

Research Paper

NACA/USAID Thematic Studies on Gender in Aquaculture in Cambodia, Lao PDR, Thailand and Vietnam

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Abstract

The Network of Aquaculture Centres in Asia-Pacific (NACA) conducted the project “Thematic Studies on Gender in Aquaculture in Cambodia, Lao PDR, Thailand and Vietnam”, a component of the USAID (United States Agency for International Development)-funded Maximising Agricultural Revenue through Knowledge, Enterprise Development, and Trade (MARKET)) project in 2014-2015. MARKET Project was aimed to strengthen the ASEAN (Association of Southeast Asian Nations) institutional platform for improving regional food security. Aquaculture has been identified to be important to food security, and mainstreaming gender into MARKET’s activities in aquaculture value chains is crucial to inform policies and decisions which will be gender sensitive and balanced so the vulnerable members of the value chains are not marginalised and neglected.

The studies on gender in aquaculture in Lower Mekong Initiative countries, namely Cambodia, Lao PDR (Lao People’s Democratic Republic) ,Thailand and Vietnam, consisted of assessments on the current status of gender policies relevant to aquaculture, key issues in women’s empowerment and participation in aquaculture value chains, and identifying organisations working on promoting gender in aquaculture. Case studies on women’s involvement and gender issues in selected aquaculture value chains in each country were also

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produced. In this paper, we focus on the process, challenges and opportunities of running a project which introduces gender studies into mainstream aquaculture institutes.

Introduction

The Network of Aquaculture Centres in Asia-Pacific (NACA) is an intergovernmental regional organisation promoting rural development through sustainable aquaculture to improve rural incomes, increase food production and foreign exchange earnings, and diversify farm production (NACA 2015). The Gender Programme at NACA was established in 2012 to ensure that NACA implements the action plans on gender mainstreaming within its activities. With a continued interest in embracing gender integration among relevant agencies, NACA aims to build up capacity of members in gender mainstreaming in all its undertakings, and motivate support and action globally. Insufficient capacity for gender research and application among stakeholders is a hindrance to effectively implement programmes integrating the gender dimensions in development.

In 2012, the 23rd NACA Governing Council recognised the importance of creating greater opportunities for women and promoting gender equality in the aquaculture industry, and endorsed a proposal to add gender as a cross-cutting theme for the NACA Work Plan. As per the 2012 briefing note of the NACA Gender Mentor, Dr. Meryl Williams (Williams 2012), considering women and men within a gender framework fits well with the Vision of NACA, and many NACA member states and key agencies in the Network are beginning to pay greater attention to women and gender. Thus NACA has the requirement to address gender in its work programme and operations, and the opportunity to lead and work with member governments to address gender in the burgeoning aquaculture sector. NACA member countries produce nearly 90% of world aquaculture production (NACA 2015).

Along with fisheries and agriculture, aquaculture is still considered as mainly an area only for men. Due to this, women's roles and contributions have not been reported and/or highlighted and not even accounted for in statistics, development programmes and in institutions that serve them. This is misleading considering that recent reports and studies, though few and incomplete, have revealed that women are present and oftentimes play major roles in various

nodes of the aquaculture value chain. However due to insufficient gender-disaggregated data, it is quite difficult to get accurate and comprehensive numbers. For example, the High Level Panel of Experts Report on Food Security in 2014 cited that nearly 50% of the 120 million workforce in fisheries and supply chains are women; whereas in the aquaculture sector, of the 38 million workforce, the male-female ratio is not known (HLPE 2014).

Interest in women and gender in aquaculture has still not gained a major footing in most mainstream aquaculture institutions. However, gender activists and advocates continue to be active in conducting research and interventions, as well as in organising women/gender symposia and promoting the issues through social media. These efforts need to be integrated with mainstream aquaculture initiatives. Gender experts need to engage with aquaculture stakeholders such as technical, business, and institutional actors, in order that the agenda of gender integration does not just remain the domain of gender experts and social scientists, but is fully integrated with the work of policy makers, technologists, practitioners and other relevant stakeholders. For their part, the mainstream aquaculture practitioners need to develop ownership of the aims and approaches to gender integration and gender equality.

During 2014-2015, UN Women reported that, based on a study of 83 countries, at least 50% of the world's women are in paid wage and salary employment (up from 40% in 1990), but women earn 10-30% less than men for the same work (UN Women 2015). However, the aquaculture and fisheries sectors do not have these same specific statistics because of the lack of efforts to collect gender-disaggregated data and undertake gender-sensitive research.

The USAID/MARKET Gender Project

For one year during 2014-2015, NACA conducted the “Thematic Studies on Gender in Aquaculture in Cambodia, Lao PDR, Thailand and Vietnam”, a component of the USAID-funded Maximising Agricultural Revenue through Knowledge, Enterprise Development, and Trade (MARKET) project. The overall USAID-funded Project aimed to promote more sustainable and efficient use of aquatic resources (from aquaculture and fisheries) in the Southeast Asian region, with special emphasis on the Lower Mekong Initiative (LMI) countries. The main MARKET Project began in 2011, and was

implemented by Nathan Associates, Inc. in partnership with the Association of Southeast Asian Nations (ASEAN). It is part of Feed the Future, the US Government's Global Hunger and Food Security Initiative. The MARKET Project also aimed to strengthen the ASEAN institutional platform for improving regional food security. Aquaculture has been identified to be important to food security, and mainstreaming gender into MARKET's activities in aquaculture value chains was crucial to inform policies and decisions which will be gender sensitive and balanced so the vulnerable members of the value chains are not marginalised and neglected. The Project is guided by the USAID Gender Equality and Women Empowerment Policy, which states that "societies with greater gender equality experience faster economic growth, and benefit from greater agricultural productivity and improved food security" (USAID 2012).

Information on gender in aquaculture value chains in MARKET's focus countries is either insufficient or non-existent, as most of the efforts on aquaculture development through government initiatives and development interventions have been planned and directed without consideration of gender differences (NACA/USAID/MARKET 2014). From observations and information from key stakeholders, in the absence of documented evidence, half of the workforce in aquaculture value chains may be women, taking up various roles, mainly less paid jobs, and in some cases, considered informal and therefore unpaid. In most gendered studies on fish supply chains, households, livelihoods and labor, the overall value of the supply chain and the well-being of the households are much reduced when inequalities exist. These have been recognised mainly by the more global development organisations, e.g., the Food and Agricultural Organization (FAO) which published a report on good practices and policies to eliminate gender inequalities in the fish value chains (Dey De Pryck 2013). However, translation and adaption of these guidelines and policies for interventions and application on the ground could prove challenging to the less equipped.

The gender studies in aquaculture implemented by NACA and described in this paper were conducted to gather information, raise awareness and advocate for improved recognition of gender roles, policies and programmes in aquaculture for sustainable and responsible development. The thematic areas planned for examination were as follows: aquatic health management,

environmental governance, aquaculture improvement projects/better management practices and standards and feed management. As gender disaggregated data on the specific themes were lacking, the studies looked at more general aquaculture practices in overview, and in particular aquaculture industries, considering that this was a preliminary study on gender in aquaculture issues. It was envisioned that further studies would build on this base and look into these themes.

Being a very applied project, the MARKET project's gender element was targeted at understanding the gender dimension in selected kinds of aquaculture and at various scales, from an overall desk study to individual case studies. The gender project sought to find a way forward for helping aquaculture using greater gender equality. The purpose was not primarily to promote gender equality in its own right, but to see how gender equality/inequality may relate to the performance of particular aquaculture enterprises.

Materials and Methods

Project activities consisted of assessments of gender in aquaculture in Cambodia, Lao PDR, Thailand and Vietnam through a desk study and in-country field research. The latter involved case studies on selected species in the production node of the aquaculture value chain, and the dissemination and presentation of findings and recommendations to relevant stakeholders, followed by developing a regional gender in aquaculture practitioners' network (Fig. 1). The gender desk study national assessments looked at the current status of gender policies relevant to aquaculture, key issues in women's empowerment and participation in aquaculture value chains. Organisations were identified that were working on promoting gender in aquaculture. Case studies focused on women's involvement and gender issues in selected species-specific grow out systems in each country.

Project implementation process

In late 2013, NACA was contacted by the USAID-MARKET Project Team to explore the possibility of implementing the Thematic Studies on Gender in Aquaculture in the LMI countries. After signing an agreement in

early 2014, NACA sent out a call for Expressions of Interest to individuals to conduct the desk study on gender in aquaculture in the four LMI countries and selected a suitable expert, Dr Cecile Brugere. NACA mobilised its member countries within the LMI to appoint their gender teams to implement the project in-country. A Senior Scientist from India, Dr Nikita Gopal, was commissioned initially to coordinate the project remotely on a part-time basis, working with the NACA-based Programme Manager.

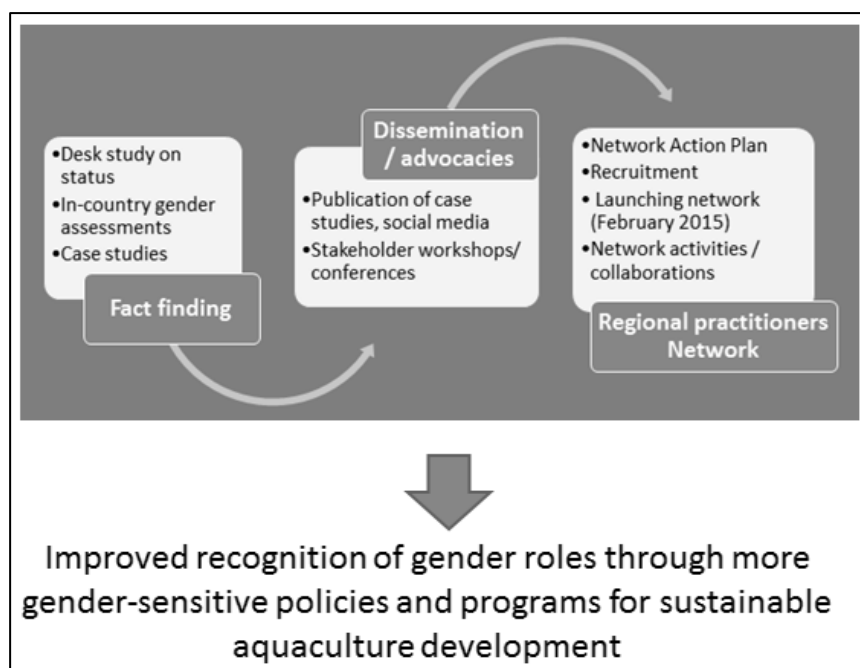


Fig. 1. Flow chart of activities to achieve project objectives

A 2-day Planning Workshop was then organised in June 2014 to bring the partners together. The workshop held in Bangkok, Thailand from June 5-7 2014, was organised to plan the future project work and had participants from all the target countries. The project was outlined from the USAID point of view and the details of the expected outputs described by NACA, who was responsible for implementing the project. A gender expert from the Asian Institute of Technology (AIT), Bangkok, Thailand, Dr Kyoko Kusakabe, introduced gender concepts and methodologies, outlining the importance of looking at gender and the subtle observational aspects of data collection with respect to gender. The methodologies to be used for the study would be basically social science methodologies, but with a gender dimension included.

The workshop decided on the immediate and the long term tasks to be accomplished, which were to design the Country Assessment and Case Study work plans.

The results that emerged in the workshop were on the researchable issues/hypothesis; fine tuning of the objectives; identification of the research frame, scope/sites; information collection and methods and analysis. The country teams carried out a brainstorming session to arrive at the tentative work plans and the value chains were finalised. The group decided that the whole value chain would be mapped for gender roles, issues and opportunities; and selected nodes in the value chains would be studied in more detail to assess in depth the gender dimensions.

Following the June 2014 Planning Workshop, a Gender Coordinator was hired in mid-August 2014 on a part-time basis, solely for this project. The outputs from the Planning Workshop, especially questionnaires, the outline of assessments and case studies, were then refined together with the Letters of Agreement with specific country implementers. By the beginning of September 2014, the LoAs had been signed by the implementers' authorised signatories. Field work for gender assessments and case studies started once the agreed budgets were released. The assessments also included updating and refining information in the Gender Desk Study.

A three day Synthesis Workshop was then conducted in late September and early October to assess the status of the in-country gender assessments and the case studies. Time was a constraint considering that project teams started work around the middle of September. Clarifications on the field situation and methodology were made and discussed, and each country team also prepared a work plan to meet project time lines. A one day training workshop on gender integration in the workplace was also conducted, to discuss USAID's gender initiative, approaches and the gender dimensions framework delivered by USAID and MARKET representatives. Participants, including those from India and regional organisations working on gender, shared experiences.

Also during this workshop, preparations were made for the upcoming NACA/USAID/MARKET Special Workshop at the 5th Global Symposium on Gender in Aquaculture and Fisheries (GAF5) held in November 2014 in

Lucknow, India. It was planned that all outputs would be presented during this Special Workshop. Thus it was targeted to complete all in-country gender assessments by then.

In addition, the Regional Gender in Aquaculture Practitioners' Network was initiated during the workshop where the participants brainstormed on the need for a network, its rationale and objectives, and potential activities. The 22 workshop participants comprised 13 women and 9 men from five countries and four regional organisations. These people then became the founding members of the network. The regional scope of the network was within ASEAN initially and will eventually include the whole Asia-Pacific region where NACA has members.

During the last month of the project, in February 2015, USAID organised a regional gender workshop wherein the results of the gender assessments and case studies were presented to a diverse group of people such as academics, researchers, government officers, and development workers in ASEAN. Successful gender sensitive interventions in aquaculture, fisheries and related fields by NGOs in the region were also presented. Unfortunately, the representative from the ASEAN Secretariat on Gender was not able to attend. Also given the early stage of the project results, mainstream aquaculture practitioners were not invited to the workshop.

Results

Desk Study

The Desk Study of the gender situation in the specified countries examined available research papers, policies and projects. The results revealed that large knowledge gaps exist regarding women's participation in the various nodes of the aquaculture value chains. Moreover, it was pointed out that there are crucial gaps in information and knowledge regarding the nature and effects of the social and cultural contexts, such as the dynamics of gendered participation, decision-making, control over income, professional choices and opportunities. It emphasised that "equal opportunities for men and women should be the ethos that drives all initiatives seeking to improve the efficiency and fairness of aquaculture value chains" (Brugere et al. 2014). Furthermore,

the authors suggested that priorities should be on finding niches in aquaculture value chains where women and men can transform the socio-cultural constraints that limit their development, into something which can benefit them.

A number of areas for research were suggested by the desk study but, despite their importance, they were outside the scope of the present project, such as studies on how social networks and social capital affect aquaculture communities according to gender, and how identities affect changing work roles. Another potential area for research was on governance and rights, i.e., determining how men and women participate (or not) in aquaculture governance structures at all levels. Another interesting research topic suggested was on markets and migrations, concerning how changes in markets affect livelihoods and the overall impact of markets on poverty and how these impacts differ according to gender. Lastly, research on gender-differentiated perceptions of wellbeing was considered useful as well. The Desk Study report was also given to the country implementers who were requested to update the sections of the report relevant to their own countries. The updated version was then integrated into the country gender assessments.

Gender Assessments

Each country enumerated a number of national policies related to gender equality and women's involvement. This indicated that, at the national government levels, concern for and awareness of gender equality and women's empowerment existed in all countries. Implementation of actions on these gender concerns in aquaculture was through the national agencies responsible for aquaculture development. The level of integration and implementation at the local level varied depending on the capacities of the agencies to integrate gender within their institutions and among their stakeholders. Development and grassroots organisations have been active in integrating gender in their own interventions. Despite the policies and budgets allocated to gender mainstreaming, no continuous plans and specific actions were formulated to apply these on the ground. Whereas every country had reported various policies to promote gender equality and women's empowerment, their implementation at the lower levels was varied. As pointed out in the Desk Study by Brugere et al. (2014), overall in the countries, there are "various levels of commitment and degrees of success," despite concern for gender equality among countries. In

addition, the performance of these countries in the Global Gender Gap Index suggested that their efforts did not really result in major improvements in women's conditions and positions in these societies.

Specifically for aquaculture, decision makers, technical fisheries officers and extension workers seemed to lack the capacity to translate these national policies into their mandates.

The lack of gender disaggregated data at all levels of aquaculture initiatives and statistics showed that gender was not integrated into project work plans, interventions and programmes, including extension and training. For example, in most of the organisations or institutions providing extension and training, even basic records, such as the respective numbers of women and men who receive extension services or who attend training courses, are not available.

Women do participate in aquaculture in varying degrees and at various levels, but mainly this participation is undocumented. Women are involved especially in small scale farms as well as in other nodes of the aquaculture value chain. Often times they work alongside the men, or they have their own activities. For example, both husbands and wives are involved in pond or cage farming, and when a husband has to do business outside the farm, the wife may be responsible for the day to day activities, such as feeding, and monitoring feeding and water quality.

National census taking and projects will need detailed research planning, design and data collection. In addition, available secondary literature is not sufficiently comprehensive to provide information on the current situation. Few longitudinal studies have documented changes in women's empowerment, participation, and areas in the value chains benefiting women. Most studies focus only on roles and divisions of labor, but still lack analysis of causes, effects, benefits and quantitative information. For example, Table 1 shows an overview of the available gender/women's literature in Thailand, starting from 1995; papers related to women and gender in aquaculture were few (8-21%).

Case studies

The case studies on species-specific aquaculture farming systems (Table 2) were conducted with the following objectives: mapping of gender roles,

analysis of gender aspects related to division of labour, decision making process, benefit sharing and access to resources, and determining the issues, needs and opportunities in fish health management, farm management and BMP (Best Management Practices), feed management, processing, food quality and safety, and marketing. Information was obtained through key informant interviews and face to face surveys among women and men farmers, as well as focus group discussion and in-depth surveys of selected women.

Table 1: Overview of the available literature on women/gender in aquaculture value chains in Thailand. (Source: Brugere et al. 2014).

Type of literature	Academic papers	Books	Grey literature*	Total
Number of publications retained for the study	21 (55%)	3 (8%)	14 (37%)	38
Number of publications specifically addressing women/gender in aquaculture in Thailand	5 (13%)	3 (8%)	8 (21%)	16 (42% of total retained)
Actual period of study	1995 to 1999	2000 to 2005	2006 to 2010	2011-2014
Number	4	5	6	1
Percent (to Total)	11%	13%	16%	3%

* Grey literature: Anything not published in an academic journal or a book, i.e. reports (including FAO reports), research institutes' monographs, students' thesis (MSc/PhD), etc.

Table2. Country-specific case studies on women involvement in grow-out culture systems

Country	Species	System	Study Site
Cambodia	Freshwater species	Ponds	Takeo, Kampong Speu
Thailand	Marine shrimp	Ponds	Chanthaburi (East)
Thailand	Tilapia	Cages	Sakhon Nakhon (northeast)
Vietnam	Marine shrimp	Rice-shrimp rotation in ponds	Soc Trang (Mekong Delta)
Vietnam	Red tilapia	Cages	Tien Giang (Mekong Delta)

These case studies were the first attempts by the project implementers, all aquaculture experts, to look at gender issues. Thus, as the case with new

entrants to gender mainstreaming, they had to look initially at the roles of women and men in specific value chains. In this case, it was decided during the MARKET Gender Project Planning Workshop that due to time constraints and limited resources and experience, case studies should focus only on the grow-out node and on specific systems in each country. In addition, an in-depth look at the dynamics and power relations was not possible given the time frame and training needed, and it could be a follow-on activity as aquaculture researchers gained more capacity through training and mentoring. This is an emerging issue that all those wanting to start gender projects should consider early on.

Aquaculture has great potential as a women's enterprise because of its accessibility and manageable activities as long as supported technically and financially. Based on the case study, the successful woman in small scale aquaculture experienced a number of challenges and failures but she tried to learn and seek support both from the government and NGOs. Now everything has changed, in her social and economic status, which can be a good model as an opportunity for the households who are now engaged in small scale aquaculture. – Cambodia Case Study of a successful woman entrepreneur in aquaculture

Dissemination

The dissemination strategy involves informing the ASEAN and LMI industry stakeholders and policy makers of the findings and recommendations from assessments, enjoining private sector and non-governmental organisations to work together to disseminate findings, develop action plans with organisations (private sector, NGOs), and publications, media, social networking, and campaigns.

Information gathered had been disseminated to various aquaculture stakeholders. At the end of the project, the recommendations were presented to the ASEAN regional task force for public-private partnerships, as well as at the Women in Aquaculture and Fisheries Session of the World Aquaculture Society Conference. More dissemination in other forms will be done to inform relevant stakeholders of the recommendations specific to them, especially through NACA's Information and Communications Programme, which manages the NACA website, and publishes the Aquaculture Magazine and Newsletter.

Project recommendations have been categorised according to target stakeholder groups, namely regional bodies (Association of Southeast Asian Nations [ASEAN], FAO Regional Office for Asia and the Pacific [FAO-RAP], Southeast Asian Fisheries Development Center-Aquaculture Department [SEAFDEC-AQD]), country governments, development agencies, education and training institutions, research institutions, private sector, NGOs, civil society and farmers' groups/clubs. However due to budget limitations, especially post-project, extensive travel related to dissemination is not possible and, as a fall-back, this will have to be done through meetings organised by NACA for other purposes, provided that gender is on the agenda, which is often not the case. Having a gender project implemented by NACA such as this, and having somebody working for the Gender Programme, gave an impetus for NACA which also then considered gender on its agendas, such as during the Technical Advisory Committee (TAC) meeting in March 2015, the Governing Council Meeting in May 2015, and in meetings and activities with FAO on Sustainable Intensification of Aquaculture Documentation of Success Stories.

Regional Gender in Aquaculture Practitioners' Network

Aquaculture practitioners and interested stakeholders are advocating for gender integration and mainstreaming in aquaculture activities. With a number of women already involved in aquaculture and working alongside the men, the learning and experiences gained need to be built on and shared to create more awareness on the need for gender integration in aquaculture initiatives. The network objectives had been identified, as: promoting gender integration in aquaculture; advocating for and advance the status of women; assisting/mentoring practitioners in gender integration in projects; information exchange and experiences sharing; capacity building; promoting collaboration; and establishing mechanism in response to emerging issues at regional level.

A simple network action plan was formulated, with NACA's Gender Programme Manager acting as the Network Coordinator. In order to ensure sustainability of the network, it is important for members to feel ownership of the network they have established, and to have sufficient resources and good financial management and practices, including regular exchange of information and communications, formal and informal meet-ups, support from governments especially the work places of members, incorporation into country members

policies for gender integration and to engage the private sector and educational institutions.

Challenges faced in gender mainstreaming

A number of challenges were faced in implementing this project which introduces gender studies in aquaculture through partnering with mainstream aquaculture institutions. People in these institutions considered gender in aquaculture to be still a novel idea which was considered mainly the domain of NGOs and social development practitioners. Due to the lack of gender sensitisation and dissemination within technical aquaculture institutions, and despite national and sometimes institutional policies on gender equality, it was challenging to obtain in-depth gender analysis from the in-country implementers. It was clearly necessary for researchers to have more training, capacity building and mentoring on gender analysis and integration tools which they could apply in the workplace. In itself, involvement in the project was like training. To meet this need, during the workshops a one day training session on gender topics was arranged, such as on gender research, integration, and practical ways to integrate gender in the workplace.

I learned how to identify gender roles in aquaculture, which activities women are involved in at each node of the aquaculture value chain, how much males and females contribute to aquaculture activities. The most useful result in implementing this project was to see that the role of women in aquaculture will become recognised. – Female project implementer

The fact that the research partners were not full-time gender researchers although some of them were gender focal points and had some training, made implementing this project an additional task for them, as they had to also attend to their full-time jobs (Table 3). As practiced, organisations tended to assign their gender focal points out of their existing workforces. There are no dedicated gender experts who oversee gender integration or mainstreaming in the aquaculture institutions. Even at NACA with its resolution to put the gender agenda into all its programmes has not yet decided to establish a full-time permanent position for coordinating its gender initiative. At the moment, a gender person is used on an *ad hoc* basis.

One of the challenges was how to obtain information directly from the women who are engaged in aquaculture and how to quantify the values that each gender contributed to aquaculture. In order to overcome these challenges, female researchers should be the interviewers for women respondents as it will be easy for them to talk to and to communicate with the women. If the respondents are men, the interviewers need to pay more attention to ask the information on women's roles. – Female project implementer

Table. 3. Positions of project implementers in their own organisations

Role in Project	Position in Organisation	Gender
Team leader	Fish Expert, National Gender Focal Point	Female
Team member	Human Resources Manager	Male
Team member	Shrimp Expert, Head of Department	Female
Team member	Fishery Biologist	Female
Team leader	Deputy Director General, Senior Research Scientist, University Professor	Female
Team member	Senior Officer, Climate Change	Male
Team leader	Fisheries University lecturer	Male
Team member	Economics University Lecturer	Female
Team member	Economist and Planner, Vice Director	Female

The prevailing socio-cultural stereotypes in relation to gender roles in aquaculture activities may prevent an efficient gender analysis especially if the technical researchers themselves accept these stereotypes and status quo rather than confront and analyse them through a gender sensitive lens and social research approach. For example, a male and a female researcher each insisted that women should only be given opportunities where they did not have to travel, even though this was clearly contradicted by the successful case studies. There is much to be done to achieve sensitisation or transformation of the technical or aquaculture mindset into being more gender sensitive. However if awareness campaigns and capacity building are effectively run within an organisation, then this should be achievable. This again links with the policies of the national governments, wherein gender equality and women's empowerment are included and translated into practical means.

A model to follow could be the Philippine Commission on Women (PCW) established by the Philippine government, and which has been active in promoting gender and development (GAD) principles to all government agencies at various levels, and also to other non-government institutions and individuals with similar advocacies. The PCW has several initiatives that enjoin both the public and private sectors including civil societies across different age groups, as they hold events for awareness and action. It is thus important for countries within the ASEAN region to learn from each other as their cultures and social constructs are similar, rather than coming from outside the region wherein their ways might not be culturally appropriate and barriers may be erected even at the first step.

Opportunities for NACA and partners

Having pointed out some of the challenges above, NACA's involvement in the implementation of this gender project enabled NACA and partners to identify their capacities and limitations in relation to gender research and integration. There is much room for improvement, and interest and intent on gender mainstreaming are just beginning. The emergence of the agenda to place importance on gender equality, and especially women's empowerment and youth development in projects and initiatives is an opportunity for NACA and its partners. The 5th Sustainable Development Goal states "Achieve gender equality and empower all women and girls". All the remaining 16 SDGs can be achieved only if a gender sensitive approach is applied, considering that the goals refer to development and improvement of certain topics for all. NACA can streamline its various programmes in line with these SDGs.

Organise some workshops to share not only the results and experience from the project but also approaches and methodologies. Develop more projects/studies on gender based on the case studies that we have done. –
Project Implementer

As NACA has a large network of collaborating governments and research centres distributed throughout the Asia-Pacific region, it has a major role to play to effect transformation within the system and in the attitudes of officials and researchers with regard to integrating gender in the workplace and in their initiatives. NACA can leverage aquaculture development to contribute

to the improvement of the Global Gender Gap Index (GGGI) of its member countries who are lagging behind. For example, among the LMI countries implementing this project described in this paper, none was within the top 10. In the 2014 GGGI report, out of 142 countries, Lao PDR was ranked at 60, Thailand at 61, Vietnam at 76 and Cambodia at 108 (WEF 2014). National level initiatives and efforts have to link with concrete implementation to improve the GGGI. The more gender is mainstreamed at higher governance levels, the more gender issues will feature in national fisheries and aquaculture policy documents.

With the support of the development and international communities which are the main donors for integrating gender into initiatives (USAID 2012; HLPE 2014), NACA can develop programmes that adhere to these principles in order to take the lead in the region for gender mainstreaming within the technical community, to achieve NACA objectives as well as meet the SDGs.

In order to effectively implement a gender research project by mainstream aquaculture institutions, some toolkits should be developed, to quantify values for gender analysis for project implementers to follow. Gender analysis in aquaculture should be linked with other aspects such as policy, women's rights, social roles, and in most nodes of the supply chain instead of just aquaculture farmers. – Project Implementer

Thanks a lot and I hope we can put more effort to strengthen gender and development in aquaculture and fisheries sector for the whole region. My organisation welcomes any cooperation and we are strongly committed to support the NACA in all areas of actions. – Project Team Leader

Conclusions & Recommendations

Both government institutions and non-government organisations show initiatives and efforts to promote gender in aquaculture through their policies and interventions. However, the degree of implementation especially of policies to the grassroots levels and the smaller governmental units may be different in each country. The differences may be due to insufficient capacity of fisheries officers and technologists to integrate gender aspects into the work place. Some development organisations, NGOs and social researchers have the expertise and

experiences in gender sensitive project implementation and these needs to be shared and disseminated among the mainstream aquaculture and fisheries community to help build up their capacity.

A growing interest and capacity in gender integration in aquaculture and fisheries should lead to actions, such as increasing capacity to implement effective gender programs; promotion of equal opportunities; and understanding participation and benefits in various nodes of the aquaculture value chains in order to create enabling environments for entrepreneurship, bring about empowerment and change and to communicate, disseminate, educate and network.

The importance of having a gender lens in all undertakings, from governance down to grassroots development interventions, is stressed. As the population is composed of both women and men, with different needs and responses, it is no longer enough to just generalise across the population and provide “one size-fits all” initiatives.

In the same way, it is then important for us in the aquaculture and fisheries sectors to consider at all times whether what we are doing promotes equality and equity between genders. We can ask ourselves whether our efforts and initiatives provide identical rights and opportunities to both men and women leading to equality, and whether there is fairness and justice in handling and treating the marginalised, leading to equity.

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