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Ghana Coastal Fisheries Governance Dialogue

Presentations, discussions and outcomes from a stakeholder forum on issues for reforming governance of Ghana's coastal fisheries



April 25–26, 2012, Elmina Beach Resort

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This publication is available electronically on the WorldFish Center's website at <http://worldfishcenter.org> and the Coastal Resources Center's website at <http://www.crc.uri.edu>.

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Please cite this report as:

Mills, D.J., Mutimukuru-Maravanyika, T., Ameyaw, G., and Asare, C. (2012). Ghana Coastal Fisheries Governance Dialogue: Presentations, discussions and outcomes from a stakeholder forum on issues for reforming governance of Ghana's coastal fisheries. WorldFish Center, USAID Hæn Mpoano Initiative, Ghana. 57pp.

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This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID)/Ghana. The contents are the responsibility of the authors as part of the Integrated Coastal and Fisheries Governance (ICFG) Project and do not necessarily reflect the views of the United States Government or the WorldFish Center. Associate Cooperative Agreement No. 641-A-00-09-00036-00 for "Integrated Coastal and Fisheries Governance (ICFG) Program for the Western Region of Ghana," Under the Leader with Associates Award No. EPP-A-00-04-00014-00.

Design and layout:

Eight Seconds Sdn Bhd.

Cover Photos: David Mills; Cambria Fingold.

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EXECUTIVE SUMMARY

This meeting, the second national Fisheries Governance Dialogue, aimed to help stakeholders in the fisheries sector generate a shared understanding of critical lessons and pathways for fisheries co-management success in Ghana. This was a direct response to the call from both fisheries communities and the government of Ghana for a radical change from the way fisheries resources are currently being managed. Indeed, the justification for such a gathering for dialogue was appropriately summed up by the Deputy Minister for Food and Agriculture in Charge of Fisheries, Hon. Nii Amasa Namoale, in many of his opening remarks, such as the following:

“The Government recognizes the urgent need to change the way the country is managing fisheries. While in the past anyone was allowed to purchase a boat and fish, this is no longer the reality of the industry and there is a need to address the issue of open access ...”

“The Government recognizes the importance of engaging stakeholders in the process of developing a system for implementing community-based fisheries management in Ghana ...”

“The Government is convinced that this dialogue would create conditions for practitioners to share traditional and scientific knowledge in governance and come up with appropriate systems for the future of Ghana’s coastal fisheries.”

The meeting was attended by 60 men and women from stakeholder organizations and communities, and commenced with presentations on co-management experiences from local, regional and international participants. This was followed by panel discussions to extract lessons that specifically related to successfully implementing co-management in

Ghana’s fisheries. Finally, breakout groups addressed in greater detail some issues of importance to fisheries governance reform in Ghana. While fisheries co-management is not a new concept in Ghana, participants heard that previous attempts to initiate these systems proved unsustainable. A number of lessons were drawn from these past experiences, including the following:

- Co-management initiatives are not sustainable based on voluntary input only; they must be financially supported initially and provided with revenue-raising means to become self-financing in the long run.
- Creating new institutions without carefully planning how they will relate to existing institutions is likely to result in conflict.
- Common characteristics of co-management institutions showing sustainability included: strong leadership organizing regular meetings; focused co-management plans; determination and team work; honesty and transparency; mutual respect among members; effective monitoring and supervision; and provision of skills training.
- The gazettement of district bylaws to provide legislative support for co-management proved a long and drawn-out process, and was a disincentive for sustained effort by groups.

Regional and global lessons from several decades of active co-management across diverse natural resources should be incorporated into system design in Ghana and include the following:

- Global experience has repeatedly shown that for small-scale, multi-gear fisheries, top-down centralized management does not work; co-management, involving key stakeholders in the management process, is the only way forward.

- Successful co-management can provide sustainable, productive resource use; low levels of conflict; secure livelihoods (including alternate livelihoods); and flourishing coastal communities.
- In designing co-management systems, it is important that local context, including institutions, species/ecosystems and government systems are considered.
- Local perceptions of equity/fairness must be understood and equitable representation in co-management systems mandated.
- The perceived gains from co-management must outweigh the costs of involvement.
- The involvement of stakeholders in decision-making processes through communication pathways facilitated by co-management systems leads to greater perceived legitimacy of regulations in the eyes of resource users, and can increase voluntary compliance rates considerably.
- The involvement of co-management groups in livelihood and community development actions provides a strong incentive for participation and builds group cohesion. These actions can offset the ‘costs’ of a shift to managed access.
- Regional study tours (west and east Africa) involving community members showed participants successful examples of where development of alternative livelihoods, women’s co-operatives, improved fish handling and processing systems, tourism ventures, and vessel registration systems had contributed to improved wellbeing of fishing communities.
- There must be explicit maritime jurisdictions/authorities at each scale and systems must be supported by a solid legal foundation.



The way forward:

Through presentations, panel discussions and breakout groups, the specific context for co-management in Ghana was considered, and the following key points have been synthesized from these activities:

- A key challenge for implementing co-management in Ghana is the high mobility of both fish and fishers. This emphasizes the need for 'nested' systems, where community-based management units are well-connected to higher levels of management, including districts and national institutions.
- The types of decision making at various levels within the nested system will be dependent on the biology/ecology of particular resources being managed and the behavior of those who fish them. For example, it is likely that much of the rule-setting for the small pelagic fisheries will need to occur at the national level. In this case, the nested systems provide the critical communication pathways that foster listening and ensure legitimacy of rules is perceived, even though communities may not be free to set their own rules.
- Chief fishermen and chief fishmongers (konkohene) need to be central to co-management systems, yet the respect for traditional institutions and the capacities

and motivations of the leaders in different communities are highly variable. This is a major risk factor in developing co-management units. Effective and well-resourced support from districts can go a long way towards mitigating this risk.

- An urgent need was articulated by both the government and communities for increased organization among women in communities. The Fisheries Commission expressed a desire to engage directly with women's groups, but noted a difficulty in identifying appropriate groups to engage with.
- Communities felt that they needed a degree of autonomy in setting the structure of co-management units that was appropriate for their context.
- For successful co-management, a shift in skills for both the government and communities is required; capacity building for conflict resolution, facilitation, administration, leadership, monitoring and surveillance are needed.
- Improvement of sanitation at landing sites and fish handling and processing facilities can add greatly to the value of the catch.
- Co-management will not succeed without adequate support from the legal system. A key failure of past co-management systems was the

reliance on the district bylaw process for rule-setting. This process was expensive and drawn out. For effective co-management, enabling legislation needs to be in place that allows for adaptive decision making at appropriate levels in the nested governance system.

The Fisheries Governance Dialogue highlighted that much common ground exists between fisheries stakeholders in their understanding of the need for reform. A critical point emphasized by this meeting was the need for ongoing dialogue to ensure that the voices of all stakeholders are considered in the process of designing and implementing co-management and nested systems. As momentum for implementing co-management builds, such dialogue needs to occur on a more regular basis than has been provided for by the two Fisheries Governance Dialogue meetings held to date. Conversations following the dialogue have led to a proposal for a Fisheries Co-Management Working Group to be convened in Accra. The objectives of this group would be to build on lessons highlighted in the dialogue, co-ordinate efforts at piloting co-management systems, and provide a forum to consolidate learning from such pilots.

Moving together towards fisheries governance reform in Ghana:

Fishermen, fish processors, fishmongers, communities, the government, NGOs and international agencies all recognize the critical role of fish in the life, livelihoods and nutrition of Ghanaians, particularly for those living in coastal communities. They also unanimously acknowledge that the last decade has seen a massive decline in the productivity of coastal fisheries in Ghana. While these groups may differ in their ideas about why the declines have occurred, what mechanisms are responsible and what the solutions are, no one can claim to know the ‘absolute truth’ about either causes or solutions. If we ignore the voices of fishers and communities, we will not understand the context, and we will come up with inappropriate rules that are not respected and will not have the livelihood impacts we seek. If we ignore the voices of managers and government agencies, rules will not be implementable. If we ignore the voices of scientists and those with experience from fisheries management around the globe, rules will not achieve their desired outcomes, and we will waste precious time making unnecessary mistakes. Global experience tells us that the only way forward is through stakeholders working together towards a shared vision for more productive, sustainable fisheries.

The imperative to work together, to be proactive and dialogue about the way forward is therefore a strong one. As a group, we face massive challenges, but we are also presented with an unprecedented opportunity. This opportunity has been created by (a) communities when they said ‘it is time for a change’; (b) the Fisheries Commission through the development of the Fishery and Aquaculture Development Strategy; and (c)

international donors who see the critical nature of these fisheries and are prepared to support reform.

The Fisheries Commission created momentum for change with the release of the Republic of Ghana Fisheries and Aquaculture Sector Development Plan (2011–2015). The plan acknowledges that Ghana’s fisheries are falling well short of providing optimal benefits, and any existing financial benefits to the nation are eroded by subsidies. It is forthright in its declaration:

“The fishing industry in Ghana has reached a low-level equilibrium that provides little prospect for improving the welfare of fisher people in Ghana or contributing to the economy as a whole.”

The strategy goes on to outline key actions necessary to revitalize the industry, including moving away from an open-access system and engaging stakeholders in the processes of governance.

Since 2009, USAID has invested in integrated coastal and fisheries management through the Hɛn Mpoano initiative. More recently, the World Bank has worked with the government of Ghana and the Fisheries Commission to develop the West African Regional Fisheries Program project for Ghana. This ‘critical mass’ of interests in seeing the sector reformed and revitalized provides a unique opportunity that we must work together to capitalize on.

Hɛn Mpoano is a small player in this process, but can take a facilitation role in bringing key stakeholders together to discuss the way forward for initiating co-management in Ghana’s coastal fisheries. To kick-start this work, Hɛn Mpoano facilitated a

platform (the Fisheries Governance Dialogue) to give stakeholders an opportunity to discuss options and collectively work towards common goals in reform. The first Fisheries Governance Dialogue was held in September 2011 at the Coconut Grove Hotel, Accra. The meeting reported here is a follow-on to this and was attended by 60 people from key organizations in the fisheries sector. (See Annex 1 for the list of participants).

This dialogue focuses on much-needed reforms, and looks specifically at the role of co-management in this reform process. Co-management is not a new concept globally or in Ghana, and there are many lessons to be learned from past experience. For this reason, the second Fisheries Governance Dialogue brought together fishing communities, managers and government, as well as local and international scientists with expertise in fisheries management. The principal objective was that by the end of the meeting, stakeholders would have moved further towards a shared understanding of critical features for fisheries co-management success in Ghana. This was seen not as an end, but as a beginning of a long process of collaboration and stakeholder consultation on fisheries co-management design.

Speaking the same language

Stakeholder engagement in the process of reform is not simply a matter of getting people together to discuss options. Genuine dialogue can only be achieved if participants come to the table with a shared language and understanding of issues. To this end, the Hɛn Mpoano initiative has been working with fishing communities since 2009 in a process of capacity building and empowerment to facilitate equitable and productive dialogue on fisheries governance. Critical components of this process

have included training workshops (e.g., on co-management and adaptive governance), community fora held in fishing communities, a radio drama, 'exposure tours' by selected community members to observe components of governance systems in Tanzania, Senegal and Cote d'Ivoire, and a follow-up meeting after the exposure tours encouraging participants to develop a vision for coastal fisheries in Ghana. This process continues; however, we are at a point where community members engaged in the Hɛn Mpoano programs have much to bring to the table in the dialogue process.

Another critical component of shared language is that international scientists engaged in dialogue have an understanding of the fishery they are providing advice to. Ghana's coastal fisheries are unique in many ways, and broader fisheries experience globally does not provide an adequate background for productive en-

agement. This background cannot be gained by reading alone, and for this dialogue, community exposure visits for international scientists were conducted in the days leading up to the meeting. The group also included fisheries staff from the Hɛn Mpoano initiative and the Director of Fisheries for the Western Region. The group spent time at the fishing communities of Dixcove and Axim. Initially, local fishermen provided a tour of the landing sites, discussing major gear types employed and issues for the different sub-sectors. The team then met separately with fisher and women's groups, Fisheries Commission technical staff, and other interested groups to discuss general and site-specific issues around fishing and livelihoods. International participants universally agreed that this exposure was critical to provide context for the dialogue meeting, and that their ability to cast their advice in terms of what they had seen in the communities added significant value

to their input to the dialogue.

Dialogue structure

The two-day governance dialogue meeting consisted of 7 plenary presentations from scientists, communities and managers, divided between 3 theme areas (grouped as sessions). Each session was followed by a panel discussion, with the panels formed by session presenters and questions asked of the panel from the floor. The second part of the dialogue consisted of breakout sessions where participants were divided among 4 focus groups looking at critical issues in the implementation of governance reform and building co-management systems in Ghana.

The dialogue did not aim to come out with policy direction or consensus statements; rather, the objective was to provide an opportunity for sharing and consensus-building among key stakeholders.



Community members and Fisheries Commission staff involved in training on co-management and adaptive governance



Exposure visit participants discussing landing site issues with fishermen at Dixcove

Keynote Statement: Hon. Deputy Minister of Food and Agriculture in Charge of Fisheries, Hon. Nii Amasa Namoale



Hon. Nii Amasa Namoale welcomed all stakeholders and highlighted that Ghana was a fishing nation with a proud tradition as a leader and innovator in the region. He noted that marine and inland fisheries were extremely productive, with up to 20% of the workforce relying directly or indirectly on fisheries for their livelihoods. However, he pointed out that growth in the sector has been slow, and because of management challenges, the sector has not provided sustainable economic opportunities for the country.

Hon. Namoale noted that the government recognized the urgent need to change the way the country was managing fisheries, and that an open-access system could no longer be sustained. He highlighted that change should be managed carefully to ensure that this was done in a fair, reasonable and equitable way. In the Fisheries and Aquaculture Development Plan, he noted the importance of implementing community-based management systems, and pointed to this emphasis within the recent development of the World Bank-funded West African Regional Fisheries Program (WARFP) for Ghana. In conclusion, Hon. Namoale said the government welcomed dialogue with stakeholders on the way forward in

initiating co-management. He hoped the 2-day meeting would provide a productive opportunity to work together on the pathway to reform of the fisheries sector. He noted that while the WARFP was just beginning, the meeting provided a good opportunity to learn from others to work together towards productive, sustainable and healthy fisheries.

Welcome and Introduction by Mr. Kofi Agbogah: H&N Mpoano Program Coordinator



Mr. Kofi Agbogah welcomed participants on behalf of the H&N Mpoano implementing partners – Friends of the Nation (Ghana), WorldFish (Malaysia), SustainaMetrix (USA), the Fisheries Commission, the Western Regional Coordinating Council and the six coastal districts of the Western Region and their fishing communities. He provided some background to the H&N Mpoano initiative, noting that it was set up in response to a visit by US President Obama, as he urged Ghanaians to “build strong institutions.”

The project aims to support the government of Ghana in achieving its development objective of poverty reduction, food security, sustainable fisheries management and biodiversity conservation and contribute to its vision: Ghana’s coastal and marine ecosystems are sustainably managed to provide goods and services that generate long-term socio-economic benefits to communities while

sustaining biodiversity. Mr. Agbogah concluded that in catalyzing the dialogue, the H&N Mpoano initiative was providing a platform for sharing global, regional and local experiences, information and policies on co-management of fisheries. It was therefore his hope that experiences and lessons from this dialogue would help Ghanaians chart a robust path towards sustainably managed fisheries that contribute tremendously to the food security basket of Ghana.

Statement of Support from USAID: Mr. Peter Trenchard



After acknowledging dignitaries and thanking organizers, Mr. Trenchard said that fish was one of the most important sources of protein in all regions of Ghana, and that the country faced a serious challenge in obtaining the quantity of fish required for domestic consumption. He said that Ghana, like many countries, faced the daunting challenge of managing fisheries sustainably and noted that governance of fisheries resources had no easy recipe in any cultural or geographic context. He stressed that dialogue among stakeholders was an essential element of good fisheries governance aimed at sustaining the resource base.

He said that as part of the Feed the Future program, the United States Government was piloting fisheries governance programs in several

countries to sustain food and livelihood security for coastal communities. In Ghana, USAID support of the Integrated Coastal and Fisheries Governance (Hɛn Mpoano) program symbolizes its global efforts, and USAID appreciates the collaboration that the program enjoys with the Fisheries Commission and fisherfolk associations in the Western Region. He said USAID hoped the initiative would, in the long term, play a role in initiating sustainable development and conservation of the coastal environment.

Mr. Trenchard highlighted the dialogue as an essential step in identifying co-management scenarios for ensuring food and livelihood security. He stressed the need for all stakeholders to listen and be open to new ideas – to be prepared to take risks and learn. He also noted the need to address broader issues of human rights, such as child labor in fisheries and agriculture. In conclusion, he noted that USAID was pleased to support the dialogue, and hoped it would lead to ongoing collaboration and investments through Hɛn Mpoano and the WARFP.

Statement of Support from the World Bank: Ms. Susanne Bouma



Following acknowledgements, Ms. Bouma reiterated the importance of fish to coastal countries in West Africa and to Ghana. She commented that the current status of fish stocks in the region meant that livelihoods and food security were under threat. However, she suggested that under good management, renewable

resources, including fisheries, had the potential to act as an 'economic engine' for development in coastal communities. She cited inappropriate, under-resourced governance systems; lack of stakeholder involvement in decision-making; overcapacity in fishing fleets (too many boats); and the use of illegal and destructive fishing techniques as reasons for the failure of fisheries to fulfill this potential.

She said that the World Bank acknowledged the critical role of fisheries in this region and provided substantial support to the sector in a number of countries (Cape Verde, Liberia, Senegal, Sierra Leon and Ghana) through the West African Regional Fisheries Program (WARFP). The program has a central development objective of increasing the overall wealth generated for Ghana through the sustainable use of its fisheries and aquatic resources. She acknowledged the many shared objectives between the WARFP and the Hɛn Mpoano initiative, particularly in the area of governance, and reiterated the importance of collaboration between the programs. She concluded by stating the Bank's hope that through strong collaboration and opportunities such as this dialogue, pathways to a better future for fisheries and fishing communities in Ghana could be found, and the contribution of fishing to the wellbeing of the nation could be improved.

Dialogue objectives and imperatives: why co-management?



David Mills

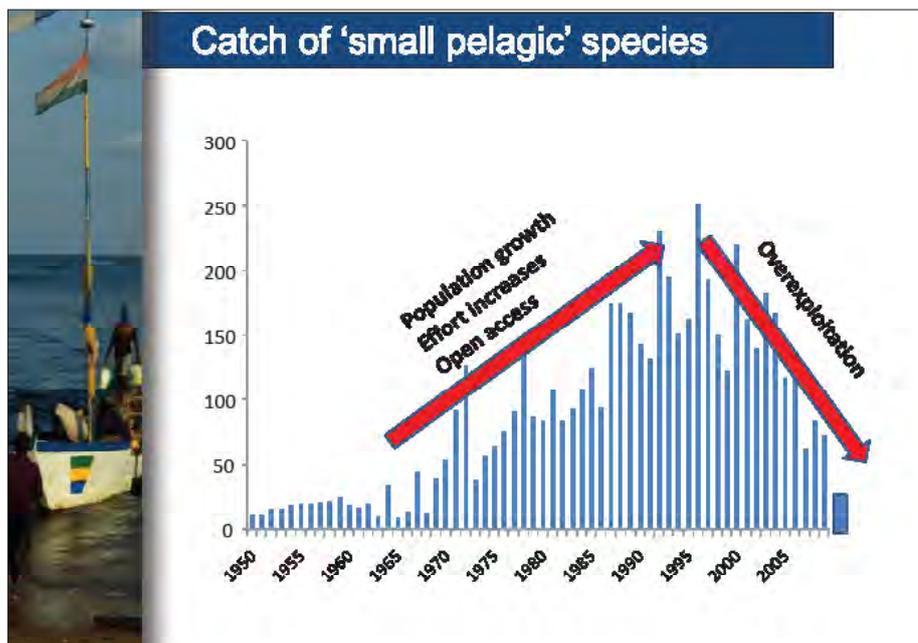
Scientist, Natural Resources Management
WorldFish Penang, Malaysia

Dr. Mills gave an introduction to the current status of Ghana fisheries, including changes in catches and fleets. He outlined the need for reform in governance and data systems, and the case for co-management. He concluded by outlining the purpose of the Fisheries Governance Dialogue.

Take-home messages:

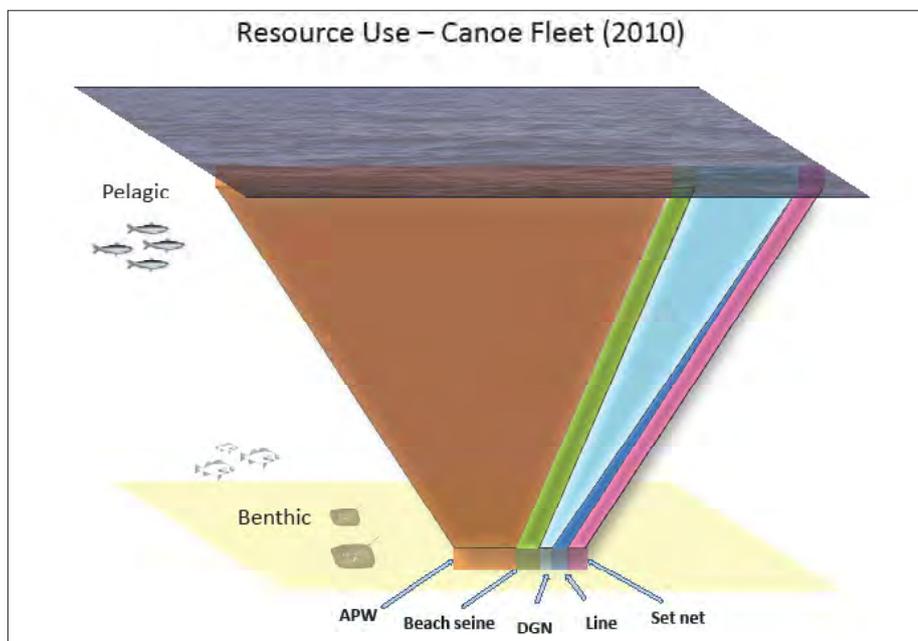
- Recent research has shown that in terms of food security, Ghana is the most fish-dependent nation in Africa, and among the most fish-dependent countries in the world, outside of small island states.
- The small pelagic fishery (for sardinellas, anchovies and mackerels), the most critical for food security, has experienced the largest decline. This is confirmed both by national statistics and detailed interviews with fishers.
- There are simply too many fishers catching too many fish – continuing on the current trajectory will see a repeat of the ‘crash story’ seen in many fisheries globally.
- All fleets (canoes, inshore and industrial) have increased substantially in size over the last 1 to 2 decades; for canoes, this relates strongly to increased profitability due to premix subsidies; for inshore boats, increased catches from light fishing appear to have driven recent massive increases in active vessels.
- Current data collection systems appear to have done a relatively good job of measuring catch from canoe fisheries – statistics from other fleets do not appear to be realistic.
- The system does a poor job of measuring fishing effort, and for that reason is of limited use for fisheries management. Measuring catch-per-trip, as is the current practice for the canoe fishery, is a poor indicator of effort.
- Management reform is overdue. Global experience shows that for small-scale, multi-gear fisheries, top-down centralized management does not work; co-management, involving key stakeholders in the management process, is the only way forward.
- There are many challenges to implementing co-management in Ghana. Among these is the fact that both the fish resources and the fishers are highly mobile. This emphasizes the need for ‘nested’ systems, where community-based management units are well-connected to higher levels of management, such as districts, regions and nationally.
- The purpose of this meeting is to share local, national and international experience and wisdom on fisheries management with the aim of moving towards a shared understanding of directions for governance reform in Ghana.

Selected Slides



This slide shows the change in catch of small pelagic fish species since 1950. The catch peaked in the '80s and '90s, and has shown strong signs of overexploitation in the last two decades. These are the most important fish for local communities and for food security. Changes in governance must be put in place as a matter of urgency to reverse these declines.

The canoe fleet is heavily reliant on pelagic (surface-dwelling) fish resources. Here the dominant 'Ali/Pole/Watsa' (APW) large canoe catch is shown in orange. This is the largest segment of the fleet, and the wide orange area at the top shows the heavy use of the pelagic resource. As pelagic fish are highly mobile, this is a particular challenge for co-management; co-ordination between community units is critical, and a degree of rule-making power must be retained at a higher governance level (e.g., national).



Global lessons clearly show that co-management is the way forward for Ghana's coastal fisheries. The hard part is to understand how co-management should be structured in Ghana. We must learn from global experience, but pay careful attention to local context. New systems should be set up with the objective of learning and adapting as we gain experience.

Benefits of co-management

- Leads to **durable** solutions through identifying real concerns to resource users
- Addressing local concerns leads to **broader social and ecological benefits**, distributed in an equitable way
- Inclusion of existing, locally based institutions, rules and knowledge can lead to **more effective outcomes**
- Leads to a **sense of ownership** and responsibility making it easier to mobilise support
- Transferring power can **foster community development and empowerment**, benefiting broader social objectives

The direction of Ghana fisheries policy



Sam Quatey

Director of Fisheries, Ministry of Food and Agriculture Ghana

Mr. Sam Quatey highlighted the key challenges faced in the fisheries sector, gave an overview of the current national fisheries and aquaculture development policy, and advocated for a policy direction that will help to deal with challenges faced and to improve fisheries governance in Ghana.

Take-home messages:

- The direction that fisheries policy takes must address challenges in the fisheries sector and meet the government's expectations of the sector to contribute to the socioeconomic development of the nation.
- Fisheries policy development should be based on global guidelines on policy, including the UN Convention of the Law of the Sea, the UN Fisheries Agreement, the FAO Code of Conduct for Responsible Fisheries, and the FAO International Plan of Action to Deter, Combat and Eliminate IUU Fishing.
- The current national fisheries and aquaculture development policy objectives include sustainable management of fisheries, conservation of aquatic resources and protection of the environment, promotion of value addition, sustainable aquaculture development, and capacity development for delivery of reforms.
- The Ghana Fisheries and Aquaculture Sector Development Plan (2011–2015) aims to reduce fishing effort for the semi-industrial and industrial fisheries, cap fishing effort in the artisanal fisheries, promote alternative livelihood strategies, promote value addition to fishery products, provide infrastructure for efficient conduct of fisheries, enhance enforcement of law, and promote aquaculture development and capacity building.
- Fisheries policy direction must be based on the specific challenges faced by the sector. It must improve fisheries governance, enhance sustainable management of fisheries resources, promote alternative livelihoods, reduce illegal fishing, and promote aquaculture and value addition to fish resources.
- Critical to positive outcomes in these areas is the provision of improved infrastructure, training and technology.

CHALLENGES IN THE FISHERIES SECTOR

- OVER-EXPLOITATION OF FISHERY RESOURCES
- HIGH FISHING PRESSURE
- HIGH INCIDENCE OF ILLEGAL FISHING
- OPEN ACCESS FOR ARTISANAL FISHERIES
- LOW ECONOMIC RETURNS
- LOW VALUE ADDITION
- UNDER DEVELOPED AQUACULTURE
- HIGH DEMAND FOR FISH

Reform of the fisheries sector requires us to overcome a number of challenges linked to the lack of development of the sector as a whole. Government policy as articulated in the sector strategy document aims to address these challenges.

GOVERNMENT EXPECTATION FOR FISHERIES SECTOR

- CONTRIBUTE TO EMPLOYMENT
- CONTRIBUTE TO GDP AND FOREIGN EXCHANGE EARNING
- CONTRIBUTE TO FOOD SECURITY
- REDUCTION OF POVERTY IN THE FISHING COMMUNITIES

Designing policy requires strategic choices about policy direction. The government of Ghana sees important roles for fisheries in contributing to economic wellbeing at local and national levels, as well as playing a key role in ensuring food security. These objectives will at times work against each other, and these interactions must be considered in policy formation.

• IMPROVEMENT SUSTAINABLE MANAGEMENT

- Reform of Licensing Regime
- Creation of New Vessel Register
- Promotion of Co-management
- Ecosystem Approach to Fisheries Management
- Promotion of Research
- Alternative Livelihoods
- Development of Management Plans

A series of clear steps were outlined that are necessary for governance reform. These include changes in systems, improving human capacity, and new directions in policy and implementation.

Nested governance systems



Brian Crawford

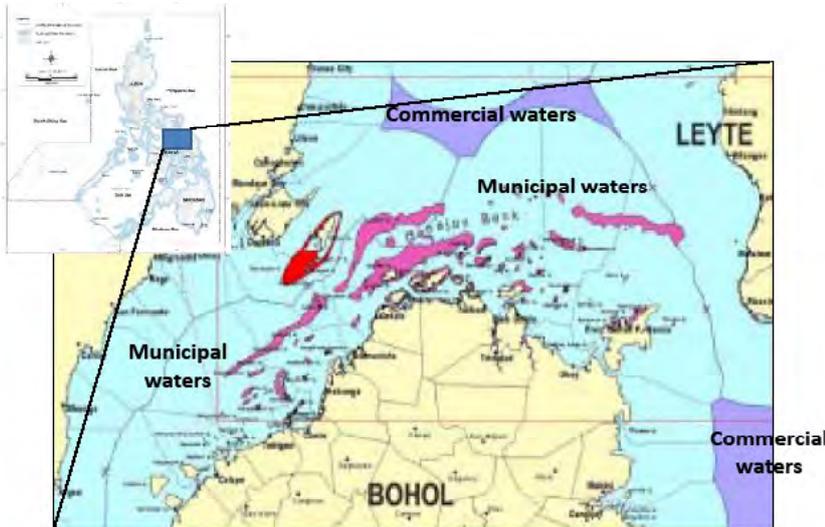
Director, International Programmes
Coastal Resources Centre,
University of Rhode Island, USA

Dr. Brian Crawford emphasized the need for nested governance systems in situations where resources crossed over community, regional and national boundaries. He presented the guiding principles for success of nested governance systems and concluded with three hypothetical models for nested governance systems in Ghana.

Take-home messages:

- Nested governance systems integrate and coordinate management actions from local to national and even international scales.
- Nested governance systems are essential in situations where resources and resource users cross over community, regional and national boundaries.
- Examples of nested fisheries governance systems included the following:
 - In the United States, nested institutions include 8 Regional Fisheries Management Councils (RFMC) responsible for managing federal waters from 3 to 200nm offshore; State Management Councils responsible for managing state waters from 0 to 3nm offshore; Inter-State Management Commissions-between states only; and Joint Fisheries Management Plans between two RFMC. These structures have different roles, responsibilities and membership and ensure information flow between institutions at different scales.
 - In the Philippines, municipalities have jurisdiction to 15km offshore, with the Bureau of Fisheries (BFAR) responsible for management in all non-municipal waters. The Fisheries Act mandates and funds Fisheries Management Councils through Local Government Units; it also established a National Fisheries Management Council. The BFAR retains a coordinating role.
 - In Senegal, the Fisheries Act does not mandate co-management. However, there is a ministerial decree that established Local Artisanal Fisheries Committees (CLPAs) as management units for various landing sites, and their roles and responsibilities are clearly outlined.
- While examples are useful in designing nested systems, it is important that local institutions, species/ecosystems and government systems are considered, and systems designed accordingly. Systems must integrate stakeholders in decision making, and co-management must be linked to decentralized governance functions. There must be explicit maritime jurisdictions/ authorities at each level, and systems must be supported financially and legally.
- Hypothetical models for nested governance systems in Ghana are as follows: Decentralized Maritime Jurisdictions of Districts; De-Concentrated Maritime Jurisdiction National vis-à-vis District Waters; and Centralized Maritime Jurisdiction with No Decentralization or De-Concentration (outlined further in nested system breakout group report).

Municipal and National Marine Boundaries



Nested systems function well where clear jurisdictional boundaries are provided at the various levels. This slide shows the Philippine system with municipal waters (demarcated by thin blue lines) and commercial waters (shaded purple areas) clearly defined.

Some Guiding Principles for SUCCESS!

- No one way to do it
- Tailored to species/ecosystem and government system
- Integrates stakeholders in decision making
- Co-management linked to decentralized functions
- Explicit maritime jurisdictions/authorities at each scale
- National law, policies & financing for local management units
- Start simple then scale up and build complexity over time

Global experience with nested systems design provides some simple guidelines that should greatly assist in the design of functional nested systems in Ghana.

Benchmark Ghana!

- Linked governance from national to local scale?
- Integrates stakeholders?
- Decentralized functions?
- Explicit maritime jurisdictions?
- Explicit authorities at each scale?
- National financing to all management units?

Dr. Crawford concluded with a slide providing benchmarks for progress towards functional nested institutions in Ghana's coastal fisheries. Under current centralized systems, none of these conditions are met; they should be prioritized in the move towards co-managed fishery resources.

Lessons learned from the east and west Africa regions



Nana Adam Eduafo
Chief Fishermen Aboadze
Community
Shama District,
Western Region, Ghana



Emilia Abaka Edu
Fish monger
Axim Community,
Nzema East District
Western Region, Ghana



Cecelia Amoah
Fish monger, New Takoradi
Community
Secondi-Takoradi Metropolitan
Area, Western Region, Ghana

In 2011, Hen Mpoano organized three study tours focusing on various aspects of fisheries governance in the Ivory Coast, Tanzania and Senegal. Tour participants were representatives from different fisheries stakeholder groups. Following the study tours, a process was facilitated for participants to develop a vision for fisheries co-management in Ghana. During the dialogue meeting, three participants in the study tours were asked to present this collective vision, key steps necessary for the vision to be achieved and lessons learned from the study tours.

Take-home messages:

- Mr. Nana Adam Eduafo presented the study tour participants' vision, which was divided into two parts: a socioeconomic component, dealing with the wellbeing of community members, and an ecological part, dealing with the wellbeing of the fish. For the wellbeing of their communities, the study tour participants envisioned the following: development in their area (e.g., the construction of schools, clinics and hospitals); increased income from fish-related activities; improved standard of living with improved sanitation and housing; and the construction of improved fish-handling and processing facilities. For the ecological component, they envisioned a situation where they had

bigger and better-quality fish, fully recovered fish stock, and a larger spawning stock of fish.

- Actions and activities highlighted as critical to achieving this vision included the following:
 - building co-management systems for fish resources operating across levels
 - gear exchange programs to remove destructive gear types
 - raising awareness about existing national fisheries laws
 - gazettement of community fisheries by laws
 - improved enforcement of fisheries laws at all landing sites
 - licensing of canoes and registration of fishing gear
 - training and education on improving fishing methods and conservation
 - recognition of chief fishermen as part of law enforcement
 - voluntary groups for monitoring, control and improved surveillance
 - training to improve handling and processing of fish.
 - improved technology for fish processing
 - access to special markets for fish, including international markets

- income-generating activities during the lean seasons to reduce illegal fishing

This was followed by a presentation by Emilia Abaka Edu on lessons learned from Tanzania and by Cecelia Amoah on lessons learned from Senegal. Lessons that presenters thought could be applicable to Ghana included the following:

- It is important for stakeholders to come up with alternative livelihood activities to generate money during the low fishing season. Examples of successful options were seen on the study tours.
- Value addition through new techniques and improved handling of catch can improve income from limited existing resources.
- Marine protected areas can help conserve fish resources. In addition, these areas can be an income-generating asset for both the government and local communities (e.g., through tourism).
- Use of techniques to identify fish caught by dynamite fishing and provision of toll-free numbers to report dynamite fishers can help reduce the use of dynamite for fishing.
- Use of sails instead of, or as a supplement to, outboard motors can help conserve fuel and

reduce costs.

- Use of similar paint colors to decorate all canoes at each landing site can help with registration and identify intruders fishing in limited-access areas.
- Registration of canoes and use of modern tracking devices can help to monitor fishing activities from onshore.
- Improved organization can help women to increase their incomes.
- Use of modern processing facilities can help improve hygiene and reduce post-harvest losses.
- Laboratory testing of fish at landing sites can help to reduce fish poisoning and open new markets through meeting health requirements.

Selected Slides



Study tour participants' vision for their community included community development activities, healthier communities, improved fish handling and processing, improved living standards, and ultimately, improved wellbeing.

Lessons from Milligontini and Zanziba

- Importance of alternative livelihood activities during the off fishing season. E.g. (a) harvesting and selling sea weed (Miliigontini) and (b) tie and dye, decorating baskets, making hats, making jewellery from shells (Zanziba)
- Increasing incomes through value addition – For example processing sea weed into soap and body creams (Milligontini)
- Micro credit schemes for women groups (Zanziba)



Alternative livelihood strategies, value addition and availability of micro-credit schemes were seen in action in Tanzania and identified as important for improving lives of fisher communities.

Lessons from Joal

- **Ekuekuw** - Improved organisation helps in increasing income – e.g women groups and the nursery etc



By being well organized, women in Senegal achieved what they could not do individually.

Session 1 Discussion: Design Principles and Concepts



Question: Prof. Obodai: Mrs. Emelia Abaka-Edu mentioned the use of sails to propel canoes in Tanzania as an example of improved technology. Is the use of sails not an old technology that we moved away from here in Ghana in the 1960s? Is the use of sails not reliant on winds? Will this work here in Ghana? Also, how are the chief fishermen selected in Tanzania?

Responses:

- Dr. David Mills explained that the use of sails was an adaptive technology and that many big ocean trading vessels are now looking at sails as a way to save on fuel.
- Dr. Brian Crawford gave an example from the U.S. where sails are used as a tool to limit effort in the Chesapeake Bay oyster fishery – motor power is only allowed two days a week for oyster dredgers.
- Emelia Abaka-Edu pointed out that in Tanzania sails are used as a way of reducing fishing input costs. She also said that chief fishermen were voted into power.

- Nana Adam Eduafo also said that in Ghana sails were used in addition to outboard motors and for ‘self-rescue’ in cases where the outboard motor broke down.
- There was agreement that although use of sails was an old technology, because of declining resources, in some cases it may be useful to re-adopt them as a tool to sustainably manage fish stocks.

Question: Dr. Yakubu Alhassan added a contribution in relation to district fisheries bylaws as mentioned by one of the presenters by saying that the issue is not just about gazettement of district fisheries bylaws; enforcement of these bylaws was more important. On the issue of recognition of chief fishermen, he thought that the role of chief fishermen was not explicit in the fisheries laws and regulations. He later asked what factors influenced the formation of a nested governance system. Further, he asked about the enabling condi-

tions for fisheries compliance and enforcement, as he felt the presenter was not clear about this.

Responses:

- Dr. Brian Crawford explained that enabling conditions were dependent on context. He cited examples from the Philippines and the United States where there are well-functioning nested governance systems in place where roles and responsibilities of different levels of government are clearly stipulated.
- On the issue of fisheries bylaws, Dr. Crawford mentioned that in Ghana, many fisheries bylaws took a long time to be gazetted and enacted, and there was a need to consider other ways that fishery rules can be adopted quickly to ensure agile and adaptive management. If it takes 10 years for a rule change to get enacted and gazetted, adaptive management is not possible. He explained that in the United States, fisheries management

plans are drafted by regional management councils and approved by the Secretary of Commerce. They do not need to go to any legislature for approval, which would considerably slow down the process. He said that in the U.S., the government has a supervisory role and ensures that the management plans meet certain standards enacted in the Fisheries Act. He said that in Senegal, management rules are also approved at the executive level and do not go to the legislature for approval.

- Concerning the same issue of by-laws, a comment was made that it was crucial that bylaws were enacted to give legal standing in court if someone were arrested, for example.
- Samuel Quatey responded to the issue of chief fishermen by saying that there was a need to investigate how chief fishermen were enstooled, and the findings should be documented and recognized by law and/or the government.
- Nana Adam Eduafo was in favor of this idea and said that chief fishermen must be empowered, and this must be recognized by law.

Question: Mrs. Patricia Markwei questioned fish production figures cited by David Mills in his presentation. In his presentation he had reported an annual fish produc-

tion of 750,000MT for Ghana, and Mrs. Markwei wanted to know the source and year of the fish production figures, as fish production figures differ from year to year. She thought that the figure was on the high side and was well above national reported figures. In addition, she queried the term of office of chief fishermen in Tanzania as mentioned in Mrs. Emelia Abaka-Edu's presentation.

Responses:

- Dr. Mills responded that the figures come from an FAO/World-Bank/WorldFish study that looks at underreporting of fish catches. He said that the biggest discrepancy was in inland catches, which many stakeholders agreed were widely underreported for Lake Volta. He noted that much of this catch was rapidly re-exported to other countries in the Volta catchment, and didn't impact fish supply in Ghana.
- Hon. Mike Akyeampong stated that fish production figures must be cross-checked with the Fisheries Commission before any announcements on them were made. Dr. Mills observed that the figures were based on re-analysis of published reports, but agreed that discussion with relevant authorities was important.
- Emelia Abaka-Edu responded to Mrs. Markwei's question about chief fishermen by explaining that two people were nominated – one

by fishers and the other by the government – before voting. The winner became the chief fisherman and the term of office was based on performance – if the chief fishermen failed to perform, they were removed from power.

- Adwoa Amissah appealed to the government of Ghana to continue to work towards getting light fishing banned completely, because it was a bad fishing practice that led to the depletion of fish stocks.
- Mr. Samuel Quatey, Director of Fisheries, responded to this by saying that light fishing was banned in Ghana by law, and offenders will be prosecuted. He also added that registration of canoes and gear was more important for identification, safety and for planning purposes.

Chairman's summary: Hon. Dr. Alhassan A. Yakubu

In summarizing the first panel discussion, Hon. Dr. Yakubu said that it was important for Ghanaians to find ways of restoring their resource base, including managing land and inland water bodies within Ghanaian borders. This in itself is complicated; it is even more difficult to manage sea resources. He went on to say that donors can assist Ghanaians but

all must do their part. It was better for stakeholders to sit together and discuss rather than shouting at each other on the air waves as seems to be Ghanaian custom. He stressed that the current problems faced in fisheries cannot be solved by the same approaches that created them – rather, there was need for change. He said that there was need for Gha-

naians to embrace changes in policy and allow research results to influence fisheries policies. He went on to stress that any plans for the fisheries sector must be based on the best research at each point in time. He ended by thanking the organizers of this important event.

SESSION 2: REGIONAL LESSONS AND EXAMPLES

Co-management in The Gambia



Ousman Drammeh
WWF/Coastal Resources Center,
The Gambia

Mr. Ousman Drameh presented a historical overview of fisheries management in The Gambia and gave examples of co-management activities being implemented. He presented guiding principles for co-management and lessons learned from The Gambia.

Take-home messages:

- Objectives of The Gambia's fisheries management policy include improving long-term sustainability and management capacity, increasing participation in the sector, and improving the nutritional status of the population.
- Community Fisheries Centers, created through the Fisheries Act of 2007, are the basis for co-management in The Gambia. Special management areas for co-management were created, and fisheries property rights were allocated to co-management groups.
- In the example of the sole fishery, the designated co-management area is from the shoreline to 9nm. Management institutions include 9 Landing Site Committees (LACOMs) and a National Sole Co-management Committee (NASCOM). (The roles of these groups are shown in Table 1.)
- Key lessons learned on co-management from The Gambia: Leaders should help communities create a common vision of the future; leaders should get to know the community, its driving desire to change, how to build on this and best extension practices; leaders should identify key partners, as each has something to add; participants should meet in the middle (top-down and bottom-up); government should support innovators and diffusion of new ideas through training, funding and exchanges; infrastructure support, as well as training, is required; success requires long-term commitment and recognizing movement towards sustainability; adaptive management allows us to make mistakes and improve!

Table 1: Roles of management institutions in The Gambia

NASCOMs	LACOM
Set management objectives	Establish harvest rules for each site
Establish fishing-rights-based approach	Assist in compiling landing information
Assist and be involved in enforcement	Conduct local periodic assessments
Update the management plan	Assist with marketing and processing issues
Establish harvest rules appropriate to objectives	

Selected Slides

Co-Management of the Sole Fishery

- Designated Special Management Area for sole fisheries management - shoreline to 9NM
- National Sole Co-Management Committee (NASCOM) & landing sites committees (LACOMs) have exclusive use rights to sole fishery in area
- NASCOM membership:
 - fishing communities, fish mongers and processors
 - 7 LACOMS
 - Gambian Artisanal Marine Fisheries Dev. Assn. (GAMFIDA)
 - National Association of Artisanal Fishing Operators (NAAFO)
 - Industrial sector
 - Municipalities
 - Department of Fisheries



A nested approach to co-management is seen in the sole fishery. The national committee (NASCOM) is comprised of representatives of all the local management committees, as well as other major stakeholders.

Co-Management of the Cockle and Oyster Fishery

Tanbi Committee authority

- set and change management measures
- designate exclusive community use zones
- enforce rules
- assess fines
- seize gear and equipment of violators

Nine Community committees authority

- only in exclusive community use zones established by the Tanbi Committee



The Tanbi Wetlands National Park has been declared a special management area for cockle and oyster management. Exclusive rights were granted to a collective of oyster and cockle harvesters. Under the guidance of this group, a co-management system, with community committees answerable to a central committee, has been established. For further details please access the management plan at the following link: http://www.crc.uri.edu/download/Oyster_Plan_Jan_2012_508_Signatures.pdf.

CONCLUSION

- Co-Management allows for effective participation of stakeholders in the development and management process, including decision-making
- Management measures, rules and regulations are respected
- Roles and responsibilities allocated in a fair manner

Initiation of successful co-management systems greatly improves the probability of successful roll-out of management actions, as there is a high level of ownership of rules by those affected by them. Co-management success: regional and global experience



Eddie Allison

Senior Lecturer, Natural Resources,
School of International Development,
University of East Anglia

Dr. Eddie Allison outlined some global 'lessons learned' about co-management systems, provided regional examples from his involvement in the FAO Sustainable Fisheries Livelihoods Programme, and outlined decisions that needed to be made in Ghana regarding the goals of management.

Take-home messages:

- Experience shows that successful co-management can provide sustainable, productive resource use; low levels of conflict; secure livelihoods (including alternate livelihoods); and flourishing coastal communities.
- However, common failings in implementing co-management (see slide 1) often mean these ideals are not met.
- Creating a 'stewardship ethic' is important and should result in recognition of links between stock size and fishing pressure and collective responsibility to ensure sustainable use.
- Local perceptions of equity/fairness must be understood and equitable representation in co-management systems mandated. Disaggregated outcomes (women, youth, etc.) should be measured.
- A shift in skills for both government and communities is required; capacity building for negotiation, facilitation, administration, leadership, monitoring and surveillance are needed.
- Co-management institutions should engage in development activities (in partnership with local authorities) as well as resource management. This offsets the 'costs' of a shift to co-management and provides an incentive to engage.
- Early objectives for co-management units in Ghana should include the following: compliance with existing regulations on the most destructive gear (e.g., dynamite, carbide); improving landing site conditions; addressing welfare concerns in the community; and dialogue on reform of fishing regulations and rights.
- Some hard decisions about the objectives of management must be made. Policy objectives may include maximizing revenue (taxes, export), maximizing food production (maximum sustainable yield), maximizing employment and contribution to rural development. These cannot all be achieved, and must be traded off against each other.
- Perhaps the hardest decision must be made by communities. Fishing effort must be capped/reduced. If communities choose not to be involved with decision making on how this occurs (co-management), the government will make the decisions for them.

Selected Slides

Common failings

- Co-management institutions imposed from outside neglect fisher welfare, customs and social norms
- Co-management based on local institutions are concerned only with fisher welfare, and not resource sustainability
- Local institutions may represent the interests of only a few (e.g. exclude women, or youth)
- Not financially viable
- Coordination of local management at greater scale is too difficult or expensive
- One of the partners (government, community) doesn't play its part (trust issues)
- Individual, community and national interests do not align

Experience from other developing countries provides valuable lessons on what can go wrong. Successful implementation of co-management requires careful consideration of objectives and local context. A balance between resource and development objectives must be sought. Trust is critical, as is the recognition that financial support to co-management institutions is required.

Don't forget land management and land rights...



Dr. Allison cautioned us not to forget issues of land rights. There is need to think critically about who has access to and owns the land. In the picture, when you look at the label 'Mali fishers self-help group,' you think the fishers are the owners of the land inside of the wall. The fishers, however, own the small thatched house and were only using the wall next door for their label.

Hard Choices: Some possible fisheries policy objectives



For managing fisheries, stakeholders must first choose the management objective – Is it to conserve fish stock and biodiversity? maximize profit? maximize employment contribution? or just minimize management costs? Here, the choices (orange arrows) are imposed on a 'Gordon-Schaefer' curve (a model used in fisheries management relating catch effort to fishery yield) to illustrate that all these objectives cannot be achieved together. For example, maximizing employment (livelihood focus) will lead to sub-optimal yields, compromising food security. Similarly, there must be a compromise reached between conserving biodiversity and maximizing food security.



Lawrence Braimah

Project Coordinator West African Regional Fisheries Programme,
Sierra Leone

Dr. Lawrence Braimah presented lessons learned from past co-management initiatives including (a) the Fisheries Sub-Sector Capacity-Building Project (1997) implemented in 133 coastal communities; (b) Integrated Development of Artisanal Fisheries (1999) implemented in 15 communities along the north of Volta Lake; and (c) the Sustainable Fisheries Livelihoods Project (2005) implemented in 90 communities along the south of Volta Lake.

Take-home messages:

- Co-management initiatives are not sustainable based on voluntary input only; they must be self-financing in the long run. The study revealed that:
 - o Community-Based Fisheries Management Committees (CBFMCs) incurred costs for meetings, record-keeping and functions such as search-and-rescue. Most committees had no identifiable sources of income; however, those that had funds managed to undertake community development work.
 - o CBFMCs faced infrastructural challenges: While a few were provided with office facilities by the Department of Fisheries, most had no office. Most also needed help for office equipment, furniture and stationary, storage, search-and-rescue equipment, monitoring and surveillance tools, and protective clothing.
 - o Lack of immediate incentives sparked dissatisfaction with the sacrificial nature of co-management, especially among the committee member. Committees that directly supported welfare schemes provided motivation and attraction to members.
- o Some committees faced physical as well as spiritual challenges from offenders of the law, which affected their health, and when they were injured, there was no compensation.
- A national legislative and institutional framework for co-management is imperative for sustainability and needs to be established.
 - o There is a need for flexible and less complicated methods for by law formulation.
 - o Constitutions are important for guiding/regulating the work of committees and their tenure.
- Committees that survived were those that had determination and team work, were honest and transparent, had good leadership and organized regular meetings, had mutual respect among members, had effective monitoring/supervision, and had received skills training.
- Creating new institutions without carefully planning how they will relate to existing institutions can result in conflict. In several cases, CBFMCs had problems with chief fishermen, especially in cases where the chief fishermen were powerful.
- There is opportunity to build on existing natural resources management in communities. All committees recognized the fact that fish stocks were fast declining, and they were willing to work towards reversing the diminishing trend. Overall, the spirit of co-management is still ablaze and needs to be taken advantage of for sustainable management of fish stocks.

Selected Slides



From the study, this proposed structure for the co-management committee in the Volta Region transformed over time. It included 7 elected core members and 10 ex-officio members with direct interests in resource management. There is a clear need for flexibility when putting co-management structures in place.

4. CONCL & RECOM CONT.

- Absence of co-management plans
- Absence of constitution to regulate functions and tenure
- Lack of essential skills for co-management work
- Lack of gazetted by-laws
- Lack of funds due to inability to recognize and utilize potential revenue sources for operations and development

Several factors were identified that commonly led to the failure of the co-management initiatives. These include lack of planning and support in terms of group constitutions, specified management plans and legal support. Lack of management skills (insufficient capacity building) and inadequate funding arrangements were also prevalent.

20 LESSONS LEARNT CONT.

2. Participation of Chief fishermen/headmen is imperative to success but only the willing should be initially engaged to show the way
3. Sustained monitoring/supervision is very essential in the sustenance of co-management activities



Among key elements for successful and sustainable co-management in Ghana are participation of traditional authorities and putting in place systems for supervision, monitoring and evaluation.

Session 2 Discussion: Regional Lessons and examples



Question:

Dr. Tendayi Mutimukuru-Maravanyika wanted to know who constructed Fisheries Centers in The Gambia. She also wanted to know how widespread were the spiritual challenges faced by the CBFMCs and what suggestions stakeholders made for dealing with these.

Responses:

- With regard to the community centers, these were constructed by the government together with donors like Japan International Cooperation Agency (JICA).
- In regard to the spiritual problems, Dr. Braimah said that these are real and need to be recognized.

Questions:

- **Community-Based Fisheries Management Committees (CBFMCs) took effect on a wrong note, which accounted for their failure. What is the way forward for a new committee like the CBFMCs, and could this new committee exist without any conflicts?**
- **Were CBFMCs not a top-down approach with the top having their own interests?**
- **People have invested in fishing. If we are advocating for closed fishing seasons, how do these people stop fishing in closed seasons like in Senegal?**
- **Why has the Fisheries Commission moved quickly from CBFMCs to Landing Beach Committees (LBC)?**

Response:

It was pointed out that the CBFMCs and the LBCs were parallel organizations existing side by side. The Landing Beach Committees are supposed to manage premix fuel. There was concern, however, that the LBCs were taking over roles of the CBFMCs. There were suggestions to make the LBCs sub-committees under the CBFMCs, but this was widely resisted by many stakeholders. There was a general realization that the LBCs were more political and served as a political tool – and there was no political will to dissolve them. There was also general agreement that the interests of fishermen were not considered in the formation of the CBFMCs, possibly a reason why most of these committees were not sustained.



Question:

Is there any legal backing for people to observe fishing holidays in Ghana and closed seasons in The Gambia?

Response:

Fishermen themselves believe that closed seasons are good, because this is when fish spawn. There is no legal backing. Fishing holidays in Ghana are not legally binding because they are not gazetted as by-laws. For one fishery in The Gambia, there is a fishing closed season for 6 months.

Question:

Landing Beach Committees are political, some formed by Members of Parliament and District Chief Executives. How can we get politics out of this? Who is to collect revenues to support the CBFMCs – CBFMCs or the District Assemblies?

Response:

By the laws of Ghana, District Assemblies are the only institutions mandated to collect revenues. They should do this to support the CBFMCs.

Local aspirations for co-management



Richster Nii Amarh Amarfio

Co-convener, Civil Society Alliance on Fisheries,
Western Region, Ghana

Mr. Nii Amarh Amarfio started by presenting the civil society view on co-management. He went on to mention steps that have so far been taken by the Fisheries Commission to implement co-management in Ghana – the creation of the Community-Based Fisheries Management Committees (CBFMCs) – and some of the key challenges faced. He later presented the civil society aspirations on what co-management in Ghana should look like and ended his presentations with recommendations on how effective co-management can be enhanced.

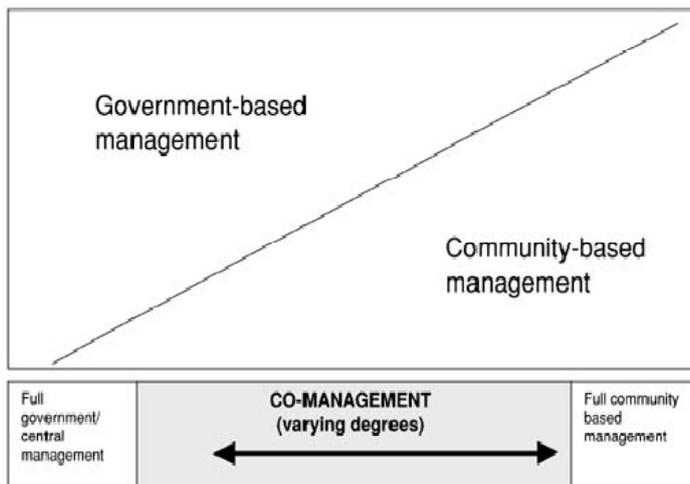
Take-home messages:

- Co-management is the sharing of decision making and responsibility for the management of resources between the community (local fishers) and the government.
- The Community-Based Fisheries Management Committees (CBFMCs) were a step towards integrated community-based resource management – however, the CBMFC concept was not complete in itself and had no legal legs to stand on. The CBMFCs lacked the capacity for resource management, and were not well supported.
- Ghana needs a new paradigm where co-management of fisheries resources is properly coordinated.
- There is need for resource management development instead of resource exploitation and extraction as currently practiced.
- There should be a strong scientific basis for resource extraction, management and restoration.

- Fisheries resource management must introduce aspects of property rights, as ownership leads to responsible stewardship.
- In order to enhance effective co-management of fisheries, there is need for an enabling policy and legal framework.
- Empowerment of local communities is important for them to participate in management, and there is need for resources to be made available for co-management to take place. The funding of co-management institutions at all levels must be considered by the government to be a legitimate cost of management.

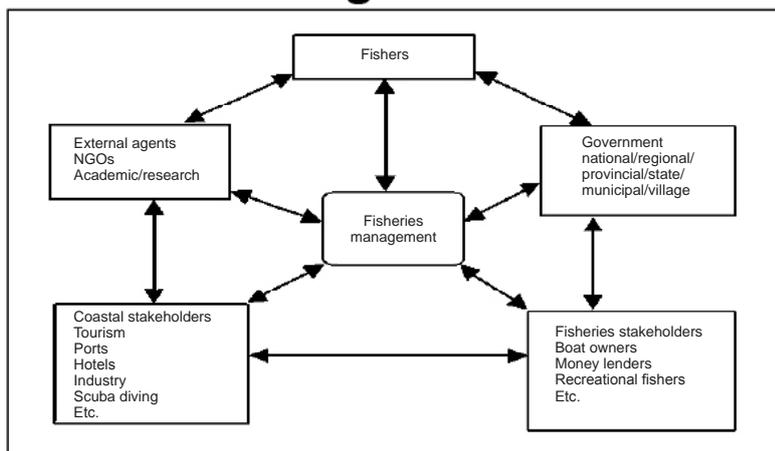
Selected Slides

The relationship between co-management, community-based management and government-based management (adapted from Pomeroy and Berkes, 1997)



Co-management describes a relationship between stakeholders and government management institutions. There are many forms of co-management that exist on a scale between centralized government management and fully autonomous community management. Where systems in Ghana should fit on this scale depends on a range of factors, including the ecology of species being managed and the capacity to carry out management actions.

Who are the major players in co-management?



. Key players in co-management (Pomeroy and Berkes, 1997)

The fisheries sector consists of diverse stakeholders, including community members, non-governmental organizations, government departments and donors. All these groups need to be considered for co-management to be successful.

RECOMMENDATIONS AND CONCLUSION

- An enabling policy and legal framework;
- The participation and empowerment of communities (and other stakeholder) in restorative management;
- Effective institutional capacities with the requisite linkages; and
- Resources - a resource worth managing and the people and money to do it.

Enabling conditions for an effective co-management system need to be taken seriously in order to achieve success. Putting these enabling conditions in place will require a change in the way fisheries managers (including communities) are trained and in the way budgets are allocated.

Legislation for co-management: lessons and a local checklist



Martin Tsamenyi
Director and Professor of Law,
Australian National Centre for Ocean
Resources and Security,
University of Wollongong, Australia



George Hutchful
National Policy Coordinator, Coastal
Resources Center, Ghana

This presentation was in two parts. Part 1, by Prof. Martin Tsamenyi, focused on international best practices and the role of the legal framework in fisheries co-management. Part 2, by Mr. George Hutchful, focused on an assessment of whether the existing Ghanaian legal framework supports co-management or not.

Take-home messages:

- Roles of legislation in fisheries management include the following: giving effect to government policy; giving authority to management rules and plans for the fishery; prescribing the institutional framework for fisheries administration; defining roles and responsibilities of various actors; defining participatory rights granted to fishers; and providing framework for monitoring, control, surveillance and enforcement.
- Key legislative requirements for co-management are (a) creation of 'legal space' for co-management within the fisheries' legislative framework; (b) clear definition of co-management groups or 'communities,' their legal status within the fisheries management framework, and specification of rights enjoyed by the group/community; (c) clear definition of the institutional framework for co-management; and (d) clear definition of roles and responsibilities and clear specification of the rule-making and rule-enforcement powers granted to the group/community.
- The questions one has to answer if one is interested in putting in place an effective legislative framework for co-management include the following: Is there a clear recognition of co-management in law? Does the legal framework clearly define management roles and responsibilities? Are the user groups/communities and their legal status well defined in legislation? Are the rights enjoyed by the user groups/communities clearly enshrined in law? Is there a clear specification of the rule-making and rule-enforcement jurisdiction granted to the user groups/communities?
- The current legislation of fisheries in Ghana does not clearly support co-management, although there is room for co-management under Act 625 (Section 59), which specifies that "the minister may ... make ... provisions ... for regulating artisanal fishing."
- Fisheries are better managed with collective effort; decentralization and community-based institutions play a key role in co-management. There is therefore need for clear recognition of these structures and arrangements in Ghana's law on fisheries.

Selected Slides

Legislative Requirements for co-management

- Creation of “legal space” for co-management within the fisheries legislative framework
- Clear definition of co-management groups or the “Communities” and their legal status within the fisheries management framework
- Specification of the participatory rights enjoyed by the group/Community
- Clear definition of the institutional framework for co-management
- Clear definition of roles and responsibilities
- Clear specification of the rule making and rule enforcement powers granted to the group/Community

Creation of legal space in the fisheries’ legislative framework and clearly defining co-management groups are among the key legislative requirements for co-management.

Well-defined Roles and Responsibilities

- Roles and Responsibilities of various institutions and organizations
 - National level roles and responsibilities
 - Regional level roles and responsibilities
 - District level roles and responsibilities
 - Local level roles and responsibilities

Roles and responsibilities must be clearly defined at each management level for co-management to be successful.

SUMMARY OF LEGISLATIVE CHECKLIST

- Is there a clear recognition of co-management in law?
- Does the legal framework clearly define management roles and responsibilities
- Are the user groups/communities and their legal status well defined in legislation?
- Are the rights enjoyed by the user groups/communities clearly enshrined in law?
- Is there a clear specification of the rule making and rule enforcement jurisdiction) granted to the user groups/community?

It is important for one to answer these questions when trying to put in place a legislative framework for co-management.



Question:

Mr. Samuel Quaatey: How can we have a quota system in place in Ghana and manage or monitor the system?

Response:

Dr. Brian Crawford responded that there was need to think through together as a nation how to manage shared or pelagic stocks as against localized or demersal stocks. About 70% of fish caught in Ghana is from shared or pelagic stocks. How do we create boundaries for management? This is always difficult, and will require considerable work.

Questions:

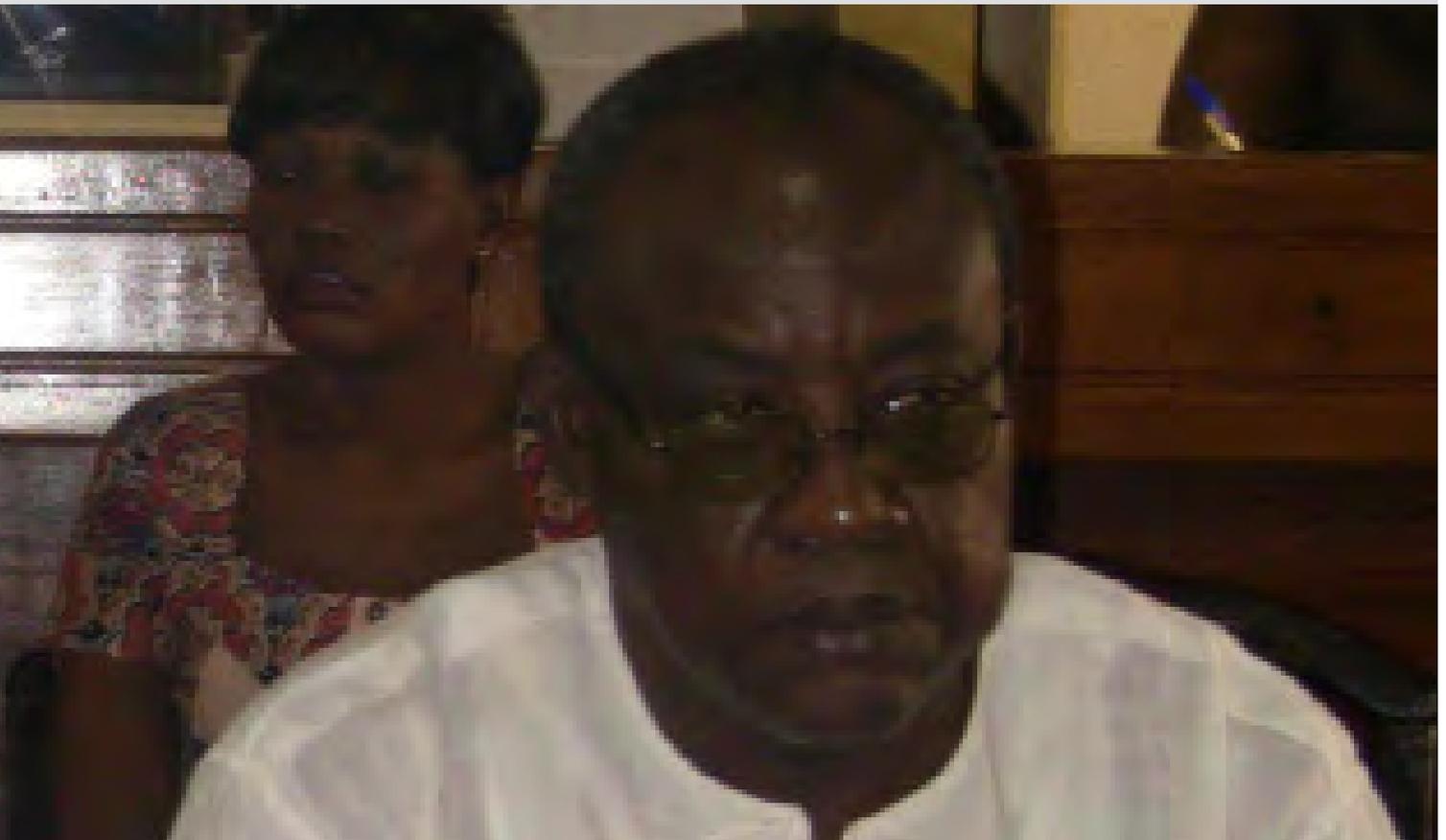
- Fisheries Authorities place a lot of importance on scientific information but largely ignore local ecological knowledge.
- Do we have legal basis for fisheries co-management in Ghana or in other words, is co-management clearly stated in our Fisheries Law and Regulations?

Responses:

- Existing Landing Beach Committees (LBCs) have tended to take over the roles of Community-Based Fisheries Management Committees (CBFMCs). LBCs are not answerable to the Fisheries Commission. Perhaps LBCs should be a wing or a sub-committee of CBFMCs with clearly defined roles and responsibilities. Also in relation to the legal basis for co-management, one of the suggestions made was that chief fishermen should be apolitical, and they will be recognized by law. It was also suggested that if there is no legal basis for co-management in the Fisheries Law and Regulations, then these need to

be amended, but it is the responsibility of fisheries managers, not lawyers, to change fisheries laws.

- Chairman of Fisheries Commission: The Fisheries Regulations complement the Fisheries Law. They are not two completely separate things. In actual fact, the Fisheries Regulations support the Fisheries Law. Legal bases for formation and function of CBFMCs were not in the Fisheries Law. In other words, Ghana Fisheries Law does not categorically state the formation and function of CBFMCs and/or co-management. The Chairman confirmed that the forum has deepened their knowledge of the state of Ghana's fisheries resources. So if the Fisheries Commission is preparing a new fisheries policy, then the Fisheries Act too must be changed or amended to reflect the policy; new regulations will then follow. But there was also a concern that fisheries plans normally take too long to take force under the Fisheries Commission.
- In our efforts to provide legal basis for fisheries co-management, we should clearly spell out



purposes of co-management in our fisheries laws and also understand that we should manage people and not fish.

- When the issue of illegal fishing practices was raised, it was pointed out that a fisherman is someone who goes fishing and brings back 'live' fish, not 'dead' fish, and so fishermen should desist from doing chemical and light fishing.
- In Ghana, fisheries laws are usually made without fisherfolk involvement. Women are also left out in decision making in fisheries, yet they play very important roles in the fishing industry. Samuel Quatey, Director of Fisheries, therefore advocated for the representation of women on the Fisheries Commission. Women's associations are generally weak or non-existent among Ghana's fishers. Women are therefore encouraged to form well-organized associations.
- Brian Crawford therefore asked the Women's Development Association to contact Hen Mpoano with proposals for support. Women should also find ways to help

men to do the right thing; for example, by not buying fish caught with illegal fishing methods.

BREAKOUT GROUPS

On day 2 of the dialogue, participants were divided into 4 groups: Group 1 discussed the development of '**Nest-ed Governance Systems**'; Group 2 discussed the pathways forward to '**Reducing Fishing Effort**'; Group 3

discussed the role and structure of '**Community-Based Fisheries Management Committees**'; and Group 4 discussed '**Legal Matters for Co-Management.**' Each group was provided with a set of questions to guide the discussions and was

asked to report back on their discussion, followed by a plenary discussion. The presentations and issues raised during the plenary discussions are presented here.



Report from the 'Nested Governance Systems' breakout group

Facilitator: Brian Crawford
Rapporteur: Tendayi Maravanyika

Group Objectives:

... to explore in a participatory way the possible and plausible structures for nested co-management systems for different fishery resources.

Current institutional arrangements for fisheries co-management.

The group began by outlining current institutions that may relate in some way to co-management activities in Ghana.

Local level

- Community-Based Fisheries Management Committees (CBFMCs)
- Traditional chief fishermen and their councils
- Landing Beach Committees (LBCs) – there was a heated debate on whether the LBCs were part of the co-management structures or not; at the moment, most people said that LBCs are more of a political structure involved with distributing pre-mix and other inputs to fishers

District level

District Fisheries Management Committees – these were said to be present in some areas. In many places where they were put in place, they are not functioning well. There was discussion on whether these committees were only put in place in inland fishing communities. Dr. Briamah noted that in his study, he also found such committees in marine fishing communities.

Regional level

No specific institutions were identified at the regional level for co-management. Discussions were around the Regional Coordinating Councils and whether they were involved in co-management or not. The general consensus was that they were not involved in management but were only involved in coordination.

National level

Because of its composition of different stakeholders, the Fisheries Commission was identified as a

co-management institution. However, people agreed that at the moment, there was no shared responsibility as such.

Institutional strengths and weaknesses

The group went on to discuss the strengths and weaknesses of these existing organizations, as presented in Table 2.

Table 2: Strengths and weaknesses of the identified institutions

Institution	Strengths	Weaknesses
CBFMCs	<ul style="list-style-type: none"> • Ability to make by laws to be gazetted by the District Assemblies • Human resources available • Some of them have knowledge on resource management issues • Some have training in Alternative Dispute Resolution 	<ul style="list-style-type: none"> • No legal legitimacy • Bylaws take a long time to be gazetted • No local ownership of some of these, as they were imposed from the top • Rules made not enforced by the police • Lack of interest in these institutions by the District Assembly – in some areas, people had to pay money for bylaws to be passed by their District Assemblies • Delays by the local government in gazetting bylaws • No motivation by the CBFMC members • Weak management skills • No financing of the CBFMC even though so many options/mechanisms were available
Chief Fishermen and Elders	<ul style="list-style-type: none"> • Some of them are recognized and respected by fishers and fisher folk • Able to look after welfare for fishermen and have local knowledge to manage the fish resources • Some of them are also development oriented • Have working relationship with government and serve as a link between government and fishers – however, sometimes they are used as tools by the government in areas where the role is politicized • Recognized in some areas by the paramount chief – however, in some areas conflicts exist 	<ul style="list-style-type: none"> • Are losing influence, especially because in most areas they have become partisan • Some have become too authoritative and in some areas abuse their power • Lack of transparency – sometimes misuse resources; most of them are not accountable to anyone • Not recognized by the legal system – sometimes when they arrest people, they are told that they are 'a nobody' by the courts
LBCs	<ul style="list-style-type: none"> • Availability of inputs – e.g., outboard motors, pre-mix • Source of funding for community development 	<ul style="list-style-type: none"> • Lack of transparency • Not involved in resource management • Have too much power • Not accountable to communities, only higher political powers • Do not collaborate with communities and make their own decisions • Imposed on the communities • Do not respect traditional institutions and operate in isolation – for instance, they chose activities to sponsor on their own; e.g., construction of toilet facilities • Not part of fisheries regulating bodies – report only to the National Pre-Mix committee

Scale of management for different stocks
 The group then focused on the major resources in Ghana, and discussed the scale at which these resources should be managed. Results are presented in Table 3 below.

Alternatives for nested systems

The group considered possible structures for nested systems for the pelagic and demersal groupings as highlighted in the table above.

<p>Small Pelagics</p> <p>National coordination with regional representation – Jurisdiction: 0–200 nm</p>

National level

Two proposals were made for the governance structures at the national level:

1. A national pelagic fisheries co-management committee consisting of the following people:
 - 1 representative from the Fisheries Commission
 - 4 canoe fishermen, one from each of the 4 regions
 - 3 semi-industrial fishermen (in regions where they are found)

- 2 industrial purse seiners
 - 4 fish processors/fishmongers, one from each of the 4 regions
 - 3 law enforcement agents (navy, police and marine police)
2. Facilitating a constitutional change process to ensure that the Fisheries Commission ensures that the above people are represented

NB: The first option will require careful thinking in terms of how it will be financed. The government may not have money for this – what then will be the source of finance? The group was also unsure as to whether there was the need for both a pelagics and a demersal committee, or just one combined committee.

Regional level

There was discussion on whether there was a need for regional institutions for small pelagics; ultimately, the group agreed that there was not. However, the group agreed that it was important to have district-level institutions.

District level

It was highlighted that at district level there were sub-committees, and the fisheries sector is covered by the food and agriculture sub-committee. There was general agreement that it was imperative for a fisheries sub-

committee to be formed in relevant places and that there was a need to involve the local government ministry.

A fisheries sub-committee of the District Assembly would include the following ex-officio members: canoe fishermen, fish processors/mongers, semi-industrial rep (if applicable), Fisheries Commission, police/marine police and trawlers – where they apply.

Roles and responsibilities of the national-level pelagic committee:

- Recommend pelagic fisheries management rules to the Fisheries Commission
- Primary engagement in developing management plans (to be approved by the Fisheries Commission)

Roles and responsibilities of the district-level committee:

- Nominate candidates to the national committee
- Supervise and coordinate CB-FMCs
- Licensing of canoes
- Capacity building of CBMFCs
- Assist the CBFMCs in enforcement
- Assist the CBFMCs in revenue generation

Table 3: Ideal management scales for different groups of fish or habitats

Fish/habitat	Ideal management scale
Small pelagics like sardinellas and chub mackerel (jurisdiction: 0–200 nm)	Because by nature they are migratory and move from the east to the west, they must be managed on a national scale.
Demersals (bottom-dwelling fish species)	Regional with district representation. District level only will not work, as some districts, like Shama, are too small.
Estuaries/lagoons	Under the current act, management of these is the responsibility of the districts, so district level with community representation is appropriate. NB: There is a need to carefully think about the role of the fisheries, forestry and wildlife departments in the management of these. At the moment, there are many overlaps in who should manage what.

Roles and responsibilities of the community-level committee:

- Registration of canoes
- Collection of revenue
- Enforcement of fisheries laws

Demersal species

Regional committees with district representation

The group spent most of their time discussing the pelagic systems; this was appropriate due to the relative importance of these species. For demersal species, the group agreed that it was important to delegate the Regional Fisheries Commission to develop fish management plans and consult the district committees in developing the plans. At district level, it was agreed that the committee should be the same as the district-level committee for pelagics.

National-level Fisheries Commission – the Fisheries Commission (or potentially the same national committee as for the pelagic species) has the responsibility to set the standards and scope for the development of the regional plans.

Plenary Discussion

The plenary discussion centered mainly on the registration of canoes; key issues included the following:

- When asked about current proposals for registration of canoes, a response was given that the plan so far was mainly for identification but not for revenue generation. In communities, people were aware that boats must be registered; as one boat owner said, “I can’t drive a car without a registration number and the same should apply to my boat.”
- Charging the community level with the registration task will be a lot of work. This can best be done at district level.
- There is a need to think carefully about how to create a national registration system, as well as the purpose of canoe registration – is it to reduce effort or to generate income? If it is for revenue generation, there is a need to make sure that the registration fee is within boat owners’ means and proportionate to the value of the fishery.
- There is a need to think about revenue-sharing mechanisms and who will get what from the revenue generated. For this system

to work, it is important that all community members are involved. Accountability and transparency in the use of generated funds will enhance compliance.

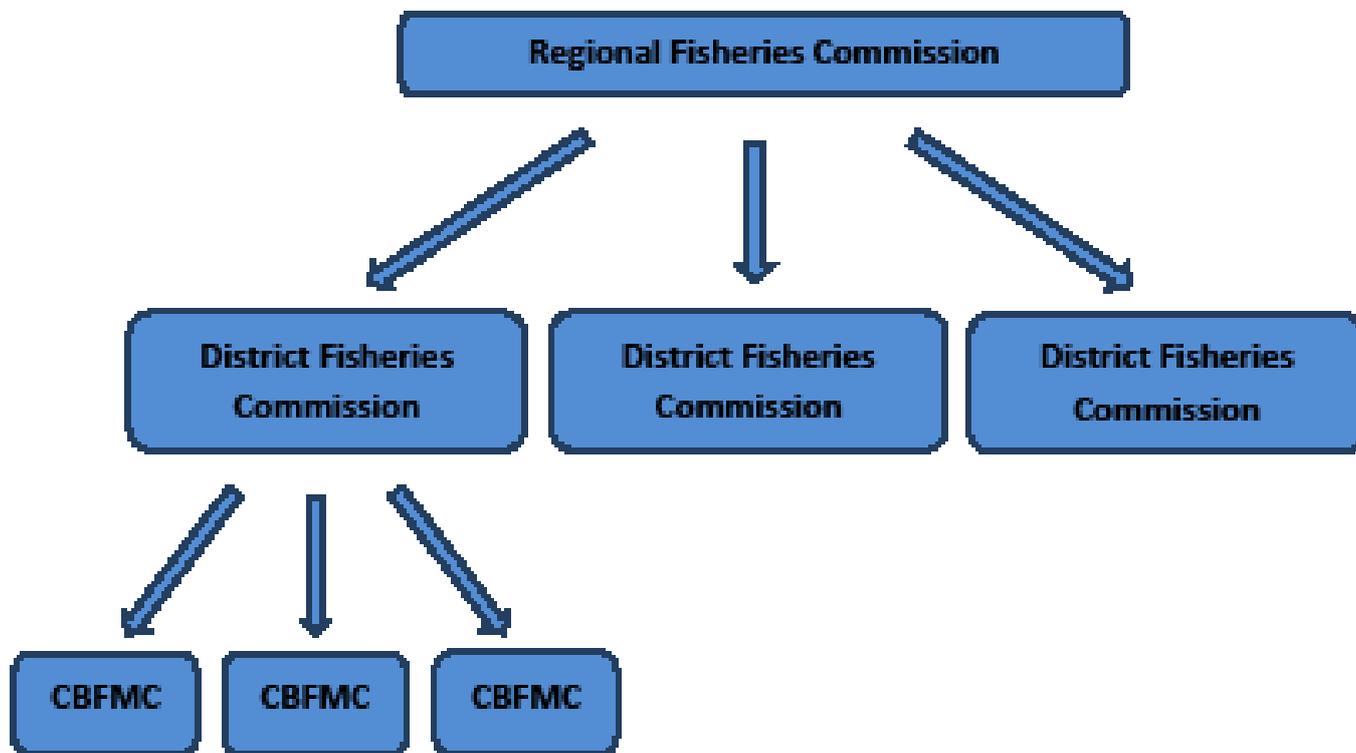


Figure 1: Proposed structure for the management of demersal species

Report from the 'Reducing Effort' breakout group

Facilitator: Eddie Allison
Rapporteur: Godfred Ameyaw Asiedu

Group Objectives:

... to consider existing and possible regulations aimed at reducing fishing effort in coastal fisheries, and further the group's understanding of the implications of proposed measures.

The group started by agreeing on three points:

1. Fishing activities have to be managed, or there will not be enough fish in the future.
2. Scarcity of fish is causing hardship for fishermen and fishmongers.
3. Co-management is part of the solution.

The group then discussed current management systems and other possible management measures that should improve sustainability. These were looked at in terms of the likely impact on fish stocks, but also the likely social impact. Results are shown in Figure 2 and Table 4.

What are the options for managing fishing?

- Existing regulations or measures (enforced or supported)
- Existing regulations or measures (widely disputed or broken)
- Existing regulations or measures (not implemented)
- New management options

Figure 2: Options for regulations were written on cards by the group and split into the categories mentioned above (results are reproduced in table form in Table 4)

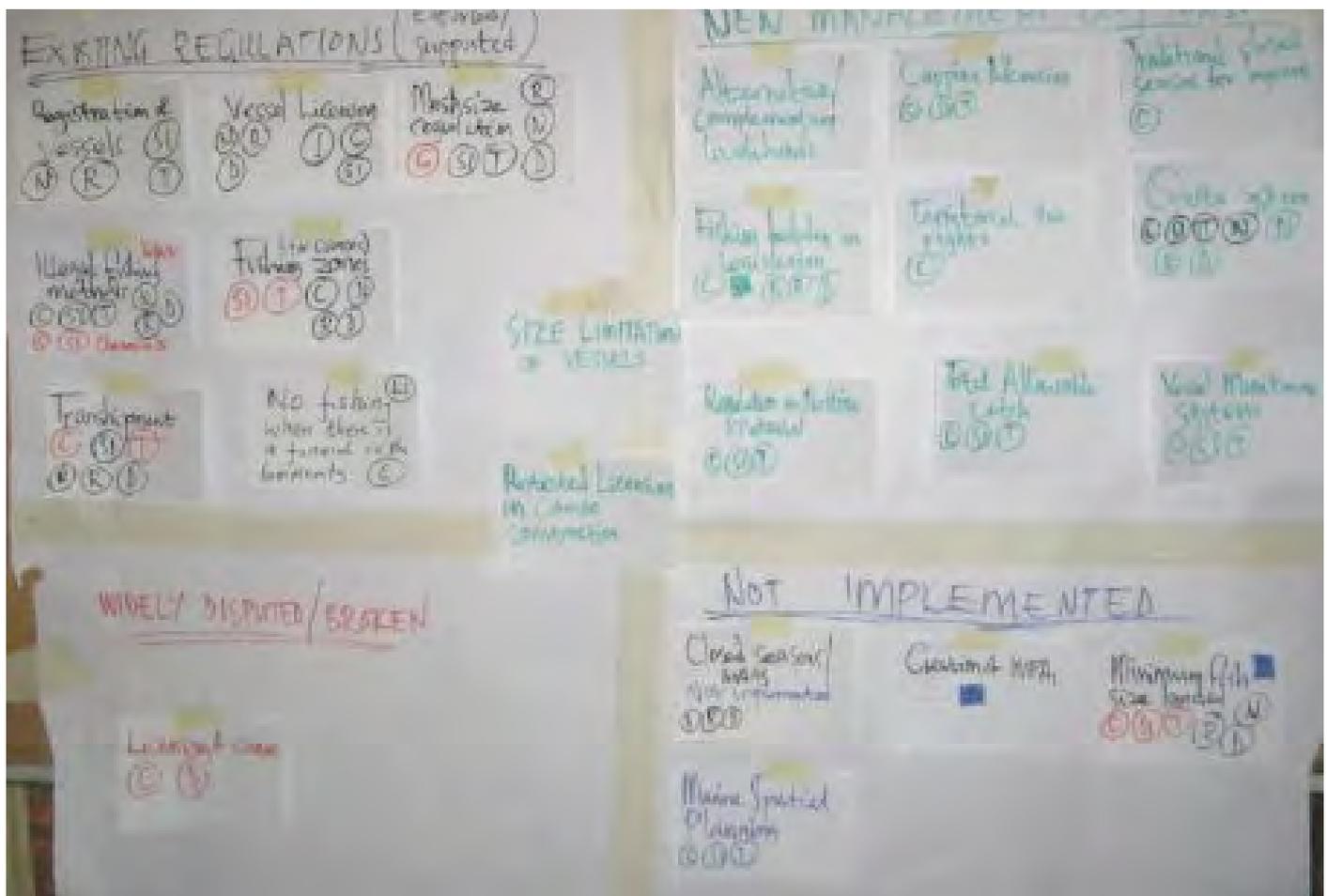


Table 4: Marine fisheries management options for Ghana, including affected fleets, and scale at which they are applicable (transcribed from the diagram developed in Figure 2)

Key: Fleets: C – Canoe; SI – Semi-industrial; T – Trawler

Scale: N – National; R – Regional; D – District; LC – Local community

Existing Regulations (Enforced/Supported)	New Management Options	Widely Disputed/Broken	Not Implemented
Registration of vessels: SI, T, N, R	Size limitation of vessels	Licensing of canoes: C, D	Closed seasons/areas
Vessel licensing: SI, I, N, R, C, D	Restricted licensing on canoe construction		Marine spatial planning: N, C, SI, T, R, D
Mesh size regulations: R, N, D, C, SI, T, D	Alternative/complementary livelihoods		Minimum fish size landed: C, SI, T
Illegal fishing methods (light, chemicals): N, R, D, C, SI, T	Fishing holiday in legislation: C, R, D, N		
Fishing zones (for canoes): SI, T, C, N, R, D	Regulation on netting material: C, SI, T		
No fishing when there is funeral in the community: C, LC	Capping licensing: C, SI, T		
Transshipment: C, SI, T, N, R, D	Territorial use rights: C		
	Total allowable catch: C, SI, T		
	Traditional closed seasons for lagoons: C		
	Quota system: C, SI, T, N, R, D		
	Vessel monitoring system: C, SI, T		

Following the exercise of identifying control measures, the group looked at the potential impacts of these forms of regulation, both on fish stocks and on social and economic indicators. (See Table 5.) These are the critical types of trade-off decisions that need to be made by fishery managers and decision makers when they develop management systems. Every decision regarding management actions will likely have implications for livelihoods, food security, ecological systems and economic systems. All must be considered in the decision-making process, and management objectives brought to the fore to guide these decisions.

Table 5: Options for managing Ghana’s coastal fisheries, and some implications

Rule	Fish Stock Management Effect	Economic and Social Impact
Capping/licensing vessels and fleet size reduction* <ul style="list-style-type: none"> o Canoes – cap 9000 [from 12000] o Semi-industrial – cap 350 [from 500] o Industrial – cap 60 [from 75] 	Reduce pressure on fish stock	Loss of 60 000 fishing livelihoods
	Rebuild fish stock for sustainability	Loss of 420 000 related livelihoods
		Higher incomes for those remaining in the fishery
Restricted licensing of canoe construction	Reduce pressure on fish stock in future	Loss of boat-building jobs
		Safety of aging vessels questionable
No registration, no pre-mix fuel	Reduce IUU fishing	Reduce government expenditure on pre-mix fuel subsidies
		Government generates revenue from registration
Increase licensing fees	Reduce number of vessels	Increase revenue and create barrier to entry
	Reduce fishing pressure	
Closed season (canoes, semi-industrial, industrial?)	Enhance stock rebuilding	Seasonal income variations
	Protect vulnerable life stages of fish	Seasonal reduction in economic activity in fish community
		Seasonal loss of fishmongering
Closed seasons for lagoons	Same as above	Same as above
Putting traditional weekly fishing holiday into legislation	Enhance stock building	Reduce the pressure on the sea at least for some days
Creation of MPAs, territorial use rights and marine spatial planning	Protection of spawning biomass	Reduce flexibility of mobile fishers and reduce conflict
Total allowable catch	Reduce pressure on fish stock	Increase in fish price and increased income
Quota system	Reduce pressure on fish stock	Stabilize fish prices
Regulation of netting material	Reduce fishing effort	Increase in cost of fishing inputs
Vessel monitoring system	Reduce IUU fishing	Increase in revenue
Alternative/complementary livelihoods	Reduce pressure on fish stock	Improvement in living standard
		Availability of alternative income

* Figures in brackets represent the current size of the 3 fishing fleets, while un-bracketed numbers represent a ‘reduced fleet’ under this management scenario

Report from the 'Community-Based Fisheries Management' breakout group

Facilitator: David Mills
Rapporteur: Cephas Asare

Group Objectives:

... to reflect on presentations from the previous day, and in the light of these, discuss aspects of the roles, composition and activities that would be undertaken by community-level management units.

NOTE: Despite attempts to 'balance' groups by allocating attendees to the different breakout groups, this group ended up with a bias towards women, with the group comprising 5 women and one man (as well as the male facilitator and rapporteur). Accordingly, the group output addresses many issues specific to the situation of women fishmongers and processors.

The group initially familiarized all members with the design principles of community-based management as developed by Elinor Ostrom and co-workers. This research group has many years of experience across a wide range of resource systems and has looked at common features of co-management systems that function well. The facilitator ensured that the principles were explained in some detail to the non-English-speaking members of the group.

These principles are as follows:

- **Graduated sanctions:** Users who violate rules receive graduated sanctions depending on the seriousness of their offense
- **Conflict resolution mechanisms:** Users and their officials have rapid access to low-cost, local arenas to resolve conflicts among users and between users and officials
- **Clearly defined boundaries:** The boundaries of the resource system (e.g., fisheries) and the individuals/households with rights to harvest resource units are clearly defined
- **Benefits of management outweigh costs:** The benefits obtained by users, as determined by fishing rules, are proportional to the amount of inputs required (labor, material, money)

- **Collective-choice arrangements:** Most individuals affected by the operational rules can participate in modifying the operational rules
- **Monitoring:** Monitors are present and actively audit resource conditions and fisher behavior and are accountable to users or are users themselves
- **Recognition of rights to organize:** The rights of users to organize themselves is not challenged by external governmental authorities, and users have long-term tenure rights to the resource
- **Nested enterprises for resources that are parts of larger systems:** Fishing, monitoring, enforcement, conflict resolution and governance activities are organized in multiple layers of nested enterprises

The context of each of these principles, and how they may apply in Ghana, was briefly discussed. In the light of these principles and presentations from the previous day, the group discussed the roles and functions of the management units. These are presented below:

Roles and functions of community-based management units were articulated as follows:

- **Help us to achieve our vision** (see the vision presented above by Nana Adam Eduafo in Session 1 presentations).
- **Help combat bad fishing methods, as these reduce fish quantity and quality.** Participants identified their main problem as the reduction in quantity and quality of fish for smoking due to bad fishing methods. There was agreement that regulations should be effectively enforced. Effective enforcement is not happening now, and there is currently no joint effort to deal with this problem. In a discussion on whether women had the capacity to organize among themselves in order to not purchase 'bad' fish (i.e., fish caught using unsustainable means), there was agreement that while this function was possible, the capacity to

do this was currently lacking.

The konkohene, however, was identified as powerful and as a 'price setter' who could therefore help to deal with the problem of fish caught through illegal means. Also in an attempt to reduce the use of illegal fishing methods, there was agreement on the need to help fishermen understand the importance of the law. This is because when there is understanding, compliance becomes easier. Most fishermen are currently not educated and are always skeptical about the laws, as they cannot read them. For effective compliance to work, it is important that they are helped, through education, to understand the benefit and intent of the law.

- **Improve return from fisheries resources.** The women identified an example of training they needed as fish processing, smoking and salting. There was agreement that some fish processors in the community did not know how to process fish well, while others were knowledgeable. There was also general agreement that the training should be locally based – with local people as resource persons. The knowledge exists in the communities, but is not widely shared. Help with credit and training on how to manage a business is also needed.
- **Empower the konkohene and fishmongers.** The group believes that it is important that women's groups/cooperatives are formed. This is seen as necessary to help fish processors speak with one voice. For this to work, the group agreed that the women need to be trained on the benefits of collective action and how to engage with decision-making processes. So far, community members have seen groups as a strategy for monetary gains. In terms of training, there was a suggestion that facilitators could come from within the CBFMC; however, an outsider could be engaged when

an appropriate resource person could not be found within the community. There was, however, a general agreement that the group needed strong backing for it to work.

How should community enforcement units be formed?

The group believed that there is a need for a unit within the community that is empowered to enforce the law. On study tours, group members observed community units in Tanzania charged with reducing illegal fishing. This group has speed boats and the power of arrest; the police only come in if the offender becomes difficult. Such a group will require legal backing and equipment. There was discussion on what might happen when not everyone agrees with rules to be enforced – in this case, the group agreed that those who do not follow the set rules should be made to face the law. If such people are punished, this will encourage compliance. If, for example, trawlers are made to comply with rules, canoe fishermen will have more fish and will be more likely to stop light fishing. The women cited an instance when some fishers went out light fishing and once at sea heard that 'ladyfish' had been sighted by other fishers. Their response was to return to shore, dump their light-fishing gear and go after the ladyfish with the approved gears. When discussing what happens when everyone in the community does not comply, there was an agreement that pressure from community should be enough – "if rules are enforced, people will see the benefit and comply."

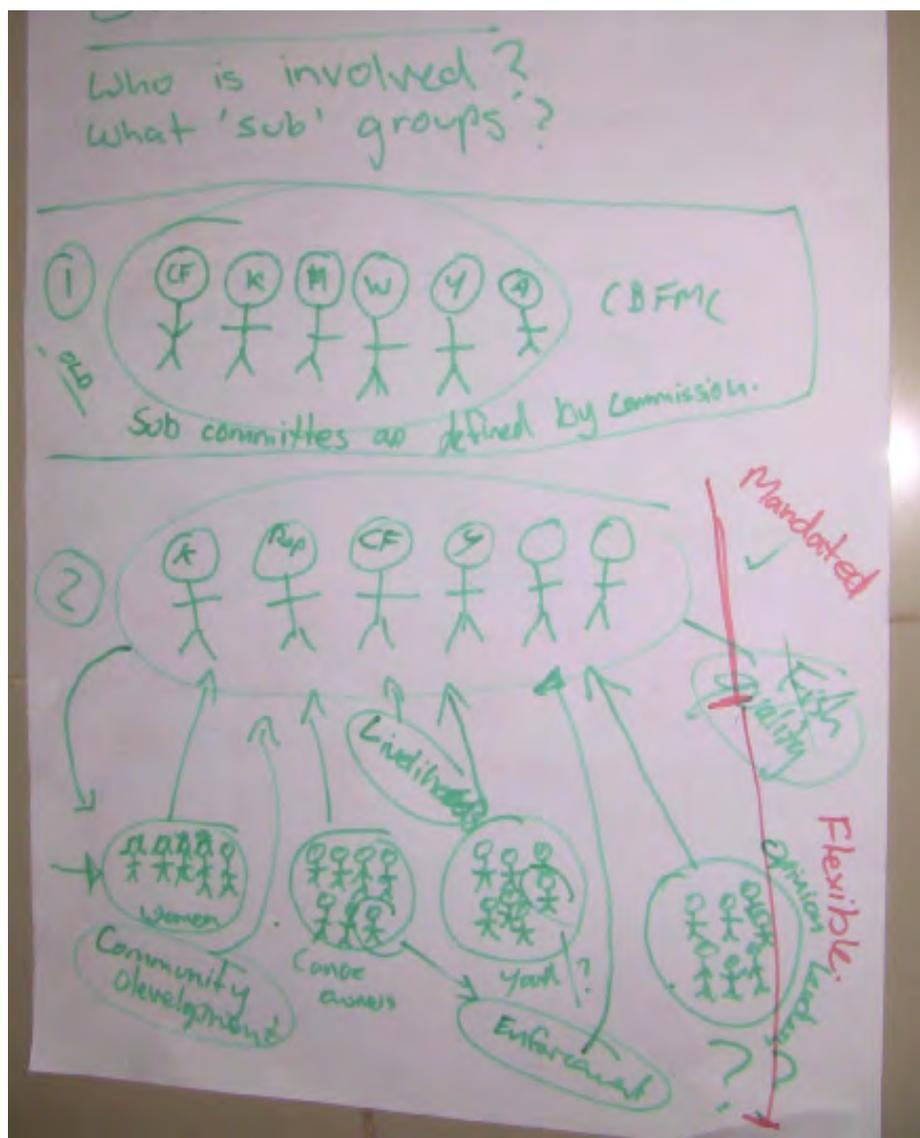
Structure of community-based management units

When discussing who should be involved and what 'sub' groups should be put in place, the following stakeholders were identified: the chief fisherman, the chief fishmonger (konkohene), and those who buy and sell fish (including those who buy and sell fresh fish, those who buy and smoke, those who buy and salt, those who smoke only, those who smoke and sell in the market, and those who buy from the service boys around the beach and re-sell). For the old committee, the structure was defined by the Fisheries Commission and consisted of a number of sub-committees and the following stakehold-

ers: chief fisherman, konkohene, women, youth and assembly member.

For the new structure, the group proposed the following stakeholders: chief fisherman, konkohene, women, youth and assembly member, with input from community development, canoe owners, enforcement and opinion leaders – the committee must be involved in community development and livelihoods rather than just being involved with fisheries management.

Figure 3: Old and proposed structure for the CBFMC



While the representation in the proposed structure did not vary greatly from the former CBFMCs, it was suggested that there should be more freedom for the structure to respond to the needs of the community. (See Figure 3.) Rather than having a mandated set of sub-committees that should exist in all communities, it was felt that flexibility to initiate sub-committees that respond to the needs of the community was important. This flexible structure (illustrated lower in the diagram) allows for issue-focused sub-committees to be initiated and discontinued as required.

There was agreement that the structure of sub-committees should be flexible to deal with different issues in the community.

When discussing how to avoid having 200 CBFMCs, it was suggested that the large number of management units made it difficult to support and sustain them. Instead, it is better if the big landing sites have one committee, and the smaller ones could be grouped and the members 'shared' among the grouped communities. The membership of the CBFMCs for the grouped communities should be representative of all the communities within the group, with the head (i.e., chief fisherman, konkohene) being elected by the heads themselves; their term of office should be limited, and the headship can rotate among the communities.

When discussing the incentives for and sustainability of the committees, there were suggestions that the assembly taxes taken from the fish processors should in part (%) go to the CBFMC. There was a general agreement that the government needs to consider CBFMCs as a cost of management – not free labor. There was also agreement that provision of infrastructure (offices, stores and fish-handling facilities) was critical for the CBFMCs. The infrastructure (stores and fish-handling facilities) could be managed to provide income for the CBFMC. The group also agreed that competitions for best CBFMC could serve as a form of motivation, and critical aspects to be assessed could include sanitation, bookkeeping and transparency.

Table 6: Proposed stakeholders for the CBFMCs and the sub-committees

People	Sub-committees (possibilities)
<ul style="list-style-type: none"> - Chief fisherman - Konkohene - Assembly member (communication with DA, monitoring) – important monitoring role for assembly members as opinion leaders - Paramount chief or representative - Boat owners - Youth - Fishmonger 	<ul style="list-style-type: none"> - Finance – raising and administering - Women - Canoe owners - Youth - Livelihoods - Fish quality (issues based) - Conflict resolution - Community development - Sanitation

Report from the 'Legal and Institutional Framework' breakout group

Facilitator: Prof. Martin Tsamenyi
Rapporteur: George Hutchful

The group comprised eleven members, representing relevant sectors and interests, including the fishing sector, enforcement, legislators, the non-governmental sector and fisheries administration.

The group began by identifying a number of issues relevant to the legal and institutional framework that the group considered fundamental for the successful implementation of fisheries co-management in Ghana. In the end, these issues were discussed under three broad legal and institutional headings, as follows:

- The need for clear recognition of co-management in Ghanaian legislation
- A coordinated institutional framework for the implementation of co-management
- The development of an effective compliance and enforcement framework

Clear legal recognition of co-management

The group agreed that there is a need for clear legal recognition of co-management in legislation in Ghana. The group noted that the existing fisheries legislation, the Fisheries Act 2002 (Act 625), only provides the rudimentary basis for the development and implementation of fisheries co-management.

Among other things, the Fisheries Act 2002 established the Fisheries Commission, which is to regulate and manage fisheries resources in collaboration with District Assemblies (established under the Local Government Act) and fishing communities to ensure the enforcement of the fisheries laws, including bylaws made by the relevant District Assemblies. The Fisheries Act also empowers the Fisheries Commission to take action to protect and promote artisanal fishing, including the promotion of the establishment and development of fishing co-operative societies and, in doing so, to give priority to artisanal fishing in the allocation of quotas.

Despite these provisions, the group noted that co-management is not specifically mentioned in the Fisheries Act and Fisheries Regulations (LI 1968), although there is a mention of a process of decentralization of fisheries management in the National Fisheries and Aquaculture Policy 2008 that allows for the co-management of fisheries through increased participation of fisher folk.

The group agreed that significant work is still required for Community-Based Fisheries Management Committees to be formed and to become fully operational. Among the key issues identified by the group to be included in any resultant legislative change are the following:

- Clear legal recognition for co-management and identification of user groups/communities and their legal status
- Clear definition of management roles and responsibilities
- Clear specification of the rule-making and rule-enforcement jurisdiction granted to the user groups

The group noted that legislative change through the enactment of additional legislative instruments will be desirable to implement co-management. Accordingly, the group recommended a thorough review of the legal framework in Ghana against the core legal principles for the implementation of co-management, with a view to establishing the most relevant and appropriate legal framework to support the implementation of fisheries co-management.

The multi-sectoral nature of co-management

The group noted the multi-sectoral institutional framework for the successful implementation of a co-management framework in Ghana and called for the development and implementation of co-management approaches that recognize this multi-sectoral framework.

The group noted that although the Fisheries Commission has the primary responsibility to manage

the fisheries resources of Ghana, because of the multi-sectoral nature of the fisheries, the co-management legislation has to recognize the roles of core agencies to ensure adequate collaboration. Additionally, the legal framework must be flexible enough to incorporate other agencies, but the criteria for selection must be issue based.

The other institutions that were identified by the group as significant for the implementation of core management in Ghana include (a) The Ministry of Local Government; (b) The Ministry of Women and Children's Affairs; and (c) The Attorney-General's Department. The group also noted that appropriate core groups must be recognized at the requisite district and community levels.

At the community level, the group recommended the establishment of a 7-member Community-Based Fisheries Management Committee with at least 2 members being women. Relevant subcommittees may also be established, with powers to incorporate other issue-based agencies to enable tasks to be effectively performed.

Given the complex institutional framework required for the successful implementation of co-management in Ghana and the relative lack of understanding of the respective roles of these institutions, the group called for a clearer understanding and articulation of the roles and responsibilities of the various institutions to ensure an all-inclusive and collaborative governance framework for the implementation of co-management in Ghana.

The development of an effective compliance and co-management framework

The group identified effective compliance and enforcement as the key to sustainable fisheries management in Ghana. The group noted the limited capacity for enforcement in Ghana and the consequent largely ineffective rule enforcement in fisheries.

The group also discussed a number of non-compliance issues, including (a) light fishing; (b) use of chemicals; (c) use of banned nets; (d) absence of vessel registration; and (e) absence of a licensing framework, resulting in open-access fisheries.

The group identified and discussed a number of factors that result in the low rate of compliance to fisheries regulations. These include (a) lack of enforcement resources and presence in all the fishing grounds and landing sites; (b) perception by some fishing communities that others are breaking the rules with impunity; and (c) insufficient penalties in some instances.

Against the background presented in the paragraphs above, the group suggested that an effective strategy to achieve effective compliance and enforcement must be the successful introduction of a co-management fisheries framework in Ghana.

In terms of the institutional arrangements at the national level for enforcement, the group agreed that these are well established, with clear mandate and authority. Such institutions include the Fisheries Commission, navy and marine police.

The group noted, however, that there are institutional gaps at the community scale. The main gaps identified include (a) absence of a clear co-management mandate; and (b) absence of rule-making and rule-enforcement powers given to any particular institution. The group suggested that one way to strengthen rule compliance and enforcement at the community level is the use of traditional authority such as the chief fishermen, kokohene and traditional chiefs. This approach was considered by the group to be the most appropriate framework for the design of co-management law at the community level.

The group noted, however, that despite the significance of traditional institutions in the past, the dynamics of the institutions of the chief fishermen, kokohene and community chiefs in the contemporary era are not well understood, as their authority has waned over time. Some of the contributing factors noted by the group include the migrant nature of

some of the fishing communities, non-traditional religious values and the modern legal system.

Given these factors, the group noted that the incorporation of traditional institutions into the legislative framework for co-management should be undertaken with full understanding of the origin, roles and changing nature of such institutions.

The group recommended that a special study into the dynamics of traditional institutions be carried out to ensure a clear understanding of the chieftaincy system, including the changes, growth and development of chiefs' roles and responsibilities. The need to consider a national framework and process to gazette chief fishermen for legitimacy and to ensure against unwarranted removal (which is becoming frequent) was also stressed by the group. The group suggested that the Hen Mpoano initiative should undertake this study.

Finally, the group also recommended that policy decisions need to be made in the appropriate forum to hear fisheries cases (for example, the chief's palace or local courts) at the community level, as well as how and where fines are paid, and what percentage – if any – is retained by the community for fisheries activities.

Outcomes

This second Fisheries Governance Dialogue provided a very timely platform for discussion and deliberation on the future of fisheries reform and co-management in Ghana. Momentum for reform, inspired by communities, the Fisheries Commission and international donors, can be sustained and fuelled through this type of stakeholder forum.

The dialogue was successful in bringing key stakeholders to the table to discuss in detail issues of reforms that move toward sustainable management of Ghana's coastal fisheries. Although participants did not produce concrete outputs or agreements on what co-management in Ghana must look like, this landmark activity was highly successful in generating discussion on critical issues that must be considered in the design of an enduring system of co-management of marine resources. Local, regional and global co-management experiences clearly brought to the fore guiding principles for co-management system design. Ghana must indeed take these lessons seriously and build on them to avoid repeating mistakes. To a large extent, the discussions helped stakeholders to understand each others' interests, as well as to understand the need for collaboration in dealing with the complexities of fisheries management.

It was clear through discussions and presentations that there is common sentiment among stakeholders in many areas. Repeated themes throughout the presentations included the following:

- An understanding that co-management takes many forms, and institutional context at community and higher levels

must be carefully considered in the design and implementation of co-management systems.

- The need for clearly stated, explicit management goals and actions that are backed by scientific data.
- The critical nature of empowerment and capacity building of key stakeholders from communities to top-level managers for effective reform.
- The critical nature of a plan for sustainable financing of co-management institutions – experience shows that attempts to run local institutions based on volunteer labor will fail.
- A need for clear planning, monitoring and accountability among community-level management institutions.
- The need for simultaneous bottom-up and top-down reforms to ensure functional systems that provide the incentives for sustainability.
- A need to engage communities in the process of building local institutions for co-management, rather than a structure imposed from the top.
- A need for management systems to be adaptive and therefore able to respond to rapidly changing circumstances or crises.
- The need for clear legal support for co-management systems, providing appropriate powers to make and enforce rules and impart sanctions as necessary.

The way forward

This meeting was not a beginning or an endpoint, but rather a marker along the route to establishing enduring co-management systems for coastal fisheries in Ghana. From here, it is crucial that conversations are sustained and that lessons learned are passed on to a wider group of

stakeholders. Occasional fora such as this Fisheries Governance Dialogue can provide the impetus for further action, but are not adequate to sustain the necessary dialogue that will lead to a joint vision and way forward for implementing co-management systems in Ghana.

The Hɛn Mpoano initiative, as the facilitator of this meeting, will continue to work with stakeholders at all levels from communities up to the national level. Yet this initiative has a finite life, and this action is not adequate in the bigger picture of implementing fisheries co-management throughout Ghana. The Fisheries Commission and the government of Ghana more generally have shown clear intent to engage in a participatory process of reform. An ongoing, formalized system that enables feedback and ideas from communities to feed into system design needs to be established. It is no coincidence that such a system, once established, not only leads to a legitimate design process, but actually forms a pillar of ongoing co-management.

In the short term, the establishment of a National Working Group on Fisheries Co-Management, with a mandate of facilitating the design of co-management systems and coordinating government and donor activities towards a common goal, would form a crucial hub to ensure optimal and durable outcomes. The role of this group then would be to facilitate a fully participatory, adaptive process of piloting and systems design that has the connections and knowledge to learn from regional and global experience while listening to communities and understanding local context.

Lastly, it must be acknowledged that the reform process will take

time, and will require patience and persistence beyond any single program. There will be failure on the way, but if implementation is set up well, this failure becomes the raw material for learning. Attempts to short-circuit the processes of testing and refining implementation through pilots, and instead forcing rapid change in communities and government institutions, is likely to lead to unsustainable outcomes that are not widely accepted or effective in their operation. An approach implemented from the bottom up and top down that considers incentives, empowerment, transparency, accountability, equity and adaptive capacity will ultimately lead to sustained outcomes including sustainable resource use and improved wellbeing of coastal communities.



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Annex II: List of Acronyms

AG	Attorney General
APW	Ali/Poli/Watsa
BFAR	Bureau of Fisheries, Philippines
CBFMCs	Community-Based Fisheries Management Committees
CLPAs	Local Artisanal Fisheries Committees
CRC	Coastal Resources Center
CSOs	Civil Society Organisations
DA	District Assembly
FAO	Food and Agriculture Organisation of the United Nations
FON	Friends of the Nation
FWG	Fisheries Working Group
GAMFIDA	Gambian Artisanal Marine Fisheries Development Association
GIFA	Ghana Inshore Fisheries Association
GNCFC	Ghana National Canoe Fishermen's Council
ICFG	Integrated Coastal and Fisheries Governance
IUU	Illegal, Unreported and Unregulated Fishing
JICA	Japan International Cooperation Agency
LACOMs	Landing Site Committees
LBCs	Landing Beach Committees
METSS	Monitoring and Evaluation Technical Support Systems
MLGRD	Ministry of Local Government and Rural Development
MOFA	Ministry of Food and Agriculture
MPAs	Marine Protected Areas
NAAFO	National Association of Artisanal Fishing Operators
NADMO	National Disaster Management Organisation
NASCOM	National Sole Co-Management Committee
NGOs	Non-Governmental Organisations
RFMC	Regional Fisheries Management Councils
UN	United Nations
USA	United States of America
USAID	United States Agency for International Development
WARFP	West African Regional Fisheries Program
WWF	World Wide Fund for Nature





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