

# Catfish Farming Industry Supply Chain Development Programme

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# THE CONSULTANTS

- **Aquaculture Production Technology (Israel) Ltd (APT) – an international Technology & Engineering firm with world-wide experience in the establishment of viable aquaculture industry in developing countries (Website ([www.aquaculture-israel.com](http://www.aquaculture-israel.com)))**
- **Quick Projects Limited - a private limited liability company established to provide business development services to MSME's and facilitates sustainable development and wealth creation projects. ([www.quickprojectsng.com](http://www.quickprojectsng.com))**

# Catfish Industry Value Chain

## **PROGRAMME OBJECTIVES**

- Help accelerate growth of catfish farming investment, output, value added and employment.
- Act as a catalyst and facilitator of catfish industry initiatives
- Address constraints in a sustainable manner.
- Positively impact the supply of operational inputs, training and advisory services
- Adapt international best practice to the Nigerian context
- Facilitate the development of Catfish industry standards .
- Catalyse the building of business linkages and the availability of information on aquaculture

# **SCOPE OF SERVICES**

## **(Implementation approach)**

- **Catfish Value Chain Development Plan**
- **Aquaculture Best Practice Development**
- **Training and Accreditation Services**
- **Grants to BDS Suppliers**
- **Aquaculture Association Development**
- **Monitoring and Evaluation**

# Value Chain Development Plan

- Identified the problems facing the catfish industry
- Defined the key interventions required to bring about an enabling environment
- Developed plan and actions to be undertaken.
- Agreed with stakeholders & Project sponsors

# Aquaculture Best Practice Development

- Introduced and adapted international best practice
- Produced training modules to provide practical guidance
- Practical catfish farming demonstration and dissemination of recommended practices to BDS providers and operators

# Training & Accreditation Services

- Trained Local consultants/BDS providers serving the catfish industry in various subjects such as
  - operations (fingerling production, feeding, water quality management, disease control etc.),
  - marketing and
  - business management, business and financial planning and control
- Developed training manuals for use of Catfish farming consultants/ trainers
- Trained Veterinarians to familiarize them with diseases, their causes and effective remedies
- Trained and developed modules for training loan officers of commercial banks

## Training & Accreditation Services ..cont'd

- Investigated the feasibility of establishing standards and accreditation systems for BDS providers, hatcheries and feed suppliers
- Recommended specialized skills and resources needed for effective accreditation systems for BDS providers
- Supported the establishing of standards and accreditation systems

# Training & Accreditation Services ..cont'd

- The project recommended the strengthening of **Fisheries Society of Nigeria (FISON)** to handle the industry's standards and accreditation systems

This decision was based on assessment that

- (a) FISON has membership of professionals with relevant academic and technical know-how in the fisheries industry;
  - (b) The society already has an institute for training, setting standards and regulating the practice of aquaculture and fisheries in Nigeria;
  - (c) FISON has a draft bill for Charter Status at the National Assembly to empower her to regulate and standardize practices by practitioners in the industry.
- **FISON accepted our prescribed curriculum strengthening to bring in mandatory professional and practical training and tutelage for practitioners.**

# Grants to BDS Suppliers

- Facilitated performance grants to Eleven (11) Consultants/Trainers for projects identified as critical to the different segments of the value chain.
- The matching grants assist the recipients with developing and introducing new services, improve the quality of their existing services and reduce their cost.

# Aquaculture Association Development

- Determined challenges facing existing associations
- Built capacity of catfish Associations to strengthen them and make them more effective in service delivery to their members
- Helped in improving business linkages.
- Supported provision of information on input and output suppliers, prices , trends in major markets etc
- Initiated the CAFAN website project

# Monitoring and Evaluation

- Developed and implemented an M&E system to track inputs, outputs, processes, impacts and outcomes of all interventions undertaken by the Program.
- The design of the M&E system was agreed with the PMU.

# Outcomes/Impact

## Value chain development plan

- Industry challenges and required Intervention identified and agreed with over 300 stakeholders
- Stakeholders agreed they have knowledge deficiency and they needed to learn more

# Outcomes/Impact

## Aquaculture best practices development

- 200 Trainers and consultants acquired best practice skills and knowledge
- General improvement in industry knowledge including quality of feed services, fingerlings, water management system etc. Post Training evaluation of Trainees revealed significant increase in knowledge, of over 20%, in specialized areas;
- Improvement in practice of farms was observed/reported by about 160 (80%) of the 200 participants in the training
- Farms reported commencement of rehabilitation:- 6 farms in Kaduna, 8 farms in Abia state and 2 farms in Lagos state

# Outcomes/Impact

## TRAINING AND ACCREDITATION SERVICES

- Proportion of operators selling below cost reduced as virtually all 200 trainees indicated they now sell their fish above cost price.
- Increased yield rate from farms – Trained Hatcheries experienced three fold increase
- Developed a computer program for catfish industry players to guide in development of farms from 5 – 480 metric tons per annum production
- Produced training manuals on Aquaculture Best Practices for use of trainers/consultants
- Produced manual for Guiding/Training Loan Officers of Commercial Banks in Nigeria on evaluation/Appraisal of loans for Catfish Farming

# Outcomes/Impact

## TRAINING AND ACCREDITATION SERVICES

- 56 bankers and financial consultants acquired improved skills and knowledge on aquaculture practices to enhance credit quality and size to the industry.
- 25 Veterinary Doctors and related professionals trained on Fish diseases and control by Int'l experts.
- National Universities Commission (NUC) commenced the process of including the curriculum on fish diseases and control , developed by our team, in the training curriculum of veterinary doctors in Nigerian Universities

# Outcomes/Impact

## Aquaculture Association Development

- FISON strengthened and now provides training, standards regulation and accreditation services
- CAFAN commenced the capture of members data for building a database of web enabled clients for future online activities.
- Increased recruitment of new members has been reported by CAFAN as well as improved finance.
- Better time management and effectiveness including less meeting time reported by CAFAN
- Factionalized Associations in Abia state commenced reconciliation measures aimed at unifying members
- A total of 136 Catfish Association members were trained in the three states as follows- Lagos 44, Abia 46 and Kaduna 46.

# Outcomes/Impact

## Grants to BDS Suppliers

- 11 Grant applicants received approval for BDS grants of \$359,293 for catfish projects
- Increased employment opportunities in the industry with a projection of about 2,000 new jobs

# Stakeholders' Comments

- **DR.BASHORUN [Project Manager and Head- Lagos State Agriculture Development Agency ]:-**

*"This Practical training has demystified catfish farming by removing cotton wool from the eyes of trainers, consultants and farmers. It is the beginning of learning process and should be sustained. It has been a very good training experience especially for those who are extension agents in government service"*

- **CHIEF TAYO AKINGBOLAGUN [National President, Catfish Farmers Association of Nigeria]:-**

*" We , the trainees will go into the industry and transfer the gained knowledge . A register would be developed by CAFAN and participants at this Training of Trainers programme would be registered by the Association to serve as consultants to CAFAN members and general public."*

# Specific Success Stories

## Increase in Employment

- Engr. Austine Ede-Nnamani of Hills Global Project, a trainee, secured a contract with Addax Petroleum Company, a multinational oil company, to establish two community based fish farms in Imo State. He is to recruit and train the personnel to manage the farms. A minimum of 270 jobs would be created by this project;

# Specific Success Stories

- A trainee at Aba, Hon. Okezie Ihetu, negotiated with National Poverty Eradication Programme in Abia State, on establishment of catfish farms and training for rural populace in all the 17 local government councils in Abia State. This is expected to generate, at least, 12 employment per local government with a total of 204 new employment in Abia State

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# Specific Success Stories

- Chief Igbani Okiriko, trainee at Aba, was awarded a contract to design, supervise and execute the construction of a 36 ton/year grow-out farm in Ogbo-Ovuru Village, Mbaise, near Owerri Airport. The project presently has employed 8 staff.

# Specific Success Stories

## Increase in Productive Capacity

- Mr. Richard Ndukwe, one of the trainees at Kaduna is implementing a contract for training of grass root fish farmers in Eboyin state.
- Chief Igbani Okiriko, a trainee at Aba, has informed of his successful breeding of three batches since the completion of Aba training. Before now, he never succeeded in breeding because he was unable to select the right brooders for breeding.
- Amaechi Eze of Dizengoff Enugu, who was trained at Abia reported that he has commenced catfish seed production and has employed three people to work in his hatchery. He is presently unable to meet the demand for fingerlings and has already set in motion expansion plans for his new business.

# Implementation Challenges

- Initial relationship difficulties with stakeholders including the Catfish Farmers Association of Nigeria (CAFAN)
- Delayed Payments from PMU which persisted during and after project implementation .
- Difficulties in identifying host farm for practical demonstration of best practice especially in Kaduna.
- Low level of IT compliance/knowledge by stakeholders as correspondence with them was slow, expensive and difficult.
- BDS Grants: The BDS grants process of the project was delayed by PMU due to a number of procedural issues hence Project team could not effectively monitor the use of the grants by the grantees to ensure strict compliance with PGAs.

# Recommendations for further Work by PMU

- Effective support and supervision of the 11 BDS Grantees
- Developed training manuals should be made publicly available
- Need for aquaculture engineering for Trainers/Consultants
- Provide the Best Practice training specifically for Public Sector Fisheries Extension Services Personnel
- Technical services to Consultants and BDS providers on
  - the evaluation of financial viability of fish projects in the industry*
  - Techniques for securing Cat Fish loans and conducting valuation of aquaculture projects.*
- Training of Senior Executives of banks and financial Institutions to influence policies on aquaculture and improve their fish farming credit skills.
- Expansion and replication of programme to other states



**THANK YOU**