

## Gender and change in the spotlight: Researchers must engage with grassroots groups<sup>1</sup>

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Fishery changes — caused by modernization and mechanization, globalization and environmental disasters — shift the working spaces and continually destroy and create jobs and livelihoods, and bring greater overlaps in women's and men's roles in the household, factory and market place. In view of these developments, the time is ripe for researchers to reach out to grassroots groups to get gender more firmly on the fishery sector agenda.

"Gender and fisheries studies are increasingly addressing change and how women and men are affected by them," said Dr Nikita Gopal who led the Program Committee that organized the highly energetic and successful 4<sup>th</sup> Global Symposium on Gender in Aquaculture and Fisheries (GAF4). "For example, small changes such as bringing migrant labour into Japan's oyster industry and large changes such as formalizing cross-border fish trade in Cambodia brought positive changes for some women, and setbacks for other women and men, including the elderly. GAF4 also continued to fill in the picture for women and gender in the fishery sector."

At GAF4, 28 oral presentations, 1 poster and 4 mini-workshops and panels were given. Feedback declared GAF4 the most successful and highest quality of the 6 women in fisheries and gender in aquaculture and fisheries events held by the Asian Fisheries Society over the last 15 years.<sup>3</sup>

Four major threads ran through GAF4:

1. the gendered impacts of fishery sector change;
2. gender assets and roles;
3. challenges and tools to meet future needs; and
4. the road to mobilization to achieve gender equality in aquaculture and fisheries.

Out of these threads, researchers and grassroots representatives will conclude that they need to suspend pre-conceived ideas about gender roles and

relationships because many of these are in flux. Researchers need to develop further and make better use of rigorous qualitative social science research methods. Through their participatory nature, and to ensure ethical approaches, such methods will bring researchers and grassroots participants closer, which is an essential step in mobilizing support for gender equality.

The AquaFish Cooperative Research Support Program (AquaFish-CRSP) Best Paper prize was won by Kumi Soejima (Japan) for her paper "Changes in the roles of women and elderly persons within oyster aquaculture in Japan." The AquaFish-CRSP Best Student Paper prize was won by Piyashi Deb Roy (India) for her paper (with R. Jayaraman, M. Krishnan and K. Criddle) "Importance of mangrove conservation and valuation to women – A case study of Pichavaram mangroves in India."

A special part of GAF4 was the Special Session in Honour of Dr M.C. Nandeesh, sponsored by the AquaFish-CRSP and dedicated to the life and work of Dr Nandeesh who established the Asian Fisheries Society (AFS) gender in aquaculture and fisheries work.

GAF4 was supported by AFS, grants from the AquaFish Cooperative Research Support Program of the USA, the Norwegian Agency for International Development, the Indian Council for Agricultural Research, the Network for Aquaculture Centres in Asia-Pacific, the Korean local organizing committee for the 10<sup>th</sup> Asian Fisheries and Aquaculture Forum, and the home agencies of the many presenters and participants.

### **Nothing stands still: The gendered impacts of fishery sector and personal change**

Fish production, processing and trade are all changing, interacting with women's and men's lives and their business decisions, often in surprising ways.

<sup>1</sup> This article is an extract from the full report of GAF4. The full report can be viewed at: <http://genderaquafish.org/gaf4-2013-yeosu-korea/>

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<sup>3</sup> The first five events were: 1998 Asian Women in Fisheries (Chiang Mai, Thailand), 2001 Global Women in Fisheries (Kaohsiung, Taiwan), 2004 Global Gender and Fisheries (Penang, Malaysia), 2007 2nd Global Gender and Fisheries (Kochi, India), 2011 3rd Global Gender in Aquaculture and Fisheries (Shanghai, China). See [www.genderaquafish.org](http://www.genderaquafish.org) for the proceedings and other information.

### Fish trade and processing

Eight years after her earlier study,<sup>4</sup> Kyoko Kusakabe revisited the situation of women trading fish from Tonle Sap in Cambodia across the border to Thailand.<sup>5</sup> The trade has changed: fish for export has declined, trade is now formal and other economic opportunities have opened up in Cambodia, leading to different outcomes for different women traders. Some savvy traders grew to become larger traders then moved to other businesses; others grew and went bankrupt; some maintained medium sized businesses and took in Vietnamese- and Thai-imported fish; others stayed small; and some new ones entered. The outcomes demonstrated interplay between the economic positions of the traders and influences from their own changing life stages and changing responsibilities, including reproductive responsibilities. The outcomes challenged earlier assumptions and exposed contradictions. For example, women could not have dominated trade because it was suitable “women’s business”, and still succeeded in what is seen as a risky, dangerous and competitive business.

In Japan, local young women and elderly women and men have long been employed in shucking oysters, keeping smaller family farms viable, especially in the main farming area around the Seto Inland Sea. But the industry is now undergoing many changes. Kumi Soejima’s prize-winning case study in Oku town, Okayama Prefecture delved into how the apparently small act of bringing in young Chinese women workers had far reaching positive and negative impacts on women and men.<sup>6</sup> Local women and elderly women and men lost jobs that gave them a sense of purpose in useful roles, and oyster enterprises developed along polarized paths, some stagnating in adhering to traditional practices, others scaling-up and diversifying their oyster

products. Some women in oyster-farming families, according to their individual means and preferences, have taken the opportunity of being freed from the shucking work to become more significant business actors in family enterprises. Among the massive changes in the Japanese oyster industry, the gender changes are significant, complex but little studied and remedial actions to assist those affected, especially the elderly, are not happening.

When GAF4 was held in Yeosu in early May, the world was still reeling at the mounting death toll (eventually 1,127 people) in the collapse of a Dhaka, Bangladesh building that housed export garment factories. When Mohammad Nuruzzaman spoke about social justice and rights of 50,000 workers (80% of them women) in 90 shrimp and prawn processing factories in Bangladesh, he addressed a sensitized audience.<sup>7</sup> The processing sector has been harshly criticized locally and internationally for not complying with labor laws and basic human rights. To overcome these problems and spurred by the European Union and United States trade sanctions, the United Nations Industrial Development Organization joined with the Bangladesh government and the export industry in developing manuals, training trainers on the labor laws and their implementation, assessing compliance and interviewing workers over their conditions. Progress is perceptible but still leaves much to be desired. Awareness has been raised but many top executives are still not convinced; the intermittent nature of the processing loads means that much work is contract labor and compliance is thus harder to achieve; and men still fare better than women in the workplace.

Nuruzzaman contrasted three different viewpoints on women’s labor conditions in the processing factories: the patriarchal, the feminist and the neutral views (Table 1). Each of these views

**Table 1.** Different viewpoints on women’s labor conditions in the processing factories.

<b>Patriarchs’ view</b>	<b>Feminists’ view</b>
<ul style="list-style-type: none"> <li>• Jobs have been created</li> <li>• Status of workers has escalated both in the family and in society</li> <li>• Thousands of other people are still unemployed</li> <li>• The workers can enjoy their spendings</li> <li>• The workers take part in decision-making in their families</li> </ul>	<ul style="list-style-type: none"> <li>• Women experience strong discrimination</li> <li>• Women are deprived of rights and benefits</li> <li>• Gender opportunities are unequal</li> <li>• Violence is happening against women at work</li> </ul>
	<b>Neutral view</b> <ul style="list-style-type: none"> <li>• Women’s practical gender needs are being met</li> <li>• Good work space is created</li> <li>• The understanding of strategic gender needs is increasing</li> </ul>

Source: Mohammad Nuruzzaman, [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_20.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_20.pdf)

<sup>4</sup> Kusakabe K., Sereyvath P., Suntornratana U. and Sriputinibondh N. 2006. Women in fish border trade: The case of fish trade between Cambodia and Thailand. p. 91–10. In: Global Symposium on Gender and Fisheries. Choo P.S., Hall S.J. and Williams M.J. (eds). Seventh Asian Fisheries Forum, 1–2 December 2004. Penang, Malaysia: World Fish Center and Asian Fisheries Society.

<sup>5</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_7.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_7.pdf)

<sup>6</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_17.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_17.pdf)

<sup>7</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_20.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_20.pdf)

has a degree of truth and some shortcomings. New trade unions show some promise of redressing female and male workers' injustices in fish processing workplaces. However, vigilance is needed because the export sector is likely to still continue to develop strongly and be under pressure to keep costs low to ensure profits.

### **Aquaculture and fishery production changes**

Aquaculture in Norway is one of the greatest global success stories. Norway's farmed fish production overtook wild-capture fish production in 2005, thanks largely to increased efficiency in Atlantic salmon (*Salmo salar*) production. But as Bodil Maal (Senior Gender Adviser for the Norwegian Agency for International Development) revealed, the 600% increase in salmon production since 1990 had been accompanied by a per employee production increase of 450%, resulting in nearly jobless growth.<sup>8</sup> More worryingly, women's employment in the salmon industry plummeted from 20% in 1990 to just 9% in 2010. This was largely due to the concentration of farm ownership, accompanied by centralization and heavy mechanization of operations that decimated family farms and undermined local community ownership. More than half the production is done by just six stock-exchange listed companies.

In India, the state of Kerala is the most important fishing state in terms of its share of exports (40%) and the intensity of production relative to coastline. Since the 1960s, fisheries mechanization has been among the most relentless transformations but its positive and negative consequences on gender and other socio-cultural dimensions has not been well studied, according to Nikita Gopal.<sup>9</sup> She and colleagues analysed the largely negative outcomes for women in the offshore ring seine fishery, stake net fishery and clam fisheries of the backwaters. Conducted by the Latin Catholic community, the capital intensive ring seine fishery has become more so. As the landings have moved from beaches into harbors, women fish processors and traders have been marginalized and fish handling has become organized and taken over by men. The stake net and clam fisheries are operated by the Hindu Devara community. Stake nets rely on traditional rights to the fishing sites. Women are important in processing the landed stake net catch. Stake net site inheritance and granting of rights as women's dowry has been suspended for two generations as the government

stopped formal support for the area rights. Widows and single mothers often hold and lease out area rights to survive. In clam harvesting, women once harvested clams along with the men but men have taken over and mechanized the fishery, effectively restricting the women's work to shucking and marketing the meat. In the cement industry, the shells of the black clam (*Villorita cyprinoides*) are used as lime because of their high calcium content.

Jenny Shaw and Leonie Noble (a researcher, and a fisher and community leader, respectively, both from Australia), used Photovoice to investigate the community impacts of environmental and fishery change in Houtman Abroholas, low islands off Western Australia that are at the edge of severe climate and resulting fishery impacts.<sup>10</sup> Fished for 100 years, the islands entered a new phase of community fishery consultation in the 1990s under a women state premier. Unfortunately, this consultation was discontinued under subsequent conservative governments and women's inputs to the consultation process were lost, to the detriment of community-friendly management decisions on the climate-affected western rock lobster (*Panulirus cygnus*) fishery. The investigation graphically documented the devastating collapse of a once-vibrant community and its social, cultural and physical assets.<sup>11</sup> Women and families have suffered a loss of services, long absences and stress of reduced incomes from husbands, sometimes leading to domestic violence and loss of intergenerational connections. The study made a compelling argument not only for including women in community leadership and consultation but also in fishery management decisions. Women postulated that a different management regime (seasonal closures rather than quotas) could have saved the islands' communities as well as the fishery.

Angela Lentisco shared some lessons learned from the Spain-FAO Regional Fisheries Livelihoods Programme (RFLP) of South and Southeast Asia for which she is the gender advisor.<sup>12</sup> RFLP is taking a principled approach to development and turning up pleasant surprises in traditional gender role reversals. In a number of countries, RFLP finds that men are providing support to their wives who were carrying out alternative livelihoods activities. For example, in Vietnam, husbands are helping their wives with chicken raising, while in Sri Lanka men are supporting their wives' handicraft group and also making home gardening a family activity.

<sup>8</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_14.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_14.pdf)

<sup>9</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_16.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_16.pdf)

<sup>10</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_9.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_9.pdf)

<sup>11</sup> In May 2013, the museum exhibition based on this work won an award in its class in the Australian Museums and Galleries National Awards (MAGNAs).

<sup>12</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_33.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_33.pdf)

RFLP teamed up with the Vietnam Women's Union to hold workshops to raise awareness of gender issues among members of fishing communities. A large number of men (approximately 40%) were also involved and this helped dispel the impression that gender was "women's business" and led to far more useful discussions on gender roles in the community. In Sri Lanka, going out to sea to fish is almost exclusively the role of men. However, by involving women in RFLP's safety-at-sea training for fishers, women learned about the importance of life jackets and other basic safety steps and encouraged their husbands, brothers, fathers and sons to adhere to them.

### A great diversity of gender assets and roles

Presentations from countries in Africa, Asia and West Asia, explored the spaces, assets and roles of women in aquaculture and fisheries. We mention a selection of the presentations.

#### India

The edible Indian oyster (*Crassostrea madrasensis*) seems to have good potential for culture based on natural spatfall. A project in the coastal community of Moothakunnam in Ernakulam District, Kerala, by Femeena Hassan and colleagues targeted women's self help groups (SHGs) as a vehicle for testing socio-technical extension.<sup>13</sup> The district has a high ratio of women to men but many women are not involved in the economy directly. SHGs were trained in rack and string (ren) culture farm management, the techniques and importance of depuration and hygienic post-harvest processing, including of value-added and long life products. Early results show that the enterprises can be profitable. A longer-term challenge will be to keep the women in charge if, as expected, the enterprises become profitable.

The Pichavaram mangrove area of Tamil Nadi, southeast India, bore the brunt of the 2004 Indian Ocean tsunami, and one village, MGR Thittu was almost totally destroyed. Piyashi Deb Roy used this village as a study site to estimate the value villagers now put on mangroves for coastal protection.<sup>14</sup> Her presentation won the Best Student Paper Award. Using contingent valuation methods, she investigated village people's willingness to pay for mangrove protection. Slightly more women (79%) than men (67%) were willing to pay. Men, on average were willing to pay more than women, but the spreads of hypothetical payments were large for both women and men. Women's reasons for being willing to pay were wide ranging, including

ecological (e.g. protection against storms), cultural (e.g. fisheries and firewood), family livelihoods (e.g. crab fattening, mangrove nurseries), ethical (e.g. a place of worship) and recreational uses in their leisure time. Women made a strong case for being given management responsibility for the mangroves, given their wider use and appreciation of the many values of the mangroves. Their stewardship could be helped through training to realize their life and livelihood interests.

#### Nepal

As reported by Sunila Rai,<sup>15</sup> a successful sequence of projects introduced polyculture of carp and small indigeneous species (SIS) to women farmers, predominantly of the important Tharu ethnic group from the foothills of the Himalayas. The SIS (14% of production) were intended mainly for household consumption because of their high vitamin A and iron levels, and the carp (86% of production, six species) for sale. Biotechnical problems were sorted out in the early years of the project in Chitwan and Kailali districts, and impact studies showed that farmers consumed nearly half their production, giving them a fish consumption rate twice the national average. In addition to nutritional and income benefits, the training and project experiences built collective assets such as confidence and local cooperation. Individual assets also grew. Leaders emerged, such as one woman who rose to become the cooperative president and another who became a technical field supervisor.

#### Oman

Many official reports from Arab countries say that women do not fish due to religious and cultural reasons. But in Oman, an old saying is that "behind every boat, is a woman," referring to women's activities in all stages of fishing. Modern Oman, however, is reducing women's fishing space but, as Khlfan Al Rashdi found, in special niche fisheries women are still active.<sup>16</sup> In Al Wusta region, near the "empty quarter" of the Arabian Peninsula, Bedouin women harvest gastropods (locally called *rahas*), echinoderms (especially high-value sea cucumbers), cephalopods and bivalves. In the marine snail fishery, women control the whole operation — from collecting, processing and selling the dried meat and the operculums (which are mixed with frankincense, burned and used as perfume) to middlemen. In the case of the overfished sea cucumbers, women make up half the fishers in the Mahout area and work on contract to a trader. The women, whose work is supported by their

<sup>13</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_10.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_10.pdf)

<sup>14</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_12.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_12.pdf)

<sup>15</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_25.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_25.pdf)

<sup>16</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_11.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_11.pdf)

families, are mainly literate, married and have children. The biggest constraints the women experience are the long distances to the fishing sites and the low prices they obtain for their products.

### **Challenge, institutions and tools to meet future needs**

Poh Sze Choo (Malaysia) explored in-depth the different concepts of power and empowerment used in development.<sup>17</sup> She used the concepts as a frame within which to assess gaps in women and gender, and fisheries studies to date, especially as reflected by those presented in previous AFS, WIF and GAF events. She noted how most studies addressed the local and household level and rarely how women's lives were impacted by broader scale or sectoral processes, with the exception of a few works on global warming and globalization. Many project studies focused on economic empowerment of women, and ignored important other meaningful dimensions of empowerment. She presented three power frameworks, including Longwe's<sup>18</sup> practical schema that has a hierarchy of empowerment: welfare, access, conscientisation, mobilization and control. Although economic empowerment may be an important first step, it is rarely sufficient to get women beyond the lowest level (welfare), particularly through project-based help, as this is usually short lived.

### **Steps forward in key institutions**

According to Dr Meenakumari, India's national leader of fisheries research, (presented by Nikita Gopal)<sup>19</sup>, the number of women professionals in Indian fisheries is gradually increasing, as indicated in the workforce statistics from the Indian Council for Agricultural Research. In 2001, women were 14% of the professionals, in 2012 they comprised 20%. In classification, just over half are senior or principal scientists and more than 60% of PhD holders have done their studies in more than one state, and a similar percentage have moved institutions for work. Women tend to have led fewer projects than men and not taken advantage of as many training opportunities. These statistics lead to suggestions for women professionals to improve their careers by stepping up for leadership and training opportunities, although they have already shown their preparedness to move for education and work.

The Network of Aquaculture Centres in Asia-Pacific (NACA) took advantage of the presence of a number of gender in aquaculture experts to

conduct a workshop to give it guidance on fulfilling its Governing Council commitment (March 2012) to mainstream gender into the NACA programme. The workshop asked the question: How can NACA mainstream gender into its work programme, and what strategies can it develop to achieve this?

- NACA is an important intergovernmental platform for the Asia-Pacific region, which produces the vast majority of world aquaculture products and supports most of the fish farmers; therefore, it should take a leading role on raising the profile of gender equality opportunities and issues. Further, its excellent track record in publishing and for collaborative studies makes it an ideal platform for three priority actions.
- First, NACA should develop a thematic gender gap report for Asia-Pacific aquaculture. The report should address what is being done in member countries, and what needs more attention. The paper should lift the profile of what countries are already doing and help raise NACA's profile as a champion on gender in aquaculture. The gender gap report should also be accomplished by using experts in member countries and collaborating with other regional or international bodies.
- Second, NACA should craft clear messages, in simple and concrete language on why women are important in aquaculture, what the problems are to their greater contributions, and endeavor to have women's organizations and policy-makers rally to improve the situation. The message should not be complicated and should avoid complex academic gender terms.
- Third, NACA should develop a project targeted at women entrepreneurs in aquaculture, at the small and medium enterprise level. This should be designed to fit with NACA's Sustainable Farming Systems Programme.
- For many attendees, Marilyn Porter's (Canada) magnificent overview<sup>20</sup> of what qualitative, feminist research methods could contribute to gender research in fisheries and the workshop she led was a highlight of GAF4. Marilyn gave an authoritative review of the rise of feminist scholarship from the 1970s and the early "add women and stir" methods, to the rise of rigorous ethnographic and qualitative approaches in which participants became partners in the research enterprise, not simply "subjects". This dimension of the research can lead to extraordinary impacts, as reported by Jenny Shaw and

<sup>17</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_6.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_6.pdf)

<sup>18</sup> Longwe S.H. 2002. Spectacles for seeing gender in project evaluation. Paper presented in GEM Africa Workshop, 16 November 2002.

<sup>19</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_33.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_33.pdf)

<sup>20</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_30.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_30.pdf)

Leonie Noble.<sup>21</sup> The product of the community-based research on the impacts of fisheries management and climate change on the people of the Houtman Abrolhos (see above) was an award-winning museum exhibition called “Scene Change”<sup>22</sup> that had a profound emotional impact on those who saw it, particularly fishers who felt deeply and personally touched.

- Applying qualitative methods does not deny that data — especially baseline and background information — are needed, but she urged attendees to recognize that qualitative methods ask different questions, the answers for which often cannot be measured. In analyzing the qualitative information gathered, researchers had to “get used to not having tables and graphs”. However, non-quantitative methods were rigorous and properly used, and capable of delivering profound insights and explanations.

In reviewing a comprehensive list of methods (see table), Marilyn outlined the uses for which each was particularly suited and the challenges and compromises that may be needed.

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- Interview research, especially in depth, open ended interviews
  - Ethnography
  - Cross cultural, comparative research
  - Case studies
  - Action, community-based, participatory research
  - Literature-based research, content research
  - Life story, narrative research, autobiography and oral history
  - Visual, audio, dramatic and multimedia research (e.g. photo research)
  - Historical research
  - Diaries and journals
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Some of the compromises may include the need to work through primary interviewers (e.g. due to time and language constraints, the confounding of results from research team interactions and hierarchies, and the dilemmas of what to do when negative social issues are discovered in the field, such as domestic violence and sexual exploitation of workers). AFS GAF researchers need to take more notice of such ethical issues. Ethical questions pervade feminist (and therefore gender) research.

Marilyn concluded her presentation by saying that there are no actual “feminist methods”, just feminist use of good research methods that remain true to feminist principles of gender equality and can contribute valuable perspectives to fisheries research.

### **Gender equality is only possible through mobilization**

In her presentation opening the session in honor of Dr M.C. Nandeesha (1957–2012), Meryl Williams showed how the AFS gender in aquaculture and fisheries efforts resulted from the specific and visionary efforts of just one person, Dr Nandeesha.<sup>23</sup> She traced his early steps of holding symposia on women in fisheries in the Indian Branch of the AFS and in Cambodia and countries of Indo-China, followed by getting a “toe in the door” at the triennial Asian Fisheries and Aquaculture Forums. The first activities were non-threatening ways of introducing the topic (e.g. a women in fisheries photo competition). He also brought in partners and worked to get the formal WIF/GAF symposia in AFS made academically respectable through well-published proceedings and awards. His own publications showed a concern for: a) how institutions, such as CARE-Bangladesh, delivered on their policy promises on gender equality through changing their staff recruitment policies; b) getting the basic facts and statistics together to track gender in education and research agencies; and c) how the AFS was faring in electing women Councillors.

Meryl concluded that Dr Nandeesha was a visionary committed to social justice, and with an intuitive understanding of how to motivate others to act and bring about institutional change. His loving wife, Rajeswari Dayal B said of him: “So though Nandeesha is not with us physically, his thoughts and deeds are there to guide us through these difficult times.”

In order to gather views and ideas of what works and what is still needed to strengthen networking in gender, Meryl Williams, Poh Sze Choo, and Dr M.C. Nandeesha before his untimely death, developed a survey of experts.<sup>24</sup> The survey elicited 41 (78% from women) detailed and thoughtful responses, addressing the four-step process of forming influencing networks (based on Actor Network Theory<sup>25</sup>).

The first step, “Problematization”, in which the problems and the “actors” are defined, received the

<sup>21</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_9.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_9.pdf)

<sup>22</sup> <http://museum.wa.gov.au/about/latest-news/climate-change-abrolhos-wins-magna-award>

<sup>23</sup> [http://genderaquafish.files.wordpress.com/2013/07/ppt\\_23.pdf](http://genderaquafish.files.wordpress.com/2013/07/ppt_23.pdf)

<sup>24</sup> [http://genderaquafish.files.wordpress.com/2013/04/ppt\\_32.pdf](http://genderaquafish.files.wordpress.com/2013/04/ppt_32.pdf)

<sup>25</sup> Callon, Michel. 1986. Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St Brieuc Bay. In: Power, action and belief: A new sociology of knowledge. J. Law (ed). London: Routledge and Kegan Paul.

greatest attention from respondents, revealing that considerable progress has been made in the general understanding of issues, even though much more specific detail is needed for most fishery situations. Out of the wealth of detail, however, only weak strategic messages have been developed, although sufficient material is available to start to craft such messages. The set of actors is still small and limited in its extent. The second step, "Interessement", in which others are recruited to the network, is still weak, but survey respondents provided a rich set of ideas on how to do it. They stressed the need for leaders and champions in the right places, but felt that an active core group of these was still to emerge. Researchers and grassroots organizations must get together if any progress is to be made. The third step, "Enrolement", in which roles for action are defined and actors formally accept their roles, is even further behind Interessement. Clearly, little progress can be made until the critical people are convinced to step up.

The final step, "Mobilization", during which the primary actors act as spokespeople and start to mobilize the passive actors, relies on achieving much more progress with Interessement and Enrolement, unless a major opportunity for rapid progress can be found.

In the ensuing discussion, participants stressed the importance of setting the agenda and getting the message out to other circles by building a common understanding with concrete examples and studies. Group members presented pros and cons and the challenges of holding standalone events on women and gender, noting the difficulties in getting sufficient attention at a mainstream conference such as the 10<sup>th</sup> Asian and Aquaculture Forum, versus the problem that a significant number of GAF4

presenters were only able to attend because they were also presenting in other sessions.

Noting that the GAF events had been totally focused on research, many participants, including researchers, stressed that future events must consist of more than research presentations and workshop. They must include different types of sessions that engaged with the women and other workers in the sector who were working at grassroots level.

After GAF4, a small group met to further discuss the next steps and agree an action plan, covering items from the immediate aftermath of GAF4 to what GAF5 would look like, and the opportunities for other GAF events at forthcoming conferences. A small group agreed to follow-up on getting funding to develop a gender in aquaculture and fisheries "101" course. The action plan also included the need for a bolder strategy, networking with other networks of similar interests and the importance of developing and getting funded site-specific collaborative research to help improve the quality of the research.

#### **For more information:**

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