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Report on Gender & Decision Making Focusing on Ocean and Coastal Management Policy
by

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CONTENTS

EXECUTIVE SUMMARY

UNEP commissioned an assessment of gender and decision making, focusing on ocean and coastal management policy. The project is a feasibility study based on 12 interviews conducted by the London School of Economics Complexity Group and this Report is based on in-depth analysis of these interviews. In addition a Literature Review is at Appendix 1, and a summary of documents suggested by the interviewees is at Appendix 2.

The Executive Summary will highlight a few of the key findings, but a study of the entire document is highly recommended, as it includes insights and examples from around the world, as well as introducing a methodology based on complexity science.

One of the key insights was that ***gender asymmetries are context dependent*** and influenced by history, culture, religion and the economic structure of society. Gender, therefore, needs to be looked at within specific contexts such as the home, the village, the co-operative, or at policy level. Furthermore gender may be seen ***as a power relationship*** between men and women, influenced by that context. Gender asymmetries vary significantly from communities where women, collect oysters in the mangroves, and are the primary earners, while their husbands stay at home drinking, and still expect to be the main decision makers; to the more usual situation where men, who go out to sea are not only the primary income earners, but also the main decision makers. In addition there were locations where both men and women competed for the same limited resources; there were also matriarchal communities where women were the main decision makers in the home and the community, but not always within the industry. Some countries also had women Ministers and organizational leaders.

However, this has to be seen in a broader context and one needs to pay attention to the balance of gender dynamics within the home and the community. For example, although men usually made all the decisions regarding the fishing industry that impacted the women, who prepared and sold the fish and also repaired and maintained the nets; this division of labour did not always have a disadvantageous impact on the women. Furthermore, the women tended to take the leading role in the home and were often the ones who took the lead in setting up new initiatives. They also looked after the family and helped to educate their children.

From this short study, based on interviews, it is clear that gender inequality may often manifest itself in terms of the **exclusion** of women, but this is not always the case and gender inequality could apply to both men and women, boys and girls. The exclusion is often in terms of decision making affecting fishing and other activities that ocean and coastal communities engage in, but not always. For example women may be excluded from leading any initiative or even in participating in projects that are specifically designed to address gender inequality. It is therefore important to look at all those issues of exclusion, to understand why it happens and how to balance that exclusion. It may not be feasible to insist on full equality at the outset, but it may be possible to negotiate a different approach that facilitates some inclusion. If the *enabling environment* is set up correctly, that initial step, if appropriately supported, may evolve into fuller inclusion.

Education is another key theme. Some practices for example have a deleterious effect on the environment and a little relevant education and the raising of awareness (with the correct approach), helps to improve those conditions and to reduce the impact on the environment as well as improving income generating capacity. But significant

imbalance in education between men and women (especially when men are not educated at all) can be a problem and could lead to tensions within the relationship.

Education of the young is a related issue, especially of young girls/women, particularly when their families are opposed to it because the teaching takes the children away from work. However, even when these objections have been overcome and young women want to be educated, the lack of funding means that such successful initiatives cannot continue. This is an area where **UNEP can take an active role in identifying** these **small initiatives and supporting them** with small, but essential funding. The advantage of educating the young, is that they can bring in new ideas to the traditional communities (as well as new opportunities for income), and thus become facilitators of gender-related change.

Capacity building of both older and young women is another related issue, but it needs to be done appropriately, taking account of local constraints. Furthermore it needs to include training on how to keep mangroves healthy, for example, how to harvest oysters properly and how to maintain the mangrove ecosystem. Capacity development on hygiene, health, family planning and ecology can be useful, too, thus offering a wide range of learning opportunities for women to improve their livelihood.

Organisation and the means to help communities to organise themselves is another essential element in making these communities self-sufficient. Some training or facilitation would be useful and would need to include an understanding of **group politics and dynamics and technical issues such as budgeting and marketing**. Again some basic training appropriate to local needs would provide disproportionate benefits.

The aim of the analysis was twofold: (a) to understand the *multi-dimensional problem space*; and (b) to provide some initial indicators on the conditions necessary for the setting up of appropriate *enabling environments*.   The former was achieved by identifying the multiple dimensions (e.g. social, cultural, religious, technical, geographic, financial, etc.) that together create the problem space. Part of that analysis was to also identify the themes, dilemmas and some underlying assumptions that influenced decision making. The idea was to look at the challenge of gender asymmetries as a whole. According to the sciences of complexity, complex problems are not mono-dimensional and cannot be addressed effectively by focusing on a single dimension; gender asymmetries do not exist in isolation from their multi-dimensional context and are not *just* a function of culture, or economics, or religion. Gender asymmetries are an emergent property* arising from all the relevant dimensions interacting, co-evolving** and changing each other in the process. If we do not understand these principles of complex systems we cannot work with them effectively.

The emphasis on analyzing and understanding the problem space from a holistic perspective, is to enable policy makers to set up the conditions that will create an environment, which will effectively address the challenge. Complexity science also indicates that complex problems do not have single solutions. However successful, a single static solution will only be effective under one set of conditions; but when the environment changes and these conditions alter, then that particular solution may no longer be relevant or appropriate.

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* ***Emergent*** properties arise through interaction; they are systemic and are more than the sum of the parts.
** ***Co-evolution*** is reciprocal influence that changes the bebaviour of the interacting entities.

An Enabling Environment (EE) on the other hand should have the flexibility to adjust and evolve and respond to the new conditions. Such an environment is much more sustainable and effective over time. It is however essential to appreciate that such environments cannot be created top-down, but need the active involvement of the local community, as successful EEs are *co-created* with all the key stakeholders taking an active role.

The following Report does not offer *'a solution'*; it offers some insights into the complex problem space of gender asymmetries in ocean and inland water communities. It is only a feasibility study, in preparation for possible future pilot studies, based on only 12 interviews. It is therefore very limited, nevertheless the method employed has enabled the researchers to identify some very interesting and informative insights.

The section entitled 'Entry Points for Action' does offer some initial recommendations, but these again need to be seen within the context of the limited study.

BACKGROUND

UNEP commissioned an assessment of gender and decision making, focusing on ocean and coastal management policy. This project is a feasibility study, based on only 12 interviews conducted over Skype, to assess the potential for a pilot study. The interviewees covered the following areas: Cambodia, The Gambia, Indonesia (Aceh Province), Norway, Pacific Islands, Peru (2 interviewees), Philippines, Sudan, Sweden, USA (Oregon; 2 interviewees), and Tanzania.

The interviews were analysed by the LSE Complexity Group using a method developed by Professor Mitleton-Kelly, based on complexity science. The analysis looked at the broader context, within which decisions are taken and the issues associated with those decisions. In other words it attempted to identify what is called the *'multi-dimensional problem space'*. The multiple dimensions may include social, cultural, political, physical, technical, economic and other dimensions. All complex social problems are multi-dimensional and focussing on a single dimension invariably fails to address the problem.

The interviews were semi-structured, based on topics to be reflected upon and discussed in depth; they were not based on a structured questionnaire. The overall discussion was based on gender and decision making with a focus on gender equality and inequality. The topics discussed included, but were not restricted to, the following:

- The interviewee's experience of **gender inequality**
    - their definition of 'gender inequality'
    - examples that may illustrate that inequality
    - the impact of inequality
- The **context** in cultural, geographic, political, economic (and other) terms
    - what facilitated and inhibited gender equality/inequality
    - the relationship between these conditions
    - how did they influence each other?
- Examples of any **initiatives** taken to address gender inequality
    - the outcome of the initiative
    - group(s) which showed the greatest resistance/support to change. Why?
    - what worked? Why? What did not work? Why?
- Suitable **entry points for action** to improve gender equality/address gender inequality
    - that would help set up an environment that enabled gender equality
- The key stakeholders
    - what would encourage them to become engaged and involved?
    - what would inhibit them?

Of the 12 interviewees 6 had direct experience of ocean and coastal communities, while the other 6 had much less direct experience. Furthermore, most of the interviewees were unable to address all the topics listed above. It is essential to keep this in mind when assessing the findings. The majority however, were able to contribute significantly to some of the topics raised; for example, some interviewees had extensive knowledge of marine/coastal environments, but less on gender-specific issues, while others had extensive knowledge of policy, but little experience in the field. A few interviewees were very experienced and well informed and provided some deep insights and additional material in the form of papers and/or persons to contact during a future pilot study. Some of the interviewees recommended or forwarded papers and reports. A list of these documents, with brief summaries only covering aspects relevant to this project, is at Appendix 2.

The analysis is divided into the following Sections:

- Definitions and perceptions of gender equality.

- The multi-dimensional context, which analyses the gender *'problem space'* into its different dimensions (e.g. educational, economic, cultural, religious, political, technological).

- The multiple interacting dimensions, which looks at the interaction between the different dimensions.

- The main cross-cutting themes; this is a rich source of insights for understanding the issue of gender, asymmetries and the impact of inequality. It includes leadership, governance and power dynamics.

- Since common themes is not enough to provide a deep insight into the *'problem space'* , the analysis also identifies dilemmas and underlying assumptions, the next two sections therefore list some dilemmas and some underlying assumptions.

- Initiating change and local initiatives; this looks at some examples of how the challenge of the inclusion of women has been addressed.

- Entry points for action, provides a set of recommendations on potential interventions.

- Complexity Science insights. This section explains the science which underpins the logic of the methodology that has been used.

- Recommended next steps, provides some suggestions on how the project could develop.

- Appendix 1, provides a Literature Review, which supports the main findings based on the interviews. It uses documents over a period of 21 years, between 1993 and 2014.

- Appendix 2 summarises the documents provided by the interviewees.

- Appendix 3 shows the locations in Peru, suggested for field study by Interviewee 3.

SOME DEFINITIONS/PERCEPTIONS OF GENDER EQUALITY

Gender as a Contextualised Power Relationship

Some key insights came from a person who worked for over four decades with small-scale fishermen. The interviewee (to be referred to as Interviewee 1) saw gender as a power relationship between men and women, which is conditioned by history, culture, religion and the economic structure of society. Gender, therefore, needs to be looked at within specific contexts such as the home, the village, the co-operative, or at policy level. Gender relationships, furthermore, are not static and vary with time. One cannot talk about inequality per sé as it is inequality in relation to something; for example in relation to the way decisions are being made; and these decisions in turn, are dependent on context and topic such as children's education or fisher organisation, or ocean governance. Gender inequality will play out very differently according to that context.

Historic Contingent Perception

According to Interviewee 3, gender issues are not perceived as a kind of structural discrimination, but more as a historic, contingent perception **"that women do better at certain kind of jobs".** Women in **Peru**, take an active role in the fishing sector and inequality manifests itself differently at different levels. There are women working as Ministers in the government, but in regional government the percentage of appointed females is less. Due to economic reasons it is a common understanding that both men and women need to work. In fisheries, there is a clear division of labour: women work mainly in canning, at the pier, collecting fish, cleaning it, selling it, operating restaurants/kitchens. Women rarely go to sea (there is a prevailing superstition that it is *"bad luck"* to have women on board), but they are active on the coast and are perceived to be *"more careful in taking care of the fish, which is very delicate"*. In general, women are paid less since their work is not perceived to be as hard as working in the sea.

Power in Decision-Making is About the Use of Resources

According to Interviewee 5, power in decision-making is about the use of resources. In **Tanzania** and in public, women have the right to speak out, but in the interactions and transactions within the fishing industry, which is male dominated, that ability is curtailed.

Women Fish in a Different Way

In the **Philippines**, according to Interviewee 8, there is a **misconception that women don't fish, while research shows that they do**. Fishing is typically seen as going out to sea at 4 a. m. in the morning with nets. But women fish in a different way, collecting shellfish and catching crabs and studies show that women stay close to the shore to be able to tend to their children. Their catch is mostly for subsistence, but also for the markets since women mainly run 'wet' markets. Men also bring their catch to these markets. Whilst the country is rich in marine wealth, studies show that this is declining due to illegal and destructive fishing methods. But this is not necessarily perceived as being a male issue – certain of the poachers are also women.

Similarities Across Cultural, Religious and Other Contexts

Although gender asymmetries tend to be context specific, there are some similarities across different contexts. Interviewee 1 had observed some similar phenomena across different contexts; for example **successful fishermen**, who were actively involved and who were enthusiastic about collective action, were usually **supported by a woman** who acted as a stabilising factor, playing an anchoring role. Also, whenever there was gender equality in the household, the fishermen were *"of a different order"*. These fishermen were trying to make a difference at the cooperative or community level, and were going beyond self-interest; they exuded confidence and took others along with them. These individuals, however, were in a minority representing around 10% of the fishing community.

Significant Differences

Of some significance is the difference between specific policy agendas in the Philippines and Tanzania focused on empowering women and, for example, Oregon, USA, where this is absent. Whereas in Tanzania and Philippines women are specifically empowered by **legislation** with some guaranteed representation in Tanzania, this is not the case in Oregon.

Whilst a universal case presented was that men dominate the policy-making and decision-making processes generally, a further significant difference concerned the **decision-making capacity of women in the home**. In Peru, the Philippines (as a matriarchal society) and certain communities in the Pacific Ocean region (Polynesians) the women were identified as making the decisions in the home. In the Muslim countries, such as The Gambia, Sudan and the Arab region generally, the man took the major decisions in the home.

Examples Illustrating Inequality

According to Interviewee 2, although there has been some improvement in gender issues as part of "the progress of nations" in the countries around the **Red Sea and the Gulf of Aden** (Yemen, Saudi Arabia, Sudan, Jordan, Somalia, Djibouti and Egypt), through education and the influence of international organisations, gender inequality (except perhaps in Jordan and Egypt), dominates the whole region and involves the exclusion of women at different levels. In some places, such as Saudi Arabia, **projects are rejected if their objective is to look at gender issues**. Some projects, which aimed at proposing alternative livelihoods in marine protected areas, were unable to offer access to women and to include their views. Furthermore, women often feel reluctant to express their views when village men are present.

In some areas, international NGOs such as Oxfam, have set up initiatives to include women in fishery areas, but whilst some of them make progress, others appear to be "**fake projects**" since only men will allow such projects to go on. At times, men will be simply interested in the funds that come in and will ultimately make all the relevant decisions and exclude the women. Furthermore, men have to be asked first, before setting up a meeting with the female "leader" of such an organisation.

In the **Philippines** of the 24 senators, it was stated by Interviewee 8, only 3 were women, and further observed that even in environmental work males still dominated.

In **Tanzania** women had the right to speak out in public but when it came to the fishing world that was regarded as the space of men. In **The Gambia** whilst women were

considered free to do what they were able to earn a living, men were the decision-makers in the home. Whilst culturally it was stated many women took a role as breadwinners, and indeed women were expected to earn, however in the Jola tribe, the men, remained idle at home. There was also a culture of favouritism in The Gambia in respect of males receiving education.

In **Oregon, USA**, there were perceived barriers to women entering politics and as a consequence it was considered that there were too few women in leadership roles (Interviewee 6). A contributory factor to this phenomenon was identified as the inflexibility of the working environment. Furthermore fishing management, for example, was seen as tending to want to hear from men in their role as fishers rather than from the women. *"We (fishermen's wives) jointly own every asset, but he's the one that's heard*." Interviewee 9 expressed the view that management councils and policy makers were afraid that the wives would raise issues around social and cultural equity that they were not prepared to deal with. There was a tendency to disregard those issues that women wanted to raise.

The same applied in **Peru** *"Everyone wants to include the gender issues in projects but … it is very difficult to include that topic in any project because, … in most cases, they will interact mostly with men."* Interviewee 10 however, did suggest that one way around this reluctance to address gender issues directly would be to do it indirectly *"So you would have to be very creative. You would have to start working with them, you'd have to go to the schools, to the soup kitchens where those are run completely by women and I think you could start off there."*

THE MULTI-DIMENSIONAL CONTEXT

A complex problem/challenge has multiple dimensions that include culture, social norms, economic and financial factors, the physical space or in this case water (oceans and inland waters), the use of technology and other dimensions such as power dynamics and leadership. It is important to look at all the key dimensions that contribute to the problem space, as well as the way that these dimensions interact and influence each other. The following section highlights some of the key dimensions.

Nature of the Occupation

Gender inequality in the fishing sector has something to do with the nature of the occupation. In **Cambodia**, as in many marine communities, it is the men who go out to sea; the work is arduous and they may only have access to simple technologies. But this gender demarcation does not always apply to inland waters. *"This very clear gender division is very apparent in the marine fishery of Cambodia, but it's kind of fuzzy when you come inland, to the lakes and the rivers and so on."* The distinction between only men going out to sea, while women also taking part (sometimes exclusively) in inland waters, applied to many other geographic locations, not just Cambodia.

Educational Dimension

When women were better educated, it ensured that families were taken better care of; there was also a correlation between family size and female education, and in smaller families more attention was paid to the education of the children. However, when the man had no education at all, this could *"give rise to problems"*. In Aceh, **Indonesia**, only the men went to sea, and the women would stay at home, taking care of the fish, and selling it.

> *"Marine fishing takes a man away from family and society and so on, so the woman's responsibility is much more in a coastal fishing community than, say, for example in an equivalent agricultural community. So an educated woman in a coastal community certainly is an asset for her children and for her family, but if her husband is uneducated, then she could also run into problems in their relationship."*

In **Africa**, men are often more educated than women, and often they are the ones making the decisions. They also often hold key positions and important jobs. Women are given positions that are less important such as working as an assistant or in administration.

In the **Philippines**, it is primarily the females participating in workshops for waste management, livelihood, and gardening. They are also involved in the areas of educational awareness, teaching of teachers in schools. "*If we're talking about sustainability activities or behavioural changes, it's the women*" (Interviewee 8). Arts and crafts are considered to be more of a female activity whilst law enforcement is seen as a male activity "*because you go out in the middle of the night, you deal with other illegal fishing fleets with weapons and arms*". (Interviewee 8)

Economic Dimension

International economic relationships: The Chinese invest significantly in the **Philippines** (building shopping malls, real estate, corporations) and large Chinese families provide support and campaign funds to politicians to ensure that "*certain politicians now become beholden to what the Chinese want*" (Interviewee 8). Since the majority of the politicians are male and the majority of the Chinese entrepreneurs are also male, it is a male-driven negotiation. There is a co-evolutionary[1] dynamic or reciprocal influence, between the dominant male political and the dominant male economic sphere. The two are inter-dependent and they influence each other to such a degree that behaviour in both spheres changes as a consequence.

In the Philippines, **poaching and illegal wildlife trade** is driven by demand/markets. Illegal fishing often involves weapons and the use of poisonous materials or dynamite. Although predominantly a male activity, some of the poachers were women.

In the **Pacific Islands**, the participation of women in the **implementation of policy** varies and is dependent on the different national and sub-national context with different sub-regional dynamics. Whilst a study by the nature conservancy in the Solomon Islands focused on engaging women and men in community planning, it may be different on other islands and in other initiatives. Also, the developments imposed on those islands often have a significant impact, such as how re-engineering, of the coastlines to accommodate urbanization, is being conducted.

A further economic context is the way in which governments set up **budgets for ocean conservation initiatives** – this is often not integrated into overall strategies, but rather seen as a departmental responsibility. Often women have important roles in these departments.

The economic impact on gender participation is significant, because of its importance in policy-making. A particular perspective from **Oregon** in the **USA** on the prevailing macro-economic paradigm highlights a dilemma of the globalized economy and the implications of the corporatization of marine resource extraction on both women's access to those resources and access to policy-making. (Interviewee 9)

In Oregon, USA, the current economic system, which focuses on growth and profit as the most important criteria in policy-making, is seen as a major impediment not only to women's participation in coastal and marine policy making, but to conservation in general. A feature identified, by Interviewee 9, is that policy making in fisheries administration, emphasises management on a coast wide basis, on a larger spatial scale while ignoring the specific needs of local communities. The overall policy focus in Oregon USA was described as one of *"maximizing efficiency and economic growth".* Consequently politics play a significant role in fishing, involving male politicians and businessmen: *"There's an old boys club in fishing management wanting to maximize the benefits for buddies."* (Interviewee 9)

The interviewee described how on the Oregon coast many fishermen's wives worked in processing facilities (crab, shrimp and fish), while their husbands fished. However, the processing has now been consolidated down to just one company on the west coast, in a big corporate model, with the consequent loss of jobs.

According to Interviewee 9 the predominant economic philosophy in Oregon, discounts the feminine focus on 'softer' issues such as social justice, inclusion, community solidarity and environmental issues.

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[1] Co-evolution is taken to mean reciprocal influence which changes the behaviour of the interacting entities.

Ecological Dimension

According to Interviewee 3, changing environmental conditions due to el Niño, have opened up new opportunities in aquaculture or scallop production from which small-scale fishing families can benefit (such as being able to send their children to school for better education)and thus have better economic prospects.

Cultural Dimension

Overall, there seemed to be more men than women involved in **innovation or entrepreneurship**. This is not because women are less creative, but because the existing power structures restrict such activities. When women have a bright idea and take as many risks as men, they may not be treated equally and may not get financial backing by investors. The Underlying Assumption being that men operate in the more exploitative, pure business focus whereas women are more risk-averse.

Culture was found to play a significant role in determining access of women to ocean resources and policy-making. The exclusion of women from decision-making in the **Sudan** was particularly attributed to tribal ethics, norms, traditions and customary law. In the Sudan the coastal areas, where women are affected by marine resource-based activities, are 'supervised' by five tribes. "*Especially the coastal communities are very conservative about the engagement of women in different levels of activities and related policies.*" (Interviewee 2)

The **Philippines** has been named as one of the best places for women to live in. However, "*there are still so many things that need improvement*" (Interviewee 8). "*We're a very* **matriarchal society***, so we don't have issues like the woman is supposed to stand behind the man while walking or things like that*". The shift towards a matriarchal society has evolved over decades and there is now significant attention and respect towards women and mothers. Whilst the apparent institutional absence of gender discrimination was identified as being supported by legislation, a further contributing factor to women's empowerment was their increased spending power.

The traditional gender image of women is to be nurturing, kind, honest and honourable and the cultural role assigned to women is to be a respected mother in the home. Consequently a key impediment to women participating in decision-making in the Philippines was the assumption that women cannot do certain things since they were expected to be in the home. It was pointed out, by Interviewee 8, however, that there are **few actual impediments other than those prevailing assumptions.**

They were also expected to be faithful to their husbands, but that expectation did not apply to the men. This double standard is not limited to countries like the Philippines and can also be found in most European, American and other countries around the world. Furthermore, the Philippines is the only country that does not have a divorce law, and this was attributed by Interviewee 8, to the influence of the Catholic Church.

An interesting cultural feature, identified by Interviewee 11, in **Sweden** was a perception that women in positions of influence tended to be isolated from other women. This was contrasted with a perception that under pressure men would tend to club together. At the same time, gender related issues seemed to be improving in Sweden as "*part of* **the broader trends of society** *and the broader understanding of the consequences*". (Interviewee 11)

In the **Pacific Islands**, the cultural dynamics tend to keep women out of the decision-making process at the national and sub-national levels, but less so at the regional level. Cultural constructs in the different Islands differ significantly, and *"one cannot make a sweeping statement across the region which is extremely diverse"* (Interviewee 7). **Polynesian** societies are more matriarchal with more respect for the role of women and greater authority. While in **Melanesian** societies *"you would have to make special efforts to involve women in the decision making processes around coastal management."* (Interviewee 7)

In the Pacific region, women are often behind the **establishment of large marine protected areas**. Technocrats lay the foundation for these declarations and are prepared by very accomplished women in their NGOs. The role of women in this context is therefore quite significant. Specific reference to women in policymaking is made in the Pacific Leaders Gender Equality Declaration, yet there are no women prime ministers or presidents in the region.

In **Tanzania** a further cultural shift was identified, as an outcome of economic transition, and it was suggested by Interviewee 5, that women had benefited directly. An example supporting this cultural shift was the RUMAKI Seascape Programme (please see Appendix 2 for details), that provided a specific enabling environment for women, by introducing VICOBA or Village Community Banks. *"RUMAKI introduced something that I thought was very strategic for the women, noting that women were not directly engaged in the fishing per se, but being involved in processing and trading and these other secondary aspects."* (Interviewee 5) The scheme provided access to limited amounts of capital to women to build their own businesses, and *"they do not have to beg from a man."* This was more successful where there had been more women in the groups who were willing to take up micro loans that were considered to be insignificant by men. Women were more prepared to be patient for small and slow returns on their endeavours than were men. *"It has given women the sense of self-empowerment, that self-confidence because it has taught them to see that they can be independent, even if it's a small amount of money."* (Interviewee 5) (In the 1985 post-Nyerere regime socialist government structures became dismantled and free enterprise permitted.)

By setting up small businesses such as small local restaurants along the coastal areas, the women were able to earn and save money and to buy land, which in turn enabled them to own brick-built houses, instead of living in mud, stone or thatched houses. *"It's a beautiful transformation for some of them."* (Interviewee 5)

In **Peruvian** fishing culture there was a prevailing superstition that it brought 'bad luck' to have women on board. In non-fishing contexts, women in Peru, were believed to be less prone to corruption and as a consequence were acquiring more jobs in accounting, finance and administration. Generally, women were seen as more trustworthy.

Culturally the **Oregon** fishing community, in the **USA**, was considered multi-generational with deep roots in the community. POORT (Port Orford Ocean Resource Team) declared that it wanted to see the community be successful. This would require that community economics, social and cultural considerations be on the table when making fishing management decisions.

Religious Dimension

Religion is identified as a significant feature of women's capacity to have access to policy-making. In **The Gambia** religious norms were seen to affect the capacity of women to participate in decision-making. *"We have 98% Muslim so if you say that, we are not strict Muslims like you hear in the Arabic world but again in the house, we abide by the Muslim rule. The man is the boss and whatever he says works."*(Interviewee 4)

Traditional norms take a different form in the **Philippines**, for example, where the influence of the Catholic Church was pervasive and supported by the traditions of a 'matriarchal' society. Women were identified as traditionally deserving to be respected, but they were also expected to tend their families as a priority.

Somewhat differently in **Peru** the Church was seen as a positive influence by one interviewee in that it not only supported equal education for women, but also indeed provided such education. The Church's moral standing also enabled it to mediate in conflicts. Another interviewee in Peru, however, dismissed the positive influence of the church *"Forget about the Church, it's not present in most coastal communities."* (Interviewee 10)

The issue of women's identity as respected mothers in the **Philippines** has been perpetuated by the predominant Catholic tradition. This was exemplified by the Philippines being one of the few countries in the world not allowing divorce because of the influence of the Church.

An interesting further observation on religion was offered by Interviewee 1 on the **Cambodian,** who suggested that there was a different frame of reference in Buddhism that saw humanity as being part of nature, as opposed to Christianity or Islam that saw humans as stewards or masters of nature.

Policy & Political Dimensions

In the **Philippines**, **apathy** is considered to be one of the major challenges to coastal management. Being surrounded by an abundance of marine wealth, there is not yet a developed sense and awareness that fish stocks have declined. Illegal and destructive fishing methods continue whilst "*a lot of people would blame the Government for being corrupt and being concerned about just themselves or their self-interest*" (Interviewee 8). Furthermore, policy makers in the Philippines follow other priorities that are being influenced by the business community and the Chinese. Issues such as banning shark fishing, for example, are neglected because it is considered an economic opportunity.

In the Philippines, **male dominance** occurs at all levels of **government**. This is less so from a policy perspective, and more so because *"there's just less females running for political office, and maybe it's also because of the expectation that the women should be the primary caregiver in the family"* (Interviewee 8). This, in turn, has an impact on policy making.

At the same time, while **environmental advocacy** is very much dominated by males, some Government agencies are headed by women, such as the Climate Change Commission, The Bureau of Biodiversity Management and the Oceania Philippines, which is an NGO for marine conservation. Generally, opportunities for women to take leadership positions are improving. Younger females, however, may face challenges when it comes to such posts.

In the **USA**, women 'progressive activists' are receiving negative media coverage, which can be perceived as a gender issue. There is a tendency for *"character assassination"* when women are *"out of line"*, or when they challenge the status-quo economy and the fossil fuel industry. Consequently, media potentially hinders such progressive female influence on policy. Interviewee 7 also highlighted the inter-relationship between political structure and the media and the way they co-evolve; i.e. the way they influence and change each other. "*The actual depth of system change that I think we're going to have to make in order to be able to not just completely strip our oceans, in order to be able to at least get somewhat ahead of absolutely unrestrained catastrophic climate change, the change levels are so deep and yet what I've realised is that political power and certainly the party structure, the political and partisan power structure, in Oregon, in the US, and the mainstream media structure – those two things feed one another and go hand in hand.*" (Interviewee 7)

There were two interviewees based in Oregon, USA, Interviewee 7 was a policy maker while Interviewee 6 was a fisherman's wife. Although in totally different positions their overview has many similarities. For example, Interviewee 6 argues that the key role of government should take into account the interest of future generations and drive change. There are many different environmental and social agencies in place, all pushing various agendas, and Interviewee 6 stresses the problem of the **lack of cooperation** among them, and distrust between the ones working on a social agenda and those working on the environmental sustainability agenda. This is where Interviewee 6 sees the need **to build bridges** - and recognises the specific role of **relational leadership that is more easily offered by women**. There is a need persuade key stakeholders to work together, through a collaborative leadership approach where people do not only engage with the issues, but also get to know each other. Women seem more able to create the environment to develop these relationships, whilst men appear to be more drawn to the excitement of the political game and process.

On the whole men were identified as dominating in politics and it was suggested that there are significant barriers to entry for women in politics and hence policy-making. This is attributed to the **unsupportive work environment** where women still need to care for children. It was pointed out by Interviewee 9, that Oregon aligns its political and economic agenda to that of the US federal government in Washington D.C., especially in respect of economic efficiencies. Women are affected since they typically manage smaller fishing businesses, seen by policy makers as being marginal to the economy. *"Especially in small boat fishing the women (wives) in the business, play a really important role – we do the bookkeeping, we make sure the boats are stocked up with groceries – we take sick crew to the doctor – so we have a different perspective."* (Interviewee 9)

In general, gender is becoming more important in the more recent policies developed in the **Pacific Islands**. Though the impact of gender on policymaking has not yet entered the ocean coastal space debate, it is a consideration and part of other initiatives. The Secretariat for Pacific Communities, for example, which does technical work for member states, has hired a statistician to work around gender issues. Since 98% of the secretariat's responsibilities focus on the ocean, Interviewee 7 feels the timing for this focus is right. *"The ocean is an important part of our lives and of our economy, yet there is not a very considered attention to the gender issue within the ocean sectors."* Emphasis is also given in driving regional **cooperation, collaboration and integration** (e.g. Regional Pacific Plan). The principle of inclusiveness was a central plank, which included the private sector and civil society. There is a specialist committee to decide on political priorities and to guide leaders. A specialist subcommittee establishes criteria for skills, including gender analysis.

When asked about the history of women in policy-making in the Pacific region, Interviewee 7 stated that in regional organizations such as the Pacific Islands Applied Geoscience & Technology Commission (SOPAC, part of the Secretariat of the Pacific Community) the proportion of women in the core working group has increased in the last few years, from 20% to about 50%. Some of the women were also more 'vocal' and Interviewee 7 attributed this phenomenon to a **greater degree of self-confidence, supported by technical competence**. Interviewee 7 also related this stronger voice to the fact that in that working group recent chairwomen ensured that there was an opportunity for everyone to voice their opinion and contribute to the conversation. "*The Chair of meetings is quite crucial to setting the tenor of how a meeting might be conducted*", and the chairwomen have been more receptive to collegiate conversation, as well as being quite practical and more results driven to get the work accomplished. According to Interviewee 7 women "*will just help us to gain a much deeper and accurate understanding of what our policy and budget decisions are actually delivering for us.*" Interviewee 7 also believes that the post 2015 development agenda provides a unique opportunity with its 'stand-alone' goal on oceans.

According to Interviewee 5, in **Tanzania, women also have full political rights** and consequently have the right to speak out - but in those coastal communities where women's activities in marine resources are affected, they rarely do. In **Eastern Sudan** there is some progress in women's affairs with quotas of representation in governmental bodies, but it was pointed out by Interviewee 2, that the more local the administrative system, the fewer are the benefits to women's inclusion. This has also been identified as a phenomenon in **Peru**. Progress on gender issues has been enabled at government level in **The Gambia** with female ministers in the government, and laws are being passed supporting women, such as schooling becoming mandatory for girls.

Overall however, men still continue to make the rules in the political, economic, and cultural context, in marine and coastal communities, with relatively few women playing a role in policy making.

Technological Dimension

In **Tanzania** the use of technology was been identified as impacting the traditional role of women and men to engage in marine-based livelihoods. The consequence was that men who were predominantly the fishers were able to engage more intensively. This had impacted on women's traditional fishing activities such as shrimp fishing where, for example, men were now involved with boats and net fishing. Whilst women were not specifically excluded from access to improved technology in fishing, fishing boats and nets were specifically made available to men. The ownership of technology had become a man's domain – as has been the interactions and transactions involved in fishing. *"The fishing space in Tanzania is traditionally male dominated."* (Interviewee 5)

Whilst this feature of the impact of technology has had an impact on the loss of certain traditional livelihoods for women, it was also pointed out, for example in **Peru**, that the technological aspect of the transforming economic context also created new opportunities for women's empowerment. The case was presented of the impact on economic growth and the new ideas emerging through globalization through the media connectivity that was *'creating new space for women'*.

THE MULTIPLE INTERACTING DIMENSIONS

Although part of the analysis involves a separation of the issues into different dimensions, to clarify and emphasise the fact that a problem space has multiple dimensions; at the same time it is very difficult to isolate one dimension from all the others, as was evident in the above analysis. The key insight here is to see how the different dimensions co-evolve or interact and influence each other. For example, **traditional norms** on the role of women, tend to influence the **cultural** dimension and both in turn influence the **political and policy making** dimensions. These then affect the provision and availability of boats and other **technology**, to women. Each reinforces the other and it becomes very difficult to change what may have become traditional norms. However, local initiatives by women are changing these entrenched views and behaviours. One notable example is when women participate in micro-finance, to fund small businesses that become so successful that these women earn enough money to become land owners. This in turn affects their confidence, but also significantly benefits the local economy as well as the education of their children, thus improving the involvement and contribution of future generations to the local community and wellbeing. Furthermore, the women often find alternative sources of income, when they are restricted from participating in the fishing industry. All this activity by the women in turn influences their relationship with their husbands, male relatives and other men in the community. It also affects the women's standing in the community and may in turn affect their involvement in decision making.

There are also some interesting implications on the traditional constructs of gender roles. Interviewee 11 for example, argued that very successful women in the area of policy are supposed to act *"like men"*, which is associated with pushing the agenda or taking the credit *"I have seen very few women who are gentle and moving forward, very intelligent but they're not going to reach the top because (... they) have to be aggressive like the men."* This can be seen as an *emergent* property, which arises as a direct result of *co-evolutionary dynamics*. Successful men are seen as aggressive, pushing their own opinion and dominating the debate; women interpret that behaviour as contributing to that success and emulate it. They change their normal behaviour in response to men's actions and decisions. When they act like men, they tend to be more respected and listened to and this reinforces the changed behaviour, which in turn directly affects men's behaviour.

In this particular case, the women's changed behaviour may lead to two possible *emergent* and therefore unpredictable outcomes. If by being accepted they are able to bring their other feminine characteristics to bear, to influence policy making, the outcome may ultimately be beneficial. If however, the women's aggressive behaviour, fully emulates that of the men and decisions continue to be made in the same way, then the outcome may not make any significant difference. The **underlying assumption** in this argument is that women can bring a more positive approach, benefiting the community and society, by emphasizing the more qualitative aspects, while men tend to focus much more on the quantitative, profit maximizing aspects. It is important to surface underlying assumptions so that they may become transparent and be challenged.

Example of Co-evolutionary Dynamics

One example of co-evolutionary dynamics can be seen in Peru, where there is a strong **cultural belief** that both men and women should contribute to the family's income, as well as taking care of the family **(economic dimension)**. Though women are usually paid less than men, they are believed to be "better at certain kinds of jobs". Furthermore, women are much more available on the job market to seek alternative

opportunities. Peru's extended period of **economic growth** in recent years, has contributed to the further development of a middle class. This development opened up new possibilities, including increasing **access to education**. More women are now receiving better education. This leads to a general increase in the involvement of women in many markets and businesses, and women are able to **take jobs at the top level** of organisations or the government, thus challenging the traditional view on the division of labour, and women's role being confined within the family. Since women are also culturally perceived to be **less prone to corruption**, they are increasingly hired for administrative jobs, accounting positions or even for positions which they previously **have not had the chance to get** (such as the police force). This influences, in return, the nature of the activities or the institutional strategic directions, hence potentially opening up further opportunities for women in existing or new fields. Since the **media promotes stories of successful women** (rather than attacks, as opposed to the US), it adds to the positive trend of women becoming more and more visible. For example, women in higher governmental positions are being perceived and presented as having much more authority in general and being less prone to corruption. And from there, women have opportunities to **influence policies** which, in turn, may affect their participation in society, such as increasing access to education. **Globalisation** and access to the **internet** further exposed women to new knowledge, education and business opportunities, and a general awareness that women in other parts of the world have different lifestyles, higher education and better opportunities for jobs. This again fosters the trend of more women attending education, and educated women being able to change their (and their families) economic situation and consequent choices, thus influencing a **change in the social fabric, value systems and gender roles**. The **Catholic Church**, though advocating traditional gender roles and family values, is offering education to poorer families and girls in more remote areas, supported by **governmental education programmes**, which enable them to find better paid positions and contribute to altering the economic status of the family (with different subsequent choices), and potentially, the village. Also, **due to ecological changes**, such as the impact of global warming or of el Nino, local communities, and the women living there, have been switching from traditional small-scale fisheries to more pre-industrial and industrial work (squid fishing). Women, who used to do small-scale work, find **increasing opportunities to become part of the value chain**. This again changes the economic conditions around those families and women, offering novel ways and choices for learning, income generation, education, career and their general role in society.

> **Conclusion:** The reason for identifying the multiple dimensions and their co-evolutionary dynamics is to help decision and policy makers take a holistic view and to address key related dimensions at the same time. From a complexity science perspective, policies focused on a single dimension (finance or culture or technology, etc.) in isolation, very rarely successfully address a complex challenge. On the other hand, when policies do include all the key inter-related dimensions, they stand a much better chance of addressing the complex challenge. The idea is to use these insights to develop policies, which help local communities to co-create an *enabling environment* that addresses all the related dimensions at the same time. One of the objectives of this project is to provide some insights into what would need to be taken into account to facilitate the creation of enabling environments.

MAIN THEMES

In addition to the multi-dimensional analysis and their co-evolutionary dynamics, it is important to identify cross-dimensional **themes**, which provide a different perspective on the problem space. Common themes are **patterns** seen across all the material. Occasionally they will include the *'dissenting voice'* or a diametrically opposed view to the main trend. These are important to avoid reducing the analysis towards a common denominator. Hence some conflicting opinions have been included in the analysis, to indicate that not all the interviewees shared the same view or opinion.

In addition, the analysis highlights some **underlying assumptions** and **dilemmas**. The latter are defined as *"equally desirable objectives that appear not to be achievable at the same time"*; dilemmas need to be used as the basis of discussion asking *"what would it take to achieve both objectives at the same time?"* or *"what needs to be done differently?"*

Following are some of the **main themes or patterns** identified.

Gender Divide According to Hard & Soft Issues

Though the contexts vary and exceptions can be found, it can be argued that males tend to attend to "hard" issues such as law enforcement, protection of marine areas, generation of family income and policy making, and females to "soft" issues such as education, raising children, doing artisan work, taking are of the household. Some attribute this to a separation of labour due to the "nature of the business" such as men going out to sea; whilst others attribute it to certain skills/abilities such as that females can handle delicate fish or support the fishermen by cobbling the nets. This can be perceived as a gender issue, but also as a historic contingent view that both men and women are better at certain things (Interviewee 3) that the other gender does not do as well.

Superstition or Local Beliefs

Superstition or local belief may also play a role, when women on board a boat, for example, are regarded as *"bad luck".* In that sense, women are given certain attributes by the society that both enable as well as constrain their arena of engagement. In the household they may have more space to participate in decision-making processes, for example in the area of how to raise the children and how household money may be spent; whilst in the professional arena they tend to be less influential. Women, however, do play an active role in contributing to the economic wellbeing of both the community and the family (by having jobs in canning factories, collecting crabs on the shore, selling fish in the markets, running restaurants), although the contexts may vary significantly.

Influence of Local Traditions on Decision-Making Processes

Tribal communities in the Sudan, tend to be driven by tribal ethics and norms. The chief of the tribe at the village level is the Sheikh or the head of the village and these tribes, used to exclude women in the different tribal forums. The Salif, which is the Hadendowa's customary law code, used to regulate the social and economic behaviour of the Hadendowa, as well as their rational utilization of resources is also used as a mechanism to address conflict between the community members. According to Interviewee 2, there are **no women in the Salif** committee and this community is chaired usually by the Sheikh or the Umada, the mayor of this sub-clan of tribes.

Impact on the Environment

Economic development may also inhibit gender-related changes, for example in the Philippines where markets and businesses tend to limit conservation initiatives and women's inclusion in decision-making.

Poverty may also drive individuals to poaching or illegal fishing activities; for example local communities, such as the Tonlé Sap Lake in Cambodia, use illegal fishing techniques such electro-fishing or dynamite, which damage the ecosystem.

The new purchasing power of women due to new income possibilities, on the other hand, may provide them with a larger space to bring in their needs and views with regard to the environment.

Governance of Marine Environments

If the above is coupled with an inadequacy in the governance of marine environments, the problem is exacerbated. For example, the Tanzanian Fisheries Department does not have adequate resources for patrolling and cannot fully enforce the law. As a consequence illegal fishing techniques continue to be used.

Lack of Resources, Capacity and Governance

Policy implementation related to safeguarding ocean and coastal regions was generally compromised by lack of resources, capacity and governance. This feature, whilst specifically being a challenge to developing nations, also applied to Oregon, USA.

Commercialization of Ocean Resources

The impact of the commercialization of ocean resources on women, applies in Tanzania as it does in Oregon, USA (Interviewees 5, 6 & 9). It makes technology available only to fishermen, and this approach serves to embed the male advantage. Reference was made to the *'old boys club'* in Oregon, USA, based on self-interest. The impact of the commercialization of fishing on women in Tanzania, has been noted and steps have been taken to counteract this impact, such as the Coastal Environment Management Program, but they have had limited success, which has in turn impacted women.

Exploitation of Marine Resources by Corporations

A related theme is the exploitation of marine resources by corporations, or big business, with the consequence that family-run businesses, which were the main stay, providing jobs and a stable income to the local community, become excluded and many jobs are lost. Another consequence is that corporate decisions are primarily taken by men; and many women are marginalized from decisions impacting on their capacity to earn a livelihood along the coastline. This development has disadvantaged the local fishing communities, where there has traditionally been a more defined role for women.

Unbalanced Focus on Economic Development

A recurring theme is the tension between the need for economic development with the accompanying commercial exploitation of fishing resources, on the one hand, and the negative impact on traditional livelihoods, especially in small communities, on the other. This appears from the many interviews to be a universal phenomenon. A related issue is

the predominant focus on the macroeconomic opportunity in policy-making that is claimed to take priority over social and environmental issues. Male policy makers are identified as primarily establishing these priorities.

Emphasising a single dimension raises many problems, as it ignores all other related issues, which are often impacted in a negative way.

Apathy

There was a prevalent apathy identified **to the conservation of marine resources** that still ranges from local community-based women right up to top national policy-makers. Some local initiatives, however, offered counter examples with women taking an active role in safeguarding the environment.

Local Conditions/Context

A clear strategic theme for interventions to address inequality is the understanding of the need to take the local conditions into account, especially when intervening in a foreign context.

Gender Inclusion

There is a positive development towards gender inclusion through the general progress of nations (Interviewee 2), fostered/enabled and reinforced by economic development, globalisation, access to education or new business opportunities, offering increasing opportunities for women to enter new fields of activity. In Peru for example women are taking more office jobs because they are seen as less corrupt then men; in Asia there is a general trend towards more inclusion; and in Sudan there are more open societies in urban areas etc. Gender inclusion is also fostered by international NGOs and other local initiatives setup by both men and women (e.g. TRY Oyster in The Gambia). This trend, however, is also hindered/inhibited by traditional views and structures, for example the mainstream media in the US when they criticise women *"behaving out of the norm"* or the Catholic Church advocating that women should stay at home to raise the children.

Enlightened Government Gender Policy

Another theme was the competition between enlightened government gender policy, on the one hand, and conservative tradition and culture, on the other, particularly manifest in the marine environment. This was evident, according to Interviewees 2, 4, 5, 8 in East Sudan, The Gambia, Tanzania, and the Philippines, respectively.

The following themes on the challenge of implementation, lack of resources and capacity, and lack of appropriate governance structures, are related to this theme. They are inter-dependent and they co-evolve and influence each other.

Challenge of implementation

Overall there was a perceived inability to implement policy. One such example was that by allowing investment in the commercialization of fishing, Governments did not ensure that benefits would be made available to coastal communities.

In Sweden, for example, gender has "… *a high priority in our policies*" (Interviewee 11), and gender mainstreaming is being implemented from the Ministers and Under Ministers down to the authorities and independent agencies. There are directions given for gender mainstreaming through policies and reporting mechanisms in place for the agencies. These

policies apply both to the agencies, as well as to their implementation initiatives in the countries. The challenge is how to implement them in practice? According to Interviewee 11 it is very difficult for policy makers to assess the impact of policies. Quantitative reports are available, but they do not always provide the whole story and statistics can be manipulated to indicate success in a particular area, but without providing the broader qualitative context. This challenge of implementation was another common theme among the interviewees and is closely related to the following theme on appropriate measurement.

Appropriate Measurement of Outcomes

In gender related initiatives, **outcomes are measured, but not necessarily the impact.** Whilst numbers and statistics can tell how many women have been recruited, and those numbers can be used for promoting success stories; they do not tell the whole story *"you have good numbers, but in reality … she is not part of the power structure, she's not part of the power network and then it doesn't really matter".* (Interviewee 11). Numbers and statistics can be manipulated to show a good result. Therefore, qualitative assessments of the implementation in practice, and therefore the impact of gender-related policy, would provide much deeper insights, despite the fact that a qualitative analysis is more time consuming, costly and not neutral, as it depends on the interpretation of the data. But the *"broader trends of society and the broader understanding of the consequences … you cannot describe with numbers. That you have to describe by going much more deeply in science".* (Interviewee 11)

Power Dynamics & The Contribution of Science

There were two important points made by Interviewee 11, apart from the emphasis on qualitative analysis. One was the importance of **power structures** and the other was the **contribution of science**. Many interviewees highlighted **power dynamics** as an essential element in gender issues and this should therefore be seen as a particularly important theme; and several emphasised the importance of the contribution of science, thereby supporting the approach that this particular project has taken.

Leadership and the Role of Charismatic Individuals

Despite institutional or gender-related constraints, in all contexts investigated there have been charismatic individual women who have been able to drive change at community or policy level. They often lead by taking the initiative in the area of conservation and the protection of natural resources; and are often supported by the male-dominated community (Interviewees 1 & 8)

Some additional themes

The following themes were also identified:
a. Passionate and committed charismatic **youth leadership** was identified in the Philippines;
b. Role of mainstream **media** was identified both as **an inhibitor of progressive thought**, but also as an **enabler** since it can help raise awareness for development programmes;
c. Role of fundraising and income-generating activities within projects towards **self-sustainability**;
d. Continuous improvement within projects and **linking with other sectors**: product improvement, packaging and sale through private businesses;
e. **Departmental fragmentation** of institutional bodies; Institutional capacity;

DILEMMAS

Dilemmas are defined as "equally desirable objectives that appear not to be achievable at the same time"; dilemmas need to be used as the basis of discussion asking "what would it take to achieve both objectives at the same time?" or "what needs to be done differently?"

Following are a selection of dilemmas described by interviewees.

Women are entitled to participated in decision-making vs. women are expected to stay at home.

The right of women to participate in the decision-making that impacts their lives is enabled through legislation in the Philippines. However that capacity is seen as being compromised by the fact that culturally they are also respected for staying at home as head of the family. A similar dilemma was identified in Oregon where women enjoy full political rights, but their capacity to exercise that in policy-making is compromised by then being required to care for the children.

Emphasis on economic development vs. need to minimize the impact of development on smaller communities.

The understandable need for economic development and growth and the need to minimize any negative impact of development on smaller communities are identified in Tanzania (Interviewee 5) and Peru (Interviewees 3 & 10). In Tanzania economic development is a desired goal after decades of economic stagnation. The socialist structures have been dismantled and free enterprise permitted. This has added to the tension between the impacts of the commercialization of fishing on local livelihoods, on the one hand, and the need to maintain the viability of those communities in fishing activities on the other. Although institutional support for these communities is considered important, many attempts to do so have been ineffective. This is a consequence of limitations on the capacity to implement such initiatives. The equal desirability of encouraging economic development at the **macro scale** (exports etc.) impacts negatively on development, especially in fishing, and thereby negatively affecting women at the **micro scale**.

Need to manage marine resources sustainably vs. limitations on fishing promotes destructive fishing practices.

This concerns the need for sustainable economic development and placing limitations on destructive fishing practices. Specific policies are put in place in Tanzania that add to the negative impact of the accompanying commercial competition they promote. The policies are advantageous to commercial fishing and hence tend to negate the objective of reducing destructive fishing practices, especially in the poorer communities.

Government implements policies to protect ocean resources vs. corrupt officials turn a blind eye to policy transgression.

There is tension between policy implementation and governance to protect ocean resources, on the one hand, and that objective being compromised by corruption in the form of officials turning a blind eye in the face of illegal activities of families and friends. A consequence is an inadequacy in policy implementation and governance.

Government policy promotes gender equality vs. economic liberalization in fishing is advantageous to men.

Competition between the effects of official government policy focused on promoting gender equality, against the effect of economic liberalization in fishing, which results in a disproportionate advantage to men. As traditional fishers, men gain access to new technology and opportunity, and are thus more directly involved in the interactions and transactions of the fishing space. Well-intentioned attempts at redress through local community empowerment initiatives such as the Marine and Coastal Environment Management Program (MACEMP) have enjoyed limited success. Whilst this initiative has guaranteed women's representation, the fast tracking of the implementation to achieve financial viability has not enabled the establishment of the requisite collaborative group or community platforms. The greater focus on short-term financial success at the expense of empowerment has resulted in many of these initiatives failing.

Economic optimisation of marine resources vs. conservation of marine resources.

This concerns the drive towards the economic optimization of marine resources contrasted with the need for ocean and coastal conservation. The commercialization of fishing has the consequence of marginalizing small fishers thus perpetuating poverty in local communities and encouraging the practice of destructive fishing practice such as the use of illegal nets and dynamiting.

Fast tracking of local community development initiatives vs. allowing sufficient time and effort to empower local groups.

The impact of commercialization on small fishing communities highlights the need for local development initiatives. There is however a tension between the perceived need to fast track such initiatives to achieve economic viability, with the time and effort needed to empower such groups and provide them with the necessary knowledge, understanding and practices of sustainable group dynamics.

Advocacy on policy-making focuses on the social agenda vs. advocacy focus on the conservation agenda.

In the USA there is a perceived dilemma that affects women's capacity to participate in policy-making represented in the split between those groups promoting a social agenda (e.g. preserving jobs, including women's livelihoods) on the one hand, and those groups promoting an environmental agenda (e.g. promoting ecological sustainability, such as the declaration of marine reserves). There is apparently a typical mistrust between those two interest groups.

Legislation to enable women's participation vs. tribal social structures silence women's voices.

Tribal social structures, and traditional local belief systems, such as those in southern Sudan do not provide any meaningful space for women to voice their opinion. At the same time, the Sudanese government has provided structures (quota) for women to take active roles in government on different levels. However, since the government also relies heavily on the votes of the tribes, the opportunity for women to influence policies is limited. At the same time, women do find some

space to organize themselves, and to seek alternative income generation and business opportunities in coastal activities. Women do not, however, find any meaningful spaces to address fundamental belief structures; either in the villages (they have no say at all), within the government structure (suppressed by tribal power influence) or in the urban areas (no relevance).

UNDERLYING ASSUMPTIONS

Underlying Assumptions (UAs) are beliefs that influence decisions and actions. They are not often articulated and discussed. The UAs discussed below are therefore based on the interpretation of the researchers. They are surfaced and identified to help the 'problem owners' to question their own assumptions, as some are outdated and no longer apply.

Some strong underlying assumptions that would need to be examined are the notion that '**women don't fish**', or that '**women have a (natural?) defined role**', and that it is not possible or even desirable to do anything about it.

The prevailing economic paradigm, as it is implemented in policy-making, has '**economic growth as a core focus**' and economic success is seen as 'maximize economic efficiency for profit and growth'. Marginal economic impact such as effect on communities is therefore not central to policy-making. There appears to be an almost universal assumption that you must 'look after yourself and your buddies'. These UAs and economic priorities presuppose that the '**earth has boundless resources**'.

There also appears to be a global economic UA that economic development and growth can address socio-economic and cultural challenges.

There appears to be a further underlying assumption that **legislation** will be able to significantly change behaviour in the desired direction.

INITIATING CHANGE & LOCAL INITIATIVES

According to Interviewee 1 in Buddhist communities where people tend to see themselves as part of nature, initiatives aimed at conservation, came from women; whilst at the same time the overall society was dominated by a "macho" culture showing little equality. When it came to conservation, which formed the basis for the renewal of resources, which in turn offered the possibility of a sustainable livelihood, it was women who took the lead. Interestingly, the education level for both women and men was low in **Cambodia**.

The ability to initiate change, according to Interviewee 1, is not necessarily associated with education, but with a certain passion that creates momentum and energy to engage others. Particularly in the area of **conservation** these women have not been obstructed by existing power structures, but instead have been *"highlighted as very good role models"*, supported by communities and integrated into decision-making processes; simply because there was a need in the community to make a success of the fishing initiative.

A different view is taken in the **Philippines** regarding 'education', which in this case equates to 'raising awareness' or 'becoming familiar with' as distinct from formal academic education which Interviewee 1 meant.

There are two examples to be cited. One is making people aware of the richness of the ocean by teaching them to swim and snorkel. Surprisingly, according to Interviewee 8 80-90% of Filipinos can't swim, within an archipelago of 7,107 islands. The Interviewee taught a group of teachers how to swim and to snorkel and this helped them to recognize and appreciate the richness of the seas that surrounded them. As a direct result of that experience those teachers started changing *"their education curriculum to incorporate more environmental concepts".* (Interviewee 8)

The second example is an initiative called '**Save Philippine Seas'** (SPS), initiated by a woman and organized by a handful of concerned individuals, who acted upon a report on April 9, 2011, regarding a US-based company allegedly importing shells, corals, and other endangered marine wildlife from Indo-Pacific countries, including the Philippines. The group went public on May 26, 2011, via the #reefwatchPH hashtag on Twitter. According to their website, in 3.5 years, SPS has become an independent movement to protect the world's richest marine resources by harnessing the power of social media and lobbying for the strict enforcement of environmental laws. The Philippines is the center of marine biodiversity on earth, thus, its conservation, protection, and restoration is not just of national concern, but also of international significance. SPS has a wide range of projects under the three pillars of Education, Engineering, and Enforcement.

In the Philippines **arts and crafts** contribute to the empowerment of women in coastal management. In workshops science classes are offered in the mornings dealing with conservation, climate change, marine ecosystems, hydrology etc.; all sustainable living concepts. In the afternoons attendees are invited to express what they've learned in arts classes through dance, musical theatre, singing, songwriting and crafts.

This is a way of getting women involved in coastal management through enriching their lives and showing livelihood opportunities; offering a life-enriching experience within the context of raising coastal awareness. This is significant since it is generally a poor community with no easy access to workshops or theatre. By providing space for women who have little opportunity owing to poverty to have a meaningful experience environmental education and empowerment can be promoted. *"It's been a way for them to also see that there are other things to do and other areas where they can explore their other skills."* (Interviewee 8)

If women in the Philippines could realise that they have a broader opportunity than merely heading the home, then their interest and participation in decision-making about the sustainability of the coastal resources could be harnessed. This would in turn help address the general apathy to sustainability at all levels in society, including government.

Female entrepreneurs in **Sweden** are **farming mussels** within a male-dominated marine cluster, where usually men make the decisions and financing, *"but the actual entrepreneurs in this case are the women"* (Interviewee 11) who are exploring the opportunity. The farms are small and local and the women do not work on them on a full time basis, *"it's more like a hobby that they make money, they're trying it out as they are supported from another source".* The women are supported financially by others, including their husbands. There are two points to note in this example; one is that the men made the decisions and established the policies that set up aquaculture, offering

new opportunities, which were taken up by the women. The other point is that once the *'enabling environment'* and the opportunity were established, the women *'explored the space of possibilities'*. They took the risk and set up the farms, but also restaurants serving fresh mussels. As a consequence they made new friendships and established new networks, as well as providing a service to their local communities.

In **Tanzania** apart from legislation to include women at all levels of decision-making, there have been local community initiatives to include women and also focused towards capacity building for women. The *'Marine and Coastal Environment Management Program'* (**MACEMP**) was set up to empower local communities by the formation of groups. They were supported with appropriate technology and included both men and women.

Another initiative in Tanzania was **beekeeping**, where particularly women were involved. This served the dual purpose of protecting the mangroves whilst at the same time generating income. That legacy, where it was adopted regionally in the MACEMP program, contributed to its success. In the case of those that did not succeed the drive to rapid implementation at the cost of building a foundation to operate effectively was identified as a serious constraint to success. Further details are given in the Section 'East & West Africa'.

In the 1980s, the fishing communities, especially the women, were complaining about declining catches and therefore, declining livelihoods and declining incomes. " *… the women have been part and parcel of the process; because dynamite fishing or the small mesh size nets bring in a lot of fish and some of them are small sized and these small sized fish are the fish that women buy for their processing and trading, even for their small restaurants"* (Interviewee 5). Education, through the **RIPS** programme supported by the Finnish Government in the Mtwara, the south eastern region of Tanzania, made them understand that their destructive fishing practices were destroying the coral reefs, which were the fish breeding areas. They were able with a concerted mobilisation, training and awareness to change their practices. Unfortunately those lessons have been forgotten by the newer generations, with a more 'materialistic' focus. As a result destructive practices such as dynamite fishing that provides greater catches have unfortunately returned. **It is therefore essential to ensure that lessons and improved practiced become sustainable.**

A more recent project, **RUMAKI** has proved successful particularly to women through the provisions of micro loans from village community banks (VICOBA) to finance their small businesses. RUMAKI was a World Wildlife Fund (WWF) sponsored collaborative fisheries management program. Functioning within the Seascape Program, in Coastal East Africa, it focused on three areas namely, Rufiji, Mafia and Kilwa (RUMAKI). The program worked with the Beach Management Units (BMUs) established for all coastal villages in the Fisheries of Act of 2003.

The focus of the 2003 Act was the enabling of co-management in Tanzania in an agreement between BMUs, District Authorities, and Government Fisheries Division. The arrangement applies to any water body where communities have livelihoods from those water bodies. The RUMAKI project intended to improve the socio-economic wellbeing of those specific communities. It set out to promote the sustainable, participatory and equitable use and protection of fisheries and other marine resources. (Please see Appendix 2 for objectives and other details.)

The **Beach Management Units (BMUs)**, is a more recent initiative and is directly focused on the mobilization and participation of women, including their participation in

management structures. The process of these units' development and deployment includes necessary capacity building through education.

In the Pacific Ocean region, the **Secretariat of the Pacific Community** (SPC) takes gender mainstreaming seriously and supports Member States to develop local initiatives and raise awareness; they have recruited a statistician to work specifically around gender.

Conflict Resolution: According to Interviewee 1, women were also active in communal conflict resolution: instead of the men beating up fishermen involved in illegal activities, the women could *"use their power of persuasion"* (Cambodia).

In conclusion, when women are engaged in what they consider is valuable to them and their own competencies are identified and utilized, and they are assisted patiently in acquiring the further requisite capacities, such as financial acumen, they are far more likely to succeed. Women can be brought together in small groups and assisted with microfinance and capacity building. The initiatives that worked best were those where women were shown how to better manage local politics and especially learning how to work with credit.

Identifying local initiatives is very important in understanding how communities self-organise to address a challenge. Understanding WHY such an initiative has worked (and what would have stopped it working), can provide underlying principles of success that can be adopted by other communities and tailored to their own specific context. Copying the 'how' and the 'what', however, is unlikely to work, when applied to a different context. **It is therefore recommended that UNEP email a request to all regions to ask them to identify successful local initiatives, initiated by or involving women and that have improved gender equality.**
Information that will be needed (all the following can be quite brief):
a. A short description of the initiative.
b. Who initiated it?
c. The main stakeholders, who took an active role?
d. What were the outcome and the impact?
e. Criteria of success.

THE ENABLING ENVIRONMENT

Taking the above analysis into consideration, it is possible to look at some conditions that enabled and constrained gender equality. Some of these enablers and inhibitors are given below.

Enablers

- **Social and Economic growth**, the influx of new ways of thinking through globalisation and the internet are creating the enabling conditions for women to **be better educated** and to **find alternative ways of income generation** and business opportunities, thus shaping and transforming gender related issues as a whole (Peru and also in cities in the Sudan).

  For example, in the last 20-30 years, the culture in Peru has changed, offering increasing opportunities for many educated women to gain powerful positions in government and the fishing industry. Women increasingly take jobs in the areas of accounting/finance/administration, as they are believed to be **less prone to corruption** (women are increasingly employed by the police force for the same reason).

  This offers new opportunities for better education, thus reinforcing/ strengthening the general trend of women rising higher in business and the fishing industries. There seems to be no particular group in Peru, opposing that trend. The Church is conservative, but supports equal education. According to Interviewee 3, both women and men seem to be quite comfortable with their current roles in society, since they have been improving over the last decades offering increasing opportunities.

- **Economic factors** facilitating gender equality include women's increased spending power that has been enabled by new income generating opportunities in the Philippines. The efforts of PERSGA in the Sudan, has had a similar effect. In general, micro-finance opportunities were often a significant enabler for women to start a small business and to progress and grow.

- **Political factors** facilitating improved gender equality include enabling legislation such as in the Philippines, Tanzania and Eastern Sudan.

- **Cultural factors** having an effect include the matriarchal society (Philippines, and certain Pacific Ocean [Polynesian] communities). In the Sudan, it is pointed out, since the cities are more culturally heterogeneous, there are greater opportunities for women – especially those with higher education and who are able to establish their own businesses. It is pointed out that whilst tribalism still is manifest in the ministries this is less so in the market place.

- **Development programmes** having a positive effect on women include such initiatives as Oxfam's program to include women in fisheries in the Sudan. The RUMAKI program in Tanzania is a further example.

- **Activist initiatives** have served to make women more conscious about social and ecological issues and appear to have enabled greater gender equality. Initiatives such as the **Save Philippines Seas** in the Philippines led by charismatic young women serve to assist in women's empowerment and hence positively influence enhanced equality. The case was made that the limitations of women who are kept in the home, that include some older women resistant to change, can be helped by the involvement of young people.

- *Local self-organised community groups* have had a specific impact. An example is the Port Orford Ocean Rescue Team (POORT) initiative (Oregon) led by self-empowered women managed to assist in the declaration of an ocean reserve and received awards.

- *Religious factors* have facilitated improved gender equality and the dual role of the Catholic Church is highlighted in respect of both facilitating and inhibiting equality. In Peru the Church's role is viewed positively by one interviewee and dismissed by another, with respect to its focus on female education and its support of women to develop skills for generating livelihoods. Conversely the Church's support for the matriarchal society in the Philippines is perceived as tending to keep women in their homes that consequently might inhibit further empowerment opportunities.

- *Understanding local needs & identifying the right time for action*

  Innovations and change are more likely to be successful if people are open to new ideas and changes. Often, women take the initiative when previous approaches by males have failed. A good window of opportunity for gender reform is crises, reforms, and a need for change in any regional, local, institutional or organisational setting. "*If there is a downturn of any kind, there is also a chance, a possibility to look at new issues, then you can bring this issue into a stronger concept I think as part of the overall reform agenda*" (Interviewee 11).

- *Taking advantage of new business opportunities* for earning a living and providing children with education.

- *Social media providing access to policy makers*

  Social media can, and have been used to mobilize women's groups into more strategic collaboration. This can help to assist women in influencing political decisions has been used to help women in disadvantaged situations to build sustainable livelihoods.

- *Collaborative leadership*

  A more feminine style of leadership was regarded as being collaborative. This was identified as being the collegiate approach in the Pacific Region and was considered to be highly desirable in for example the USA. The creation of a pipeline of women into policy making to address the rigidity of political institutions was considered necessary, given the identified constraints to access.

- *Engagement of youth*

  The mobilization of the idealism of youth as both facilitators and mediators for change, was seen as facilitating the building of bridges between families and communities.

Inhibitors

- *Cultural factors* identified include the powerful influence of the **tribal groups** opposing change (e.g. Sudan). Furthermore an inhibitory factor is the **traditional role of women** staying at home and consequently having little access to policy-makers because of home responsibilities.

- *Limited resources* and the necessary funding **to mobilize** and influence policy-makers were also identified as an impediment to improving women's equality in policymaking.

- *No continuation of funding and support.* Some successful projects were unable to continue their activities once their initial funding ended.

- *Lack of knowledge and understanding* contributing to general apathy around ecological issues especially relating to ocean and coastal management (e.g. the Philippines).

- *Low motivation* was seen as an impediment to equality and whilst education did play a vital role in empowerment, often the ability to making a change had more to do with 'passion' rather than with education.

- *Economic factors* impeding women's empowerment include the commercialization of fishing, which offered the technological advantage to men to the detriment of women. The ability of commercial boat-owners to gain a hearing in, for example, the US Congress as opposed to fishermen's wives is a case in point. More generally, it was difficult for women to raise capital for a business.

- *Uncoordinated initiatives* and lack of cohesion, between **diverse marginal social and environmental agendas.** Although driven by different well-intentioned groups, they do compete for attention (e.g. among the women's movement in the broader US front).

- *Ineffective monitoring* of development initiatives was a perspective offered from the African region where it was suggested that success might be inhibited when the **organization process** is not monitored from the ground level. This monitoring includes ensuring that **inappropriate people** do not usurp the processes in the organization and thus lower the commitment of community members to engage.

- *Prioritizing business objectives* over the economic and social agenda (banning shark fishing, for example, but also applicable in many other contexts).

- *Colonial legacy*, women consider pale skin as beautiful and a sign of not being poor. They may, therefore, prefer to stay indoors as opposed to getting out in the waters and establish a connection with the marine world.

- *Conservative media* promoting traditional gender roles and persecuting those who think progressively.

- *Poverty* that limits the space to do things differently due to economic necessity.

- *Tribal influence* according to Interviewee 2, at higher political levels such as Ministries, there is a strong tribal influence, as the five main tribes dominating the Red Sea State of Eastern Sudan have five Ministers in the Government at Cabinet level. While in the markets and business areas, tribalism is less influential.

- *Ethnic divisions/nepotism* limiting access to resources, power, governance, participation, education. Governors were often accused of favouring their tribe over others. These issues were more severe in local areas, and less so in urban environments. Here, also the media can play an inhibiting role, particularly if it is controlled by the power holders.

- *Geographic conditions* that prevent women from taking part in capacity development activities; such as long distances to facilities or no access at all, lack of telecommunication, economic needs to remain close to work place, programme planning by intervention organisations that do not take local conditions into account.

- *Infrastructural limitations* (such as lack of cooling devices on the boats) that force fishers to remain in shallow waters to keep fish fresh, thus limiting economies of scale and income opportunities. Also lack of access to markets due to remoteness of area.

- *Legal restrictions* in establishing unions, which advocate for more participation, access to marine resources, rights, education.

- *Over-fishing, piracy and illegal fishing by other nations*, limiting income opportunities or endangering crew to go out to sea.

- *Women not considered as key stakeholders.* The key stakeholders in enabling gender equality, and in associated decision making, were seen as governments, NGOs, the Church, the media, local communities and academics. It is important to note that the interviewees did not identify women per se as stakeholders in the decision making process.

Conclusion on both Enablers and Inhibitors

Both enablers and inhibitors are only seen as such in particular contexts and both can be turned into their opposites. For example infrastructure limitations can be addressed effectively and turned into an enabler; and some like the media appear both as inhibitors and enablers. It is therefore important not to over generalize and see these conditions out of context. At the same time the question should be asked 'what would make a difference?' 'How can an enabler turn into an inhibitor and vice versa?'

EAST AND WEST AFRICA

The 12 interviewees covered the following areas: Cambodia, The Gambia, Indonesia (Aceh Province), Norway, Pacific Islands, Peru, Philippines, Sudan, Sweden, USA (Oregon), and Tanzania. There were many similarities and differences and these have been explored in the analysis above, but they have been relatively short summaries, which may not provide a full appreciation of the issues. Since this report cannot provide full details on all the interviews and the many issues raised, it was felt worthwhile to explore two regions on the same continent, The Gambia in West Africa and Tanzania in East Africa and to explore the main contrasts and similarities, as reported by the interviewees.

In The Gambia we were offered the specific example of females in the Jola tribe who harvest oysters in the mangroves. As a result of trying to help these women the TRY Women's Oyster Association was set up, which has been quite successful in helping other tribes as well.

The Jola women are the primary income generators, while Jola men apparently are often quite passive (staying at home and drinking) and tend to be without any employment. The women are also the main provider of school fees for their children. Because of their excessive intake of alcohol, Jola men often die young, leaving the mothers to take care of the children and the extended family. At the same time, however, it is the man that is *"the head of the family … and what he says goes"* in the decision-making at home. Some strong women, do save the household's money, but others are beaten by their husbands if they save and do not provide the man with money for alcohol. According to Interviewee 4, to change this imbalance, women need *"to be empowered"* through education: *"Empower them, show them what they can do with themselves, give them skills, teach them how to do proper business, teach them how to keep their money, how to go to the bank, and do things and buy houses for themselves. Just teach them".* Husbands should be part of such training, but they are often reluctant to take part, and do not accept the content of such training.

Part of that training included how to manage the mangroves and not to damage them as they are the breeding ground for fish. The women were also taught to reduce their harvesting to certain months of the year to allow the oysters to grow. This, however, meant that they needed other sources of income and several examples were given of such sources. Furthermore, the TRY Oyster website provided the following information:

> *Training program topics include: basic stitching, hemming, crochet, foot-pedal sewing machine, soap making, packaging, product development and marketing, sales techniques, hygiene, table-setting, public speaking, computer skills, and life skills. Cooking classes include instruction in various delicious meals and snacks, including oyster pies, pancakes, cookies, banana fritters, oyster burgers, and much more. Our hope is to develop the girls' production skills first, and then build their understanding of business, before giving them their own loans on terms similar to the microfinance program of which many of their mothers are involved.*

In Tanzania on the other hand, traditionally both men and women have been engaged in earning a living in marine resource activities, essentially fishing activities. Over time there have been changes to the opportunity to engage. An important aspect of this is the intensification of fishing activities through the use of technology, including equipped fishing boats and processing plants. The government allowed the commercialization of marine resources and this has allowed the exporting of fish such as lobster and shrimp.

According to Interviewee 5, a consequence of the advancing technology is that one section of the community, particularly men, are able to engage more intensively in fishing which to an extent has distorted what women were traditionally doing as fishers.

This 'liberalization' of the fishing industry has led to a competition for resources between men and women that has been experienced in different ways. Men, having access to advanced technology, have entered traditional areas that women now cannot reach.

The enabling, by the Government, of the commercialization of coastal resources did not consider the impact on local communities in the face of the power of the investors. Implementation was not sensitive to people who could have taken advantage. An example is tuna fishing. Women did come into the industry, but more in the processing and trading aspect.

A similarity with The Gambia, is that in Tanzania, some groups developed livelihood projects like beekeeping, where particularly women were involved. This served the dual purpose of protecting the mangroves whilst at the same time generating income. *"Women could relate to that easier since traditionally they would harvest from the mangrove areas. This provided a direct benefit to them for sustaining their homes."*

Both countries have had laws passed to help women. In The Gambia, for example, the overall environment in women's rights and gender equality has improved dramatically; with a "women's law" passed recently, certain rights are ensured, and the government seems to be giving greater priority to women's issues. School is now mandatory for girls, and there is a lot of advocacy against genital mutilation, thus increasingly aiming to protect women. From a religious point of view, Sharia law does not appear to be a strong inhibitor of women's rights, yet the cultural assumption is that the *"men are the boss"*. At the same time, Interviewee 4 claimed that *"women are free to do whatever they can do to earn a living. Women are free to develop themselves"*. In Gambian society, there are indeed successful women in business and female Ministers in the government. At the same time, tribes like the Jola are considered to be the *"poorest of the poor"* who have been neglected and are marginalised most of the time. Oyster fishing hence carries an ethnic dimension and the Jola women have not been supported by any governmental body. *"Nobody really looked at the women, the effect of what they do and the effect it has on the mangroves and their work"*. When using improper harvesting methods, for example, the mangroves were being damaged and were deteriorating until the local initiative helped to raise awareness and educate the Jola women.

In Tanzania, the Government is concerned about women's access to decision-making and resources and there has been a concerted effort, supported by legislation, to involve women in decision-making. This focus has included the devolution of power to local communities, but with mixed results. For example, a Department of Fisheries initiative, the *'Marine and Coastal Environment Management Program'* was set up to empower local communities by the formation of groups. They were supported with appropriate technology and included both men and women. Responsibility for the initiative was devolved to the local government level.

The facilitation of the formation of groups of both men and women was aimed at enabling non-destructive fishing. The stated intention was to encourage groups to have a certain representation of females. This idea of women's representation was designed into the program, but the implementation was too quick and not properly thought through *"It's a good philosophy, but not a good design. The manner in which the groups were mobilized was directed to fast tracking income-generating production. Solidifying the group basis was not well thought through."*

Without the necessary support in networking and marketing etc. there was insufficient attention to establishing the requisite foundation for group members to function. Without the time and facilitation to learn about group dynamics they often broke down into splinter groups.

Consequently the effect on women in respect of the initiative's capacity to provide access to resources was compromised. Whereas groups were encouraged to have a certain percentage of females, and they were often given positions in the administration of the project, including positions such as treasurer, sometimes this was done merely to meet the criteria.

Interviewee 5 pointed out that in the decentralization policy to village level that had already been set out in the eighties, the principle of women's representation was enshrined in the local government act. Women's participation in decision-making was thus institutionalized. *"The idea of women's representation is engrained in local government policy – even in village government representation for women should not be less than 30%"*

In the Coastal Environmental Management Program only a few of these groups are now functional. A further round of initiatives in respect of the coastal project is set to be rolled out from June 2015; this time apparently with a greater emphasis on sustaining small groups.

Women are consequently affected by the limited success of these initiatives that were designed to address women's concerns.

ENTRY POINTS FOR ACTION

A Different Approach to Gender Interventions

Some of the interviewees were critical of gender interventions, which often tackled the issue in static ways, as if gender was in a stable disequilibrium, which needed to be fixed through traditional planning mechanisms or impact monitoring, etc. This insight is in line with complexity thinking, and with the research undertaken over two decades by the LSE Complexity Group with organisations across the spectrum, from small SMEs to large global organisations in the private sector; NGOs and other organisations in the voluntary/charity sector; and government departments, agencies and government administrations in the public sector. **Traditional linear approaches cannot effectively address complex problems.**

RECOMMENDATION
A complexity science approach needs to inform gender interventions.

Facilitate the Organisation of Groups

Interviewee 1 highlighted the role of organised initiatives to give ideas/actions greater momentum. *"You find that the correction process of gender inequalities takes place in the context of organisation"*. Organisation follows after collective action. And the first issue would be some sort of awareness about these issues. Organisation is one of the most important factors and *"I think one of the big problems in ocean or coastal fishery issues is the lack of organisation"*.

RECOMMENDATION
A strong recommendation therefore would be to identify the need and to provide some basic training on how to set up groups and group dynamics.

Develop Appropriate Governance Structures

These organisations needed to be fostered both from the top with appropriate governance structures as well as from within. They were most effective, when top-down initiatives were matched by bottom-up processes supported by civil society, NGOs and the community itself. Bottom-up initiatives, on the other hand, without enabling changes from above, may not work and wither. At the same time, success may be inhibited when the organisation process is not monitored from the ground level (to avoid, for example, the wrong people usurping the process in the organisation and thus lowering the commitment by community members to engage). Interviewee 1 advocated co-management and self-organisation, with the broader community being involved, with many having a stake and able to structure their own processes, define actors and members etc., not just fishing families. If ideas, activities or initiatives were set up with the **engagement of different stakeholders**, it was more likely to be sustainable. **Youth** should also be included in activities since they can build bridges between the community and families. Women have been involved in such initiatives, and the dynamics have changed to the positive.

RECOMMENDATION
Help local communities and projects to develop appropriate governance structures with a dual top-down and bottom-up approach. Take all the above into account.

Power Relationships & Governance

Furthermore it is important to understand the historic background or processes within the given local/regional context before deciding to intervene. **Power relationships**, interaction and **governance** are dynamic and they have to be recognised as such, for any solution to work.

RECOMMENDATION

Ensure that power relationships/dynamics are identified and taken into account in any analysis, evaluation or assessment of a project or challenge.

Capacity Development

Women often face constraints since they take care of the children, and development initiatives should be appropriate to the local conditions and realities; e.g. enabling women to engage/participate in training from home, instead of inviting them to a seminar in the capital. Furthermore, **capacity development is essential**, and this includes training the trainers in villages. **Development initiatives,** therefore, **need to be innovative and to meet the realities and requirements of women locally**.

Another entry point for action for NGOs in Peru (and other countries), according to Interviewee 3, is to help **increase the skills of women** in knitting, ceramics and artisanal work. This will help balance the budget of a family and allow children to go to school. Sometimes, such training initiatives reach out to both men and women. An example was given of a training facility for men. Many of these men come from many parts of the coast and have to stay for a period of one to two months; sometimes they cannot leave their family if they are married and they are young, and occasionally they bring their family and this provides an opportunity to also train the women. Although this comment was made in relation to Peru, it also applies more generally to marine and coastal communities.

Furthermore, women who have started with small scale artisanal work are increasingly becoming more involved in pre- and industrial work and find more opportunities along the large-scale value chains. These **changing demands in labour force** are likely to further transform the social/economic and gender-related issues.

In the **Philippines** arts and crafts contribute to the empowerment of women in coastal management. In workshops science classes are offered in the mornings dealing with conservation, climate change, marine ecosystems and hydrology; all sustainable living concepts. In the afternoons attendees are invited to express what they've learned in arts classes through dance, musical theatre, singing, song writing and crafts. According to Interviewee 8, this is a way of getting women involved in coastal management through enriching their lives and showing livelihood opportunities; offering a life-enriching experience within the context of raising coastal awareness. "*This is a way for them to see that there are other things to do – and to explore their skills."* It was felt that if women in the Philippines could realise that they have a broader opportunity, than merely heading the home, then their interest and participation in decision-making about the sustainability of the coastal resources could be harnessed. This would in turn help address the general apathy towards sustainability at all levels in society, including government.

RECOMMENDATION

Capacity building is one of the most important entry points for action. It is not usually expensive and the benefits are out of proportion of the cost. With adequate support, this training can continue into the future and benefit future generations. To be successful, however, it has to be relevant and realistic.

Building Credibility at Community Level

POORT's strategy for gaining traction (Oregon, USA) included building credibility at the social/community level. It achieved this by building relationships and supporting people in need. Consequently it came to be seen as a positive influence on people's lives in the community. With this credibility it was better able to raise awareness of the quality of the fish stock and relate those environmental issues to the sustainability of the communities' livelihoods. At the institutional level POORT engaged in mediating and fostering collaboration between key stakeholders. Meanwhile their example could be enhanced if various other 'progressive' women's groups that are small and scattered around the country could engage in **greater collaboration**.

RECOMMENDATION

Coordination and collaboration of local groups and communities is invaluable, but it does not happen automatically and it usually needs one or a group of committed individuals to achieve it. Setting up an environment that supports collaboration and coordination is therefore advisable, which would include some training and other support necessary.

Clear Agenda to Facilitate Funding

A strategy for 'progressive thinkers' might be to present a clear agenda in order to get funding from big foundations so that advocacy and lobbying can be scaled up. A context is the imminent re-authorization of the Fisheries Act in the USA that could provide the opportunity to get women's interests on the table. But a requirement would be that **all stakeholders collaborate**.

RECOMMENDATION

Although obvious in business circles, local communities do not often have the skills to prepare a business plan and a clear agenda to present their case to policy makers or to raise funding. Again some basic training would be advisable and this time basic web-based training may be sufficient, provided that these communities are aware that it exists.

Belief Systems

In **Peru**, the main constraints to gender equality, are the traditional belief systems and conservative views in local communities. A good entry point for action, according to Interviewee 3, would be **working on those belief systems**, however, NGOs should not address those views directly by trying to change them; but should provide opportunities for additional income (and thus strengthen the chances that a daughter/young girl can go to school through which new ideas will flow into the communities). **The main focus should be on small-scale initiatives at the community level.**

RECOMMENDATION

NGOs should not address difficult belief systems directly by trying to change them; but should approach the issue indirectly by for example providing opportunities for additional income.

Conservation

Another entry point for action may be organisations run by women working closely with communities in the field of conservation. These organisations often address one specific issue (save the dolphins, protect the turtles etc.).

For many years in Peru, most of the conservation movement has been led by women because conservation and biology are seen as a not very profitable business. While men have to go to work, women tend to stay at home longer, with their parents; they are therefore able to spend more time studying or developing a career in conservation, because of that family support. According to Interviewee 10, this has had a very strong impact on who has been able to reach stronger positions in Peru in the field of conservation. However, most conservation groups have not had much impact because they are still dependent on US or European institutions to support them. (Interviewee 10)

RECOMMENDATION
Support local conservation groups to create stronger local groups with their own ideas and to develop the tools, approaches and resources needed to reduce their dependence on US and European institutions.

Women's Business Associations

One entry point for action, according to Interviewee 2, could be Women's Business Associations in urban areas.

Other contact persons recommended by the Interviewees were Fatima Ahmad Brahimi, who used to live in London and who now is a member of the Sudanese parliament. She was head of the very strong Sudanese Women's Union. Other contacts can also be made available by the Interviewees, to women's societies at community level who are trying to find alternative livelihoods such as food processing, handicrafts and others. Contacts can also be provided to successful business women, such as those who are active in Port Sudan, in agriculture and shrimp processing.

RECOMMENDATION
Contact women's Business Associations in urban areas and others as above.

Gender Mainstreaming

Good potential for advocacy and gender mainstreaming lies in environmental education, review of legislation, issues related to governance and the establishment and strengthening of fisheries cooperatives. The least potential appears to be in marine pollution, water quality, marine protection or policing. Cooperatives are strong in Southern Yemen, but in other places they may lack political support.

At project level, there has to be a serious commitment of gender mainstreaming. Currently, however, whilst staff members in existing international projects are often highly educated, they tend not to work towards gender issues. Less so due to cultural belief systems, but simply because of their bias towards technology/biological aspects, as well as their respective governments not interested in these issues. Interviewee 2 suggested that it would be useful to initiate a project that is **specifically designed to address gender issues** (not just as a cross-cutting issue). Any meaningful entry point for intervention can be across all relevant sectors, whether it is an income generation project, marine protection, combatting environmental degradation. The main entry topics would be **advocacy and awareness** for more women's inclusion and participation in decision-making processes/ structures.

However, according to Interviewee 10 there are certain countries where such an approach would not work and the advice was to approach this indirectly: *"Everyone wants to include the gender issues in projects but usually most people find it very difficult to include that topic in any project because in most cases, they will interact mostly with men. So you would have to be very creative. You would have to start working with them, you'd have to go to the schools, to the soup kitchens where those are run completely by women and I think you could start off there."*

RECOMMENDATION
Set up a range of gender mainstreaming projects that are appropriate to the local conditions; to range from specific gender projects to indirect approaches, working with women informally. These should then be evaluated and enabling frameworks identified that can be used with other communities.

Official Bodies & Community Based Organisations

Other entry points for action could be governmental councils (on central, state/province or county level) as well as village level committees or **Community-based organisations** (CBOs) because the latter have a good representation of the different community members. At the village level one may find educated individuals (such as school teachers) that can support the endeavour.

RECOMMENDATION
As above

Continuation Plans

According to Interviewees 1 and 4, development projects fail to make an impact because of a lack of a sustainable continuation plan (or exit strategy), when the funding is over. It is therefore essential to prepare continuation plans to sustain successful initiatives.

RECOMMENDATION
Continuation plans and support are fundamental. It is not enough to start a project and then leave it alone. Continuation plans have to be built in, from the outset. That does not necessarily mean endless funding, but it does mean helping the communities to be self-sustaining and to learn how to access alternatives sources of support.

PERSGA Activities (The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden)

The organisation does have some activities aimed at increasing the percentage of women involved in the project. According to Interviewee 2 in Sudan and Yemen, two women are part of the respective project steering committees. At the community level, PERSGA intends to increase influence through women's societies and to introduce alternative income generating activities such as food processing or handcrafts.

RECOMMENDATION
That such initiatives are studied and lessons abstracted that can be applied in other countries.

Education

Education is very important with regard to enhancing women's participation. Particularly in **urban areas**, the education level is higher and there are plenty of examples where women run businesses. These women are often from influential families and are, since cities are more **culturally heterogeneous**, able to operate more freely. Also, they may find access to loans/credit to further advance their business ideas.

RECOMMENDATION
Improving the education of girls and women generally is likely to improve gender equality and opportunity.

Provision of Funding Through Micro-Loans

A reasonably successful project in Tanzania, has been the RUMAKI Seascape Program. This was a group mobilization program introduced in three districts to do something strategic for women, particularly noting that they were not directly involved in fishing. Funding is provided to women through micro lending by facilitating the formation of Village Community Banks (VICOBA). The intention is to help generate sustainable livelihoods and the initiative is focused on teaching women to save and to manage credit. According to Interviewee 5, this system has served women better with them handling small amounts of money on a weekly basis to support their fish trading and processing activities.

This form of micro lending in which a proportion of earnings are brought back to the VICOBA has enabled women to build their own businesses. It has helped to acquire training in entrepreneurship, and to develop experience in banking such as managing savings and credit. It has also enabled participants to operate in more effective group relationships. With a focus on local communities, especially where women have been involved, these initiatives have tended to fare better. The RUMAKI initiative specifically trained VICOBA facilitators.

Micro-lending is now established throughout the world as a useful means for women to set up small businesses. This tends to improve their self-confidence and has a beneficial impact on their families and community.

RECOMMENDATION
Micro-financing schemes need to be encouraged and facilitated, with the proviso that micro-lending should be ethical, fair and not charge high interest rates.

A Multi-Stakeholder Approach

To ensure sustainable management and development of the oyster fishery (in The Gambia, for example) the key actors from both the local as well as the governmental level were brought together, to agree on how the limited resources can be used. At the same time, TRY **engaged in public relations and fundraising** to increase visibility and to ensure the support of the government and other stakeholders. They also worked towards finding new ways of adding value to the oyster products so that they can be sold in shops and through the private sector (hygiene, packaging, etc.).

RECOMMENDATION
Although this example was given in relation to oyster fishing in the Gambia, it has a lot to recommend it to be used in other countries and other marine and coastal contexts.

Success Factors

Enabling women to have access to small amounts of capital and *"not having to beg from a man"* has resulted in greater self-empowerment and greater self-confidence. Interviewee 5 suggested that women have been able to bypass the 'vagaries' of acquiring a loan at an interest rate of whatever the lender would demand. *"It taught them that they could be independent – and this is very powerful."*

Interviewee 5 stresses the importance of this subjective **feeling of empowerment**. This enables women to do what they want and are able to do. By taking up micro loans and succeeding; by putting more capital into buying fish and selling and setting up small restaurants some women have eventually been able to buy plots of land. From living in mud and thatch houses others have been able to build brick houses with corrugated iron roofs. *"It's a beautiful transformation that for some of them is very significant – seeing how they are able to associate their transformation with these micro-lending facilities."*

Another success factor in women's empowerment and capacity to be proactive is the **deeper understanding of how issues of sustainability impact their own personal lives.**

Another initiative from which success factors can be drawn is the Beach-Managing Units (BMUs). They have been designed to take over the local community based structures in the protection of the fishing and coastal environment. This initiative also promotes the mobilization and participation of women as members. They are to be included in the administrative structures. The **capacity building** offered in the BMUs offers one of the best opportunities where, according to Interviewee 5, *"...changes can be made in understanding these issues that affect our lives".*

Participation in these community-based structures, and the focus on capacity building, generates confidence, courage and creates opportunities. Activities include mangrove planting and patrolling the waters against dynamiting and prohibited net fishing.

Success is dependent on both senior policy makers being engaged and involved as well as those at the local level taking an active role. It is a **dual bottom-up and top-down process.**

Reducing barriers by cutting down on unnecessary (superfluous) administration processes, feedback, structures and the kind of organisational thinking that is not fostering entrepreneurship.

Facilitating **relationship-building and networking** by setting up structures where the daily business and internal processes can be discussed.

Setting up gender quotas can be useful as it enforces inclusion of new groups. There is however a strong proviso, in that quotas and simple numbers should be seen within a broader and meaningful context.

Engaging young females. Young, charismatic and articulate persons in the Philippines have shown that there is a potential role for young people in taking the leadership in the field of sustainability, and that could also help women to see that they can have a bigger role in society than being at home. This would also counteract the dominant influence of the male policy makers, politicians and business leaders who think more about economics than about sustainability.

Meeting one's peers "*Just being inspired by women who are in the same positions"*. It is important to meet others who have gone along the same route and have succeeded.

Putting emphasis on **science** and setting up a **balanced evaluation process** that includes both qualitative and quantitative methods; provide funding for in-depth analysis; bring findings into the public domain, to ensure public scrutiny and informed critique; emphasising and mainstreaming gender.

Develop the capacity of institutions to **implement policy effectively**; this includes financial, technical and human capacity. Though policy instruments may be established, it is often the institutional constraints that weaken implementation.

Setting up an **entrepreneurial environment** by fostering ideas and new thinking in flexible ways for both men and women; for example providing a space that offers time for regular debriefs, that fosters open, honest and frank discussions and support. Women can then feel free to try, since noone puts limits on them. Men also need to be part of such an enabling environment: "*There are men who are very supportive of women and those are very important, too*" (Interviewee 11)

Improving the workplace for women by reducing the rigidity of the workplace; taking advantage of technology and connectivity, to offer more flexibility to women who wish to continue their career, while raising their children.

Building cross-thematic priorities for example between climate change and resilient development or ocean development and sustainable use of ocean resources could be implemented across the whole fabric of future sustainable and resilient development. **Gender could be** such **a thematic priority**.

At the same time, the ocean sectors are the responsibilities of many agencies and need to include different stakeholders. *"At the highest level you need political advocates and political commitment and this **must include private sector and community leaders** – having them realize the importance of social inclusion – all groups – not just for economic prosperity but for living full and healthy lives."*

SOME COMPLEXITY SCIENCE INSIGHTS

It is quite clear that the issue of gender inequality is dependent on **context** and is **multi-dimensional,** in the sense that it includes the dimensions of culture, history, religion, geographic location, the technology infrastructure and its use, the economic structure of society, and many other dimensions. Furthermore, gender needs to be contextualised at different scales, within the home, the village, the co-operative and at policy level. This multidimensionality at different scales is consistent with insights from complexity science. Human social systems are complex and display these different characteristics. One point, however, does need to be highlighted. History and culture do not determine present and future behaviours and outcomes. Complexity science would argue that they influence them, but cannot determine them; otherwise fundamental change would not be possible. Yet complex human systems are capable of *'creating new order'* or co-creating new structures, new ways of working, relating and being. The capacity to create new order is one of the distinguishing features of all complex systems.

A new way of working and relating, however, will by necessity be *emergent* and cannot be pre-designed in every detail and fully controlled. Emergence is the property that arises from interaction. It is more than the sum of the parts and is not just a matter of adding individual contributions. That means that it is a systemic property arising when a group (family, community, co-operative, village, etc.) is working together and interacting. Emergence can neither be predicted nor controlled and this is not an easy concept for most policy makers. The key is to facilitate the desired outcome, while accepting that the outcome may be uncertain, by guiding the process sensitively as it evolves. Sometimes this may mean changing initial objectives.

Any problem or challenge, within such a context, also has multiple dimensions (social, cultural, political, technical, physical, economic, etc.). Addressing one dimension in isolation to all the others means that the problem/challenge cannot be addressed effectively. Complex systems need to be seen as a whole and as part of their broader environment. Complex problems need to be approached by addressing ALL the inter-related dimensions at the same time. They are not *just* cultural or economic or technical. They are all of those at the same time. If interventions focus on only a single dimension, that aspect may be addressed in the short term, but usually at a cost on areas it impacts, and is unlikely to be sustainable, because such mono-dimensional interventions may create greater problems in related areas, as a consequence.

Furthermore, complex problems do not have single solutions. Any solution, however, successful, will only be appropriate under one set of conditions. Once those conditions change, then the 'solution' may become inappropriate and ineffective. The approach advocated by complexity science and 20 years of applied research, is to set up an *enabling environment* that evolves, and co-evolves[2] with its broader context, over time. Such an environment would address all the dimensions in the *problem space* at the same time and at multiple scales. For example it would address the cultural, political, economic, physical, and other relevant dimensions at the same time and pay attention to the way each dimension influences and changes the others (co-evolves). It would also support citizens/stakeholders at different scales; by supporting the individual, the group, the community and the local society. Such support many be in the form of training or equipment or new ways of fishing, etc.

Furthermore, an effective *enabling environment* would enable the *'exploration of the space of possibilities',* for example alternative ways of earning a living. Such examples and initiatives are mentioned above and will be described more fully in the final report; these should be studied locally, to identify the underlying principles of what worked and what did not work. However, good practice cannot be copied; we generally tend to copy *'what'* happened and *'how'* it happened and apply it, in a totally different environment with different conditions; and as a rule the copying does not work. However, it can be applied to a new context by identifying and adapting the underlying principles, and by understanding *'why'* it worked or did not work, in a particular context.

In addition such an environment would also facilitate *self-organisation* and the setting up of local initiatives. Again the study has shown several local initiatives taken by women which made a significant difference. More of these initiatives should be identified and analysed to understand why they worked. Learning from successful experiments is an effective way of spreading good ideas, but it has to done as a learning exercise based on underlying principle not on copying.

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[2] Co-evolution is taken to mean reciprocal influence which changes the behaviour of the interacting entities.

Underlying all the above is the ability to connect effectively and the idea of 'organisation' emphasised by Interviewee 1 is at the heart of that issue. The enabling environment would need to facilitate effective organising at different scales. This is dependent on understanding relevant local needs.

The above is a short reflection on the contribution that complexity thinking can make to ensure that interventions are appropriate and relevant. Understanding the issue of gender asymmetries from a complexity science perspective could well facilitate the initiation of enough wise and culturally sensitive interventions taken at the right time, the right place and with the correct approach that would help communities to co-create a *'new order'* or new ways of working that do not exclude women and benefit from their perspective in decision making.

RECOMMENDED NEXT STEPS

The brief for the study was to focus on decision making and to explore the consequences and impacts of decisions made exclusively by men, which affect women. One of the objectives would be to understand how gender-related issues can be better included in UNEP's programme of work.

As is usually the case, the study has uncovered a broader range of issues associated with gender that include impact on the environment, when women become aware of the consequences of their activities; the beneficial consequences on families and communities when women are empowered; the role of policy makers at one extreme and the role of the young at the other; and many other issues explored above.

The analysis has explored that 'problem space' while the 'entry points for action' and the 'success criteria' are indicators on what would be needed to set up an enabling environment to improve gender equality.

A set of recommendations have already been made under 'Entry Points for Action'. Following are some recommendations in terms of next steps for the project.

Pilot Studies Based on Field Work

Although the current feasibility study was very limited, it has highlighted several areas that need further study and action.

RECOMMENDATION
That one or more pilot studies be set up to include field study work, and to enable the researchers to gain first-hand knowledge of issues in ocean and coastal communities. Pilot studies could also test some of the recommendations in this report and evaluate existing initiatives.

The interviewees suggested conducting field visits in the following areas and to engage with international organisations already operating in these fields with their local/community counterparts. Such field work would enrich the proposed pilot studies and open up new insights, contacts, potential entry points, etc. This will also help to better identify relevant aspects of an enabling environment.

Any gender related initiative should not be an isolated one, but be linked with the ongoing recovery and development programme in the region.

Interviewee 1 recommended **Cambodia**. It has a unique community fishery institution (Sahakum Nesat - translates to Community Fishery). It was created by government fiat, but over the last 14 years, has been following numerous efforts to institute a "bottom-up" process of helping the community to take ownership of the institution. This has largely transformed it into a 'people's institution' with state patronage. There is a structured role for women, but in many of the contexts, there have been significant, autonomous and creative involvement of women in the conservation efforts and the leadership.

Interviewee 2 recommended **Jordan** and **Djibouti**, although the coastal communities, are very conservative about the engagement of women in different levels of activities and related policies, there has been good development in these gender issues, and they are trying to engage women in different activities.

Interviewee 3 recommended the following in **Peru**. A map showing the locations is at **Appendix 3.**

a. Paita: Here women work mainly in canneries but in large numbers.

b. Ancon: Artisanal fishing is important, and women work mainly in the reception, cleanup and commercialization of fish.

c. Asia: A strong women's community that works along the commercialization chain, from the beach to the markets (they usually work with their children).

d. Lomitas: This is an interesting place, where a woman has been elected as the representative of several fisheries communities. Their location is a place inland called Ocucaje.

Interviewee 4 recommended the following in **The Gambia.**

A community called Jesehwang . It is a fishing and oyster community in the coastal area.

Interviewee 5 recommended the following in **Tanzania**:

a. South-eastern Tanzania, Somanga (Kilwa District), where women are indirectly involved in the fisheries as porters, when fish is landed, or through small businesses that thrive as the fishing progresses; and where VICOBA enhanced the living standards of some women quite significantly. VICOBA were initiated by the RUMAKI Seascape co-management programme.

b. Mkuranga, Kisiju Pwani village; this is not well known and represents areas where women's lives are less explored .

Interviewee 9 recommended the community in Gloucester, Massachusetts, USA. The community of Gloucester has a long history of fishing and a strong and supportive fishing community. The Gloucester Fishermen's Wives Association is the most well-known and respected Fishermen's Wives group in the US. Link to their website: http://gfwa.org/

Evaluate Existing Initiatives & Scale Up

The aim would be to extract the underlying principles of both successes and failures from these 'experiments' or initiatives, and to provide a framework that other communities can use to set up similar and locally adapted initiatives. This will be one way of 'scaling up' the project.

Facilitate the Spreading of Initiatives

The major benefit from evaluating initiatives and extracting the underlying principles of success would be to encourage other communities to develop their own initiatives. This should be a stated objective supported by some funding, but primarily developing local capacity to enable such initiatives to take place and to succeed. The lessons from this study should be incorporated in those frameworks. One important such lesson is to ensure continuity of the initiative.

Training Researchers

Another way to scale up would be to initiate multiple pilots. To support and enable these pilots, it is recommended that the LSE Group guides and trains other research groups in different parts of the world to conduct the pilot studies using the EMK Complexity Methodology; this will facilitate comparative evaluation of the pilots. These multiple 'experiments' would be a very effective way to disseminate the learning and to spread the benefits.

Additional Actions Recommended

Obtain World Bank Report

A **report** entitled *'Improving Gender Equity in Strengthening Marine Managed Areas (MMAs) in Djibouti and Sudan'* was produced by the **World Bank in 2013**. It is recommended that this report be requested by UNEP and made available to the LSE researchers.

Identify Successful Initiatives

Education, training and capacity building to help **increase the skills of women** in alternative employment such as knitting, ceramics and artisanal work. The Interviewees helped to identify a few such examples, but more are needed for a sound study.

RECOMMENDATION
That UNEP distributes a request to their local contacts around the world to identify successful initiatives, started by women. These can then be investigated further and the underlying principles for their success identified, to enable other communities to adapt them to their local context.

Another set of examples that would be useful would be to identify instances where **decisions** taken by men (or women) have had a **deleterious effect on the other gender** and to describe the impact of such decisions.

APPENDIX 1

Literature Review on Gender and Decision-making in Marine and Coastal Areas
Author: Aleksandra Stankova

Despite making progress in women's empowerment across countries and different economic sectors, there still exist significant limitations to their wide participation in decision-making processes at different levels in society. Evidence from marine and coastal areas around the world suggests that women are less likely to have their specific needs and priorities recognised, and their concerns taken into consideration. Despite the huge variety of female experiences and the heterogeneity of their labour practices, their work is largely seen as informal and tied to rigid gender roles. They rely on innovative practices and schemes to support their households, while literacy, business acumen and social networks increase their bargaining power and their chances of taking over managerial positions. As decision-making should happen within an environment which is empowering women, any gender-sensitive initiative must start with an in-depth analysis of the problem space which characterises women's livelihoods and carefully consider the context. This space has many dimensions – geographic, social, cultural, political, financial, physical, technical, etc. – which influence each other and can inhibit gender equality. It also consists of possibilities and entry points for action which, if found, can help to set up an enabling environment where women are comfortable in their roles as decision-makers.

Therefore, in order to understand how decision-making, motivation and norms of reciprocity and collaboration are affected by a gendered division of labour for example, we must examine differences in gender roles and individual requirements, normalised within the marine and coastal communities. The conclusion of most researchers is that such differences have not been extensively documented, and neither have women's uses of water, or their needs. Further research is required to arrive at a better understanding of the dominant structures implicated in gender inequality in the industry.

Gendered decision-making

Statistics indicate that globally 56 million women are deriving income from the fisheries sector (World Bank, 2012). However, experts generally seem to disagree on the numbers, and argue that an accurate database which reliably covers an industry relying so heavily on informal and seasonal labour, is almost impossible to create (WorldFish Center, 2010). An important distinction between 'visible' and 'invisible' employment in the sector should be taken into consideration (Zhao et al, 2013). According to a Food and Agriculture Organization of the UN (FAO) study of women's participation in the EU fishing industry for example, women represent 25% of the 'visible employment' in the sector (2010), which suggests that there is a substantial number of 'invisible employers' who cannot be accounted for statistically.

Moreover, there are important differences in context which should be taken into consideration when thinking about diversity in decision-making abilities. In the Pacific region for example – Vietnam, Philippines, Cambodia – women are responsible for catching a quarter of the total seafood (Aguilar, 2008), whereas in the West African region women rarely fish – instead they are often involved in hauling fishing nets from the beach, among other coast-bound tasks (Bennett, 2004). There are differences in participation between countries and regions, as well as between marine and freshwater environments. Rana and Perez-Corral (2001) argue that men have a more prominent role in marine environments, whereas women are more active in freshwater regions, where they mostly collect water for irrigation and crops. The sea is traditionally seen as

the arena of male labour, where physical strength and endurance are key skills, whereas household and child-rearing tasks are generally considered to be the responsibility of women. However, clear delineations between a public and a private sphere of activity, between economic and domestic responsibilities, between men and women's roles, so that they fit neatly within one sphere or the other, cannot be made (Meinzen-Dick & Margreet Zwarteveen, 1998). South Asian women for example use irrigation systems both for productive and domestic purposes (ibid.), thus blurring clear-cut divisions and making the problem space in which men and women work much more complex.

World Bank data from 2012 suggests that women's activity in the fisheries sector is largely concentrated in the post-harvest sector, accounting for 47% of the workforce at processing and retail-distribution level. Men on the other hand tend to dominate production, which generally results in a gendered division of labour (Thorpe et al., 2014). However, studies indicate that things are becoming much more complicated, especially due to the global scale crisis which the fisheries sector is experiencing at the moment. Climate change and the resulting ecosystem degradation are likely to have a lasting impact on the livelihoods of millions of people, women being the most vulnerable group due to their poor economic status, low-paid, precarious employment and limited risk-coping capabilities, a direct consequence of institutional bias and gender inequality (Aguilar, 2008). Rising human population, an increasing demand for fish as well as an increase in living costs, have pushed men into traditionally female activities, which could further exacerbate the marginalisation of women (Bennet, 2004; Crow & Sultana, 2002). Moreover, we should bear in mind that the fisheries sector should be divided into two types – coastal and offshore – each with its own specific focus. The former is characterised by community-based systems, near-shore areas and artisanal technology, while the latter – by capital-intensive activities and oriented toward export (Ram-Bidesi, 2008). Whether due to globalization of the industry, international trade and a liberalised fishing market, or due to local community relations and pollution which destroys habitats, women are still likely to be affected disproportionately in relation to men within both branches of the sector.

Therefore, it is difficult to talk about men and women working in marine and coastal environments as members of homogenous categories, with identical interests and needs which lead them into similar decision-making practices. Rather, the more plausible recourse would be to look at how gender shapes the perceptions of men and women to resource management on an institutional and community level (Meinzen-Dick and Zwarteveen, 1998). Studies indicate that women's involvement in the fisheries sector is heterogeneous and often non-formal (Kronen & Vunisea, 2009; Busch, 1987; Rana & Perez-Corral, 2001; Di Ciommo and Schiavetti, 2012; Zhao et al., 2013). African women gather seaweed and crustaceans, Indian women net prawns (Gopalakrishnan, 1996), women in Laos fish in canals, while Filipino women fish in coastal waters using canoes. Women in the UK clean nets, gather baits and sell seafood and other trinkets (Zhao et al, 2013). Some work in the production sector, but struggle with working conditions which are not suited to their personal needs and offer little privacy, which often means they are likely to experience harassment and bullying from male co-workers.

Gender divisions are reinforced as the supply chains 'embody participants with differing income streams and wealth endowments' (Meinzen-Dick and Zwarteveen, 1998: 338), which creates a male-centric domain of opportunities and capital accumulation. Latin American women for example are mainly responsible for cleaning fish and adding spices, but their labour is viewed as non-formal, undeserving of a wage, despite the added value to the product. Profit is controlled by the men who do not get involved in 'women's work'. Di Ciommo and Schiavetti (2012) observe that this clear-cut division of labour domains suggests that women are keepers of a rare set of knowledge in marine

and coastal biodiversity. Despite their unique experiences and skillsets, however, the informal character of women's work often puts them on the sidelines when decisions about management-related tasks have to be made. Women may attend meetings and engage in monitoring and conflict management on a community level, but their needs are seen as mainly related to the household, the domestic sphere and thus become secondary in importance to those of men. The embedded power relationship underlines the importance and value of male-related issues, which can alienate women form decision-making processes. This is deepened even further when women's everyday tasks and responsibilities do not require professional education, considering that they do not exploit the means of production, or have a financial backup regarding their own activities (Di Ciommo and Schiavetti, 2012). This often condemns them to fish in places which are low in resources or contaminated, this being the experience of fisherwomen in El Tamarindo, El Salvador (Gammage, 2004). The remoteness and high mobility of fishing communities can constrain women's capabilities even further (WorldFish, 2010).

Still, research shows that there is a wide variation in women's income and social status and that a hierarchical female-centric postharvest supply chain understanding of the problem space obscures differences in experience and is a simplification. Although women in the fisheries sector lack education, access to resources, financial capital, and decision-making powers, they nevertheless can derive, in some cases quite substantive, incomes from fish processing, despite the fact that men are generally the main revenue holders. Their work, however supportive in nature, is often invisible – they take on jobs as accountants, administrators, boat cooks, drivers, event organisers and in this way it could be argued that they are involved in production processes after all (Zhao et al, 2013). Therefore, the first and crucial condition for enabling and questioning women's participation is the recognition, at all levels, of women as resource users and managers, and the acceptance of women's resource and management needs as legitimate (Meinzen-Dick and Zwarteveen, 1998).

Access
Thorpe et al. argue that access to resources and women's participation in decision-making are also linked (2014). Decision-making happens within a physical space where interactions, negotiations and arguments are partly shaped by being able to access this space legitimately. Important decisions can be taken in public places that may not be welcoming to women, such as bars and on decks. In such cases, women often have to depend on male family members to attend meetings, thus losing a significant portion of their own bargaining power. Access to such places is not always possible, therefore, due to long-established social norms regarding decency and public behaviour, which curtail women's participation. Domestic responsibilities towards children, the household, and the varied work activities which women are expected to undertake on a daily basis also serve to keep them away from societal forums. Their erratic work schedules do not allow women to make use of decision-making opportunities at all times, with the same ease as men might do (Meinzen-Dick and Zwarteveen, 1998). If women's access to planning meetings is not an established principle in the community, their concerns will most likely not be taken into consideration. Often, the subjects which are deemed important enough to discuss are related exclusively to uses of water by men, rather than issues around drinking, washing and cooking which are the responsibility of women (Crow & Sultana, 2002). This lack of diversity in perspectives has been proven to be detrimental to the effective management of resources (Kafarowski in Choo et al, 2004).

Internal and external factors
Quisumbing (1996) argues that there are no significant differences in technical efficiency and labour productivity in the fisheries sector between men and women, rather there are internal and external factors which shape the power relationship and thus how decision-making occurs. Internal factors concern norms regarding the individual and the household, such as cultural taboos and superstitions about women who are thought for example to bring misfortune when boarding a ship. Baland and Platteau (1996) argue that it is cultural differences, rather than access or a hierarchy of power relations between men and women, which maintain a rigid division of labour and a male-centric control over resources. Family relations that confine women to caregiver tasks and food provision for the household also limit women's ability to partake in decision-making and to become members of organisations, administrative structures and to impact on legislation. Therefore, social norms may help to institutionalise stereotypical gender roles, which are then propagated by shared cultures of belief and an androcentric interest in protecting the status quo and ensuring resource control remains in place (van Staveren & Odebode, 2007).

There is a danger, therefore, of institutional bias and exclusion with regards to women – the external factor. Initiatives may try to establish close links between grassroots, traditional institutions and government-level ones without actually succeeding in empowering women due to the existing male-centric nature of community relations. Thorpe et al. (2014) for example describe how women's participation in the structures of the Ministry of Marine Resources has been affected by gender bias as most women fill secretarial and low-level positions within the institution, whereas men fill those job spaces which require active decision-making and have a significant impact on the lives of communities. Moreover, the organising process of development initiatives itself may become biased if the planners bring in their unconfirmed understanding of who key stakeholders involved might be. A case in point is the Irrigation Department in Sri Lanka which sought to mobilise farmers for a management transfer program, but in the end made contact only with those farmers, with whom the planners were already familiar, most of whom were men (Meinzen-Dick and Zwarteveen, 1998). Those who were formal right holders to irrigated land were also invited to participate and this automatically eliminated most of the female farmer population. Thus, local institutions that are not strong enough or well-organised to deal with obstacles to empowerment are probably one of the major reasons why levels of female participation in management activities have been low (Silva, 2004). Even where there is support from local governments, it might be the case that national governments will disregard the proposed alternatives and attempt to enforce top-down decision-making. Crawford et al. (2010) suggest that NGO involvement and university extension initiatives might be helpful in negotiating with national governments if this occurs.

Social capital
Despite the barriers, women have still taken on important managerial positions, claiming decision-making responsibilities in various sectors of the fisheries industry. The decisive factor here, however, is the accumulation of social capital, i.e. education and training are often the most important criteria for a woman's promotion. When women climb the ladder they succeed largely because of higher skills, credentials and reliable social networks. Kusakabe et al. (2004) for example show that despite the fact that women are the dominant players in the fish retail trade in Tonle Sap, Cambodia, their revenues could not have been substantial as they did not have connections with government officials or knowledge of markets. Low literacy levels among women harden the impression that women are not capable of participating in decision-making processes in a meaningful way (Bruins and Heijmans, 1993; Zwarteveen and Neupane, 1996), while illiteracy is often cited as the reason why they do not want to attend

assemblies. Women in Nepal for example have reported being afraid they would not be able to follow what is said and would not be able to give an intelligent answer if they were to be asked a question (Zwarteveen and Neupane, 1996). Foreign women, for example those working in processing factories, who do not speak the mother tongue cannot have influence over how decisions are taken (Zhao et al, 2013) because of the language barrier. In short, expertise, literacy, local knowledge and connections are the main drivers of female empowerment in these sectors.

Innovations - regional & national level initiatives and alternatives
Historically, "fisheries and aquaculture development assistance and technical training" was targeted at men (Choo et al. 2008: 178) and this persisting gendered specialization has largely marginalized women from decision-making processes. In such cases, especially in rural areas, women have tended to respond by diversifying their labour and taking on multiple community roles, as well as combining paid and unpaid work (Thorpe, 2014). Their activities range from child rearing and everyday household management tasks, to providing support for their husbands by relieving them from financial, supplies sourcing, marketing, crew management duties, bookkeeping and other logistical functions (MacAlister et al, 2002). Their labour, however, remains largely unrecognized and unpaid. Therefore, women have also sought alternative sources of income, such as selling handmade jewelry, handicrafts, rolling cigarettes, etc., which provide a much-needed support for the family household and for their own independent needs (Di Ciommo and Schiavetti, 2012).

Moreover, women have also sought to improve their literacy and numeracy skills by setting up micro-businesses (vegetable gardening, aquaculture and brewing) and by organising informal credit schemes, among other important initiatives, which are focused on protecting their livelihoods (Bennet, 2005). Despite the efforts to become more involved in the improvement of their working conditions, however, there are structural limitations which ultimately decide the fate of such initiatives, and support from governments is sparse. As suggested above, less access to health, education and infrastructure services, material inequalities, as well as conditions of access to water, influence the livelihoods and position of women within the household or enterprise. Inequalities in gender relations are directly tied to state rules of access, common property, to state provisions and class relations in general. As Crow & Sultana (2002) point out, establishing common rights over rivers and lakes which regulate access to water could initially seem like a just measure to implement, but in the end might prove to be of use only to a small elite in the fishing sector, and could also lead to scarcity of resources and thus more conflicts.

For this reason, fishermen generally do not regard governments with a lot of trust, although the reliability of organisational structures varies across different regions. Most are predominantly male domains, but as Bennet observes (2004), organisations and institutions can be important entry points for action against gender inequality. For a woman to actively participate in them, however, it is implied that she must challenge gender norms and her sector's occupational segregation. Whether women are willing to bear these costs and face the social risks largely depends on their assessment of the effectiveness of the organisations, and whether formal participation in them will form a better means of achieving personal objectives, as compared to other means which are available (Meinzen-Dick & Zwarteveen, 1998). Organisations formed by water users in Sri Lanka, Nepal, Pakistan, and India for example have a much lower participation by women than they do by men, despite the high involvement of the former in irrigated agriculture and agricultural decision-making (Meinzen-Dick & Margreet Zwarteveen, 1998). Where numbers are higher, organisations are most often women-only or tend to be established in areas where men do not have an interest in becoming involved.

Evidence suggests that in places where the specific needs of women are not recognised, they will be less likely to participate in meetings and decision-making processes, choosing instead to focus on their household tasks (Zwarteveen and Neupane, 1996; Di Ciommo and Schiavetti, 2012).

The Marine Protected Area of Corumbau, Brazil (MERC) established in 2002, which includes important ecosystems with a goal of bringing about sustainable fishing practices and the protection of natural habitats, is an interesting example. Social norms which traditionally prescribed decision-making powers to men, together with an explicit division of labour within the family household, meant that women often missed meetings or did not dare to voice aloud their opinions and concerns at gatherings. However, unique demands regarding childcare, training courses and cheap prices for food were raised for the first time and solely by women, inspired by their 'unseen' position within the chain of production. As Di Ciommo and Schiavetti conclude (2012), their support was crucial for the co-management and improvement of the living conditions of all members in the community. Thus, finding local solutions, and introducing changes in the dynamics of the meetings – by encouraging female members to speak out, demonstrating support and appreciation of their priorities by discussing issues which are of their interest – are some of the ways motivation to attend and participate in decision-making can be re-established.

Economic capital

Still, women's dependent position in relation to the ownership of the means of production – boats, land, machinery, water pumps – as well as their unrecognized support of the household, their unpaid labour, make it difficult for them to take on active roles. Legislation – regarding property rights, inheritance, social benefits, etc. - has always been an important player in entrenching gender relations (Crow & Sultana, 2002). Improved links between local communities and governments can lead to a better recognition of women's rights in marine and coastal areas and their specific needs, to form a more equitable system. The introduction of licensing regulations which allocate a certain number of licenses specifically to women, for example, as was the case on Lakes George and Edward in Uganda in 2002, can lead to more gender-sensitive management of resources (Nunan & Scullion, 2004). Moreover, as signatories to international agreements which seek to eliminate discrimination, countries can promote the advancement of women on a national level. A notable example is the establishment of the South Pacific Women's Bureau at the Secretariat of the Pacific community (SPC), the appointment of a Gender Issues Adviser and Gender Working Groups, which gather statistics on house income and food security, as well as run workshops on business management and provide technical details, with continuing success, thus raising awareness about the role of women in the fisheries sector (Ram-Bidesi, 2008). However, each country implements these conventions through its own governmental bodies, the effectiveness of which cannot universally be guaranteed – each case is therefore unique and special consideration must be paid to the national and community context in which decision-making happens.

Poverty and lack of capital access, resulting from inequitable legislation, particularly in the case of small-scale fishers, also hinders the empowerment of women in the marine and coastal environments. As usual, they find innovative ways to cope with disparity and to achieve self-sufficiency on some level, by relying on other forms of employment. A common strategy is micro-financing systems, such as those in Western Africa (called 'osusu groups') whereby a communal rotating credit can be accessed in case of need by its weekly contributors (Horemans & Jallow, 1997). In Cayar, Senegal, WWF has launched an initiative to help establish such credit unions, which enable women to start their own wholesale fishing businesses, to start farming, or become a shop keeper

(Soumare, 2006). On an international level, donor initiatives, such as the 2002 Artisanal Fisheries Development project (AFDEP) funded by the African Development Bank, offered credit to almost four thousand women, but lending usually happens only to women who are more reliable with their repayments, such as processors and distributors (Thorpe et al, 2014).

Therefore, women's decision-making power is stronger when women have greater material resources, which in turn enhances their mobility in traditionally restrictive male work spaces. Managing these resources also builds a basic portfolio of business skills which can help to articulate one's position and priorities. The ability to read and write can allow women to participate with legal reforms of resource governance and can help them to better manage their business, which in the long run benefits the whole community (Bennet, 2004). The dissemination of skills and of information about markets is thus crucial and although it may not necessarily lead to a change in gender attitudes in the long-term, it may nevertheless help to expose the negative economic consequences in which the exclusion of women from decision-making can result, thus leading to a more equitable workplace which recognises the specific needs of women. Research shows that often economic reasons for the inclusion of women into the industry are more readily understood by the key stakeholders and incorporated into different initiatives, than are reasons which for example directly challenge norms about the role of women within the household and society. Increased participation in decision-making practices by women may not necessarily mean a radical change in gender attitudes in the long-term, but can help to lift women out of their disproportionately precarious position by providing better livelihood security in an industry which recognises their contributions.

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APPENDIX 2

This appendix is a synopsis of documents provided by interviewees. Sources of the documents are provided where available. The synopses are sorted into those UNEP Marine Managed Regions that were covered in the Complexity Research Interviews.

A. Eastern African Regional Seas Program - Tanzania
http://www.unep.org/regionalseas/programmes/unpro/easternafrica/

1. The Marine and Coastal Management Project (MACEMP)

The Marine and Coastal Management Project seeks to improve the regulatory and institutional framework for the management of marine resources in Tanzania. It sets out to establish links between the marine environment and the fishery resource and then to determine conservative estimates of sustainable commercial exploitation of marine fishery resources. This includes data collection (oceanographic and fisheries) that complement other programs operating in the marine environment, particularly those currently funded by the European Union (fisheries), USAID, IUCN and WWF (coastal zone management). See: http://iwlearn.net/iw-projects/2101

2. The RUMAKI Project

RUMAKI was a World Wildlife Fund (WWF) sponsored collaborative fisheries management program. Functioning within the Seascape Program, Coastal East Africa, it focused on three areas namely, Rufiji, Mafia and Kilwa (RUMAKI). The program worked with the Beach Management Units (BMUs) established for all coastal villages in the Fisheries of Act of 2003.

The focus of the act was the enabling of co-management in Tanzania in an agreement between BMUs, District Authorities, and Government Fisheries Division. The arrangement applies to any water body where communities have livelihoods from those water bodies. The RUMAKI project intended to improve the socio-economic wellbeing of those specific communities. It set out to promote the sustainable, participatory and equitable use and protection of fisheries and other marine resources. Objectives included:

- Promoting fisheries management
- Raising awareness
- Strengthening livelihoods
- Protecting habitat and species
- Monitoring and provide data for management

The overall objective was to empower coastal communities to take advantage of the provision of the Fisheries Act 2003 to decentralize decision-making, planning and management of fisheries resources in collaboration with the government.

The Village Community Banks (VICOBA) was set up to manage village savings and loans. According to the WWF report 96 microfinance groups had been established with 2000 members. 6500 loans had generated an income of $2.2m and 90% of the loans had been repaid.

Integral to the project the BMUs provide district change agents who provide technical data and also set out to sensitize communities. Furthermore there are also village change agents to discuss the project with fisher folk when they register with the BMU's. Among achievements identified in the project from 2006 to 2011 are the following:

- BMU's have been active in surveillance and catch monitoring
- There has been an increase in fish available
- There has been a reduction in illegal fishing

BMU's are consequently seen as contributing to social development with potential replication in other coastal areas.

The WWF report concludes however that the co-management arrangement has potential only if the following criteria are achieved:

- There is adequate sustained community capacity-building
- There is improved integration with district authority plans
- There is continued complimentary livelihood development support

It stresses that what is required is sufficient time, the necessary funding and on-going commitment. (From power point presentation provided by the interviewee) See: http://wwf.panda.org/wwf_news/?202119/WWF-wins-prestigious-awards-for-coastal-community-work-in-Tanzania

3. *Capability and Legitimacy of Beach Management Unites (BMU'S) to Improve Fisher's Income through Management of First-hand Sales System in Lake Victoria, Tanzania*

Master's thesis by Mwanahamis A. Salehe, University of Tromso, Norway, 2008.

The case presented concerning the co-management model is that different management tasks can be suitable for different forms of co-management arrangement. This thesis focused on examining the possibility of implementing marketing-oriented fisheries co-management in Lake Victoria for Nile perch fisheries. The community-based organization BMU was selected as the fisher's representative organization in order to investigate how to improve the fisher's market performance and reduce poverty in that community. The findings of this study indicated that the globalization of Nile perch fishery had attracted a number of actors to join the fishery and among of them were middlemen, processing plants and the fishers themselves. It concluded that the current first-hand sales system had a greater contribution to make to poverty alleviation for the majority fishers. The study identified a deliberate ignoring of the need to identify and incorporate into policy the problems, needs and opportunities that exist in the fishing communities under the co-management arrangement. It concludes that this has made the fishers community less motivated in the participation of resource management activities. The 'fight for better fish prices' and the issuing of credits to fishers were regarded as the highest priority to be undertaken by the BMU in respect of first-hand sales activities. Capacity building for the BMU was seen as urgent in order for the BMU organization to carry its responsibilities efficiently and effectively. The thesis identified the co-management approach as a fisheries management tool that had received much attention with the belief that co-management would lead to efficient fisheries management by involving fishing communities in the decision making process and management of the resources

A BMU was described as a community-based organization legally accepted as a representative of a fishing community regarding fisheries resource utilization and management. Around Lake Victoria 433 BMUs had been formed and they worked in collaboration with the relevant government authorities concerned with fisheries management. The primary goal of this partnership was the management of the resources in that government had entered into an agreement with the BMUs on the protection and sustainable utilization of the fish resources.

The findings of the survey had indicated that fishers are not in control of their natural resources; in addition they were not in any way organized in relation to the sales of their fish and were therefore highly exploited by middlemen who linked them with the fish processing plants. The thesis concludes that

 "...The state of the (marine) resources in developing countries continues to deteriorate and the living conditions of fishers are still poor."

Consequently the use of destructive fishing methods and the lack of adherence to fisheries regulations still persisted to a large degree. The research conducted covered only on one region, Mwanza, and ten beach management units (BMUs) were visited from three districts (Ilemela, Magu and Misungwi).
See: http://munin.uit.no/handle/10037/1428?show=full&locale-attribute=en

4. Rural Integrated Program Support (RIPS)

RM refers in the interview to the Rural Integrated Program Support (RIPS) a Finnish government education initiative in the 80's that worked particularly well in Mtwara, Tanzania. It helped in mobilizing support against destructive fishing practice. In an interview The Southern Zone Confederation for the Protection of the Marine Environment (SOZOCO) was referred to. This was a confederation of communities that arose from the RIPS program. See:
http://www.eldis.org/vfile/upload/1/document/1304/eBOOK%20Decentralising%20Bilateral%20Development%20Cooperations.pdf

B. Western Africa Regional Seas Programme - Gambia

http://www.unep.org/regionalseas/programmes/unpro/westernafrica/instruments/r_profile_wacaf.pdf

1. TRY Oyster Women's Association - Midterm Report for WAVE - April to September 2014

The Women's Association of Venture and Equity (WAVE) is a nonprofit organization, which was founded in 2003 and is committed to the development and advancement of women in private equity and venture capital. WAVE achieves this objective through a series of developmental and networking events organized in financial centers each year. Is this it?) https://women-wave.org/

TRY Oyster Women's Association has been in existence since 2007 working to overcome the challenges that women oyster harvesters experience such as low income from their activities, and rapidly declining mangrove forest and coastal health, and educating the local population about the relationship between environmental degradation and deepening poverty. TRY also provides economic opportunities that result in sustainable livelihoods to women oyster harvesters and their families.

The project started in June 2014 instead of March, registering a delay of 3 months. The two personnel were hired in June 2014 and four Participatory Rural Appraisals (PRAs) have been conducted, instead of the six that were planned. Fundraising prospects were explored with four organisations.

The four PRAs conducted reached a total of 14 communities. They revealed that oyster harvesting practices and challenges are similar throughout the country, regardless of coastal zone and region. Differences in activity were found around the Allahein Estuary where harvesters collect cockles in addition to oysters. See: http://www.globaloceansactionsummit.com/

C. Red Sea and Gulf of Aden Regional Seas Programme – Sudan/Djibouti

http://www.unep.org/regionalseas/programmes/nonunep/redsea/

1. Participatory Gender Based Coastal Livelihoods Assessment, Dungonab Village

(The document provided was restricted to an extended Table of Contents indicating the scope of the assessment.)

Topics include a description of the general situation, poverty indicators and development plans in the village. Gender in the coastal area is specifically discussed and roles of community in MMA income-generating activities from a gender perspective. The main infrastructure and services in Dungonab are described, as are the main income activities, including fishing, retailing and trading. Women's income generating projects in the past are reviewed against women's traditional/acquired skills. These are located in the marine resources in Dungonab, the preference of marine activities and the roles of women and men in control of marine resources.

Gender relations in Dungonab village are examined in the context of customary law (Silif) with the superiority ideology coming under examination. The Story of Dungonab women is described in this context and the challenge of establishing indirect dialogue between men and women. Seeking a real entry point, the gains of women from the women's center are identified and the initiation of a Women's Organization. See also: http://www.persga.org/calender.php?id=167

2. World Bank Concept Note - Improving Gender Equity in Strengthening Marine Managed Areas (MMAs) in Djibouti

The objective described in this document is to develop and apply community-based, gendered knowledge in addressing the challenges and opportunities to alternative livelihoods in two Red Sea and Gulf of Aden marine managed areas (MMA) without adding pressure on fragile marine resources. The stated goal is to empower men and women to develop sustainable alternative livelihoods to relieve the current pressure on vulnerable marine resources and mitigate potential conflict with communities competing for the same resource base.

It is stated that in order to foster local ownership of the study and its findings, the approach emphasizes engagement of national and local community stakeholders, including the Ministry of Environment, Tourism and Wildlife in Sudan, and the Ministry of Gender and Family Planning in Djibouti.

The target audience for the project was identified as members of the local community, whose livelihoods are directly impacted by the project outcomes. Municipal administrators are targeted to strengthen the integration of the project with the local economy, and thereby enhance overall sustainability of the project.

This project was intended to serve three client groups. The Red Sea State Ministry of Environment, Tourism and Wildlife (MOETW) would be the national counterpart in Sudan. The Ministry of Gender and Family Planning would be the national counterpart in Djibouti. Local communities in the selected MMA sites are clients to the project in their capacity as direct beneficiaries of the project outcomes, and who form integral part of the project implementation. The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) is a partner to the project having actively participated in and contributed to the drafting and reviewing of the grant application. (The interviewee provided this document) See:
http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/05/27/000442464_20130527105353/Rendered/INDEX/779660AR00Box30Annual0Report0CY2011.txt

3. Terms of Reference - Gender Specialist for a Gender Based Coastal Livelihood Assessment - Improving Gender Equity in Strengthening Marine Managed Areas (MMAs) Project

The project envisages examining gender roles in income-generating activities associated with these MMAs (which ones and by whom?), in order for the community to gain insight into (i) the extent to which households were dependent on coastal and marine goods and services, (ii) the role of household members in the related activities, and (iii) gender-specific outlooks on marine resource management.
See: http://countryoffice.unfpa.org/filemanager/files/sudan/final.pdf

D. East Asian Seas Region - National and Sub-national MPA Systems

http://www.unep.org/regionalseas/publications/otherpubs/pdfs/MPA_Network_report.pdf

Indonesia

1. Fishing trips - For the new administration, the path to prosperity is a watery one.

Economist report on the coastal policy of new Indonesia administration –Indonesia's marine policy - Jan 3, 2015, the print edition - Asia

The Economist reports that Indonesia President Joko Widodo (Jokowi) in his inaugural speech in October declared that Indonesia should revive its maritime culture, develop its fishing industry, improve maritime links through things like better ferries and ports, and crack down on illegal fishing and other violations of sovereignty. The new maritime policy is aimed at increasing prosperity at home. Tens of millions of Indonesians live from fishing on 13000 islands. Small-scale fishermen bring in the vast majority of Indonesia's catch, but at a claimed cost of inefficiency. Few vessels have blast freezers, or have only small ones. Because the catch must be brought back to shore quickly fishermen are reported to make frequent short trips rather than longer journeys, which are more lucrative. Lacking adequate cold-storage facilities the catch spoils if it is not sold quickly. Many of the processors are "home industries": fishermen's wives salting

their husband's catch. By contrast as small Indonesian vessels work inshore, the report states, well-funded foreign pirate fleets plunder Indonesian fisheries further offshore. In an interview with the Wall Street Journal Jokowi claimed that nine-tenths of 5,400 fishing boats in Indonesia's waters each day are illegal. Unfortunately corruption reported to be rampant in Indonesia's port and customs systems and apparently cannot be stamped out unless officials are paid more. Jokowi has been wooing foreigners to invest in maritime infrastructure

Indonesia's marine policy: Fishing trips | The Economist
See: http://www.economist.com/node/21637451/print

2. Negotiating Fisheries Co-Management in Aceh Province, Indonesia

Notes on Process. John Kurien, Food and Agriculture Organisation of the United Nations - Banda Aceh, Indonesia - Rome, June 2010

The writer states in this report that the Food and Agriculture Organisation of the United Nations (FAO) with the financial assistance of the American Red Cross implemented a fisheries and aquaculture project in Aceh Province of Indonesia between 2007 and 2010. The focus was on capacity building initiatives for a wide range of stakeholders. The aim was to facilitate the creation of a mindset of sustainable and responsible marine fishery and aquaculture practices. The project was aimed at instituting co-management arrangements in the coastal fisheries of the four districts of Aceh that were the worst, affected by the tsunami. Whilst conventional project reports tend to focus on the tangible outputs of a project and report on what has been achieved during the life of the project, often the process by which these outputs were achieved is not always clearly articulated. The writer stresses that detailing the process by which certain outputs are achieved can be a challenge since is time and space consuming and often not relished by the readers. The writer claims that what this report provides is a compilation of notes about the process of negotiating fisheries co-management arrangements. This report attempts to reflect on *"how we did it"* and what were the approaches taken in doing so. The final output of the fisheries co-management component of the project was the formation of five co-management centres along four districts of west coast of Aceh. The notes provide a brief understanding of the process by which this was achieved.

The first note (Co-Mgt/1/2010) provides a brief summary of the strategy adopted and how it was implemented with respect to the three primary stakeholders involved in the co-management initiative – the coastal community; the fisher organisation and the officials of the fisheries department. The next three notes (Co-Mgt 2-4/2010) are a more detailed elaboration of the process of getting each of the three stakeholder groups engaged into negotiating the co-management arrangements. The final note (Co-Mgt/5/2010) discusses the role of women.

In this latter respect women in coastal Aceh were seen to play an important role in village life. Unlike in many Islamic societies, they were not secluded in the four walls of their homes and were visible everywhere. The women managed much of the service sector activities –the coffee shops; the restaurants; the fish processing activity; the petty trade; tailoring. Women were normally the inheritors of the homes of their parents. Women were also surprisingly free in their social interactions. Their physical mobility was seen as considerable with young and old ride motorbikes. Women also gathered together for religious and social activities. Such associational arrangements provided an important basis for gender equality. In the post-tsunami period many of the families held joint titles to their land and houses.

The writer concludes that whilst women do not fish in Aceh, their social position in the coastal households and the relative freedom that they enjoy for undertaking their own occupations, make the role that they can play in resource management a matter of significance. Negotiating a creative role for women in the co-management centres was therefore an important challenge. See:
http://www.fao.org/docrep/014/i2062e/i2062e00.htm

Cambodia

1. More Women Should Lead - Extract from Field Notes on Visiting Cambodia's Community Fishery Institutions. John Kurien - 2006

The author presents the case of the crucial role of women after visiting 10 Community Fishery Institutions (CFs) around the country for the success of the CFs and argues that more conscious emphasis should be give to their participation. In many CFs there are more potential women members than men. The women members of the CF who show a keen interest in CF activities should be given special training and there should be cross-learning field exposures organised for them in the province.

This should take into account that women have household duties which most of them cannot leave behind for more than a day. The author suggests that an appraisal of the details of the women CFC members be made. Details could be collected about their family status, their occupational status, their literacy levels, whether they are involved with other activities such as with Seila programs, Commune Councils, NGO work, women associations etc. Building the individual human capital of the women, and their social capital as a group, will be a major benefit for more inclusive community empowerment. Examples are provided of 'extraordinary' women CFC members in Kampong Phluk, Boeung Chunlen, Tumpung Cheung, Kampong Tralach Leu and Phnum Phneath and their impact on CF activity in the community as a whole.
(The interviewee provided this document) See:
http://www.worldfishcenter.org/resource_centre/Cambodia_s%20Aquarian%20Reform.policy%20paper%20-%20English_1.pdf

2. SAMUDRA Report - No .48

This report is drawn from field notes provided by John Kurien and concerns a young fisherman who now works with the Cheung Community Fisheries (CF) in the Battambang Province of Cambodia. A significant feature of the report concerns the work of his wife who is a CF Committee member. She is in charge of extension work in the CF. She convinced him to desist from electro-fishing. Not only does electro-fishing apparently *"...present more risks than being arrested by the military or the police"*, but it is illegal as it is regarded as a highly destructive fishing practice.
See: http://indianfisheries.icsf.net/en/page/625-Resources.html

3. On Developing Guidelines for Securing Sustainable Small-scale Fisheries: Sharing Processes, Results and Lessons Learnt from Cambodia, John Kurien, 2012

Lead Resource Person, FAO Consultant

The Small Scale Fisheries Guidelines are described as intending to support the enhancement of the sector's important contribution to global and national efforts towards the eradication of hunger and poverty. They intend to support small-scale

fisheries governance and development 'for the benefit of current and future generations, with an emphasis on vulnerable and marginalised people'.

In developing the SSF Guidelines the reports describes the initiation participatory national and regional information gathering and consultative processes which would provide insights about the nature of small-scale fisheries in specific country contexts. This would determine how they were viewed by policy makers, how they evolved over time, how they were governed and what the small-scale fishers themselves thought about their sector and its future.

One of the countries chosen for a more in depth national a level initiative was Cambodia in South East Asia.

The report lists 469 Community Fisheries organizations across Cambodia, the majority of which are located in the inland fishery around the Tonle Sap Lake and across the banks of the Mekong River. A smaller number have also been formed in the marine sector. The report describes Cambodian fisheries as being particularly relevant for this initiative in relation to the development of the SSF Guidelines citing Cambodia as the only country in Asia where, since 2000, there has been a conscious government policy-driven thrust towards "small scale-isation" of the fishery through the creation of Community Fisheries organizations. It further cites Cambodia as having been experimenting with new forms of local-level governance and institutional arrangements seeking to change individual access and use rights (largely in inland fisheries) into community oriented tenure arrangements.

Against this background the report declares the project in Cambodia to have had the following objectives:

At the local level to undertake a participatory village assessment of the relevance and the role of small-scale fisheries in the inland and marine sectors of Cambodia by gathering data through a representative sample of the membership of the Community Fisheries organisations across the country.

At the mezzo-level to utilise the consolidation of this information at provincial meetings of the Community Fisheries organisations to raise awareness about the merits of small-scale fisheries particularly with respect to its role in food security, environmental protection and sustainable livelihoods.

At the national level to feed the insights from the above processes into a national consultation with the objective of formulating guidelines for the future of Community Fisheries organisations in Cambodia and provide insights for the development of the SSF Guidelines.

See: http://www.academia.edu/8280340/Formulating_Cambodias_Small Scale_Fisheries_Guidelines

4. Cambodia's Aquarian Reforms: The Emerging Challenges for Policy and Research for Sustainable Development of Inland Fisheries in Cambodia, John Kurien, So Nam, and Mao Sam Onn, 2006

The objective of this document is described as making a modest attempt to highlight the challenges that are emerging with the current phase of Cambodia's aquarian reforms – the most important component of which, it is suggested, is the transition from fishing

lots to community fisheries. The challenges include the realms of institutional and policy reform, local action, innovation and research. The report contextualizes the effort by commencing with an assessment of the importance of the aquatic resources and by providing a brief historical background to the reforms. This is followed by an examination of the changes in the access and property rights and the system changes that have been brought about as a result of the reform. It continues to examine how some of the transitional changes can be assessed and the manner in which the efforts at community fisheries can be made more economically and socially viable. The report attempts to deal with the complex issue of social identity and the aspirations for creating a new sense of community. The new role of women, the importance of creating networks and closer collaboration with Cambodia's local governance structures and vibrant civil society organisations are also highlighted. The reforms are described as having created new legal realms of local 'micro' ecosystem space and resource governance. But this, it stresses, should not detract from the need for an understanding of the larger 'global' context - be that in relation to the ecosystem dynamics or governance priorities. The report suggests that research and development priorities must be re-oriented to consider ways of dealing with the vast number of new and evolving 'local realities' and link them up contemporaneously to the big 'global picture'. The report concludes with certain recommendations addressed to different actors involved in the process of aquarian reforms. It calls for a new mission and greater collaboration by research institutions; new methodologies for data collection; greater participation with local governance structures; an exit strategy for aid agencies and the need for setting up a national institute for co-management applications and training.

Inland Fisheries Research and Development Institute (IFReDI)
Website: www.ifredi.org

E. Pacific Regional Seas Program

http://dinrac.nowpap.org/about_NOWPAP.php?page=about_regional_seas1
Papua New Guinea - Palau - National network of MPAs, Fiji, Solomon Islands

1. Forum Communiqué - Fortieth Pacific Islands Forum - Cairns Compact on Strengthening Development Coordination in the Pacific - AUGUST 2009

The communiqué reports that leaders of the Pacific Islands Forum met from in August 2009 in Cairns to bring new determination and an invigorated commitment to lift the economic and development performance of the region. Leaders expressed their deep concern that, despite continued high levels of development assistance over many years, the Pacific region remained off-track to achieve the Millennium Development Goals (MDGs) by 2015. They called on international financial institutions to assist the Pacific Islands countries in responding to the global economic crisis, including supporting better coordination mechanisms. To realise this objective, leaders agreed that the new development compact would be based on the following principles:

- The recognition that broad-based, private sector-led growth was essential to achieving faster development progress and that donors should encourage the private sector, including employing micro-finance, and also support for larger-scale private sector projects;
- The recognition that improved governance and service delivery were essential to achieve faster development progress;
- The recognition that greater investment in infrastructure would underpin greater economic development;

- The acknowledgement that country leadership, mutual accountability and mutual responsibility between Forum Island countries and their development partners were fundamental to successful development outcomes

Whilst this was the occasion where the Pacific Islands Forum Secretariat was established, the need was stressed to continue to recognise that; "...national development plans were matters for national governments to determine."

The Forum Secretariat would report annually to the Post-Forum Dialogue on a process of regular peer review of Forum Island countries' national development plans to promote international best practice in key sectors, improve effective budget allocation processes and guide support from development partners.
(The interviewee provided this document)

2. The Pacific Leaders Gender Equality Declaration

30 August 2012, - 43rd Communiqué - Pacific Islands Forum Secretariat - Aitutaki, Cook Islands , August 2012,   Annex 1, Rarotonga, Cook Islands.

The Leaders of the Pacific Islands Forum met from 27 to 30 August 2012 in Rarotonga and addressed efforts to lift the status of women in the Pacific. An objective declared was to empower women to be active participants in economic, political and social life.
Leaders expressed their concern that despite gains in girls' education and some positive initiatives to address violence against women, overall progress in the region towards gender equality has been slow. Leaders were concerned that women's representation in Pacific legislature remained the lowest in the world; violence against women was unacceptably high; and women's economic opportunities remain limited.   Leaders expressed understanding that gender inequality imposed a high personal, social and economic cost on Pacific people and nations, and that improved gender equality would make a significant contribution to creating a prosperous, stable and secure Pacific for current and future generations.   Leaders committed to implement the gender equality actions of the following initiative:
- Convention for the Elimination of All Forms of Discrimination against Women (CEDAW)
- Millennium Development Goals (MDGs)
- Revised Pacific Platform for Action on Advancement of Women and Gender Equality (2005 to 2015)
- Pacific Plan; the 42nd Pacific Island Forum commitment to increase the representation of women in legislatures and decision-making
- 40th Pacific Island Forum commitment to eradicate sexual and gender based violence.

In order to progress these commitments Leaders committed to implement specific national policy actions to progress gender equality in the areas of gender responsive government programs and policies, decision making, economic empowerment, ending violence against women, and health and education. These would include:
- Gender Responsive Government Programs and Policies
- Incorporate articles from the Convention for the Elimination of all forms of Discrimination against Women (CEDAW) into legislative and statutory reforms and policy initiatives across government
- Support the production and use of sex disaggregated data and gender analysis to inform government policies and programs
- Strengthen consultative mechanisms with civil society groups, including women's advocacy groups, on key budget and policy issues of national and sub-national governments.

Decision-making:
- Adopt measures, including temporary special measures (such as legislation to establish reserved seats for women and political party reforms), to accelerate women's full and equal participation in governance reform at all levels and women's leadership in all decision making.
- Advocate for increased representation of women in private sector and local level governance boards and committees (e.g. school boards and produce market committees).

Economic empowerment:
- Remove barriers to women's employment and participation in the formal and informal sectors, including in relation to legislation that directly or indirectly limits women's access to employment opportunities or contributes to discriminatory pay and conditions for women.
- Implement equal employment opportunity and gender equality measures in public sector employment, including State Owned Enterprises and statutory boards, to increase the proportion of women employed, including in senior positions, and advocate for a similar approach in private sector agencies;
- Improve the facilities and governance of local produce markets, including fair and transparent local regulation and taxation policies, so that market operations increase profitability and efficiency and encourage women's safe, fair and equal participation in local economies.
- Target support to women entrepreneurs in the formal and informal sectors, for example financial services, information and training, and review legislation that limits women's access to finance, assets, land and productive resources.

Ending violence against women:
- Implement progressively a package of essential services (protection, health, counseling, and legal) for women and girls who are survivors of violence.
- Enact and implement legislation regarding sexual and gender based violence to protect women from violence and impose appropriate penalties for perpetrators of violence.

Health and Education:
- Ensure reproductive health (including family planning) education, awareness and service programs receive adequate funding support;
- Encourage gender parity in informal, primary, secondary and tertiary education and provide training opportunities.

Leaders called on Development Partners to work in a coordinated, consultative and harmonized way to support national led efforts to address gender inequality across the region in line with the Paris Declaration on Aid Effectiveness and Cairns Compact on Strengthening Development Coordination in the Pacific. Leaders also requested Development Partners to increase financial and technical support to gender equality and women's empowerment programs, and to adopt strategies within their programs to provide employment and consultation opportunities for women in the planning and delivery of development assistance to the region. Leaders agreed that progress on the economic, political and social positions of women should be reported on at each Forum Leaders meeting. They directed the Forum Secretariat, with the support of the Secretariat of the Pacific Community and Development Partners, to develop, as part of the Pacific Plan performance monitoring framework and annual report to Leaders on

country progress in implementing the above commitments and moving towards achieving greater gender equality. See also:

http://www.aid.govt.nz/media-and-publications/development-stories/september-2012/forum-commits-work-gender-equality-pacific

3. A Critique of the Gender Equality Declaration - Sean Mackesy-Buckley - researcher for Family Planning International, a NGO based in New Zealand.

According to Mackesy-Buckley the declaration places a disproportionate emphasis on the use of top-down government policy and legislation, whilst placing almost no emphasis on bottom-up support for civil society.

The writer emphasizes that improving the status of women requires significant social change and that most developed countries are still struggling with it. This change will need to become mainstream across a minimum of three different levels of society, the individual, the community – families, villages, churches etc., and government – public institutions, polices and laws. This, the writer suggests, provides a context for 'gender mainstreaming' and gender as a 'cross-cutting issue'.

Within this context, direct support for civil society (particularly women's groups), should be given equal priority to that of efforts to reform government policy and legislation. Government policy and legislative reform (particularly in the Pacific context), it is argued, has been slow to change individual and community-held socio-cultural norms relating to the role of women. This is the result of both a wide range of capacity limitations experienced by many Pacific governments, as well as how strongly embedded existing socio-cultural norms are within village and community life. This includes that within community leadership that often parallels and conflicts with government leadership. There are many manifestations of this challenge, e.g. where people do not enforce, ignore or are uninformed of laws and policies etc. The writer continues that it has historically been civil society that has driven social change. Government policy and legislative reform is usually a result of this social change, rather than what leads to it. Pacific civil society not only remains small and often disparate, but there are very few organisations that have a core focus on women's empowerment and broader gender equality. Those organisations that do have a focus on women rarely have the long-term funding security that would enable them to sustain large-scale social change campaigns (such as continuously working to educate and inform whole communities and their leaders). Most end up receiving short-term funding for short-term projects that target small groups of individuals within communities rather than whole communities. A common result is that at the conclusion of a project, many of the individuals supported still struggle to achieve social movement since broader community and village life remains hostile to this movement (regardless of government law and/or policy).

The critique emphasizes that the definitions of gender equality used by most multilateral agencies, including donors, are based on a binary notion of 'men' and 'women'. They therefore exclude all other genders including: lesbian, gay, bisexual, transgender, as well as others unique to the Pacific. For this reason, the writer concludes, the post predominantly refers to the purpose of the declaration as advancing the status of women, not gender equality

http://devpolicy.org/pacific-leaders-gender-equality-declaration-an-empty-commitment-or-a-real-opportunity-20121211/

4. Our Sea of Islands, Our Livelihoods, Our Oceania – Framework for a Pacific OceanScape: a catalyst for implementation of ocean policy. Cristelle Pratt and Hugh Govan - November 2011

At the 40th Pacific Islands Forum convened in Cairns, Australia in August 2009, the Republic of Kiribati shared with its Forum siblings a vision for a secure future for Pacific Island Nations. This was based on ocean conservation and management, under its Pacific OceanScape concept. It suggested that the success of a Pacific OceanScape would be predicated on strong Forum leadership and Regional cooperation, responding to national development aspirations and priorities. These, in turn, would foster and focus attention on critical issues such as climate change effects and impacts on Pacific peoples, their islands and their Ocean.

In the communiqué leaders welcomed the Pacific OceanScape concept, and its companion Pacific Ocean Arc initiative, tabled by Kiribati. This was aimed at increasing marine protected area investment, learning and networking. Leaders tasked the Secretariat, together with relevant CROP (Council of Regional Organizations of the Pacific) agencies and key partners, to develop a framework for the Pacific OceanScape. This would draw on the Pacific Islands Regional Ocean Policy as a priority area for attention under the Pacific Plan. Cristelle Pratt and Hugh Govan drafted the document. It commits to:

"… Protect, manage, maintain and sustain cultural and natural integrity of the ocean for our ancestors and future generations…"

The aim is to foster stewardship at scale, local, national, regional and international.

The framework objectives were stated as:

- Integrated ocean management
- Adaptation to environmental and climate change
- Liaising, listening, learning, leading – facilitative and collaborative processes

Principles included improving ocean governance and sustainably developing and managing the use of oceans resources through:

- Increasing the knowledge base
- Generating new knowledge
- Educating a cadre of policy makers
- Educating and training people for ensuring a continuity of marine understanding and the replenishment of knowledge.

See:
https://groups.yahoo.com/neo/groups/VUPacific_Circle/conversations/messages/1022

5. Pacific Regional MDG's Tracking Report – August 2013

(Produced by Pacific Islands Forum Secretariat)

In the executive summary it is stated that, except for Papua New Guinea, Solomon Islands and Tonga, all 'Forum Island Countries' are on track to achieve gender parity in education. However only Cook Islands, Niue and Palau are on track to achieve the broader goal of promoting gender equality and empowering women.

Part 3 of the report is entitled: A Closer Look at Promoting Gender Equality and Empowering Women. The study includes Gender in the MDGs and
Forum Island Commitments, Gender Equality in Education, Gender Equality in Employment, the Economy and Poverty, Gender Equality in Political Representation, Gender Equality, Women's Empowerment and Health, Gender Equality, Women's Empowerment and the Environment, Cross-cutting Gender Gaps in the MDGs 44
(The interviewee provided this document) See also:
http://sd.iisd.org/news/pacific-islands-report-on-mdg-progress/

6. Forum Leader's Statement - Framework for Pacific Regionalism - 2014

The framework purports to be an expression of a common sense of identity and purpose, leading progressively to the sharing of institutions, resources, and markets, with the purpose of complementing national efforts, overcoming common constraints, and enhancing sustainable and inclusive development within Pacific countries and territories and for the Pacific region as a whole.

Values include the embrace of good governance, the full observance of democratic values, the rule of law, the defense and promotion of all human rights, gender equality, and commitment to just societies. We seek peaceful, safe, and stable communities and countries, ensuring full security and wellbeing for the peoples of the Pacific. We support full inclusivity, equity and equality for all people of the Pacific.
(The interviewee provided this document.) See also:
http://www.forumsec.org/pages.cfm/strategic-partnerships-coordination/framework-for-pacific-regionalism/?printerfriendly=true

7. Engaging women and men in communities-based resource management processes in the Solomon Islands, Schwarz A, James R, Teioli HM, Cohen P and Morgan M. Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Case Study: AAS-2014-33. The Nature Conservancy - 2014

The authors show evidence suggesting that basing resource management on local arrangements that are already in place, and on local and traditional knowledge, leads to management that is more likely to be respected and complied with, and that better fits a community's particular context.

In respect of the gender issue their study found that research across the Pacific demonstrated that there is often a disparity in access rights, roles and responsibilities and benefits between and among women and men. Achieving equitable participation by women and men in local resource management is challenging in practice and most decision-making still tends to be dominated by men. The authors point out that in some places there are signs that this is changing with the support of both men and women community champions. Gender equity is defined as:

"...The process of being fair to women and men in order that women and men can equally access opportunities and life choices regardless of their sex."

It argues that local and national policies and practices can be more effective if they are more gender equitable and better consider the differences in how men and women

participate in natural resource use and in the community, taking into account their potential different goals.

8. *Community-based marine resource management in Solomon Islands (CBRM)*

A facilitator's guide produced by WorldFish staff - 2014

This document is based on lessons from the implementation of CBRM with rural coastal communities in Solomon Islands (2005 - 2013). 2014.

The guide documents the process and activities that WorldFish staff have used and adapted as facilitators working with communities interested in marine resource management in Solomon Islands. It draws on the experiences from work conducted with the Foundation of the Peoples of the South Pacific International (FSPI) and the Ministry of Fisheries and Marine Resources through ACIAR funded projects, with communities that had a primary interest in the management of coral reef fisheries. Since 2011 the process has been trialed and adapted further with communities interested in mangrove ecosystem management. The guide is based on lessons about the process of a community developing, writing and implementing a management plan. This guide does not claim to cover lessons about the outcomes of that management process.

9. *Asia, Pacific Forum on Women Law and Development*

The Asia Pacific Forum on Women, Law and Development (APWLD) is a network of feminist organisations and women. Their 180 members represent groups of diverse women from twenty-five countries in the region. APWLD empowers women in the region to use law as an instrument of change for equality, justice, peace and development. APWLD uses research, training, advocacy and activism to claim and strengthen women's human rights as enshrined in UN international human rights instruments. See: http://apwld.org/

10. *FemLINKPACIFIC Policy for Peace 2014*

FemLINKPACIFIC has used its annual Policy for Peace in their Pacific Region document to identify potential candidates from women leaders in the region capable of standing for elections to the various decision-making bodies. These range from village councils to national parliaments. These are women who can also be appointed as envoys and mediators, as experts in the field of peace, security and development. The documents endeavored to provide linkages between the women's voices as expressed in their peace and security narratives from Bougainville, Fiji, Solomon Islands and Tonga to the existing regional mechanisms, and to demonstrate how their experiences and action oriented strategies equip them as leaders. The women are active in peace building and service in many spheres of their communities, connected through FemLINKPACIFIC Pacific Women's Media and Policy Network on UN Security Council Resolution 1325 (Women, Peace and Security). The organisations involved include Leitana Nehan Women's Development Agency of Bougainville, Vois Blong Mere Solomon of Solomon Islands and Ma'a Fafine mo e Famili of Tonga. See:

http://www.femlinkpacific.org.fj/index.cfm?si=main.resources&cmd=forumview&cbegin=0&uid=menuitems&cid=159

APPENDIX 3

Locations for potential field study in Peru recommended by Interviewee 3.

PAITA

ANCON

ASIA

LOMITAS