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Inception meeting on methodologies for aquaculture society certification

Small scale farmers are the mainstay of Asian aquaculture and generate the bulk of production, yet the smallscale nature of the sector poses special challenges in confronting emerging issues such as globalisation, the evolving international trade environment and maintaining environmental integrity.

In response, NACA and India's Marine Products Export Development Authority and National Centre for Sustainable Aquaculture have made extensive efforts to facilitate the formation of small-scale farmer societies. These provide small scale farmers with a louder and more unified voice, and assist them to face the challenges of production through adoption of better management practices. They also help prepare farmers for certification through improved understanding of issues such as food quality and traceability, in addition to providing a mechanism for imparting technical guidance and sharing experience on the concepts and procedures and methodologies involved. As certification of their produce offers small-scale farmers the opportunity to improve their economic independence with responsibility, by providing them a premium price with assured marketing for production of quality products.

An inception meeting on methodologies for certification of aquaculture societies was held from 1-2 September 2009 at Kakinada, Andhra Pradesh, India. The objective of the meeting was to develop a draft methodology for certification of small-scale farmer 'aqua societies', independent of commodities and certification standards.

The inception work shop was attended by nineteen participants comprising of aqua society leaders, as well as representatives of certification programmes, central aquaculture research institutions, MPEDA, NaCSA, NACA and FAO. An informal meeting structure was adopted to encourage and facilitate free exchange of ideas and discussions. The meeting comprised of four sessions.

Session I: Cluster certification of *Macrobrachium*: issues, challenges, opportunities and solutions

Mr Meher, President of Sri Sainadha Aqua Farmers Welfare Society, Velivella, shared his society's experiences on organic certification by Naturland. He emphasised that the internal control system (ICS) is the key step and the efficiency of the same reflects in the success of the certification programme. He acknowledged the support extended by MPEDA and NaCSA in terms of financial subsidy and guidance in connection with the Organic Certification Programme and also thanked Indocert (Inspection Agency of Naturland) for imparting training on ICS that forms the foundation of the certification programme.

Mr Phaniraju, President of Sri Venkateswara Aqua Farmers Welfare Society, Matsyapuri pointed out that convincing member(s) of the society on organic certification was the key issue and after seeing the success of the organic members of society, more farmers joined the Organic Certification Programme.

Mr Narayanamurthy, President of Sri Subrahmaneswara Aqua Farmers Welfare Society, Mogultur, a pioneer in aqua club formation during 2003 indicated that assessment of the capacities of water sources, farms and farmers is important to successful Aquaculture operations. He reiterated the importance of better management practices and internal control system for aqua societies towards certification.

Mr Anil of Indocert pointed out the importance of ICS and emphasised the need to impart requisite Training on ICS for better understanding and efficient operation. He added that the standards are set in keeping in view of site characteristics and the methodology practiced by the farmers to facilitate compliance with the set standards.

Dr Muthuraman, Joint Director of MPEDA gave a presentation on the Indian Organic Aquaculture Programme (IOAP) mentioning the SECO (Formerly known as SIPPO) - MPEDA arrangement involving Naturland Certification Programme.

Session 2: Cluster certification of *Penaeus* monodon – issues, challenges, opportunities and solutions

The NaCSA presentation was dealt by Mr Chandra Mohan, which provided various suggestions and possible solutions to several of the issues and concluded with a positive note that aqua society certification for *P. monodon* is a possibility.

Mr Koji Yamamoto gave an account of NACA work in Thailand with reference to Samyroid Shrimp Cluster.

Dr Santhanakrishnan, Auditor for the Aquaculture Certification Council (ACC) stated that by adopting better management practices the societies are moving in the right direction towards sustainable aquaculture. He mentioned that water quality monitoring (both influent and effluent) is a mandatory procedure in the Certification Programme.

Session 3: Presentation of draft paper on aqua society certification

A draft paper concerning aqua society certification was presented. Mr Kalyanaraman acknowledged the co-operation / enthusiasm shown by small scale aquaculture farmers in formation of aqua societies and adoption of better management practices towards sustainable aquaculture. With a little more focused efforts certification would become a reality for many aqua societies, he added. A detailed power point presentation of the draft guidance document outlining various suggested steps for preparing small scale farmers' society certification was presented.

Session 4: Discussions on the draft paper on aqua society certification

Dr CV Mohan (NACA) summarised the proceedings of the first day. The second day of the workshop was devoted for discussing each of the steps in detail and making suggestions for improving and revising the draft guidance document. Suggestions were made on ICS, SOP and the organisational structure of the certification programme and effluent monitoring plan. All the participants actively provided comments and suggestions on the draft methodology paper.

Outcomes

The outcome of the inception meeting was as follows:

- The workshop strongly felt that the steps suggested for aqua society certification in the draft guidance document were meaningful, practical and achievable.
- It was agreed that the revised document could be used by NaCSA to promote the concept of society certification in its 200+ societies in addition to the better management practices that are being promoted.
- The certification methodology developed is independent of commodity type and related certification standards.
- The methodology developed would enable aqua societies to seek certification from independent third party certification programmes or could be used for proposing voluntary self certification by the aqua societies themselves.

Follow up action

Three aqua societies have been identified for pilot testing the guidelines and discussion has been initiated with their members on the need, advantages and steps involved in obtaining society certification. Work on the preparation of a related training manual is in progress.

More information is available from the project page on Certification of Aqua Societies, at:

http://www.enaca.org/content.php?page=Certification_of_ aquaculture_societies

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Meetings discuss impacts, adaptation to climate change of Vietnamese shrimp farmers

Focus group discussion meetings and stakeholder workshops about the impacts and adaptation of small scale shrimp farmers to climate change were held in Ca Mau, Vietnam, 15 and 16 October 2009, respectively. The meetings were held as part of a case study on improved extensive shrimp farming in Ca Mau and Bac Lieu provinces in the Mekong Delta in southern Vietnam.

Using similar methodology to the other case studies in the project (Tra catfish farming in Vietnam and milkfish farming in the Philippines) the focus group discussion meetings mapped farmer perceptions of climate change including climate change issues, climate change impacts on production and the economic impacts, solutions and responsible agencies. Farmer perceptions of climate changes and their impacts on shrimp farming were matched with seasonal and cropping calendars.

Climate change impacts described by the Vietnamese shrimp farmers showed some similarity to other case studies particularly the coastal shrimp farmers in Vietnam and coastal milkfish farmers in Philippines. It was also identified that climate change has also created both opportunities and risks for some Vietnamese farmers.

The project is now conducting an extensive survey of small scale improved extensive shrimp farmers in Ca Mau and Bac Lieu, Vietnam, which will be used with secondary information to assess their vulnerability and adaptive capacity to climate change.

These activities are part of one of a number of case studies of the regional project *Strengthening adaptive capacities to the impacts of climate change in resource-poor small-scale aquaculture and aquatic resources-dependent sectors in the south and south east Asian region* funded by NORAD. For more information about the project, visit:

http://www.enaca.org/modules/inlandprojects/index. php?content_id=10

Aquaclimate project: India case study

NACA's 'Aquaclimate' project is taking up the case of smallscale shrimp farming in Andhra Pradesh, India, to investigate the impacts and adaptation to climate change. Andhra Pradesh has had many weather related impacts in recent years such as the worst drought in half a century, which occurred in early to mid 2009, followed by a severe flood of once in 100 years in October 2009. These extreme climatic events have had severe consequences including heavy economic losses to shrimp farmers in the state.

This case study aims to assess the degree of vulnerability of the small-scale shrimp farmers in Andhra Pradesh, and to provide guidelines on suitable measures to assist them to adapt to climate change and sustain their livelihoods.

On 3 December 2009 two focus group discussion workshops on the impacts of and adaption to climate change were conducted with sixteen small-scale shrimp farmers in Chinnapuram (an inland area), and seventeen in Gullalamoda (a coastal area), respectively, in Krishna District, Andhra Pradesh.

Focus group discussion is a participatory process that involves all participants to obtain their perceptions, in this case about climate change impacts and adaptation measures that are being used or that they think could be used to adapt to climate change. The focus group discussions were facilitated by a skilled moderator using a semi-structured discussion guide.

On the following day a larger stakeholder workshop was conducted in Vijayawada, Andhra Pradesh, with shrimp farming stakeholders. The focus group discussion results about the key impacts on shrimp farmers from climate change from the previous day's workshops were presented to the stakeholder workshop participants and were used as the starting point for group discussions.

The focus group discussion and stakeholder workshop were conducted in Telugu language and English with translations between the two languages. High levels of participation were observed from all stakeholders about the key climate change impacts and current and possible adaptations.

The stakeholder workshop was attended by 90 stakeholders including eighteen small-scale grow out shrimp farmers, five hatchery operators, four fishermen (shrimp broodstock collectors), five non government organisation (NGO) representatives, five inputs dealers, five aquaculture consultants, four credit institutions representatives, sixteen government officials in aquaculture development and policy, ten researchers and the fourteen local and four international project partners.

International partners supporting the workshop included Dr Nigel Abery the overall project coordinator from the Network of Aquaculture Centres in Asia-Pacific (NACA), Dr Udaya S. Nagothu from Bioforsk, Norway, Ms Sirisuda Jumnongsong from Kasetsart University, Thailand and Ms Jocelyn Hernandez from Akvaplan-niva, Norway. Local partners included Dr M. Muralidhar, local coordinator and Dr M. Kumaran, local co-coordinator from Central Institute



of Brackishwater Aquaculture (CIBA) and N. R. Umesh from National Centre for Sustainable Aquaculture (NaCSA) part of the Marine Products Export Development Authority (MPEDA).

The use of such participatory processes (the facilitated semistructured focus group discussion and facilitated stakeholder workshop) in assessing the impacts and adaptation of aquaculture to climate change was a novel technique for the shrimp farmers and stakeholders in Andhra Pradesh.

The stakeholder workshop participants discussed adaptation measures in three key themes: farmer adaptation measures, scientific/technical adaptation measures and institutional/ policy adaptation measures.

Stakeholders suggested that these types of workshops about climate change in relation to shrimp farming should be repeated more often as farmers generally interact among themselves in their local area and not with other farmers outside their area, scientists and government officials. Such meetings provide them with an opportunity to express their problems and opinion about climate change to high ranking officials.

Government officials in particular felt that it is good to have stakeholder workshops like these as it exposes them to the issues that the farmers are concerned about. During the workshop it was generally expressed that there is a clear need for the development of policy related to climate change adaptation to enhance shrimp farmers' adaptive capacity.

Next steps in the Aquaclimate project will include collection and analysis of secondary data about climate, geography, aquaculture production and related issues, together with primary data through a survey of shrimp farmers in parts of Krishna District of Andhra Pradesh about their perceptions about climate change / global warming impacts, farmer vulnerability, adaptive capacity, mitigation measures and their livelihoods.

For more information about the project, please see the Aquaclimate webpage:

http://www.enaca.org/modules/inlandprojects/index. php?content_id=10

In memory of Gagan Bahadur Nhuchhe Pradhan

A real gentleman and a beautifully spoken man, Gagan Pradhan was one of the longest-standing friends of and contributors to NACA, the Network of Aquaculture Centres in Asia-Pacific, having participated in and supported the network's activities since near the earliest days of its existence. We at NACA would like to express our gratitude to our friend and colleague for his many years of unwavering support to both NACA and the region, and to recount some of his personal achievements and also our involvement with him over the years.

Gagan's academic training began with a Bachelor of Science degree at Tribhuwan University in Kathmandu, Nepal. He followed on with a Master of Science in Zoology, graduating in 1976 with a specialisation in fish and fisheries, setting out on the path that would later define his long and distinguished career. He immediately entered government service, taking up his first post as Assistant Fisheries Development Officer at the Programme Planning Unit of the Fisheries Development Section, Lalitpur. He would later complete a Master of Aquaculture at the University of the Philippines (Visayas), graduating in 1983.

It is testimony to Gagan's abilities that in 1977, the year after entering government service, he was promoted to Station Manager for the Fisheries Development Centre at Godawari. He remained there for three years before moving to the Programme and Training Unit of the Fisheries Development Division in 1979, where he worked on development plans for both capture fisheries and aquaculture. In 1985 he took up a post as Station Manager at the Hetauda Commercial Fisheries Centre in Makwanpur, before moving back into policy formulation for the Planning, Programming and Monitoring Unit, and the Inland Aquaculture Programme. Having completed his Master's Degree in Aquaculture, he was promoted to Senior Aquaculturist in 1995, taking a post as Station Manager for the Fisheries Development Centre at Janakpur in 1996.

Gagan's three stints as a Fisheries Development Centre Station Manager and intervening periods of policy and planning work had given him an enormously broad range of experience. In 1999, he was given the opportunity to apply his expertise to the development and implementation of national fisheries development and extension programmes as Senior Fisheries Development Officer at the Directorate of Fisheries Development in Balaju. He was also charged with coordinating with foreign research and development agencies.

Gagan's association with NACA began in 1991, some two years after it had become an independent organisation, as National Environmental Coordinator for an FAO Technical Cooperation Project Regional Study and Workshop on the Environmental Assessment and Management of Aquaculture Development. His promotion to Senior Fisheries Development Officer marked the beginning of an even closer relationship with NACA as he took on responsibility for international affairs. From 2002-2005 he was Nepal's National Coordinator for NACA's regional Aquatic Animal Health Programme, where he played a key role in facilitating development of a National Aquatic Animal Health Plan for Nepal. In 2003 he became the Government of Nepal's Representative to NACA, participating in the Technical Advisory Committee and the NACA Governing Council.

The pinnacle of Gagan's career was his appointment as Programme Chief (Senior Aquaculturist) for the National Inland Fisheries and Aquaculture Development Programme in 2007, a post that enabled him to strengthen collaboration with NACA and other regional and international development organisations. He was instrumental in arranging the 18th Governing Council meeting, hosted by the Government of Nepal in Kathmandu in 2008, and was contributing to NACA's Regional Project on Asian Reservoir Fisheries Development and Management, a project that is still running today.

Gagan passing is a great loss to his family to his many friends and colleagues throughout the region. However, we at NACA take some condolence in the fact that his many contributions to fisheries and aquaculture development live on in the rural communities whose livelihoods he helped to improve, both in Nepal and internationally. He is survived by his wife and two children.

Version 2 of the draft better management practices for catfish farming released

The second Version of the draft better management practices for catfish farming in the Mekong Delta are now available for download. The first version of the document was developed based on analysis of an extensive farm survey. This second version has been amended based on feedback received at two stakeholder meetings held in Dong Thap and Can Tho, 6-7 and 9-10th October, respectively.

Version 2 will form the basis for discussions with all stakeholders of catfish farming to be conducted in May-June 2010 at a national workshop to be held in An Giang Province. The meeting will finalise the better management practice guidelines for implementation in the catfish farming sector. Extension materials with suitable illustrations are also being developed for wider distribution, providing practical guidance on implementation of the better management practices BMPs for each stage of the culture cycle.

For more information, please see the project webpage, Development of Better Management Practices for Catfish Aquaculture in the Mekong Delta:

http://www.enaca.org/modules/inlandprojects/index. php?content_id=1

Technical course on federating digital library systems

A technical course and stakeholder workshop on Federation of Learning Repositories for Agriculture, Food and Environment and Stakeholder Workshop were held in Budapest, Hungary, 2-6 November. The course was an activity under the Agricultural Learning Repositories Task Force.

The workshop was essentially about how to make online libraries interoperable with one another, so that people can search across digital library collections owned by different organisations simultaneously and automatically. The course focused on metadata standards and protocols for automating data exchange, using examples drawn from existing federated systems including the European Schoolnet project, which is attempting to facilitate sharing and access to digital educational materials across the EU, ARIADNE, CGIAR and others.

The training course included hands-on implementation sessions during which participants set up a Simple Query Interface target, and an Open Archives Initiative Protocol for Metadata Handling (OAI-PMH) target, and also tools to run queries and harvest metadata against those targets. The course also covered metadata standards such as the Dublin Core, Learning Object Metadata and the construction of custom XML application profiles.

The workshop included two demonstration sessions where participants displayed their digital library systems to others. This provided a good opportunity get some feedback on a new software module in development for the publications section of the NACA website. This will provide improved indexing and presentation of publications, not only in PDF format (as now) but will also offer streaming audio, embeddable video, plain text records and presentation of images as well. The module will permit its records to be harvested via an OAI-PMH web service, allowing the NACA website to interconnect with distributed digital library networks worldwide. The Agricultural Learning Repositories Task Force aims to pilot a globally federated network of digital libraries over the next year or so.

The training course was organised by the ASPECT Best Practices Network, Organic.Edunet and FAO. It was sponsored by the United Nations University, CGIAR, Rural Inclusion Project, iQTool Project, Organic Mednet and the European Foundation of Information Technology in Agriculture. NACA would like to thank all involved for a very useful workshop and for sponsoring the participation of NACA's Communications Manager at the workshop.

Below: Participants and teachers at the workshop.



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