHub, with support from Dr. C. P. Singh, Dean and faculty members of the College of Fisheries, Uttar Pradesh

The programme included technical sessions, practical demonstrations, interactive discussions, and entrepreneurship-oriented sessions, covering scientific pond management, fish seed handling and acclimatization, integrated fish farming, aquarium entrepreneurship, fisheries business opportunities, and government support mechanisms.

A total of 74 participants attended the programme, comprising approximately 40 fish farmers, 25 aspiring aquapreneurs, and 9 Fishers. The diverse participation enabled meaningful interaction among farmers, entrepreneurs, startups, and technical experts, providing participants with practical knowledge and exposure to emerging opportunities in the fisheries and aquaculture sector.

The programme successfully strengthened participants' understanding of scientific aquaculture, entrepreneurship, innovation, and sustainable fisheries-based enterprises, contributing to the overall objective of Aqua Reach.



Training Session

The first session was focused on soil and water quality analysis for assessing the suitability of ponds and water bodies for fish farming by Dr Sumit Kumar, Assistant Professor, College of Fisheries, ANDUAT.

Participants were introduced to key water quality parameters such as temperature, pH, dissolved oxygen, alkalinity, hardness, ammonia and transparency, along with methods for their measurement using field-testing kits and basic instruments.

The session also covered important soil characteristics, including soil texture, colour, pH and organic matter, and their influence on pond productivity and fish growth. The importance of regular monitoring and suitable management practices such as liming and fertilization was explained to maintain favourable conditions for fish culture.

The practical session also included plankton collection and basic identification, with demonstrations on collecting plankton samples from fish ponds. Participants were introduced to phytoplankton and zooplankton and their significance in maintaining natural pond productivity and serving as food for fish, particularly during early growth stages.

The interrelationship between soil quality, water quality and plankton abundance was explained, enabling participants to understand how systematic monitoring of these factors can support better pond management, fish health, productivity and sustainable aquaculture practices.



“Healthy soil, clean water and productive ponds are the foundation of successful fish farming.”

**— Dr Sumit Kumar
Assistant Professor
College of Fisheries
ANDUAT**

Training Session

The second session was delivered by Mr. Ramesh Singh on Integrated Fish Farming Models. He shared his practical experience of integrated fish farming with rice and poultry, explaining how different farm enterprises can be combined within a single production system. His farm demonstrates the effective utilization of available land and water resources by cultivating rice alongside fish culture and maintaining poultry as an allied activity. The fish utilize natural food resources generated within the system, while poultry manure contributes nutrients to the pond, supporting natural productivity. This integration helps in recycling farm resources and reducing dependence on external inputs.



He explained that the integrated model provides multiple sources of income through fish, rice and poultry products, thereby reducing the risks associated with dependence on a single farming activity. The system also promotes efficient utilization of farm wastes, improves overall resource efficiency and supports sustainable production.

Through his farm experience, Mr. Singh demonstrated how scientific management, proper water-quality maintenance, appropriate fish stocking and poultry management can make integrated farming a viable and diversified livelihood and entrepreneurial model for farmers.



“Integrate resources, diversify income, and farm sustainably.”

**—Mr. Ramesh Singh
Entrepreneur
Ayodhya**

Training Session

The third session was on Pond Culture Demonstration, conducted by Mr. Ajay Yadav, Assistant Professor, College of Fisheries, ANDUAT, focusing on essential practices for successful fish farming. The session provided practical insights into pond preparation, including cleaning, removal of unwanted aquatic organisms, liming, fertilization and water management. The importance of selecting healthy and quality fish seed, proper acclimatization before stocking, and maintaining an appropriate stocking density based on pond size, fish species, water availability and management capacity was explained. Participants were also guided on balanced stocking to prevent overcrowding and maintain favorable conditions for fish growth.



The demonstration further covered feeding practices and routine pond management, emphasizing suitable feed selection, proper feeding frequency and quantity, and adjustment of feed based on fish size, biomass, water temperature and feeding response. Participants were encouraged to regularly monitor fish behaviour, water quality, pond condition and fish health, along with dissolved oxygen and other key parameters. The importance of timely water exchange, removal of unwanted vegetation and early detection of disease or stress symptoms was also highlighted. Overall, the session demonstrated how proper pond preparation, scientific stocking, efficient feeding and regular monitoring contribute to healthy fish growth, improved productivity and sustainable aquaculture.



“Successful pond culture depends on proper preparation, balanced stocking, efficient feeding and continuous pond management.”

Mr. Ajay Yadav
Assistant Professor
College of Fisheries, ANDUAT

Training Session

The fourth session focused on fish feeding techniques and feed management, delivered by Dr. Gyandeep Gupta, Subject Matter Specialist, KVK. The session highlighted the importance of providing fish with nutritionally balanced feed at the appropriate quantity and frequency to achieve healthy growth and efficient feed utilization. Participants were introduced to important aspects of feed management, including selection of suitable feed based on fish species, size and growth stage, feeding frequency, feeding rates, proper feeding methods and storage of feed. The importance of avoiding overfeeding and underfeeding was explained, as excess feed can increase production costs and deteriorate water quality, while inadequate feeding can restrict fish growth and productivity.

The session also emphasized practical methods for monitoring fish feeding behaviour and feed consumption and adjusting feed quantities according to fish biomass, water temperature, health condition and feeding response. Participants were encouraged to use feeding trays or designated feeding points to monitor consumption and minimize feed wastage. Proper feed storage, protection from moisture and contamination, and regular assessment of feed quality were also discussed. Overall, the session helped participants understand that scientific feeding and efficient feed management are essential for improving fish growth, reducing production costs, maintaining water quality and achieving sustainable aquaculture production.



“Right feed, right quantity and right timing are the keys to efficient and profitable fish farming.”

**— Dr. Gyandeep Gupta
SMS, KVK, Mankapur**

Training Session

The fifth session was delivered by Mr. Sunil Kant Verma, Assistant Professor, College of Fisheries, ANDUAT explained about Biofloc and RAS technology which is an intensive aquaculture system that promotes the growth of beneficial microbial communities in the culture water. These microbes convert toxic nitrogenous wastes, particularly ammonia, into microbial biomass that can be consumed by fish or shrimp, thereby improving water quality and reducing water exchange. The system requires continuous aeration, proper carbon-nitrogen balance and regular monitoring of water quality parameters. It offers opportunities for entrepreneurs through efficient use of water and space, especially for small-scale and urban aquaculture.

He also explained that Recirculating Aquaculture System (RAS) is a technology-based aquaculture system in which culture water is continuously filtered, treated and recirculated, allowing fish to be reared at high stocking densities with minimal water replacement. Mechanical and biological filtration, aeration, oxygenation and water-quality monitoring are key components of the system. RAS enables controlled production throughout the year and can be suitable for areas with limited water availability or land. It also creates entrepreneurial opportunities in fish production, system installation, equipment supply, farm automation and technical consultancy.



“Smart technology can make aquaculture more sustainable, efficient and profitable.”

**— Mr. Sunil Kant Verma
Assistant Professor, CoF
ANDUAT**

Training Session

The Sixth session was delivered by Dr. Suman Dey, Assistant Professor, College of Fisheries, ANDUAT on Fisheries Entrepreneurship Opportunities, PMMSY Schemes and Startup Support Mechanisms. He highlighted the emerging opportunities in fisheries entrepreneurship, with emphasis on aquaculture production, hatcheries and seed production, ornamental fisheries, biofloc and RAS-based farming, fish feed and input supply, fish processing and value addition, cold-chain and marketing, and technology-driven solutions such as IoT and smart aquaculture.

He encouraged participants to identify practical challenges in the fisheries sector and develop innovative, market-oriented business solutions that can generate employment and improve farmers' incomes.

He also explained the Pradhan Mantri Matsya Sampada Yojana (PMMSY) and the various support mechanisms available for fisheries entrepreneurs, including assistance for aquaculture, infrastructure, post-harvest management, processing, cold storage, transportation and value addition.

Dr. Suman Dey emphasized that aspiring entrepreneurs should effectively utilize government schemes, financial institutions, technical institutions, KVKs and incubation platforms for project development, financial assistance, mentoring, capacity building and market linkages, thereby converting innovative fisheries ideas into viable and sustainable enterprises.



“Fisheries entrepreneurship transforms local resources and innovative ideas into sustainable livelihoods, stronger markets and a thriving blue economy.”

***– Dr. Suman Dey
Assistant Professor
College of Fisheries, ANDUAT***

Valedictory Session

The valedictory session marked the successful conclusion of the Aqua Reach – Aquapreneurship Acceleration Programme organized by MANAGE–FISHub in collaboration with the College of Fisheries, ANDUAT, Ayodhya, Uttar Pradesh. The session was graced by Dr. C. P. Singh, Dean, College of Fisheries, ANDUAT, along with other faculty members and dignitaries of the College.

The dignitaries appreciated the collaborative efforts of MANAGE–FISHub and ANDUAT in organizing a practical and entrepreneurship-oriented programme aimed at strengthening the knowledge and skills of fish farmers, students, and aspiring aquapreneurs.

As part of the valedictory session, Ms. Jaini Jeshwanthi, Business Executive, MANAGE–FISHub, presented the programme report, highlighting the objectives of Aqua Reach, participant profile, technical sessions, practical demonstrations, and overall outcomes of the programme. She also highlighted the active participation and engagement of fish farmers, students, entrepreneurs, and other stakeholders throughout the programme.

The session concluded with the distribution of certificates to the participants, recognizing their successful participation in the Aqua Reach programme and encouraging them to apply the knowledge and skills gained towards developing sustainable and income-generating aquaculture enterprises.





Organising Team

Dr. Gyanendra Pratap Singh

Hon'ble Vice-Chancellor

Acharya Narendra Deva University of
Agriculture & Technology (ANDUAT), Kumarganj
Ayodhya, Uttar Pradesh

Dr. Saravanan Raj

Director (Agricultural Extension)

MANAGE &

CEO, MANAGE-FISHub

Rajendranagar, Hyderabad

ceomfishub@gmail.com

Dr. C. P. Singh

Dean, College of Fisheries

Acharya Narendra Deva University of
Agriculture & Technology (ANDUAT)

Kumarganj, Ayodhya, UP

cpsingh.frm.cof@nduat.org

Ms. Jaini Jeshwanthi

Business Executive

MANAGE- FISHub

Rajendranagar, Hyderabad

bemfishub@gmail.com

+91 9110355114

Dr. Suman Dey

Assistant Professor

College of Fisheries

Acharya Narendra Deva University of
Agriculture & Technology (ANDUAT)

Kumarganj, Ayodhya, UP

sumandey953@gmail.com

Report

Prepared by

Ms. Jaini Jeshwanthi

Business Executive

MANAGE-FISHub

MANAGE Fisheries Innovation and Startup Hub (MANAGE - FISHub)

(A National Fisheries Incubation Centre Supported by the Ministry of Fisheries, Animal Husbandry and Dairying,
Govt. of India)

National Institute of Agricultural Extension Management (MANAGE)

(An Autonomous Organization of Ministry of Agriculture and Farmers Welfare,
Govt. of India)

Rajendranagar, Hyderabad – 500 030, Telangana, India

<https://www.manage.gov.in/managefishub/>



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