

Too Big To Ignore Research Report

Number R-04/2016

Too Big To Ignore

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Global Partnership for Small-Scale Fisheries Research

Symposium on small-scale fisheries in Asia-Pacific and beyond

August 6-9 2016

Kanchanaburi Province, Thailand

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RESEARCH

POLICY

MOBILIZATION

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I. Executive Summary

The Symposium on Small-Scale Fisheries in Asia-Pacific Region and Beyond took place between 6-9th of August 2016 in Kanchanaburi province, Thailand. The symposium focused on aspects of small-scale fisheries that are relevant for the Asia-Pacific region, particularly those related to inland fisheries, values of fish for food security, gender in fisheries, and community responses to global change. Since participants included those from within and outside Asia-Pacific, the symposium offered a unique opportunity for lesson sharing and cross-fertilization of ideas and experience.

The workshop was organized by the Too Big To Ignore project (TBTI, www.toobigtoignore.net), a global research network aiming to elevate the profile and importance of small-scale fisheries (SSF) around the world. The symposium brought together 35 participants from Asia-Pacific (Thailand, Bangladesh, Cambodia, Indonesia, Sri-Lanka, Australia, India, Philippines), North America (Canada, USA), Africa (Zimbabwe, South Africa), and Europe (Italy, Norway, France). See Appendix A for the list of participants.

Presenters at the symposium included TBTI partner organizations (i.e. FAO Headquarters and SEAFDEC), students, early career scientists, practitioners, and TBTI cluster coordinators and collaborators in Asia-Pacific, Africa, and North America. Ratana Chuenpagdee, TBTI Project Director, chaired the symposium and facilitated the discussion.

The symposium included overview presentations about the three TBTI research clusters, i.e. [Inland Fisheries](#), [Fish as Food](#), and [Global Change Responses](#). A special session on women and gender was also organized. This topic later became formalized as a [TBTI research cluster](#) at the symposium. Participants were invited to share experiences through short talks. The symposium also provided ample opportunities for discussion in small groups and in plenary. Presentation and discussion about the Small-Scale Fisheries Guidelines also took place, recognizing particularly the role that SEAFDEC plays in facilitating discussion about the regional plan of actions for Southeast Asia. The symposium ended with a visit to a fish market, a dam, and a tour of inland aquaculture.

II. Symposium objectives

The TBTI symposium on “Small-Scale Fisheries in Asia-Pacific Region and Beyond” explored the relevant small-scale fisheries issues in the Asia-Pacific region. Particular focus was placed on issues related to inland fisheries, values of fish for food security, gender in fisheries, and community responses to global changes.

The symposium was an opportunity to discuss research agenda and capacity development program needed for promoting sustainable small-scale fisheries and for the implementation of the Voluntary Guidelines on Securing Sustainable Small-Scale Fisheries (SSF Guidelines) in the region. As participants included those from within and outside Asia-Pacific, the symposium offered a unique opportunity for lesson sharing and cross-fertilization of ideas and experience, as well as fostering inter-regional collaboration in research and training. The insights and key messages from the symposium will be incorporated in the Asia-Pacific synthesis report that will be used to guide discussions at the ‘Science, Policy, and Community’ regional policy forum, planned for 2017.

III. Day one

Day one consisted of five consecutive sessions. Three of the sessions introduced the work of the existing TBTI research clusters, including *Inland Fisheries*, *Fish as Food*, and *Global Change Responses* clusters. One session was dedicated to a *Women & Gender* (now officially one of the TBTI research clusters). The *Information Sharing* session included the presentation from the Southeast Asian Fisheries Development Center (SEAFDEC), TBTI partner organization.

Session 1: Inland Fisheries

1.1. Global overview of inland fisheries by Simon Funge-Smith; UN-FAO, Italy

- ❖ Inland fisheries are mostly small-scale, and although they don’t dominate the global catch, 30 countries benefit from inland fisheries, with Asia leading the global catch on inland;

- ❖ The nutritional value of fish is an important aspect in low-income food-deficit countries. However, national governments typically underrate inland fisheries and show little interest in investing in inland fisheries management. This is partly due to the relative small volume of inland fisheries shown in national statistics, which do not reflect the real value of inland fisheries at a community level. Another problem occurs in instances when the economic value of inland fisheries is leveled against profit-oriented projects such as hydropower;
- ❖ Inland fisheries are also threatened by climate change. This threat applies, for instance, to inland fish that cannot adapt quickly or fish that may vanish due to their sensitive biology. Hence, it is important to incorporate inland fisheries into development policy. At the same time, when pursuing water management and protected ecosystems, there must be a willingness for trade-offs and for finding win-win solutions.

1.2. TBTI Inland Fisheries research cluster by Andrew Song; James Cook University, Australia

- ❖ There is an increased attention to inland fisheries and TBTI is part of this momentum through the work in two research clusters: *SSF Guidelines* and *Inland Fisheries*;
- ❖ *Inland Fisheries* cluster focuses on inter-sectoral governance, which is explored through 11 case studies from Asia, Africa, and Europe, all of which are featured in *Inland Fisheries* e-book. The insights from the e-book will be published in a synthesis journal article;
- ❖ The inter-sectoral governance relationships from the case studies fall into two categories: relationships within and relationships between sectors (e.g. capture and aquaculture, fishery and urban development). The case study analysis shows that relationship is not only negative or positive, but it can feature conflict and cooperation simultaneously. Secondly, improving external connections can be as crucial as managing internal relationships.

1.3. Sharing lessons session

Four symposium participants volunteered to share lessons based on their work and experience related to the inland fisheries. These include:

Jyothis Sathyapalan, Center for Economic and Social Studies, India
Thanyalak Suasi, SEAFDEC, Thailand
Tek Bahadur Gurung, Nepal Agricultural Research Council, and
Nimal Jayasingha Liyanaratne, Department of Fisheries and Aquatic Resources, Sri-Lanka

In **India**, the international trade restrictions positively impacted the approach towards the sustainable production of shrimp. At the same time, this propels grassroots stakeholders to meet the demands for new infrastructure, additional marketing channels, and awareness programs. In **Thailand**, the benefits of co-management are highlighted as an effective means in curtailing illegal fishing and empowering the fishing people. In **Nepal**, enhancing inland aquaculture presents opportunities in coping with poverty and food and nutrition problems. Also, engaging women and marginalized ethnic communities in entrepreneurship and cooperatives would improve the value of inland SSF. In **Sri Lanka**, the interaction between different levels of governing bodies (national to village levels) helped build collaborative governance.

1.4. Inland fisheries - general discussion

The discussion focused on two themes: research gaps in inland fisheries and the linkages of the inland fishery to food security, gender, and climate change. The following areas were identified as those where research gaps exist:

Increasing privatization: the impact of increasing privatization of inland fishing areas on access is not well understood.

Fisheries data gaps: issues such as species and catch are critical. To get a better understanding of these shortcomings, FAO relies on metadata. Other data gaps may include temporal data (e.g. water-use change) as well as the fish consumption by different groups (e.g. wealthy vs. poor groups).

Understanding 'hidden' fisheries: there is a need to better understand the 'hidden' fisheries (e.g. subsistence, aboriginal, part-time). For instance, subsistence fisheries are not well documented in places such as African countries and Canada. This issue may involve obtaining information about the hidden fisheries by mapping the inland water or using census or consumption survey.

Inclusion in the extensive monitoring system: need to consider how inland freshwater systems can be included in the big monitoring systems associated with sustainable development goals.

Understanding linkages: need to understand the linkages between inland fisheries to other inland systems (forestry, agriculture) as well as the diverse groups of people that manage or engage in inland fisheries. Inland fishers are dependent on water quality, hence watershed management, and are impacted by issues in another sector such as agricultural run-off. As suggested, fish could be considered as an indicator of water quality.

Women and gender: need to include the gendered dynamics of fisheries in inland fisheries research.

Regional representation and the input from fishers: need to gather different case studies to highlight key issues from various regions. It is also important to consider how the voices of fishers are taken into consideration in understanding the key issues.

Closing remarks: TBTI can contribute to informing policy as well as building case studies to help address data gaps issues.

Session 2: Fish as Food

2.1 Global overview of the contribution of small-scale fisheries to food security by Melinda Agapito; Memorial University of Newfoundland, Canada

- ❖ The initial findings from a meta-analysis of the three specific issues were presented. These specific problems include: (1) identification of the period when food security was discussed in the context of small-

scale fisheries; (2) determination of the correspondence between small-scale fisheries research and fish production and global index; and (3) the extent to which the four dimensions of food security are discussed in the literature;

- ❖ The analysis shows that in the mid-70s, Peru was looking at the role of anchovies in food security. It is possible, however, that food security in fisheries may have started long before this date but was not captured in research journals;
- ❖ Nutrition and poverty alleviation are common topics of food security issues in communities engaged in small-scale fisheries. Issues related to food security, e.g. fish consumption, income, and employment, are discussed. However, food insecurity among fishing households does occur due to declining fish catch, bad local policies, and global trade. It is important to note that small-scale fisheries also contribute to food security, even in the countries where HDI is relatively considered as average or high.

2.2. SSF research on the interconnectivity of food security and nutrition in Tanzania by Moenieba Isaacs; University of Western Cape, South Africa

- ❖ The research is based on transdisciplinary approach and uses in-depth case studies. The findings show that protein, especially from small pelagic, is a major source of nutrition and should be used less as feed meal;
- ❖ Women in small-scale fisheries help obtain food security at the household levels. Large-scale fisheries also contribute to food security, especially the canning industry as tinned fish is cheap, transportable, and has long storage shelf life;
- ❖ The extent to which fish contributes to nutrition and food security is influenced by food politics. For example, who's worthy of more protein: developing or developed nations;
- ❖ Fish as Food cluster is working on assembling about six articles that will be part of a special issue addressing food system and the importance of fish as food.

2.3. Sharing lessons session

Four symposium participants volunteered to share lessons based on their work and experience related to the fish as food. These include the following:

Wichin Suebpala, Chulalongkorn University, Thailand

Kim Hunnam, CDU-ANU, Australia

Shehu Akintula, Lagos State University, Nigeria

Ben Bolton, Michigan State University, USA

In Ko Chang **Thailand**, small-scale fisheries play an important role in household food security since fishers and family members keep bycatch for household consumption, along with about 5% of their daily catch. In **Timor-Leste**, a Ph.D. research examines the opportunities and barriers to enhancing the food security benefits of the Timor-Leste sardine fishery. In **Nigeria**, a study looks at the traditional and alternative fish processing methods and how they may impact national nutrition security. Additionally, in **Asian countries**, aquaculture production goes mainly toward domestic consumption and increases accessibility of fish to poorer consumers.

2.4. Fish as food - general discussion

The discussion was focused on issues in food security, taking into account two distinct categories: market and non-market (e.g. consumption, distribution). The following points were discussed:

Types of fish markets: there are three types of market for fish: a) low quality and small amount (household consumption); b) medium quality and medium amount (community and consumption in nearby communities); and c) export quality (province and beyond). There is a need to study the proportion of catch that goes to each of these markets, especially those that are retained for household and local consumption.

Malnutrition: the issue of malnutrition (e.g. wasting, stunting) is increasing, and research gap in this area is extensive, particularly in the Asian context.

A holistic approach to food: food is a holistic concept that requires a comprehensive research approach, to address diverse issues, such as food

sovereignty, food as entitlement, and food safety (e.g. pesticide contamination). There is also a growing tension between aquaculture and marine capture, particularly in Asia. Other sectors need to be engaged in the discussion. In Mozambique, for example, health departments are not involved in fish processing.

Value chain analysis & and the politics of food: there is a need for careful analysis of the value chain, from production to consumption, and the politics of food. There is macro-aspect (regional disparity on food security) and micro-aspect (food waste) issues that need to be understood and communicated. Different methods can provide different stories, and there is a need to build a cohesive story or compelling evidence that will speak to the policy-makers. Perhaps, we also need to look at the balance between meta-data analysis and in-depth case studies.

Closing remarks: it could be helpful to frame concepts and approach that speaks to regional specific issues. Participants were encouraged to provide contribution at the various levels (e.g. local, regional, international) where TBTI fish as food cluster is involved.

Session 3: Information Sharing

A representative from SEAFDEC made a presentation to introduce the organization and the nature of their work. SEAFDEC's partner countries and their technical departments work on different aspects of inland and marine fisheries. Currently, SEAFDEC is involved in the discussion about current and future efforts in implementing the SSF guidelines in Southeast Asia.

Session 4: Gender in Fisheries

4.1 Gender in Fisheries, Fisheries Communities and Feminist Perspectives by Siri Gerard; Arctic University of Norway, Norway

Siri discussed the theoretical basis and different theories of science that are relevant to knowledge production and gender and feminist research.

Women research is typically left out in research: relatively few articles that recognize the role of women and gender in fisheries. The aim of women and gender research is to represent women and gender roles in research. Forgoing women and gender research is like losing 50% of the fish production and processing;

Theories of science and approaches that can be used in gender research: these include feminist empirical basis, classical standpoint feminist research, and postmodern feminist perspectives. For example, the feminist empirical basis can be used as an analytical strategy to makes the gender roles and gender relations in small-scale fishing communities visible;

Feminist research is critical analysis: gender research should focus and understand women's practices, interests, and perspectives in a critical and realistic way.

4.2 Gender in fisheries: TBTI studies by Katia Frangoudes; Université de Brest, UMR-AMURE, France

Women's active role in fish value-chain: women typically perform roles during the pre-harvest, harvest, and post-harvest;

Women's low participation in decision-making: this issue requires that women get engaged in capacity development activities like the growing projects in European countries to address this issue.

Barriers to gender equality and equity in fisheries: this will require a systematic approach to empowering women such as through education, training, participation in decision-making and recognizing their role and contribution in SSF.

4.3 Sharing lessons session

Three symposium participants volunteered to share their on-the-ground efforts on gender issues:

Marita Rodriguez, NGO for Fisheries Reform, Philippines

*Sumitra Ruangsivakul, SEAFDEC, Thailand (with Seiichi Etoh and Jariya Sornkliang)
Kumi Soejima, National Fisheries University, Japan*

In the **Philippines**, women participation from pre-harvest to post-harvest comprises around 50-90%. Women groups also manage fishing ground and fish sanctuary. In **Cambodia**, a fishers' group composed of women are directly involved in establishing and management of marine refuge. Specific activities women actively involved themselves include scientific work in identifying and monitoring the refuge and enforcement. In **Japan**, there are about 364 women groups involved in entrepreneurship that produces and sells fish products, typically from underutilized and discarded local fish.

4.2 Women and gender – general discussion

- ❖ *Whether gender can be a separate TBTI research cluster:* currently, gender is mainstreamed in all research clusters, but there was a general consensus that a separate cluster for gender and women is useful for the following reasons. As a separate cluster, it can deal with policy issues directly without thinking of other issues. The cluster also needs expert guidance that a separate cluster could provide;
- ❖ *Wider extent for research.* Gender is based on situated knowledge that needs focused research. Gender has been of a western construct, and there is a need to examine it with a wide global perspectives;
- ❖ *Women face marginalization for multiple reasons,* but when given the capacity needed, they perform well, and hence a focused attention on this issue may be served well with a separate cluster.

Session 5: Global Change Responses

5.1 Global change responses: An overview, with SSF Voluntary Guidelines and Asia-Pacific region in mind by Fikret Berkes; University of Manitoba, Canada

Fikret highlighted the following research and development agenda in response to global change and as inspired by SSF voluntary guidelines.

SSF and socio-ecological systems: SSF communities are part of the complex coastal management system, hence social systems and ecological systems are

considered to be linked and interdependent. Therefore, social-ecological systems can be used as the unit of analysis;

Global change propelled by climate change creates uncertainty: in response, social security is needed, and the most effective is internal to SSF such as livelihood diversification;

Global change and biodiversity conservation: while some SSF communities see marine protected areas (MPAs) as threats, some see the value and create their own MPAs (e.g. Maori of New Zealand); preferential access to SSF can also be used;

Governance responses to change: can include the use of human rights-based approaches such as decentralization or village level management of resources in Cambodia and co-management in Chile.

5.2 Global Change Responses: Chilika Lagoon, Bay of Bengal Case as it Fits the Global Change Responses Cluster Objectives by Prateep Nayak; University of Waterloo, Canada

Change in Chilika lagoon: the shift to shrimp aquaculture led to questions about access and use rights.

Consequence and coping mechanism: along with the declining fish capture, the changes in Chilika lagoon lead to other livelihood alternatives such as domesticating goats, working in tourism or elsewhere as migrant workers.

Policies and other types of interventions required: the Chilika lagoon would need support from the government in building and strengthening local institutions and in experimenting new ways of fishing and fishing technology.

5.3 Sharing lessons session

Two symposium participants volunteered to present their related current work that speak to global change responses.

Mahmud Islam, Sylhet Agricultural University, Bangladesh
Jennifer Gee, FAO, Italy

In **Bangladesh**, changes in freshwater flow lead to loss of habitat and destructive fishing activities. The increasing occurrence of extreme events such as cyclone makes the livelihood of most coastal fishers vulnerable to damages and losses put further pressure on fisheries resources. The second presentation was related to data gaps in small-scale fisheries, which, in part, affect the ability to understand global changes. Many of SSF activities are not documented (e.g. gleaning activities). Through regional assessment of livelihoods from socio-economic data, FAO is hoping to address data gaps.

5.2 Global Change Responses – general discussion

Suggested responses to global changes

- ❖ Agro-based industry;
- ❖ Community approach such as establishment of cooperatives and community-based activities such as cleaning the lake;
- ❖ A need to look into small pelagic that are sensitive to climate change;
- ❖ Develop an early warning system to help make decisions;
- ❖ Develop an evaluation framework that focuses on measuring progress and social benefits;
- ❖ Issues on data gaps need to be resolved to assess global changes;
- ❖ Analyze government response which could be a mismatch to what is needed; and
- ❖ Look into social learning (incremental learning) that can be shared and acted upon.

IV. Day two

Day two started with a presentation on the role of TBTI in promoting the SSF Guidelines and the rest of the time was devoted to two breakout group discussions on three topics: inland fisheries, fish as food, and gender. The first breakout discussion aimed at identifying challenges and opportunities in small-scale fisheries sustainability. In the second breakout discussion, preliminary suggestions for policy statements were developed.

Session 6: SSF Guidelines

Ratana Chuenpagdee (TBTI Project Director) presented the role of TBTI in elevating the profile of SSF as well as arguing against its marginalization in national and international policies. Through the 12 research clusters, TBTI aims to achieve its goal by fostering regional and international collaborative efforts. One of these clusters is the SSF Guidelines, which has been involved in the development and the implementation of the SSF Guidelines. The components and ways of implementing the SSF guidelines were the highlights of the presentation. TBTI is currently working on 30 case studies to introduce and unpack the value of the SSF guidelines.

Session 7 and 8: Break-out group discussions

Challenges and opportunities in SSF

Summary and next steps Towards SSF Sustainability



Left: Break-out sessions of three research clusters: Fish as Food, Inland Fisheries, and Women and Gender **Right:** Fish as Food Cluster discussing the role of small-scale fisheries in nutrition

These sessions focused primarily on the research and policy priorities of each research cluster about the challenges and opportunities in SSF. The following are the summary outputs from the three research clusters.

[Inland fisheries cluster](#)

Participants identified essential themes and needs to address in inland small-scale fisheries, and the linkages between the inland context and other clusters, such as Gender and Fish as Food.

Key points discussed relevant to research and policy priorities

- ❖ Emphasize ‘hidden’ small-scale fisheries at the policy level, including inland subsistence, Aboriginal, part-time, and migratory fishers;
- ❖ Highlight awareness of barriers to access in inland small-scale fisheries, including increasing levels of privatization, shifting of fisher to laborer identities, lack of opportunity for fishers to speak for and advocate on their behalf;
- ❖ Improve strategies for addressing data gaps in inland small-scale fisheries, including developing a broader baseline database, improving the quality of existing data, exploring the potential for using proxy estimators such as consumption surveys and GIS mapping, evaluating alternate and novel theories such as e-flows;
- ❖ Account for inland-specific concerns in policy discussions, including accounting for the high diversity and interconnectedness of fisheries and drivers, recognizing the importance of the entire value chain from harvest to sale, and acknowledging the values and challenges inherent in the case study approach.

Fish as food cluster

Key points discussed

The role of small pelagic fish and inland fish to food security: pelagic fish tends to be low-value and less expensive, hence, more affordable for local consumption in East-Timor Leste, India, and other Southeast Asian countries. In Indonesia, inland catch keeps fish on the table especially for the poor. However, in many instances, fish diet has become less diverse in part due to few species supported by aquaculture.

Valuable uses of bycatch: most bycatch is either used for household consumption (India, Cambodia) or turned into powder as fishmeal for the cultured fishery

(Bangladesh, India). The bycatch from big boats in Mozambique is shared with small boats, but this practice may not run for a long time. In Zimbabwe, fish catch is low but fish is fully utilized; none is wasted or go to fishmeal.

Define 'quality' fish and bycatch: since most edible bycatch is typically consumed locally in Asian and African countries, the definition of 'quality' against 'wasted' fish like bycatch may also be context related.

Increased focus on the international market: over the last three decades, Southeast Asia became a world exporter of fishery products. This change in the global market made local people food insecure as less fish is available for local consumption. In Indonesia, chicken and eggs have become cheaper and more affordable for local consumption, thus replacing fish consumption. Some local poor small-scale fishers, however, still cultivate the practice of providing fish to relatives.

Post-harvesting requires technology development: concerns about inadequate technology result in food safety issues and losses. Technological adaptation is needed to adapt to the requirement of international market as well as to avoid losses.

In Cambodia during high season, the lack of suitable technology results in the use of chemicals. Cambodia also imports fish from Thailand and Vietnam that are also contaminated, probably due to insufficient technology (but more likely overuse of chemicals). In Zimbabwe, technology is available but is not affordable to small-scale fishers. A low-cost technology is needed to prevent post-processing losses. In Mozambique, concerns on sanitation exist during the post-harvest activities due to lack of required technology.

The contribution of fish to nutrition needs recognition: fish protein is the primary source of proteins in Asian and African diets especially those living close to the coast. The decreasing catch or access to fish, however, causes poor nutrition, leading to wasting and stunting, especially among children. Although increasing research shows that fish has significant macro and micro-nutrients to fight malnutrition, making fish more available for consumption is given less attention, compared with rice which has a lesser amount of nutrients. In Indonesia, fish is the source of half of the micronutrient requirements of the population while

meats provide a third. Policies on food, however, are silent about the value of fish. For example, rice and beef are governed by ceiling prices but not the fishery products.

Challenges brought about by inflation: it requires a strategy to keep fish on the table especially for the poor population. In Thailand, fish has become more expensive, and chicken has replaced the image of fish as being affordable to the poor. About 30% of fish production goes to export making fish more expensive locally. In Indonesia, there is no control price mechanism for fishery products that attempts to make it more affordable to the public. In Bangladesh, capture fish has become less accessible to people.

Alternatives implemented in response to malnutrition: in Cambodia, several interventions using innovative fish products are being made to address malnutrition. These include the production of noodle and powdered fish, fish fortified bean sauce, a fish meal of consumption grade, and fish cake program. These types of products result in increase distribution and fish consumption. However, demands for better technology are needed.

Food security policy needs to integrate the value of fish: while there is a food security sustainability policy and institution in Mozambique, it lacks representation from the fishery sector. In Zimbabwe, the contribution of fisheries in income and nutrition is not discussed; neither is its importance at a national level.

Policy priorities

How to improve the full utilization of fish? Consumption of bycatch remains a good practice in Asia. However, opportunities for improvement in this area through affordable technology are still needed. The 'wastes' from processing fish fillets in the west could also present opportunities in the Asian market.

How to keep fish accessible to the poor? The inflation, declining fish catch, and international markets dynamics make fish less available to the poor.

How to address food safety and post-processing issues? Technology is also required to address food safety issues in Asia and African regions. Better technology to support the existing fishmeal production of human consumption grade can help with addressing malnutrition.

How to increase recognition of the nutritional value of fish? Fish as food needs to be incorporated in food security programs. This policy issue exists in Mozambique and Indonesia but could be a common issue in many other African and Asian countries. There is also a need to encourage the nutritional value of consuming fish and reflecting it in nutritional guidelines.

Research priorities

Questions: understand the extent of losses at various levels (harvest, post-harvest such as processing and distribution). The following questions are useful:

How do the losses occur and the quantity involved?

How to address the losses and what are the best practices to counter the loss?

What are ways to make fish more available for consumption in order to address malnutrition and losses?

Methods: this should be approached using socio-economic survey (e.g. participatory survey) and secondary data if available.

Women and gender cluster

Following two presentations on gender fisheries and gender theory, participants at the TBTI symposium considered that gender/women issues in small-scale fisheries is an important issue within the small-scale fisheries sector and that it is necessary to create a new cluster on this topic. Before this decision took place, women/gender issues were developed in the different clusters of TBTI because gender is a cross-cutting issue for all research topics.

The decision to create a gender independent cluster was also motivated by SSF guidelines that call for a specific attention to gender equity and equality.

Symposium participants considered that this international text offers new opportunities towards gender equality and equity within fisheries communities and small-scale fisheries. The cluster is aiming to contribute to the development of gender research in small-scale fisheries and also to gather the existing unwritten material related to the progress already made in gender equality. Cluster activity on women/gender equality and equity will support the SSF guidelines and contributes to the implementation of this international text.

Research priorities

Women are key actors in small-scale fisheries and coastal communities: they play a major role, either for being engaged in culture or capture operation on the water or land, for processing the fish, for selling the fish, and any other involvement related to administration and commitment to the community.

Recognition of the equal participation of men and women in fisheries: it requires additional knowledge about women's status in the various stages of fish value-chain.

Question: what are the areas of inequality and inequity in different cultures (norms, values)? What are the barriers and how to overcome them?

Methods: (1) Illustrations of success stories in inequality reduction and self-perpetuating inequality situations; (2) approach that recognizes the importance of situated research, analytical effort of contextualization; and (3) learn from successful stories that contribute to the reduction of equity and inequality and share these lessons.

Possible domains of research

- ❖ Recognition of their contribution and access to rights on resources (e.g. fish, land);
- ❖ Access to credit;
- ❖ Control of the income they generate;
- ❖ Consideration of security and health of women;
- ❖ Access to social rights (health, retire pension);

- ❖ Working conditions and equal pay for women working in fish processing industry;
- ❖ Participation in decision making;
- ❖ Access to education and technology;
- ❖ Women and climate changes / education of women to preparedness to extreme events;
- ❖ Women participation in adaptation strategies (e.g. identification of women needs).

Targets

1. Write a landmark paper through the following:
 - ❖ Make use of available statistics to set the importance of women in fisheries in quantitative terms (accuracy is not the point) as well as identify major data gaps;
 - ❖ Reflect on a limited number of issues of interest through available stories;
 - ❖ Provide a meta/cross-cutting analysis of situated research and identify how they may be interconnected or able to “talk to other”
 - ❖ Issues and analysis to be worked out collectively.
2. With the collective paper as the background, publish internationally all the “stories” and material available.
3. Develop a policy agenda
 - ❖ Mainstream gender within administration, politics, and research to gain more attention and support to gender issues especially from the policy sector;
 - ❖ Improve women working condition through better access to sanitation and reduce exposure to hazards (chemicals in processing, aquaculture).
4. Consideration for policy statement at a general level
 - ❖ Small-scale fishing is not the last resort. It provides unique opportunities for poverty alleviation, household well-being, and it is a culture including a way of life based on independence;

- ❖ Small-scale fisheries shall have a voice in policy formulation and each country shall ensure a policy dedicated to women in small-scale fisheries.

V. Day three

The symposium participants visited a local fish market, a dam, and inland aquaculture (floating fish farm) in Kanchanaburi Province, to gain awareness about some of the issues and situations related to small-scale fisheries in Thailand. The visit to the fish farm required a short boat ride, facilitated by the Thailand Department of Fisheries.



Left: Andrew Song and Jyothis Sathyaplan during the visit to a local market where locally caught fish are sold. **Right:** visit at the small-scale aquaculture farm

VI. Acknowledgements

We would like to thank all workshop participants for their active contribution to this symposium and for providing many insightful ideas. Department of Fisheries of Thailand provided generous support to facilitate the field visit. We also thank Vesna Kerezi for editing this document and Jyothis Sathyapalan for providing the photos.

VII. Appendices

Appendix A - Wokshop participants

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Appendix B – Workshop agenda

Saturday, August 6, 2016

Day 0: Travel day	
14:00	Bus leaves from Beat Hotel for Kanchanaburi (see # 1 below)
18:00	Dinner en-route
20:00	Check-in at the hotel

Sunday, August 7, 2016

Day 1: Talks and share	
08:30-08:45	Welcome and introduction
08:45-10:30	Session 1: Inland fisheries <ul style="list-style-type: none"> ➤ 15 min on "Global overview" by Simon Funge-Smith ➤ 15 min on "TBTI studies" by Andrew Song ➤ 30 min on "Sharing lessons" by participants (#2) ➤ 45 min "General discussion"
10:30-11:00	Refreshment break
11:00-12:45	Session 2: Fish as food <ul style="list-style-type: none"> ➤ 15 min on "Global overview" by Melinda Agapito ➤ 15 min on "TBTI studies" by Moenieba Isaacs ➤ 30 min on "Sharing lessons" by participants (#2) ➤ 45 min "General discussion"
12:45-13:30	Lunch Session 3: Information sharing <ul style="list-style-type: none"> ➤ 15 min about "TBTI" ➤ 15 min about "SEAFDEC"
13:30-15:15	Session 4: Gender in fisheries <ul style="list-style-type: none"> ➤ 15 min on "Global overview" by Siri Gerrard ➤ 15 min on "TBTI studies" by Katia Frangoudes ➤ 30 min on "Sharing lessons" by participants (#2) ➤ 45 min "General discussion"
15:15-15:45	Refreshment break
15:45-17:30	Session 5: Global change responses <ul style="list-style-type: none"> ➤ 15 min on "Global overview" by Fikret Berkes ➤ 15 min on "TBTI studies" by Prateep Nayak ➤ 30 min on "Sharing lessons" by participants (#2) ➤ 45 min "General discussion"
18:30-	Dinner

Monday, August 8, 2016

Day 2: Plot and plan	
08:30-10:30	Session 6: “SSF Guidelines” <ul style="list-style-type: none"> ➤ 20 min on “SSF Guidelines and TBTI” by Ratana Chuenpagdee ➤ 20 min on “Regional approach to the implementation of the SSF Guidelines” by SEAFDEC ➤ 80 min roundtable discussion on “Ingredients for successful implementation”
10:30-11:00	Refreshment break
11:00-12:45	Session 7: Small group work <ul style="list-style-type: none"> ➤ Inland fisheries ➤ Fish as food ➤ Gender ➤ Global responses
12:45-13:30	Lunch
13:30-15:30	Session 8: Break-out group discussion on “Challenges and opportunities in SSF” <ul style="list-style-type: none"> ➤ Challenges and how to overcome them ➤ Opportunities and how to benefit from them
15:30-16:00	Refreshment break
16:00-17:30	Session 9: Summary and next steps “Towards SSF Sustainability” <ul style="list-style-type: none"> ➤ Policy priorities ➤ Research priorities ➤ Capacity development priorities
18:30-	Dinner

Tuesday, August 9, 2016

Day 3: Field excursion	
07:30	Check-out and depart for a visit to a dam and inland fisheries
~ 20:00	Back to Bangkok; hotels and airport drop-off

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