


Gender action plans in the aquaculture value chain: what's missing?

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Received 7 May 2018; accepted 3 September
2018.

Abstract

Gender equality has been a political issue in view of human rights and welfare since several decades. Therefore, many countries have developed Gender Action Plans (GAPs) that support equal access of both sexes to education, employment and finance. Two workshops on GAPs in aquaculture and a literature review brought about the question: what's missing in Asian sectoral GAPs. Not all reviewed Asian countries have GAPs for fishery/ aquaculture, but all encountered constraints to achieve their goals regarding equal access for women. Women's contribution in aquaculture tends to go beyond the traditional gender divide. For example, women may lead in the area of production because they can combine aquaculture with their homebound tasks and own vertically integrated companies. However, skewed perceptions on the role, status and perception of women and men, more so in strong than weak patriarchies (the former accept the subservient role, while the latter exercise the dominant role) limit women's access to training opportunities on new aquaculture technologies. Women are also left out in policy- and decision-making processes; and in the value chain, women receive lower wages than men. Their role is underestimated by lack of disaggregated data, as reflected in post-disaster interventions and industrial development programs. To be effective sectoral GAPs, based on disaggregated data, should have budgets, plans and target indicators for which leaders could be held accountable. These GAPs, however, can't address the required radical change in attitude toward women; unless deliberately planned educational media campaigns are embedded into the national GAPs.

Key words: farmed seafood, gender mainstreaming, inequality, patriarchy, poverty, women.

Introduction

Huge part of the growth in the aquaculture production is realised in South, South-east and East Asia (FAO 2018). In the past, aquaculture in uplands and deltas started as a backyard activity consisting of recycling waste and contributing to family livelihood. As an extension of their domestic tasks, women and youngsters were involved in fish feeding and harvesting (Williams *et al.* 2005; Napati *et al.* 2016). Moreover, to provide an income-generating activity, women took the lead in aquaculture in ponds, pens, cages and around shores. In the Philippines, women fisherfolk got involved in aquaculture because they either earned better income, or lacked alternative employment

options (Nagothu & Ortiz 2006). Examples of these include seaweed culture (Yap 1999), green mussel (*Perna viridis*) farming and aquaculture with cages (Sumagaysay 2013). While the role of women in fishery-based livelihood marketing is public, their multiple roles and those of the youngsters along the aquaculture chain have remained either invisible or neglected (Box 1).

Gender equality, particularly in education and employment, has been observed to contribute to economic growth (Kabeer & Natali 2013; Cabeza-García *et al.* 2018). To stimulate gender equality, since the 1995 *Beijing Platform of Action* of the 4th UN World Conference on Women, most countries have defined national and sectoral Gender Action (and Development) Plans (GAP) and implemented specific

Box 1: Evolving role of women in Vietnamese aquaculture.

Traditionally, in the Vietnamese uplands, people view fish farming as a male activity; women were involved little, had no say in what techniques to be used, or what investments to be made (Voeten & Ottens 1997). Recently in the North, women are, however, involved in most stages of fish farming and are owning and leading hatcheries. In the South, although women are not allowed in hatcheries due to a cultural phenomenon, they own and lead farms and processing companies. Often, women have developed skills on aquaculture during their reproductive life when they spend more time at home (Bosma *et al.* 2006). Meanwhile, the role of women in planning and policy making remains weak because their role and opinions are generally not well accepted by men (Nguyen Dang Hao 2012).

gender-oriented pilot projects (see section 4). One of these projects was the work package, 'Empowering vulnerable stakeholder groups' of AquASEM09 (Din *et al.* 2012). On aquatic food production, this work package (i) Shared country experiences and best practices on poverty alleviation and gender mainstreaming, (ii) Identified strategies to promote appropriate technologies and greater women participation for vulnerable groups and (iii) Developed action plans towards empowering poor men and with, heavy emphasis, women farmers to make gender mainstreaming more effective. All six countries involved in the project had GAPs, and some of them had already passed through several 5-year sector specific GAPs. Despite these interventions, we perceived little fundamental change in the concerned countries, as confirmed for the sector in general by Williams (2016) who locally observed a regressing contribution of fisheries-related income to women's livelihood. Thus, the question addressed in this study is: As the gender equality did not improve in most countries, what is missing in the Gender Actions Plans?

Below we describe our methodology, then review the main issues in two chapters, before analysing the constraints using Vietnam as a case. Thereafter we discuss our findings before giving the conclusions and recommendations.

Methodology

This paper focusses on the socio-economic context of the GAPs in South, South-east and East Asia and analyses the constraints in improving gender equality through GAPs.

The study assesses the impact of the GAPs on gender (women) equality in three steps:

- 1 review the baseline of the gender context,
- 2 review the changes in this context,
- 3 and analyse the constraints of one sectoral GAP in reaching its goals.

The first two steps were based on literature reviews, while the third step used an expert's inventory of the constraints in achieving the goals of a sectoral GAP. Our review focussed on the contributions to a workshop of AquASEM09 where six countries were represented. The inventory was done by two groups reflecting on the next sectoral GAP in Vietnam.

The next section, *Social & Legal frameworks*, discusses the baseline of the gender equality in SE Asia through four issues. The section on *Impact of global and local changes* on women empowerment divides in two subsections: 1) Mechanisation, industrialisation & globalisation and 2) Impact of Disasters. The last section summarises Project interventions to support GAPs in Vietnam and presents the constraints in realising the goals of a sectoral GAP.

The social & legal frames for equality

Four factors determine the social space for improving gender equality. These include: (i) patriarchy, (ii) access to capitals, (iii) perceptions on women and (iv) goals of the GAPs.

Strong versus weak patriarchy

Women in strong patriarchal societies within, for example, Bangladesh (Deb *et al.* 2014), India, Indonesia and Malaysia, are described as having limited involvement in aquaculture. In general, men in strong patriarchal structures are more likely to be involved in marketing than women (Nandeesh 2007). In Bangladesh (Choudhury *et al.* 2017) and other countries with similar cultures (Mukhopadhyay 2004), development of women was seriously constrained by their surrounding cultural, ethnical or religious norms; these societies may generally prevent women from participating in trainings outside their homestead without an escort. To support women empowerment, Indonesia mainstreamed gender into the National Development Programs in 2000 and established a State Ministry for Women Empowerment in 2005. Yet the Indonesian fisheries authorities paid little attention to the potential of fisherwomen to leverage economic development (Anna 2012). Likewise, the Indian constitution has had a much earlier show of support on gender equality, dating back to as early as 1947. Yet, in recent years, harassment incidents by men against women have increased, which further confirms

the chauvinist attitude of men in some Asian societies (see Discussion).

In contrast, societies of Cambodia, Philippines, Thailand and Vietnam are characterised by a weak patriarchy, which means having no or limited cultural prohibitions on women's mobility and weaker distinctions between the public and private domains. Households are mostly organised around the conjugal unit with each member contributing to a common purse, often managed by women (Kabeer 1994). This weak patriarchy allows women to be flexible and their role as negotiable; men and women may work together (that is, provide capital, labour and expertise) to establish a joint enterprise that will contribute to their diverse livelihoods portfolio regardless of who is listed as the owner. At present, in Vietnam, for example, women may come to training organised by private companies when their husbands are not available and their presence in public among men, in its own right, is not a constraint. The division of labour by sex may be less clear but exists, as shown by examples from Vietnam (Kabeer 1994) and Philippines (e.g. Roxas *et al.* 2017).

Access to finance & natural resources

Many authors have presented evidence on the differences between gender in access to finance, land and water (Manji 2010). In aquaculture, the access to land may vary between speculations, that is, the species cultured. In Vietnam, women have access to land for aquaculture by co-ownership or rental (Nguyen *et al.* 2015). This difference might be a consequence of the gender difference in acquiring finance, but others suggest that women judge as heavy the accompanying emotional burden of taking large loans, and most of them prefer to avoid that responsibility, perhaps more aware than men that finally the house and land of their household would be at stake (Veliu *et al.* 2009). In some societies, profound cultural changes are needed to allow women to become owners of valuable livestock or land (Ouedraogo 1992), or become beneficiaries of natural resources (Setyowati 2012).

Land-use changes may also lead to exclusion of the poor households in which women are the most vulnerable (Manji 2010). In Vietnam's coastal areas from North to South, poor and women-headed households are often involved in intermittent seasonal salt-rice production demanding little inputs. When the neighbouring fields are converted to intensive shrimp farming, the water management of the area is modified and the poor are forced to follow into shrimp farming. However, as the poor households don't have the required capital for intensification to follow Best Management Practices, this shift leads to failure and loss of land (Nguyen *et al.* 2015).

Next to the export-oriented shrimp aquaculture, Bangladesh promotes pro-poor speculations (Toufique & Belton 2014). However, when households venture into aquaculture, they need capital funds which are not easy to access, especially for those who are resource-poor (Nhan *et al.* 2005; Veliu *et al.* 2009). Many of these resource-poor households have single women/parent who are heads of their families. In India, women succeeded in aquaculture venture because primarily they had business support from their moneyed relatives; and those who succeeded in processing business had, likewise, received institutional and technical support from a research institute (Shanthi *et al.* 2012).

Income from aquaculture does not come regularly as production cycles last at least 2 months. Thus, small household farms need to engage in non-aquaculture livelihood activities (plant or animal production, off-farm jobs) to provide regular income (and food); and this is where women play a role in filling the income gap.

Perceptions

In literature, and at the consecutive symposiums on *Gender in Aquaculture and Fisheries* held since 1996, multiple cases of the different roles men and women play in the sector are given. Moreover, the perception of task distribution between men and women differed with that of the actual tasks carried out by the latter (Zumilah *et al.* 2013; Box 2). In Vietnam, women's role is significantly higher in the areas of marketing, feeding fish and applying fertiliser on ponds; although, they are not involved in any activity without the support from the men (Kibria 2004). The presence of men,

Box 2: The difference in perception between spouse and wife on her tasks (Zumilah *et al.* 2013):

In Kuala Besut, Terengganu, between 6 and 24 % of the interviewed women fulfil one of the following tasks in pond aquaculture: buying seed, transferring the fish from hatchery, preparing feed, buying feed, feeding, checking for diseases, giving medication, harvesting, selling fish, maintaining post-harvest pond, draining water, cleaning pond. Though spouses tended to have the same views on who did what in the domestic sphere, their views differed with respect to aquaculture roles. Up to 22% of women reported various contributions to many cage and pond culture activities but only one husband (out of 51) recognized his wife's work in the cage culture activities and none recognized the women's contributions in the case of pond culture.

even if being low, might explain the fact that despite the active role of women in aquaculture, many people still perceive that aquaculture is a masculine activity with women being perceived as confined largely to processing and marketing activities only (Williams *et al.* 2005).

When aquaculture contribution to the household economy increases, the otherwise non-appreciated tasks done by women become more acceptable (Velu *et al.* 2009). However, the type of work needs to be suitable; heavy physical work and night-watching of ponds typically remain suited for male. Because the tasks for men and women who engage in aquaculture differ, both sexes need to be involved in training (Voeten & Ottens 1997) and policy making (Trần 2012). The sustained involvement of women may depend on the active participation in the trainings of (i) men from the local power structures (leaders) and (ii) the women's husbands (Lentisco 2013). Nevertheless, participation in training takes time and there might be a trade-off on household welfare of knowing more and being more involved in decision-making and management (Voeten & Ottens 1997).

In the processing industry, many executives may be aware or conscious about gender equality, but still, they remain to be gender-biased and are unable to recognise the inequalities suffered by women (Table 1). For example, men still get better paid than women in the workplace due to dominant patriarchal viewpoints on the conditions in the factories (Nuruzzaman *et al.* 2014).

Gender action plans

In 2009, among the six countries having contributed to AqASEM09, only Cambodia (Lentisco & Alonso 2012), Vietnam and the Philippines implemented specific GAPs for aquaculture or fisheries. The latter two countries issued a policy on gender in 1997 and since then, through their respective national GAPs and that of the aquaculture & fisheries sector, have encouraged various initiatives to mainstream gender in decision-making bodies, budgets and development programs.

Based on laws and issuances (Box 3), the Philippines set two national GAPs (1989–1992 & 1992–2025), both mentioning fisher folk and communities. The Joint Circular 2012-01, issued by the Philippine Commission on Women, increased the number of Government institutions that needed to prepare annual GAPs, Budgets and Accomplishment Reports, and provided instructions and guidelines, such as:

- 1 The GAP budget should be at least 5 per cent of the Maintenance and Other Operating Expenses budget;
- 2 The GAP Focal Point System (GFPS) should be created or strengthened at national and field levels, to ensure and mainstream GAP activities;
- 3 The gender analysis should be conducted using tools, such as the Harmonized Gender and Development Guidelines (HGDG), to ensure that the different concerns of women and men are addressed equally and equitably.

Supported by laws on national gender strategy, the Vietnamese Ministry of Fisheries (MoFi) crafted its first strategic plan and an action plan in 2006–2010. After the integration of MoFi in the Ministry of Agriculture and Rural Development (MARD), the 2nd (2011–2015) and 3rd (2016–2020) GAPs were based upon MARD's 2nd and 3rd Strategic Gender Plans (2011–2020). Although every Vietnamese ministry and its departments as well as all government bodies from commune to national level were required to formulate a GAP, no specific financial resources were allocated, legal frameworks to enforce the GAPs were absent, and the collaboration among government agencies was weak. At most hierarchical levels there is a Woman Union that can be supportive (Voeten & Ottens 1997; Velu *et al.* 2009), but has not much countervailing power and whose activities need to be approved by the People Committee. Nevertheless, in some provinces, gender policies and plans for aquaculture, including those also for the fisheries sector have been actively implemented, sometimes with the support of a local or a regional project (Trần 2012).

Table 1 Three views on women's labour conditions in processing factories (adapted from Nuruzzaman *et al.* 2014)

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

Box 3: Philippines Legislation Supporting Gender and Development in Fisheries.:

In the Philippines, the gender actions can build upon *The Republic Act 7192 (RA-7192)* containing the *Women in Development Nation Building Act*, the *Magna Carta of Women (RA-9710)* and the more recent *Joint Circular 2012-01*. Already *RA 7192 (1995)* mandated all departments, bureaus, offices and agencies to earmark an amount for activities addressing gender issues.

RA 7192 is complemented with *RA 8550 Philippine Fisheries Code (1998)* giving the *Bureau of Fisheries and Aquatic Resources* the task to “enable women to engage in other fisheries/economic activities and contribute to development efforts” and stating that the two relevant Councils “should include youth and women representatives”. In 2005, the *Disaster Risk Reduction and Management Act* was passed to “ensure that disaster risk reduction and climate change measures are gender responsive”.

Impact of global and local changes

Changes in the economic context in South and SE Asia have either improved women's livelihood options, or restricted equal opportunities with men. These are discussed below in three sections: industrialisation, urbanisation & globalisation, the impact of disasters and project interventions.

Industrialisation, urbanisation & globalisation

Already in 2005, the Philippine's legislation gave enough teeth to support both sexes of the small-scale fisher folk (Box 3). Traditionally, in seaweed culture in southern Philippines both women and men were equally involved along the value chain, for example, farming, processing and trading (Bacaltos *et al.* 2012; Roxas *et al.* 2017). However, emerging large-scale commercial fish-farms and hatcheries have displaced women out of marine areas because men have created mariculture zones following the decline in fish catch (Buazon *et al.* 2012).

Around the Tonle Sap Lake in Cambodia, women's participation ranged from 50% in fish culture to 85% in marketing (Williams *et al.* 2005; Kusakabe *et al.* 2006). As fish trading became more formal and other economic opportunities were taken up largely by men, the outcomes for women-traders depended on the stage in their reproductive life and their skills (Kusakabe & Sereyvath 2013).

Indian women were also affected by their religious-cultural background, either giving them freedom to trade in the street and market, or obliging them to stay at home (Hapke & Ayyankaril 2004). Roxas *et al.* (2017) show that the task division in the value chain impacts on the benefits earned. Gender-focussed support, however, may shift the balance. In Kerala, India, women who organised themselves in cooperatives improved their access to financial sources, small-scale aquaculture business and financial management (Vivekanandan 2013).

Exporting countries benefit significantly from globalisation through opening of more employment. In 2001, the 2,623 formal Vietnamese fisheries enterprises employed close to 45,000 employees, but only 6.7% of them were women (National Rural, Agricultural, and Fishery Census, cited by De Silva & Phuong 2011). Ten years later, the percentage of women working in pangasius and shrimp processing were 90% (De Silva & Phuong 2011) and 95% (De Silva 2011), respectively. In the case of the Philippines, Thailand and Vietnam, one of the reasons for the increased contribution of women is the more significant out-migration of men from rural areas (Nandeesh 2007).

This high percentage of women in SE Asian seafood processing has a rationale (Table 1). Factories pay women less than men for the same tasks, and the industry is criticized for not complying with labour laws and human rights (Nuruzzaman *et al.* 2014). Pushed by trade sanctions, local governments and export industries have developed manuals, trained trainers on the labour laws and their implementation, and assessed compliance. New certification standards aim to address this issue and support unions and organisations like the International Collective in Support of Fishworkers (ICSF) to redress female and male worker's injustices. However, when the processing is seasonal, labourers are contracted and compliance is harder to achieve.

The impact of natural disasters

Due to climate change and expansion of land-use by people, the number of natural disasters tends to increase. Gender-differentiated-post-disaster studies have mainly been done in the Philippines; there, subsequently, the Disaster Risk Reduction and Management Act was implemented to enable change. Three chronological cases demonstrated this change but show also that gender impacted the implementation.

On 21 August 2006, the oil spill of tanker ‘Solar I’ near Guimaras Island seriously affected the livelihoods of over 3,600 households. The women's inshore and mangrove-associated fishing and related onshore activities were all temporarily wiped out (Defiesta & Badayos-Jover 2013). Women lost most of their direct coastal fishing livelihoods,

Table 2 Constraints to reducing gender inequality in the Vietnamese aquaculture sector

Group 1	Group 2
<p>1 Objective:</p> <ul style="list-style-type: none"> ○ Education in aquaculture and fisheries (A&F) not suitable to most women as heavy practical work is required; ○ Women can't become leaders (chief and director level) as they didn't have time to acquire the required party certificates; ○ Women's responsibilities and roles are not recognised properly; ○ Cultural factors prohibit women to enter marine fishing boats and sometimes private hatcheries also. <p>2 Subjective:</p> <ul style="list-style-type: none"> ○ The pressure to fulfil her reproductive tasks (giving birth) limits her time for official work and education periodically; ○ Women are not confident to undertake assignments; ○ Physical limitation for heavy work of some A&F tasks, that is. heavy gears and long trip on boats; ○ Not recommended for higher education / training as considered not useful for women as they will be bound to the house to take care of children and house. 	<p>1 Leadership:</p> <ul style="list-style-type: none"> ○ Not enough women involved in decision-making. <p>2 Economic:</p> <ul style="list-style-type: none"> ○ Limited access to financial capital; ○ Getting less paid for the same labor; ○ Loss of income and properties due to hazards and diseases related to reproductive role and tasks. <p>3 Social factors:</p> <ul style="list-style-type: none"> ○ Labor division based on the customary occupations in jobs which pay less; ○ Disadvantaged in recruitment and appointments; ○ Early age of retirement compared to men; ○ Roles and perceptions based on culture and customs; ○ Preconceptions / prejudices on gender; ○ Hazards, diseases and neglect after the events. <p>4 Education and training:</p> <ul style="list-style-type: none"> ○ Not on the priority list for complementary training; ○ Not meeting requirements (capacity, education, certificates); ○ Limited access to technologies and extension services. <p>5 Family:</p> <ul style="list-style-type: none"> ○ Violence against vulnerable genders; ○ Pressure on giving birth to boys; ○ Housework and the related inferiority complex.

but the remediation work and lucrative post-emergency support went predominantly to the men (64%), even when activities were typically women's work. In India under similar conditions, the women and girls were relegated to greater reliance on household and outside work, which exposed them to domestic violence at home and sexual harassment outside (Pincha 2008, cited by Badayos-Jover & Defiesta 2014).

Mid-June 2008, typhoon Fengshen (Frank) caused floods in four provinces of the Western Visayas and affected household members equally. But unlike the oil spill, women and men worked in complementary ways to secure and protect the family assets. Nevertheless, gender differences did emerge in preferred coping and future avoidance mechanisms. Women gave priority to family's physical and financial safety, while men undertook more outward directed facilitation and managerial actions to protect the family (Suyo *et al.* 2013).

After typhoon Hayan in November 2013, women in Northern Iloilo organised themselves and were successful in advocacy and lobbying, notwithstanding the cultural practices that continue to marginalise and disempower women in coastal areas (Garrido 2016; Badayos-Jover 2017). In some post-disaster cases, men of complete households were registered and consequently received support, but their wives did not (Chow & Edna 2016). Thus, the requirement of being organised and registered may still lead to exclusion of the not-well-informed and non-organised women.

This gender bias may reflect a cultural perception that is based on women's weak empowerment (Deb *et al.* 2014; Garrido 2016; Kusakabe 2016). This may well be related to the weak appreciation in traditional societies for some roles women tend to claim, but which are not valued accordingly by these societies, particularly the contribution of mothers' work in the household (Zumilah *et al.* 2013).

Project interventions & sectoral gaps in Vietnam

Vietnam is among the first of the many countries to have benefited from GAPs and projects that use a gender lens. The country is implementing its 3rd sectoral GAP.

Project support

Well-directed training and support can generate improvements in the mentioned gender biases in the sector and in the income of women (Shanthi *et al.* 2012; Yap *et al.* 2017). Vietnamese women's active participation in trainings organised by the ProFound project was enabled by the involvement of local power structures (leaders = men) and of the women's husbands (Voeten & Ottens 1997). Men's involvement dispelled the impression that gender was 'women's business' and led to far more useful discussions on gender roles (Lentisco 2013).

Participation in meetings, workshops and study tours increased women's self-esteem and decreased their

feeling of being dependents (Kibria 2004). Moreover, women increased their interest in aquaculture (Box 1) and its accompanying opportunities like income, access and availability of good quality food for household consumption. Supported by a DANIDA project, the provincial aquaculture section of Ben Tre province carried out a sectoral GAP (Trần 2012). Remarkable progress was made in the number of women being members of committees and in the salaries of industrial workers. Above examples demonstrate the positive effect of projects, but one may wonder how long projects will be needed (Box 4). Although some countries consider Gender Mainstreaming as done, other cases described above and below show that much work remains to be done to change perceptions and attitudes (Mukhopadhyay 2004).

Studies have shown that most project interventions focus only on basic skills training of women fisherfolk; often these learned skills have not been successfully translated into viable livelihood opportunities (Yap *et al.* 2017).

Box 4: Recurrent project led gender support to Vietnam's aquaculture sector.:

In 1995 and 1996, the Vietnamese Women's Union (VWU), in collaboration with the Dutch development organisation, ProFound, implemented the pilot project on "Training of Trainers to Promote Women's Small-scale Aquaculture Enterprises in Rural Areas of Northern Vietnam" (Voeten & Ottens 1997). Trainers were trained to pass information and skills to 120 women from 120 households. Trainings were organised within the communities and included husbands of the women, as well as members of community power structures and representatives from the Vietnamese Women's Union (VWU). Both the latter and the location increased women's active participation.

Conducted from 2000 to 2002, the pilot project, "Aquaculture Development in Northern Uplands" had a strong gender component (Kibria 2004). The project confirmed that existing organisation, such as the VWU should be used as much as possible, and setting up parallel structures should be avoided. Through the VWU, women's access to credit was strengthened.

In 2011, 15 years after ProFound, the Spain-FAO Regional Fisheries Livelihoods Programme (RFLP) established a pilot in three villages of Thua Thien Hue Province (Lentisco 2013). The RFLP teamed up with the VWU to raise awareness on gender issues among members of fishing communities.

Analysing Vietnam's GAP

The second gender strategy (2011–2020) of Vietnam's MARD is composed of eight action areas. Some aspects are new, compared to the former action plans, for example, *The capacity of the leaders to implement the gender agenda will be one of the evaluation criteria for their performance.* The six provincial representatives at the AquASEM09 workshop were aware of these eight points, but only some of these provinces had gender activities based upon specific GAPs. Whether or not there is a gender plan related to (i) the gender of the leader of the provincial office of MARD or its aquaculture section, (ii) the presence or not of a specifically trained person and (iii) an active Women Committee. Moreover, existing GAPs were found to be inconsistent, often focussing on the institutions itself only, and weak in indicators.

At least three of the constraints to gender equality were identified by the workshop participants (Table 2). These include *Roles and perceptions based upon culture and customs; Preconceptions/prejudices on gender; and Violence against vulnerable genders.* These three require a broader public awareness before changes may be reached (Table 3). Though 'Raising awareness at all levels' is one of the action areas in MARD's GAP, one may wonder if addressing the issues at department level only would relieve these constraints.

According to Trần (2013) a GAP can succeed only if, next to the plan, there is: 1) budget, 2) committee and 3) collaboration between the Women Committee and the leaders of the provincial departments. Too often planners assume that having a Women Committee is enough, but if there is no collaboration with the other leaders, then nothing will change. Moreover, these leaders must be held accountable for reaching the gender goals. More importantly, GAPs need to have SMART indicators that can be monitored for which the leaders can be accounted for.

Discussion

Both cultural and practical reasons account for the variation and limited progress in women's participation in the aquaculture sector. The inventory of constraints/barriers done by the 5 other AquASEM countries (Din *et al.* 2012) supports the findings in Vietnam. The listed constraints included: Taboo/belief/culture/religion/tradition (India, Indonesia, Philippines), Lack of family/community support (Cambodia, India, Indonesia, Malaysia), Feeling inferior (Malaysia), Decision-making power (Cambodia, India, Indonesia, Malaysia, Philippines), No government support (Cambodia). The country with the most experience in GAP implementation, Philippines, was the only one that mentioned the lack of gender-disaggregated data for planners.

Table 3 The Action Plan to promote gender equality in aquaculture in Vietnam, until end 2015

Specific objectives	Activities
1. Raising awareness for leaders and communities.	1.1. Propagandise equality of genders through training, leaflets, etc; 1.2. Organise study tours for leaders; 1.3. Set examples on integrating gender issues in policies at selected provinces;
2. Improving capacity through training and technological transfer.	2.1. Organise Training of Trainers on methods enhancing gender equality in aquaculture; 2.2. Improve knowledge and skills in planning including M&E of indicators, communication and leadership; 2.3. Include women in participatory training on aquaculture; building on existing experiences.
3. Monitoring and evaluation.	3.1. Assess gender inequality at institutions and aquaculture communities; 3.2. Monitor project activities and evaluate action plans to assess effects.

Subsequent (sectoral) GAPs and supporting projects could not address all issues due to cultural reasons and policies respecting these. Although the GAPs of the Philippines and Vietnam were updated to address identified challenges, our analyses showed that some of the remaining constraints were beyond sector level.

Political will and power

Twenty years after Beijing, FAO and UNDP still acted on pilot project level in countries having a policy on gender in fisheries/aquaculture. These projects are often limited to training and are not translated into viable livelihood opportunities (Yap *et al.* 2017). In Yemen, a country dominated by strong patriarchy, a gender project trying to account women farmers' and girl children's labour was marginalised on the grounds that 'gender had been mainstreamed' already, in spite of the fact that in this country, women workers of the Ministry are still seen as illegitimate occupants of public office because 'they are women and not men' (Mukhopadhyay 2004). In this context, "Gender mainstreaming was interpreted as getting rid of the focus on women" (*ibid.*), as confirmed by Risby *et al.* (2012).

Therefore, national gender strategies should be operationalised by all institutions at each level through defining specific budgets and activities that are subsequently monitored by using a set of SMART criteria like that of the Philippines' '*Harmonized Gender & Development Guidelines for Project Development, Implementation and Evaluation*'. To succeed, planners need to weave these actions and indicators into the general activity plans of concerned institutions. Related indicators should be gender-specific (e.g. how many women/men are trained) and have budget for specific support activities (such as crèches for children during training/workshops). Moreover, all leaders who take charge of gender equality should be evaluated for their performance in implementing related programs and activities (Lê & Nguyen 2013). In Vietnam, too often, leaders assumed that having a Women Committee was enough to implement the gender strategy (Lentisco & Lee 2014);

however, practice has demonstrated that nothing will change if there is no collaboration with other leaders and if these leaders were not made accountable. To support the latter, instead of repetitive studies, the collection of national statistical data should be systematically gender-sensitive to provide policymakers with relevant information (Veliu *et al.* 2009).

Cultural changes lagging behind

Even at the household level, spouses have underestimated the role their wives play in aquaculture and fisheries (Zumilah *et al.* 2013). This gender bias is also reflected in the assistance after disaster and during induced changes because projects and funding facilities do not recognize the distinct interest, special needs and priorities of men and women in the sector. The common perception of women not being fishers/farmers (Deb *et al.* 2014) introduces a gender bias in the conception and implementation of aquaculture development, and subsequently to the neglect of women.

Therefore, increasing the number of women in decision-making roles is important (Lentisco & Lee 2014). Raising awareness and participation of both men and women, and engaging the leaders, will help increase the contribution of women to the sector, simultaneously, husbands and youth can willingly take more responsibility for looking after children at home and getting them off to school, and assisting in housekeeping so that women can have time to participate in trainings (Voeten & Ottens 1997; Kibria 2004; Lentisco 2013). In Cambodia, the organisation of women was an effective tool to reduce gender bias resulting from power relations as an expression of a persisting dominant attitude (Kusakabe 2016). The application of participatory tools also allowed women to become more perceptive, analytical and empowered (Bosma *et al.* 2003). Likewise, even in a weak patriarchal society like Vietnam, women's participation in a power-structure requires support from the husband and the family. If the husband doesn't fully support his wife, he might not be able to resist/counteract the social

pressures of his peers. If these men are not supportive, then their wives may suffer from criticism on their care for their children and husband, or even be threatened by divorce and social exclusion.

Thus, to diminish the dominance of men, their perception on and attitude towards women need to change. Before attitude will change, however, the broad public needs to perceive women as equally important as men in politics, business, sports and social life, and thus able to earn as much money as men.

Although the dominant masculine attitude is more pronounced in strong patriarchal societies (Deb *et al.* 2014), male chauvinism is also present in dominantly weak patriarchal societies. Male public service officers tend to demand physical services from women in return for favours. Therefore, on the one hand women need to gain self-confidence through training, and thus becoming aware that they can reach their goals without conceding physical favours to (higher ranked) men. On the other hand, awareness-raising needs to critically address male behaviour in this matter.

In some traditional societies the man having no sons has often less status which leads to misuse of modern technology of pre-natal gender recognition, abortions of female foetus and finally to a skewed male-female birth rate. In parts of Vietnam for every 100 girls about 115 boys are born (Vietnam Health Ministry, 2017), meaning that in long term >10% of the men cannot find a wife; which is worse than India where this sex ratio is 9:10 (NITI Aayog, 2018). This will only change if the chauvinist beliefs are tackled. Such attitudinal changes are not easy; but through time, educating the public through mass media and interpersonal communication, backed up by a strong political will, would definitely go a long way in making negative behaviour of men against women be reversed into a more gender-friendly environment (Población *et al.* 2016). We would go further than the latter authors and recommend, in line with Appiah and Bhabha (2018), audio-visual media-campaigns that showcase stories that would publicly put in bad light the male chauvinist behaviour of policy makers, grassroots male-leaders, husbands and youngsters.

Conclusion

The persisting gender bias is due to the (i) lack of sex disaggregated data, (ii) low awareness of women's multiple roles in fisheries and aquaculture, (iii) low representation of women in decision making bodies, (iv) skewed perception on the involvement of women by men, even their husband and (v) the chauvinist cultural bias towards women. The biases have their source in the skewed perceptions of women and men on their roles and status in household and society; the former shaped by culture, take a subservient role, while the latter, take a dominant role, the male

expected by society to exercise power and control. Thus, GAPs fail because they do not address this culturally based norm of male superiority and chauvinism, even in strong patriarchal countries. Therefore, reaching gender equality will require massive audio-visual media-campaigns and messages at all levels, starting in primary education.

Even in countries with a long history of GAP, the support to gender equity continues to be project-based. The main 'Don't do' regarding GAPs is to organise pilot projects without back-up of policy frameworks. The main 'Do's' are to disaggregate women and men in design, plans, budgets (for all activities including education), monitoring (collection of disaggregated data) and evaluation of leaders.

Acknowledgements

The authors acknowledge the workshop participants in Ho Chi Minh city, mostly heads of Aquaculture sections of provincial Departments of Agriculture and Rural Development. The authors are grateful for the opportunity offered by the European Commission's 7th framework programme through the ASEM Aquaculture Platform (AqASEM09: Strengthening the impact of the ASEM Aquaculture Platform: the bridge between Asian and European aquaculture; Grant no. 245020, coordinated by Ghent University, Belgium, involving nine European and Asian institutions / organizations). The authors accept sole responsibility for the contents of this article, which do not necessarily reflect the views of this Commission or others members of the AqASEM09 project team.

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