Manjurul Karim, PhD

Phone: +8801714131209, email: manjurul7@gmail.com
LinkedIn: https://www.linkedin.com/in/manjurul-karim-phd-300b7126/

EXECUTIVE SUMMARY

Senior aquaculture and food systems leader with over 28 years of experience delivering strategic, science-based development across Asia. Successfully led multimillion-dollar programs funded by USAID, USDA, CGIAR, and the European Commission, advancing sustainable intensification, productivity gains, and food systems resilience. Spearheaded the Carp Genetic Improvement Program (CGIP), achieving a 37% growth improvement in Rohu; introduced and scaled Genetically Improved Farmed Tilapia (GIFT) and seabass in Bangladesh; and led Myanmar's national rollout of climate-smart rice-fish systems in collaboration with IRRI and ACIAR—delivering up to 132% income gains without compromising staple rice yields.

Pioneered the introduction of Specific Pathogen-Free (SPF) shrimp in Bangladesh, strengthening hatchery biosecurity and supporting national exports through public-private partnerships. Forged over 70 public-private collaborations and mobilized more than $10 million in co-investment to expand inclusive access to aquaculture inputs, finance, and services. Demonstrated deep commitment to nutrition-sensitive and gender-equitable innovation, including small indigenous fish species (SIS), digital platforms, and women-led aquaculture models.

Collaborated actively with IWMI and CGIAR's Challenge Program on Water and Food (CPWF) to promote integrated aquatic-agricultural systems and optimize water use. Recognized for adaptive leadership, systems thinking, and a proven record of translating research into scalable, high-impact development in fragile and complex environments. Work aligns directly with CGIAR's five impact areas: productivity, nutrition, gender, climate adaptation, and environmental sustainability.

KEY QUALIFICATIONS

- Proven leadership in multi-country, multimillion-dollar aquaculture programs across Bangladesh, Myanmar, and Nepal.
- Strong alignment with national policies and donor priorities, with deep experience in program management, budgeting, M&E, and reporting.
- Extensive engagement with government institutions, NGOs, academia, and the private sector to foster innovation and scale in aquaculture ecosystems.
- Recognized for building local capacity, strengthening systems, and leading the implementation of climate-resilient, nutrition-sensitive, and inclusive aquaculture models.
- Successfully led projects funded by USAID, USDA, DANIDA, FAO, and others; currently serving as Chief of Party for a USDA-funded initiative in Nepal.
- Previous roles with CARE, BRAC, SABINCO, DANIDA, and Nam Sai Farms (Thailand); extensive consulting experience with FAO, ActionAid, and other international organizations.
- Fluent in English and Bengali, with strong cross-cultural communication, team leadership, and collaboration skills.

EDUCATION

- Ph.D. in Integrated Agriculture - Aquaculture and livelihoods. Institute of Aquaculture, University of Stirling, Stirling, Scotland, UK, 2006
- M. S in Fisheries Biology and Genetics, Bangladesh Agricultural University, Bangladesh 1999
- B. Sc. Fisheries (Hons.), Bangladesh Agricultural University, Mymensingh, Bangladesh, 1991

WORK EXPERIENCE

Chief of Party | November 1, 2023 – Present
USDA Food for Progress Matsya Project
Corus International, Bara District, Nepal

Provide strategic leadership and oversight for a national aquaculture systems transformation initiative in Nepal. The project advances inclusive, climate-smart aquatic food systems aligned with CGIAR's five impact areas. Lead a multi-disciplinary team and consortium of public, private, and research partners to improve productivity, resilience, and equity across aquaculture value chains.

- Managed complex budgets, technical teams, and cross-sectoral workstreams to ensure delivery of measurable outcomes aligned with USDA objectives and international food systems transformation frameworks.
- Forged strategic partnerships with national and international institutions, including CGIAR-affiliated organizations such as IWMI and WorldFish, to strengthen capacity, scale innovations, and co-develop sustainable aquaculture and water management practices.
- Designed integrated aquaculture models focused on Genetically Improved Farmed Tilapia (GIFT), improved broodstock management, integrated faming systems, and decentralized extension—enhancing livelihoods, nutrition, and environmental sustainability.
- Led deployment of a regional MEL platform (CGA Technologies' 3D MEL system), enhancing real-time monitoring, adaptive program management, and cross-geographic learning.
- Directed inclusive knowledge delivery systems, incorporating digital learning tools and gender-responsive approaches to improve smallholder access to inputs, services, and finance.
- Facilitated policy engagement with government stakeholders, donors, and research partners to institutionalize quality broodstock systems, strengthen fisheries extension, and support national aquaculture strategies.

Chief of Party and Senior Scientist | June 2021 to October 2023
USAID Bangladesh Aquaculture and Nutrition Activity
WorldFish, Dhaka, Bangladesh

Provided strategic, scientific, and operational leadership to the USD 24.5 million BANA project, managing a team of over 50 professionals. Directed systems transformation in the aquaculture sector across 23 districts using a blended market systems and service delivery approach.

Established formal agreements with 70 public and private partners and signed an additional 44 MOUs to drive systemic improvements in aquaculture input delivery, digital services, nutrition integration, and gender inclusion.

- Mobilized USD 4.95 million in private sector co-investment and USD 3.81 million in customized aquaculture loans to 883 farmers—far exceeding targets.
- Reached over 301,000 individuals through market linkages, service expansion, and capacity development, with 261,000+ farmers adopting improved aquaculture practices and 80,368 hectares brought under improved management.

- Achieved a 130% increase in carp yields and a 101% increase in tilapia yields by promoting improved seed, feed, and pond management practices—boosting smallholder productivity, profitability, and local food and nutrition security.
- Facilitated the formal handover of Gen-3 Rohu and piloted domesticated sea bass introduction, supporting species diversification and national breeding programs.
- Launched 10+ digital innovations (e.g., *Rupali*, *Nirapod Khamar*, Right Fish, Micro-Merchant), reaching 109,000+ farmers with services like e-commerce, finance, traceability, and advisories.
- Pioneered blockchain-based traceability in the rohu value chain and supported RT-PCR diagnostic lab establishment for aquatic disease management.
- Advanced gender and youth inclusion by supporting 846 women entrepreneurs and 570 youth in business and service delivery roles.
- Promoted nutrition-sensitive aquaculture through product innovations such as Ready-to-Eat (RTE) and Ready-to-Cook (RTC) fish, nutrition-themed printed plates, Social and Behavior Change Communication (SBCC), and integration with Ministry of Health (MoH) health messaging.
- Strengthened institutional partnerships with the Department of Fisheries, Bangladesh Fisheries Research Institute (BFRI), Institute of Public Health Nutrition (IPHN), and key financial institutions including Banks and MFIs.
- Conducted a mid-term evaluation and internal Data Quality Assessment (DQA), leading to adaptive changes and a renewed focus on sustainability, scale, and partner-led replication.

Chief of Party and Scientist | October 2019 - May 2021
USAID Feed the Future Fish for Livelihoods
WorldFish, Yangon, Myanmar

In this leadership role, I provided strategic and operational oversight for the USAID-funded Feed the Future Fish for Livelihoods project, aiming to enhance nutrition and food security in Central and Northern Myanmar through inclusive and sustainable aquaculture development. My key responsibilities and achievements included:

- Directed the design and implementation of research initiatives, policy analyses, and regulatory frameworks to foster an enabling environment for aquaculture growth. Collaborated closely with national partners, including the Department of Fisheries and the Myanmar Fisheries Federation, to strengthen institutional capacities and leverage existing infrastructures for project operations.
- Advanced women's participation in aquaculture by promoting gender-equitable practices and establishing village-level savings groups in partnership with sub-recipients, thereby enhancing community financial resilience.
- Introduced and scaled integrated rice-fish farming systems in collaboration with the International Rice Research Institute (IRRI) and the Australian Centre for International Agricultural Research (ACIAR), achieving significant income gains for smallholder farmers without compromising rice yields.
- Led the national rollout of GIFT, demonstrating 27–36% faster growth rates compared to local strains. Secured formal government endorsement for scaling up GIFT production, contributing to increased fish availability and farmer incomes.
- Launched the *Chan Myaung* (garden canal) aquaculture model, utilizing existing irrigation channels for integrated fish production, thereby optimizing resource use and expanding aquaculture practices in southern Myanmar.

- Facilitated collaborations with private sector entities to develop hatcheries, improve seed supply chains, and support local aquaculture enterprises, significantly contributing to regional food security and rural economic development.

Program Manager and Scientist |October 2015 - September 2019
Livelihoods and Food Security Fund, WorldFish Myanmar
Acted as cluster Leader for Research Cluster 1 of FISH Flagship 1 in WorldFish Bangladesh.

In this role, I led the design and implementation of inclusive aquaculture initiatives under the LIFT-funded Myanmar Fish Culture (MYCulture) project, focusing on nutrition, livelihoods, and sustainability for small-scale farmers in Myanmar. My key responsibilities and achievements included:

- Pioneered localized innovations such as the *Chan Myaung* system (utilizing irrigation canals for integrated aquaculture and horticulture) and WISH ponds (artificial, tarpaulin-lined ponds), enhancing water use efficiency and production in remote and water-scarce regions.
- Introduced the culture of small indigenous fish species (SIS) to improve household nutrition and food security, aligning with national nutrition strategies.
- Spearheaded the introduction of Genetically Improved Farmed Tilapia (GIFT) from Jitra, Malaysia, and launched a national tilapia dissemination program in partnership with the Department of Fisheries. Supported scientific trials comparing GIFT and non-GIFT strains, demonstrating up to 36% improved growth and 19% yield increase, confirming its economic advantage for smallholders.
- Established localized feed mills in rural areas, reducing dependency on commercial feed and lowering production costs for farmers.
- Championed women-led aquaculture by mainstreaming gender in design and extension, especially through the WISH pond model. Facilitated participatory action learning platforms that empowered farmers to co-develop context-specific technologies.
- Conducted extensive capacity building for government staff and partners, establishing a long-term framework for sectoral growth.
- Created and disseminated policy briefs to influence national aquaculture and fisheries policy. Led performance assessments of small-scale technologies and their contributions to household income, productivity, and dietary diversity within agri-food systems.
- Collaborated across major donor-funded programs—LIFT, IFAD, ACIAR, and GIZ—to ensure harmonized technical interventions aligned with national strategies and CGIAR goals. Promoted climate-resilient aquaculture systems tailored to diverse agro-ecological zones, from flood-prone delta areas to dry uplands.
- These efforts significantly contributed to the sustainable growth of aquaculture in Myanmar, improving food security and income for communities in the Ayeyarwady Delta and Central Dry Zone.

Deputy Chief of Party, Productivity Leader and Scientist | January 2014 - September 2015
USAID Aquaculture for Income and Nutrition (AIN)
WorldFish, Bangladesh

Provided strategic, technical, and operational leadership to the AIN project's second phase, targeting inclusive aquaculture growth and improved nutritional outcomes across 20 districts. Directed productivity-focused research and implementation strategies, scaling climate-resilient and nutrient-sensitive aquaculture innovations tailored for smallholder systems.

- Directly benefitted over 95,000 fish and shrimp farmers and indirectly reached over 475,000 people through improved input and service systems, behavior change communication, and nutrition-sensitive aquaculture—driving measurable improvements in yields, food access, and resilience

- Spearheaded the expansion of mola (*Amblypharyngodon mola*) polyculture, promoting its integration into household ponds for nutritional enhancement. Over 25,000 farmers adopted mola technologies, improving dietary diversity for women and children.
- Scaled Genetically Improved Farmed Tilapia (GIFT) dissemination by partnering with national hatcheries and private actors, expanding access to improved broodstock and certified fry.
- Catalyzed partnerships across public and private sectors—including input suppliers, extension agents, and finance institutions—through formal agreements and co-investment models to foster sustainable input and service ecosystems.
- Initiated nutrition-focused campaigns in collaboration with the Ministry of Health and Institute of Public Health Nutrition (IPHN) to integrate fish into maternal and child health messaging.
- Advanced the adoption of climate-smart carp and integrated aquaculture-agriculture systems, contributing to higher productivity and more resilient livelihoods.

Served simultaneously in high-level leadership roles within WorldFish's Bangladesh portfolio:

- Deputy Chief of Party, AIN – Oversaw technical excellence, coordination, and deliverables for USAID's flagship aquaculture project.
- Project Coordinator, STDF (FAO) – Focused on compliance with food safety standards for export markets.
- Country Coordinator, CPWF G2 – Aligned water and fisheries systems work under CGIAR's Integrated Development Outcomes (IDOs).

Deputy Chief of Party and Scientist | October 2011- December 2013
USAID Aquaculture for Income and Nutrition (AIN)
WorldFish, Bangladesh

Led strategic and operational implementation of the multi-year USAID-funded AIN project aimed at enhancing aquaculture productivity, seed quality, and farmer livelihoods. Oversaw technical design, performance tracking, and donor engagement.

- Championed the first national introduction of SPF shrimp in Bangladesh, partnering with the Department of Fisheries and BSFF to import broodstock from Moana Hatchery (Hawaii) to support shrimp hatcheries in replacing local lines—strengthening biosecurity, hatchery output, and export potential.
- Initiated and coordinated the launch of the Carp Genetic Improvement Program (CGIP) with WorldFish Fish Genetic team, leading to the development of a high-performing Rohu strain with 37% faster growth, a major step in sustainable aquaculture seed system reform.
- Facilitated establishment of 50+ small-scale feed mills to reduce reliance on imported feed and improve access for rural producers.
- Strengthened technical and market linkages between farmers, hatcheries, service providers, and policymakers—scaling adoption of improved technologies and disease management practices.
- Directly benefitted over 30,000 farmers across fish and shrimp value chains, contributing to significant yield gains, better household nutrition, and improved resilience.
- Provided budget oversight, policy advisory inputs, and high-quality reporting in line with USAID benchmarks.

Project Coordinator and Scientist | May 2010 - September 2011
USAID-Funded Greater Harvest and Economic Returns from Shrimp (GHERS) Project
WorldFish, Bangladesh

Led coordination and technical implementation of the GHERS project, aiming to enhance shrimp

farm productivity, biosecurity, and market competitiveness in southern Bangladesh.

- Developed Memorandums of Association with partners, and assisted depots in work plan and budget preparations.
- Monitored NGO expenditures and facilitated payment recommendations for the Dhaka office.
- Established and coordinated a private PCR laboratory in Cox's Bazar, enabling disease screening of post-larvae (PL) for White Spot Syndrome Virus (WSSV), thereby improving seed quality and reducing disease outbreaks.
- Engaged with over 100 shrimp hatcheries to promote the replacement of wild broodstock with healthy, screened broodfish, laying the groundwork for subsequent introductions of Specific Pathogen-Free (SPF) shrimp.
- Developed and disseminated protocols for improved pond management, water quality monitoring, and early disease detection, contributing to increased survival rates and production efficiency among targeted farmers.
- Maintained liaisons with the Department of Fisheries, donors, local government bodies, entrepreneurs, and other key stakeholders to ensure alignment, policy backing, and sustainability.
- These efforts contributed to the project's overarching goal of increasing the productive capacity of existing shrimp farms and enhancing the quality of shrimp delivered to processors, adding over $45 million in value to the sector.

Associate Project Coordinator and Scientist | May 2009 - April 2010
USAID-Funded Cyclone Affected Aquaculture Rehabilitation Project
WorldFish, Bangladesh

Provided scientific and strategic leadership in the design and implementation of aquaculture rehabilitation initiatives post-Cyclone Sidr, with a focus on disaster risk reduction (DRR), resilience-building, and early recovery in southern Bangladesh. Oversaw technical coordination among implementing NGOs and facilitated multisectoral collaboration with the Department of Fisheries, local authorities, and civil society.

- Championed gender-sensitive, climate-smart aquaculture models tailored to resource-poor and cyclone-affected households, benefiting more than 16,000 households directly.
- Scaled pilots in integrated rice-fish systems, community ponds, and smallholder carp-polyculture, laying the groundwork for later uptake under CGIAR and USAID programs.
- Coordinated training programs on fish nursery management, input access, and basic veterinary care, ensuring enhanced productivity and reduced risk among marginal farmers.
- Supported pilots on nutrition-sensitive aquaculture with indigenous species, contributing to household dietary diversification and food security.
- Facilitated knowledge transfer and input distribution through strategic partnerships with ~20 local NGOs across Barisal, Patuakhali, and Barguna.
- Contributed to institutional learning by feeding evidence into post-disaster livelihood frameworks, guiding future investment in aquaculture-based recovery interventions.

Project Manager and Scientist | March 2008 - April 2009
USAID-Funded Cyclone Affected Aquaculture Rehabilitation Project
WorldFish, Bangladesh

Led implementation of field operations in the wake of Cyclone Sidr. Designed partnership frameworks, reviewed NGO capacities, and conducted field-based planning aligned with the project's emergency-to-recovery continuum.

- Supervised selection and performance management of partner NGOs, ensuring quality assurance and accountability in program delivery.
- Drafted operational budgets and oversaw financial management for regional offices, ensuring efficient use of donor funds and alignment with USAID compliance protocols.
- Promoted participatory planning with women's groups and local leaders, enhancing the inclusion of female-headed households in aquaculture rehabilitation efforts.
- Coordinated field logistics, pond reconstruction activities, and input provisioning, ensuring timely delivery in hard-to-reach areas.
- Served as a technical liaison between WorldFish, the Department of Fisheries, and local government bodies to ensure policy alignment and scale potential.

Project Manager | October - December 2007
Nam Sai Farms Co. Ltd, Amphur Ban Sang, Prachinburi, Thailand

At Nam Sai Farms Ltd., located in Prachinburi, Thailand, responsibilities encompassed managing the tilapia farm operations, including the breeding and hatchery activities for tilapia. This involved overseeing the daily operations of the hatcheries to ensure optimal breeding conditions and health management for tilapia strains like Nile tilapia and GIFT. Additionally, the role required coordination of planning and implementation of hatchery operations, which included setting goals and assessing needs to enhance productivity and sustainability of the hatchery processes.

Furthermore, there was involvement in assisting and coordinating research activities aimed at improving tilapia strains and farming techniques, crucial for the development and dissemination of best practices in tilapia farming. This role not only contributed to the operational efficiency of Nam Sai Farms but also supported its mission to produce high-quality tilapia fry for both local and international markets.

M&E Specialist and Research Associate| January - September 2007
USAID-Funded Shrimp Quality Support Project
WorldFish, Bangladesh

Led the development and implementation of monitoring and evaluation frameworks to improve the performance, traceability, and sustainability of smallholder shrimp farming systems in Bangladesh. Designed data collection protocols, farmer scorecards, and training effectiveness assessments for adoption of best management practices (BMPs), focusing on improved water quality, feed use, and disease management.
Documented and disseminated best practices through training modules, learning materials, and farmer guides, many of which informed the design of future USAID-funded shrimp projects such as AIN and GHERS. Conducted field assessments on the adoption of disease-free post-larvae (PL) and early shrimp health diagnostics, contributing to more robust hatchery-to-farm value chain protocols.
Collaborated with private sector hatcheries, extension agents, and the Department of Fisheries to refine production standards that enhanced compliance with international market requirements, setting the stage for export competitiveness.

Ph.D. Research Fellow|November 2002 - December 2006
Institute of Aquaculture at the University of Stirling, Scotland, UK
European Commission-funded POND LIVE Project (INCO-DC ICA4-2001-10026)

Pursued doctoral research under the European Commission's POND LIVE initiative, focused on improving resource use efficiency in integrated pond-dike systems in Bangladesh. Applied a robust mixed-methods design—merging econometric analysis of 480 household surveys with

participatory rural appraisal across three production cycles. The study framed aquaculture not merely as a food production strategy, but as a transformative entry point for improving rural livelihoods, enhancing resilience, and advancing gender equity.

Core Contributions

- Employed a robust mixed-methods design, combining econometric analysis of 480 household surveys with participatory rural appraisal tools, across three production cycles.
- Identified a 35% increase in annual income among households adopting improved pond-dike practices, alongside notable gains in dietary diversity and seasonal resilience.
- Established the enabling conditions—access to extension services, input markets, and secure land tenure—that significantly influenced technology uptake and impact.
- Quantified a 40% increase in women's decision-making power over aquaculture outputs, with emerging patterns of female-led enterprises in fish processing and trading.

Strategic Uptake

- Research insights contributed to WorldFish frameworks on integrated aquaculture-agriculture systems.
- Findings were fed into donor dialogues and CGIAR-led thinking on sustainable intensification pathways for smallholder systems in South Asia.
- This work served as an early foundation for evidence-based aquaculture policy and practice, integrating livelihood science with applied systems research.

Technical Officer-Aquaculture | May 1998 - March 2002
LIFE-NOPEST-II Project & Locally Intensified Farming Enterprise (LIFE) Project

The role and responsibilities encompassed identifying suitable agriculture and aquaculture technologies adaptable to local conditions, managing strategic partnerships, and coordinating activities with multiple NGOs to harness their expertise and outreach. Served as the technical lead for aquaculture interventions within the LIFE-NOPEST-II and LIFE projects, focusing on sustainable aquaculture practices and integrated farming systems in Bangladesh. Key responsibilities and achievements included:

- Technology Adaptation and Implementation: Identified and adapted aquaculture technologies suitable for local conditions, enhancing productivity and sustainability.
- System of Rice Intensification (SRI): Pioneered the introduction and testing of SRI in Bangladesh, leading to improved rice yields and resource efficiency. http://sri.ciifad.cornell.edu/countries/bangladesh/bangrimt02.pdf.
- Participatory Action Research (PAR): Led on-farm PAR initiatives for crops like onions, potatoes, and various rice varieties, facilitating farmer engagement and knowledge dissemination.
- Monitoring and Evaluation (M&E): Developed and implemented M&E systems to track project progress, assess the impact of agricultural innovations, and guide future improvements.
- Stakeholder Coordination: Managed strategic partnerships and coordinated activities with multiple NGOs, leveraging their expertise and outreach for effective project implementation.

These efforts contributed to the advancement of sustainable agricultural practices and the empowerment of local farming communities in Bangladesh.

Training Officer|November 1996 - April 1998
Mymensingh Aquaculture Extension Project (MAEP), (Government of Bangladesh/ DANIDA), Mymensingh, Bangladesh

MAEP, funded by DANIDA, aimed to enhance aquaculture productivity through extension services. While the project achieved notable short-term gains in fish production, evaluations highlighted challenges in sustaining long-term socioeconomic benefits, partly due to market price fluctuations and other systemic factors. In this role, I was instrumental in developing and delivering comprehensive training programs to enhance aquaculture practices among field staff and farmers. My responsibilities and achievements included:

- Curriculum Development: Designed and implemented training modules covering integrated aquaculture techniques, including pond management, fish nutrition, and disease control, benefiting over 1,200 field staff and farmers.
- Capacity Building: Conducted interactive training sessions and field demonstrations across more than 60 villages, facilitating the adoption of improved aquaculture practices among smallholder farmers.
- Monitoring and Evaluation: Authored quarterly progress reports that contributed to MAEP's final evaluation, which noted positive short-term impacts on pond productivity and fish production per capita among participants.

These efforts contributed to the advancement of sustainable aquaculture practices and supported rural livelihoods in Bangladesh.

Fishery Officer| April 1996 - October 1996
***Gachihata* Aquaculture Farms Ltd. 304, Progoti Sarani, Baridhara, Dhaka, Bangladesh**

In this role, I was instrumental in managing and enhancing the operations of an integrated aquaculture farm. The key responsibilities and achievements included:

- Technical Capacity Building: Developed and implemented training programs to enhance the technical skills of farm staff, focusing on best practices in aquaculture management.
- Fish Breeding Programs: Oversaw fish breeding initiatives, ensuring optimal breeding conditions and practices to maximize yield and maintain genetic diversity.
- Prawn Hatchery Operations: Managed the operations of a prawn hatchery, focusing on the cultivation of healthy prawn larvae to support sustainable aquaculture practices.
- Disease Control: Implemented disease monitoring and control measures to ensure the health and productivity of fish and prawn populations, minimizing losses due to disease outbreaks.
- Performance Monitoring: Regularly monitored the performance of aquaculture systems, analyzing data to assess productivity and profitability, and prepared detailed reports to inform business decisions and strategic planning.

Gachihata Aquaculture Farms Ltd. is recognized as a pioneering integrated agro-fisheries enterprise in Bangladesh, established in 1987 and later converted to a public limited company in 1994. The company has played a significant role in transforming the aquaculture landscape of the region.

Scientific Officer|February 1994 - March 1996
Aquaculture Farms Ltd. funded by SABINCO
Cox's Bazar, Bangladesh

In this role, I was instrumental in optimizing semi-intensive shrimp farming operations. My key responsibilities and achievements included:

- Water Quality Management: Monitored and maintained optimal water quality parameters to ensure healthy shrimp growth and minimize disease outbreaks.
- Feeding Strategies: Developed and implemented effective feeding protocols to meet the nutritional needs of shrimp, enhancing growth rates and feed conversion efficiency.
- Disease Control: Established and supervised disease prevention and control measures, contributing to the overall health and productivity of the shrimp population.
- Data Analysis and Reporting: Compiled and analyzed production and economic performance data, providing actionable insights for management decision-making.
- Staff Training and Supervision: Trained and supervised farm staff to adhere to standard operating procedures, ensuring consistency and efficiency in farm operations.

My contributions significantly enhanced the efficiency and profitability of the farm, particularly through the adoption of semi-intensive farming practices.

Program Organizer| April 1993 - February 1994

BRAC (Bangladesh Rural Advancement Committee), Barisal, Bangladesh

In this role, I was instrumental in implementing BRAC's integrated aquaculture and microcredit initiatives aimed at empowering rural communities in the southwest region of the country. My key responsibilities and achievements included:

- Beneficiary Identification and Group Formation: Assisted in identifying target beneficiaries and forming community-based groups to facilitate the dissemination of aquaculture technologies and access to microcredit services.
- Training Facilitation: Conducted training sessions for both staff and community members on sustainable aquaculture practices, including pond management and fish cultivation techniques, as well as effective credit program management.
- Community Engagement: Engaged with local communities to promote awareness and adoption of improved aquaculture methods, contributing to increased fish production and enhanced livelihoods.
- Monitoring and Reporting: Monitored the progress of aquaculture and credit programs, compiling reports to inform ongoing project evaluation and strategic planning.

These efforts aligned with BRAC's mission to alleviate poverty and empower rural populations through integrated development programs.

REFERENCES

Dr. Lali Chania
Managing Director, Europe,
Middle East & Asia (EMEA)
CORUS INTERNATIONAL
corusinternational.org
Cell +1 (202) 203 8182
Email:
lchania@corusinternational.org

Mr. Michael Joseph Akester
Regional Director
WorldFish
South-East Asia and the Pacific
Yangon, Myanmar
Tel: +95 (0) 9961167548
Email: m.akester@cgiar.org

Mr. Michael Joseph Akester
Michael Joseph Phillips, PhD
Director and Co-Founder
FUTUREFISH
8th Floor, 1 Southampton Street
London, WC2R 0LR, UK
Tel: +60 (4) 626 1606
Email:
michaeljohnphillis@icloud.com

Appendix I:

Workshop and training courses attended

Leadership Matters-
2014

WorldFish, Malaysia

-Sex reversal method of Tilapia- 2004

AIT (Asian Institute of Technology), Thailand

-Workshop on Participatory community appraisal

AIT, Thailand- 2002

-Training of Enumerators on rice seed health- 1999

Rice Seed Health Improvement Project, IRRI (International Rice Research Institute)

-TOT on Gender and Development (GAD)- 1997

MAEP (Mymensingh Aquaculture Extension Project)(GOB/DANIDA), Bangladesh

-Coastal Aquaculture & Environmental management(International workshop)- 1995

-Shrimp disease & water quality monitoring (Nationalworkshop)- 1995

Fisheries Research Institute, Bangladesh

-Prawn hatchery management- 1995

DOF (Department Of Fisheries), Bangladesh

-Farm and home survey- 1990

Department of agricultural extension, BangladeshAgricultural University (BAU), Mymensingh

-Minitab, Prspfocite, Access and SPSS- 2002-4

Institute of Aquaculture

Pond fertilization & Algal bio-assay testing workshop

BAU, Mymensingh- 2002

-Training on Action research- 2001

-Workshop on Marketing- 2001

-Workshop on LRSP- 2001

-Workshop on well- being analysis- 2001

-Workshop on Household Livelihoods- 2001

-Training on Organizational Development (OD)- 2000

-TOT on Living soil- 2000

-GENDER sensitivity training- 2000

-Trial design workshop- 1999

-Training on performance management- 1999

-TOT on participatory action research methodology

–Facilitation skill development- 1999
CARE Bangladesh

-Social awareness- 1993
BRAC, TARC, Faridpur Bangladesh

-Hilsa fishery development and management- 1991

FRI (Fisheries research Institute), Chandpur, Bangladesh

Appendix II:

Collaborative programs, consultancy and reviews;

A. Livelihood course co-coordinator, Stirling University (2006-2008):

- Coordinated a course on 'Livelihoods and Aquatic Resource Management' for the M.S students of the
  University of Stirling.

B. Collaboration on EUS (Epizootic Ulcerative Syndrome) of fish disease (1999-2002):

- Aquatic Animal Health Research Institute, Bangkok. Thailand.
- University of Stirling, Scotland, UK. Corresponding person: Dr. J. Lilley (email: jamesl@fisheries.go.th)
- Bangladesh Agricultural University, Mymensingh, Bangladesh. Corresponding person: Dr. Bazlur RashidChowdhury.
- Fisheries Research Institute, Mymensingh, Bangladesh. Corresponding person: Mr. Masud Alam Khan,Senior Scientific Officer.

C. Collaboration on EC-PAISA (periphyton based aquaculture) project (1999-2002):

- Essex University, UK. Corresponding person: Dr. Malcolm Beveridge (email:malcolmbeveridge925@gmail.com) and Dr. Stuart Bunting (mail: swbunt@essex.ac.uk)
- Bangladesh Agricultural University, Mymensingh. Corresponding person: Dr. M. A. Wahab, BAU,Mymensingh. (email: wahabma_bau@yahoo.com)
- Wageningen University, The Netherlands, Fish culture and fisheries group, Dept. of Animal Sciences.Corresponding person: Dr. Marc. Verdegem (email; Marc.verdegem@wur.nl)

D. Collaboration on SRI (System of Rice Intensification) (1999-2002):

- Cornell International Institute for Food, Agriculture and Development (CIFAD), Cornell University, USA,Corresponding person: Dr. Norman Uphoff. (Email: ntul@cornell.edu)

E. Collaboration on Pondlive (Integrated pond-dike system) project (2002-2006):

- Wageningen University, The Netherlands, Fish culture and fisheries group, Dept. of Animal Sciences.Corresponding person: Dr. Marc. Verdegem. (email; Marc.verdegem@wur.nl)
- University of Stirling, UK. Corresponding person: Dr. David C. Little. (e-mail: d.c.little@stirling.ac.uk)
- Bangladesh Agricultural University, Mymensingh. Corresponding person: Dr. M. A. Wahab, BAU,Mymensingh. (email: wahabma_bau@yahoo.com).
- Asian Institute of Technology, Bangkok, Thailand. Corresponding person: Dr. Yang Yi (email: yangyi@ait.ac.th) and Dr. Amararatne Yakupitiyage (email: amara@ait.ac.th)

F. Consultancy:

WorldFish Bangladesh

- Development of training and extension manual, synthesis of seminar outputs, and development of policy briefs
- Impact assessment of training and extension
- Carried out a study to understand the situation in SIDR affected areas, people and developed a project for rehabilitation

ActionAid Bangladesh

- Data analysis and drafting a Baseline report of FoSHoL project
- Carried out a study on Monga in six districts of Bangladesh

FAO, Rome, Italy

- Drafting a manuscript title "Study and analysis of feed and nutrients (including fertilizers) for sustainable
  aquaculture development – a country review for Bangladesh"

G. Reviews;

- Journal of Aquaculture
- Journal of Aquaculture Research
- Philippine Agricultural Scientist
- Journal of Agricultural
- Extension and Rural Development
- SAARC journal of agriculture

Appendix III:

Publications;

A. Dissertation

Karim, M (2006) The livelihood impacts of fishpond integrated within farming systems central north region, Bangladesh. A thesis submitted to the University of Stirling, Stirling, UK in partial fulfillment of the requirements for the degree of Ph.D.

Karim, M (1999) Effect of nutritional regimes on the fish production and economic return under semi- intensive system of pond management. A thesis submitted to the Department of Biology & Genetics, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, Bangladesh in partial fulfillmentof the requirements for the degree of M.S.

B. Peer referred manuscripts

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