Summary of the Integrated Coastal and Fisheries Governance Initiative (ICFG), Training #2

Shama, Ghana, April 26-29, 2010

Coastal Resources Center, University of Rhode Island

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ICFG Initiative Training #2

Summary of the Integrated Coastal and Fisheries Governance Initiative (ICGFI), Training #2, Shama, Ghana, April 26-29

Training Summary

- **Introduction:** The emerging priorities issues for the ICFG Initiative and planning for phase 2
- **Community Characterization Module:** Update of the progress of characterization of coastal communities of the Western Region
- **Shoreline Module:** Introduction to shoreline issues and trends
- **Biodiversity Module:** Opportunities for protection of biodiversity and ecotourism
- **Fisheries Module:** Governance Challenges in Fisheries
- **Goals and Policies of ICFG Initiative:** Developing priorities for Phase 2
- **Summary Presentations to the Advisory Council:** Brief reports on the topics described above
- **"Our Coast" Update:** Status of the summary document for the first phase of the Initiative

REVIEW OF PROGRESS, PLANNING FOR NEXT PHASE

This four day program in late April was designed to apply the methods being introduced by the Integrated Coastal and Fisheries Governance Initiative and provide a forum for discussing progress, including initial studies and surveys conducted by the initiative and planning for Phase 2. In the final module, five teams of participants presented their findings and recommendations to the newly formed ICFG Advisory Council who are pictured above.

NOTE: Since some of the trainers were delayed by the close of connecting airports in Europe, the sequence of modules had to be tailored to their compressed schedule. In this summary, the material is presented in a more logical sequence presented in the box to the upper right.

Pictured here, on a brief field trip to view shoreline features of Shama, are some of the 35 people who participated including partners from Friends of the Nation, Coastal Resources Center, Government of Ghana, WorldFish, the University of Cape Coast and University of Ghana, Environmental Protection Agency, SEMA and several District Planners from the Western Region.

INTRODUCTION

Mark Fenn presented a brief summary of progress to date and the emerging priorities issues for the ICFG Initiative and planning for phase 2:

- **Timeline:** A four year program sponsored by USAID, structured in 3 phases starting in 15 September 2009 and ending 14 September 2013
- **Implementing Partners:** The Government of Ghana; Friends of the Nation; SustainaMetrix; The World Fish Center; and, led by the Coastal Resources Center
- **Vision:** to contribute to sustainable management of Ghana's coastal and marine resources to continue to provide goods and services for long term socio-economic benefit to coastal communities while sustaining biodiversity
- **Target outcomes:** a fresh approach to coastal and fisheries governance that leads to behavior changes of resource users with evidence of attainment of specific societal and environmental goals that would signal progress towards sustainable development
- **Accomplishments to date:** start-up and recruitment of key staff; local and national level stakeholder input to initial work-plan; national launch; engagement of traditional leadership; and, diverse cross-sector engagement in training on governance response to ecosystem change
- **Ongoing analysis:** participatory characterization of coastal communities and condition of coastal ecosystem; case examples exploring multiple topics including: traditional beliefs; premix program; Community-based Fisheries Management Committees; illegal/destructive fishing practices; biodiversity threats assessment; fisheries sector review; and status of critical coastal habitats
- **Early Lessons Learned:** increase engagement with media; communicate importance of wetlands; time activities with emerging fisheries regulations; sea turtle conservation as ideal platform to engage multi-sector participation around a biodiversity issue
- **Early Opportunities:** the program has had early success working with a wide range of partners including government (e.g District Assemblies, EPA, MEST); markets (e.g. hoteliers, fish mongers) and civil society (Ghanaian Universities; NGO's; chruches)
- **Early Challenges:** anchoring the Initiative; pervasive algal blooms (Green-Green) in coastal waters; difficulty with accurate assessment of fish catch; and, limited progress with oil and gas sector
- **Early Actions:** Identify/support/partner with local associations; initiated small grants and pilot wetlands initiatives; training in coastal zone issues; and, networking with NGO's and donors
- **Communication:** Communicate with the District Assemblies; meetings with stakeholders in Accra; working with broad array of civil society groups; and, development of a slogan competition.

LEARNING GOALS for Training #2

★ Apply learning from Training #1 by: sharing a common language; able to describe the sources and mechanisms of governance; consider process, outcomes and dimensions of governance.

★ Training participants provide a set of major findings to the ICGFI Advisory Council that:
- Summarizes major findings as it applies to your topic in the Western Region;
- Provides a short set of 2 year target outcomes for Phase 2 that would build the enabling conditions by the end of the third year of the ICGF Initiative;
- Early actions in Phase 1 that would contribute to building the enabling conditions

★ By the end of this training participants will understand the status and their role in the development of the "Our Coast" document.

TRAINING #2 Design: The group featured 35 participants who were subdivided into five groups:

Group 1: Shoreline Issues and Trends
Group 2: Land Use in the Coastal Districts
Group 3: Goals and Policies for ICFG
Group 4: Biodiversity and Ecotourism
Group 5: Governance Challenges in Fisheries

TRAINERS for the event:

★ **Stephen Olsen:** University of Rhode Island, Coastal Resources Center
★ **Glenn Page:** SustainaMetrix
★ **Don Robadue:** University of Rhode Island, Coastal Resources Center
★ **Brie Feingold:** WoldFish Center

The first three days featured training modules on each of these topics and refresher elements since some of the participants did not attend Training #1. Each group was asked to reflect upon their specific topic and the potential role of the ICFG Initiative and organize the material for a presentation on the final day of the training. These presentations were designed to give each group the opportunity to face the challenges of working in small, diverse teams and to draft a 10-minute summary of a complex topic to a high level audience. In this case, the audience was the the Advisory Committee of the ICFG Initiative and the material which was presented on the fourth day as part of their inaugural meeting.

PRESENTATION OUTLINE: The outline for each group presentation was to:

- Summarize the major findings associated with the group theme;
- Provide a short set of 2-year target outcomes that would build the enabling conditions by the end of phase 2 of the ICFG Initiative (roughly by 2014); and,
- Include a set of short term activities that could be implemented as early actions in Phase I and 2 to build toward the necessary enabling conditions.

The groups worked on their presentations in the afternoon of the third day, with a "rehearsal" presentation offered by Group 1. On the morning of the final day, the other four groups presented a rehearsal and refined presentations accordingly. In this summary, the presentations have been edited to specifically correspond to the 1st Order four enabling conditions and are presented together in the last section of this summary.

FIRST ORDER ENABLING CONDITIONS

★ Specific **GOALS** for target environmental and societal outcomes defined

★ Supportive and informed **CONSTITUENCIES** present in the community and responsible governmental agencies

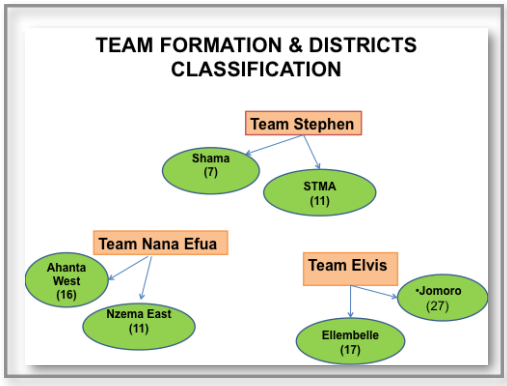
★ Required implementation **CAPACITY** present within implementing institutions

★ **COMMITMENTS** to provide necessary authorities and resources for implementation of a plan of action

COMMUNITY CHARACTERIZATION MODULE

Update of the progress of characterization of coastal communities of the Western Region

Kyei Kwadwo Yamoah facilitated this module with Glenn Page and both provided the group in a brief overview of the status of the community/district characterization reports led by Friends of the Nation. Each of the three teams provided a summary update of results from each of the six coastal districts. While some issues were common to all districts, each of the groups pointed out unique issues of each districts.



The differences and similarities from district to district were main topics of discussion and contributed to the groups continued work in the analysis of the results, collection of secondary data and validation of findings that will be conducted in May and June, with anticipated completion date in July. The three presentations, each presented in dramatic fashion, were updates from the groups and featured information from Ahanta West and Nzema East lead by Nana Efua Ewur, Ellembelle and Jomoroa led by Elvis Addae and Shama and Sekondi-Takoradi Metropolitan Area (STMA) led by Stephen Kankam. A sample of early results summarizing the STMA and Shama, is presented here as a brief example of some of the information the group reported as part of their early data analysis.

METHODS: Community and District Characterization

★Focus Groups
★Key Informants
★Secondary Data Collections
★Participatory Mapping

EXAMPLES OF Information:

★Physical Characteristics
★Demographic Characteristics
★Environment
★Economic Activities
★Health.
★Education
★Local Institutions and Governance
★Key Coastal and Fisheries Issues
★Fisheries
★Environment
★Demography
★Local Institutions and Governance
★Health
★Education
★Community Recommendations

Example of Early Results from Community Characterization: STMA and Shama

The presentation by the group introduced the rapid appraisal that was conducted in eleven coastal communities in the Sekondi-Takoradi Metropolitan Area (STMA) between February 24 - March 15, 2010. They described that the purpose of this assessment was to generate primary information that will ultimately contribute to establishing the overall baseline coastal conditions and socialize the Integrated Coastal Fisheries and Governance (ICFG) initiative among the communities visited. They presented information according to six major themes: fisheries, environment, demography, local institutions and governance, health, and education. They concluded with a summary of what they considered were community recommendations.

Sample Results: Local Institutions and Governance

As an example of results for one of the six themes, local institutions and governance, the team presented the following information:

- Lack of capacity (legal mandate, skills and resources) of Community Based Fisheries Management Committees to address local fisheries management issues.
- Absence of a fisheries sub-committee at the Metropolitan / District level leading to inadequate attention to fisheries issues by local authorities.
- Bye-laws of Shama District Assembly has not been gazetted thereby providing some opportunity for ICFG initiative to facilitate processes towards integrating coastal and fisheries issues in the district's regulations.
- Lack of transparency in constituting landing beach committees thereby reducing their legitimacy. Lack of transparency and accountability in the management of funds that accrue to fishing villages from premix sales.
- Existing good cooperation between police and Chief fishermen in addressing fishing related conflicts and crimes.

Examples of summary recommendations from the community include the implementation of closed seasons for the fishery, financial assistance to fishmongers and women traders, construction of community centers and enhance policing of the country's territorial waters (MCS).

SHORELINE MODULE: INTRODUCTION TO SHORELINE ISSUES AND TRENDS IN THE WESTERN REGION

Based on a review of initial drafts of the community profiles prepared by Friends of the Nation, Don Robadue led the group in identifying some of the shore features, uses, concerns and current actions. Don compiled lists drawn from the community profiles for the following three questions:

- What are the major man-made and physical features of the shoreline?
- What are the issues of concern to shoreline residents?
- What actions have been taken in response to the concerns and issues?

This prompted a discussion that clarified the common concerns expressed by residents as well as major differences in the degree of development and the issues in the different regions.

COMMON CONCERNS EXPRESSED BY RESIDENTS OF THE COASTAL DISTRICTS IN THE WESTERN REGION

★ Untreated sewage, human waste
★ Erosion of the shore
★ Abundant solid waste & plastics
★ Drinking water quality concerns i.e. saltwater intrusion Sekondi-Takoradi
★ Coastal water quality concerns i.e. increases in algal blooms (green-green)
★ Visual impacts from inappropriate development
★ Increased flooding and inadequate drainage during routine rain events
★ Expanding settlement in steep slopes and unstable hillsides resulting in erosion of land, gullies
★ Increasing damage from effects of storm surge, overtopping during storm events and expanding settlement in low areas
★ Increased toxic pollution
★ Loss of biodiversity i.e. sea turtle consumption, filling and loss of wetlands
★ Limited access to the shore
★ Sea level rise associated with climate change

Don reviewed how two countries, Sri Lanka and the State of Quintana Roo in Mexico, have chosen to respond to issues similar to those present along some stretches of the Western Region. In the case of Sri Lanka, the response was largely one that featured a regulatory-based strategy with an emphasis on setbacks and standards for structures that "harden" the shoreline. The Mexico example featured a voluntary strategy that promoted "good practices" based on strong community support for implementation.

The module included a focus on the nature and implications of climate change as well as a "mainstreaming" approach to attaining coastal development and conservation outcomes. For this, Don used data from the "Environmental Sensitivity Atlas of the Coast of Ghana"produced on CD rom by the Environmental Protection Agency as part of an oil spill contingency plan to lead a discussion on shoreline analysis and potential actions for the Western Region. The image on the next page is an example of the type of shoreline mapping that currently exists for the entire shoreline of Ghana. In this image, four types of shoreline types are represented here with lagoons, mouth, sandy beach and rocky shoreline as well as indicators of biodiversity such as fish and shorebirds and points of interest such as a colonial fort and two coastal

communities. Don noted the high value of such a resource but reminded the group that the accuracy of the report is not consistent and results should be field verified.

Don concluded with a series of actions, summarized in the community surveys, that have been taken to date in the coastal districts of the Western Region and include Zoomlion/Ecobrigade clean up effort, construct of latrines, improved sanitation, waste collection facilities and creating boreholes for access to water supply restrictions. In some cases, coastal communities have attempted to ban sand winning to minimal success and there have been efforts of three hoteliers to commit to sea turtle conservation through a memorandum of understanding.

DEFINITIONS: Shoreline Management Concepts

★**Setback:** minimum distance from the inland boundary of a coastal feature at which an approved activity or alteration may take place.

★**Shoreline Protection Structures:** since coastal erosion has become a common problem, multiple types of structures have been designed and built with the intent to lessen or eliminate coastal erosion. Unfortunately, if improperly sited, the structures themselves can exacerbate erosion. Some examples are bulkheads, seawalls, groins, breakwaters, jetties, and other structures. The following are two definitions of typical shoreline protection structures:

- **Revetment:** a structure constructed parallel (or almost parallel) to the shoreline to separate land and water areas in order to prevent erosion and other damages. The primary function of a revetment is to resist the erosion of softer bank strata from wave action, thus protecting upland property from damage. It also acts as a retaining wall.
- **Groynes (Groins)**: shore protective structures built perpendicular to the shoreline to trap longshore littoral drift. These cause waves to break before reaching the shore, resulting in the realignment of the shoreline as the groynes accumulate sand on the shore.

★**Buffer Zone:** a land area on or contiguous to a shoreline feature that is retained in its natural and undisturbed condition by the applicant

★**Controlled abandonment:** which requires abandoning existing line of defense and allowing nature to redefine the shoreline position

★**Do nothing:** refers to the option that involves abandoning the existing line of defense without any future monitoring or intervention of any kind

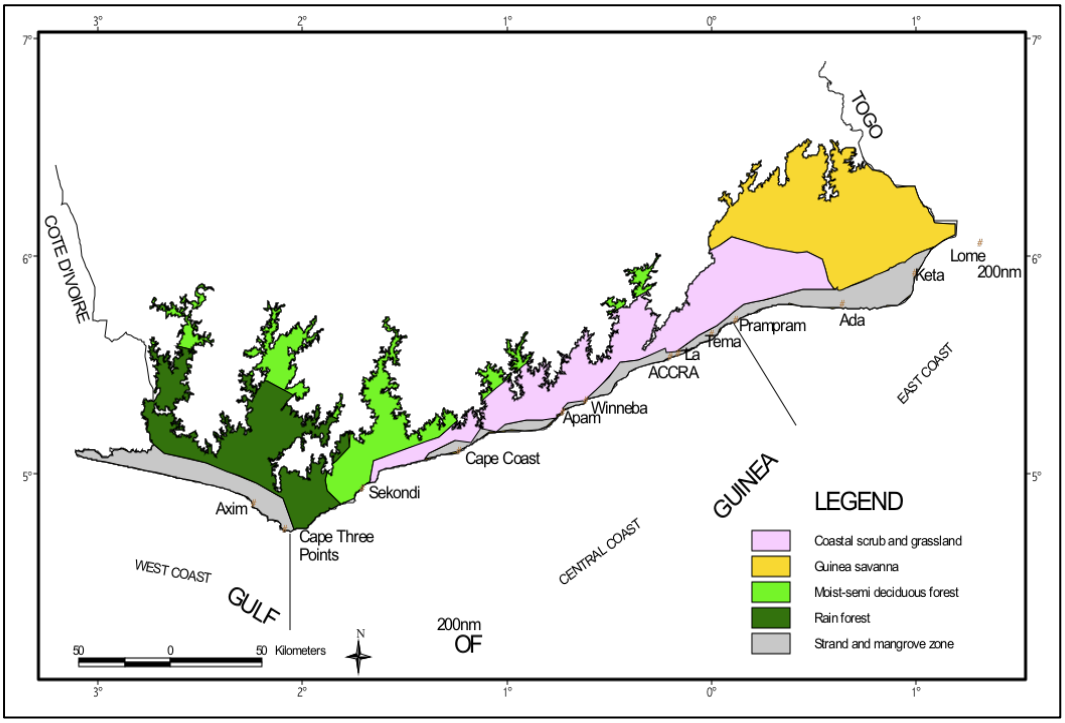
BIODIVERSITY MODULE AND OPPORTUNITIES FOR ECOTOURISM

Dr. Digi DeGraft-Johnson, a consultant to the ICFG Initiative working on a biodiversity threats assessment, and Glenn Page as facilitator presented a brief introduction to marine and coastal biodiversity assets in the Western Region. Digi and Glenn described the features of the landscape and seascape in terms of the diverse habitat types and species associated with these ecosystems as well as opportunities for ecotourism.

LANDSCAPE: Examples of Key Features

The following are examples of key features in the terrestrial landscape described by Digi:

- Nine major rivers which include Tano, Ankobra, Ankasa, Fia, Amanzule, Butre, Whin, Anankwari and Pra;
- Several of the river systems feature extensive estuarine wetlands, lagoon depressions/wetlands, and swamp forests;
- Seasonally flooded Amansuri wetland (proposed as a Ramsar site) is the largest freshwater marsh system in the Western Region and a destination for many Ghanaians who visit the silt village of Nzulezo; and,
- The Tano/Aby/Ehy Lagoon complex, located on the south-western border of the region and shared with Ivory Coast is another significant coastal feature important for fisheries.

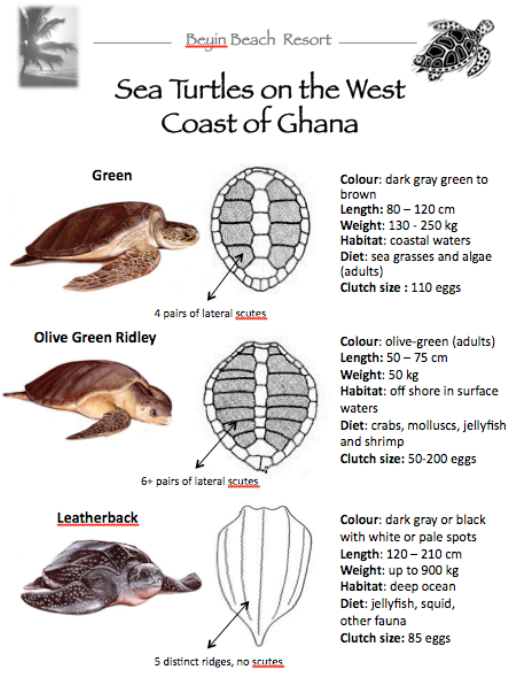


Digi presented the image above describing different vegetation types and noted that despite significant clearing for plantations and villages, the Western Region features several types of relatively pristine vegetation still remaining in the coastal watersheds. He noted that Jomoro and Nzema East are the most undeveloped of the six districts and feature diversity of vegetation types. Glenn and Digi discussed two areas that are particularly noteworthy for the protection of biodiversity and both with high potential for ecotourism: Ankasa National Part and Cape Three Points Forest Reserve. Ankasa National Park, a 509 sq. Km wet evergreen rainforest is located in the upper reaches of Jomoro District and boasts Ghana's highest recorded terrestrial biodiversity. Ankasa is

home to over 870 vascular plant species, 300 species of birds and some estimate has high as 600 species of butterflies. Cape Three Points is a Coastal Rainforest reserve which is the last protected primary coastal forest in West Africa. They described that the 51 sq. km forest was declared a reserve in 1949 and could rival Ankasa in terms of biodiversity if proper analysis was undertaken. They noted that commercial logging and encroachment of plantations such as rubber and the recent discover of alluvial gold threaten the park, however, in it's current state the forest is a biodiversity hot spot featuring large mammals (monkeys and antelopes) and over 160 species of birds including spot-throated ibis, crowned eagle, chocolate-backed kingfisher, great blue turaco, blue cuckoo shrike, and five hornbill species.

SEASCAPE

Glenn and Digi described the coastline of the Western Region dominated by a mostly continuous stretch of sandy beaches with an intermittent rocky coastline. They described the importance of the beautiful sandy beaches found throughout the Western Region in terms of biodiversity and as destinations for Ghanaians and international travelers for beach vacations. Regarding biodiversity, they described the sandy shores as important nesting grounds for marine turtles, which has the potential to draw even more beach ecotourism and could become a focal point for the ICFG Initiative. Glenn described reports of nesting activities in the Western Region and presented a case study of sea turtle research and ecotourism in Talamanca, Costa Rica as part of a program to reduce poverty and protect biodiversity. The group discussed potentials for ecotourism and ways to link research with conservation and eduction to connect community economic development with ongoing activities at locations such as Green Turtle Lodge (stewards of 6km of nesting beach) and Beyin Beach Resort (stewards of 8km of nesting beach). From both locations a total of five species of sea turtles are thought to have been nesting on their beaches: Olive Ridley, Green, Leatherback, Loggerhead, Hawksbill. A rough estimate of the total number of animals that came ashore in 2009/2010 nesting season of October - January was estimated at @ 400 animals with a total number of nesting events estimated at 900.



They also described the highly productive upwelling system that characterizes the marine environment. For example, they described the biodiversity of the fishery: 48 species of fin-fish have been described including sea breams, snappers, groupers, sea catfishes, rays and sharks; large pelagic fishes important to the region include the skipjack tuna, Atlantic sailfish, and blue marlin as are small pelagic fish including the round sardinella, the flat sardinella, the long-finned herring and the chub mackerel. They described the importance of shellfish, lobsters, shrimps and gastropods such as octopus cuttlefish that are becoming a targeted fishery in the Western region. The team also presented information on marine mammals describing the diversity and high potential for ecotourism associated with the populations of dolphins, whales. They reminded the group that little is known about the frequency, abundance and distribution of these marine species and how this need for research could also be an opportunity for economic development of ecotourism. For example, there

is no confirmed information regarding the occurrence of the West African manatee (*Trichechus senegalensis*) in the Western Region, however, populations were identified in the past and remain part of local folklore, some local communities considering the manatee as a deity.

ECOTOURISM GOVERNANCE

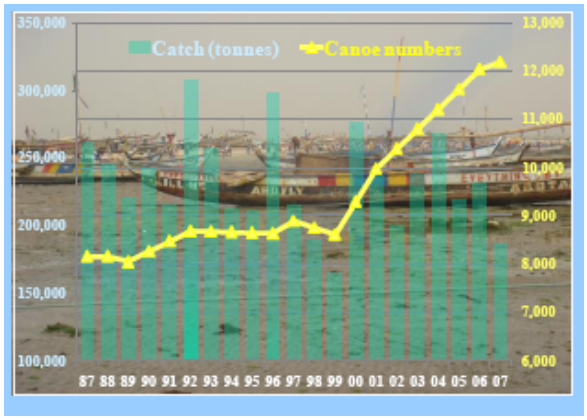
Glenn updated the group on the recent formation of a tourism board for the Western Region who represent operators of hotels and lodges, Government of Ghana tourism boards, Wildlife Agencies regional planners, and NGOs. He described the importance of such as cross sector organization that will be focusing on important issues of value chain analysis, market profiles and product development to increase awareness of the Western region as a destination for ecotourism. This group recently convened a three-part multi-stakeholder workshop to define opportunities for further development and coordination of ecotourism among their partners. One example discussed by the group during the workshops was specific marketing strategies needed to increase sea turtle conservation and the opportunities for expanded ecotourism. Linking ICFG Initiative with this group was encouraged.

GOVERNANCE CHALLENGES IN FISHERIES IN THE WESTERN REGION

Brie Feingold of the WorldFish Center built upon the material that was presented in training #1 wand added to the basic concepts fisheries, as well as issues relating to governance such as property rights and common tools for allocating harvest rights including: licensing/entry restrictions; total allowable catch (TAC); individual transferrable quotas (ITQ); and, territorial use rights in fisheries (TURFS). She included the review of a simplifying economic model of the relationship between increased fishing effort and the effect on total yield as a way to understand basic concepts of maximum sustainable yield and maximum economic yield.

In Ghana, fish comprises approximately 60% of animal protein of the nation's diet and average per capita consumption is roughly 23 kg per year. Since 80% of this catch comes from coastal fisheries, the coastal fisheries production is worth over $1 billion/year. Currently, the open access status of the fishery has led to an annual harvest that seems to be unsustainable yet the data are of such poor quality that it is difficult to be precise yet all signs point to the need to limit access. She presented some tools that are could be applied to facilitate a transition to managed access such as licensing and limited effort such as closed seasons, closed areas, gear restrictions, reduction in fishing capacity, etc

She also described what may be needed regarding limiting output such as – quotas, size limits, etc. The group described the many benefits of the artisanal fishery including much needed income to support livelihoods, ability to send children to school, raise small animals, secure health care, help to fund improvements to fishing boats and equipment and resources needed to bring the fish to market.



The group also developed a list of challenges including:

- High population growth coupled with high unemployment in fishing communities fuels increasing fishing effort.

- Reduced access to loans
- Increasing conflicts over space and increased damage to canoes and their gear as offshore oil operations intensify.
- Excessive fishing effort (in all but the industrial tuna fishery) that drives catches below their maximum sustainable yield
- The greater fishing effort, the demand for the subsidized pre-mix fuel program increases and results in reduced catches by the canoe fishery
- Few opportunities for alternative livelihoods exist within fishing communities.
- The high rate of post harvest losses that exist in the canoe fishery means less revenue
- if modern profit-driven fish marketing and fish processing practices are adopted at the canoe landing sites
- The limited opportunities for distribution of catches landed by the canoes within fishing communities. For this issue, an objective may be to build modern profit-driven fish marketing and fish processing practices adopted at the canoe landing sites

DEFINITIONS: Fisheries Management Concepts

★ **Entry limitation:** If the management aim is to reduce effort, one approach is to directly control effort by limiting entry. There are several ways of achieving this result such as distributing fishing rights to some while excluding others, this is often controversial

★ **Quota Regulation:** instead of controlling directly the input of fishers to the fishery, the focus on quotas are in controlling the output, the amount of fish caught. Quota management is common for single species and most often based on understanding of the biological nature of the species of concern.

★ **Total Allowable Catch (TAC)** is a type of quota regulation that can be used for multiple species covering the whole fishing industry, this can create a "race for the fish" where fishers are competing with each other to catch what they can within the limit.

★ **Individual Transferrable Quotas (ITQ):** is an attempt to establish an efficient allocation of quota - or share of the total allowable catch, to individuals which means that fishers don't compete with each other, and often find the most efficient way to catching their share. quotas the.

★ **Territorial Use Rights in Fisheries (TURFS):** is a traditional form of ownership attached to a relatively small and clearly distinguished territory to which value is associated. It can relate to the surface, bottom or entire water column within a specific area. The owner can be a private individual, enterprise, cooperative, association or community.

- High by-catch and damage to benthic habitats by bottom trawlers
- Increasing competition among the canoe fleet, the inshore trawler fleet and the industrial trawler fleets for the same target fish species in shared fishing grounds.

Brie described Ghana as a classic example of a data poor fishery characterized by vague stock assessments which underpin most fisheries management calculations. She noted that such stock assessments require lots of data and are very expensive but essential nonetheless if management is to be effective. She asked the group to consider what types of alternative reference points, indicators, and management measures make sense in small-scale fisheries. The group came up with several suggestions which Brie then used to summarize an example of a resilience dashboard that lists indicators and if they are met, not met or considered below a critical threshold warranting immediate action. She concluded with a discussion of the potential for highly effective co-management strategies and the importance of engaging fishers, government, fisheries stakeholders, coastal stakeholders and external agents in the process of fisheries management. She described this as an evolution or continuum from government management towards user group management which is characterized by a progression from instructive guidance to consultative support to cooperative management to an advisory role leading finally to informative user group management. She noted that WorldFish would be conducting more fisheries sector research which would be shared with all.

GOALS AND POLICIES OF ICFG INITIATIVE

Stephen Olsen led the module on potential goals and policies of the ICFG Initiative and provided a case example of his experiences in the state of Rhode Island, USA as a brief history of coastal zone management. Using the learning cycle, analysis of generations of program development and assessment of the Orders of Outcome, he described how the Rhode Island program was first conceived and later redesigned to respond to changing conditions and issues. The module provided a set of key questions facing the ICFG Initiative, as well as the importance of understanding the context that it is operating within. Stephen reminded the group that the goals and policies for the initiative needed to be integrative and define the scope and extent to which the Initiative will address issues relating to shoreline management, land use, biodiversity/ecotourism opportunities and fisheries.

Context within which Goals and Policies for ICFG Initiative needs to consider:

- ★ Extreme poverty and rapid population growth
- ★ Severe pressures on unregulated and open access fisheries
- ★ Mounting pressures on critical habitats and biodiversity with latent ecotourism potential
- ★ Potential oil boom
- ★ Major threats from climate change
- ★ Potentially large international investments in adaptive governance

Zoning Water Uses: The adjacent image was shown to the group as an example of one type of zoning scheme applied to the harbor of a Providence Rhode Island, a large City on the east coast of the US. According to the zoning scheme, the uses were divided by type. Types includes: conservation areas; low-intensity use areas; high-intensity boating; multipurpose waters; commercial and recreational harbors; and, industrial waterfronts and commercial navigation channels. Each type had a different set of allowable activities. For each activity there were a set of definitions, policies, prerequisites, prohibitions as well as additional requirements and standards.

In Rhode Island, this material was compiled into a short handbook called the "Red Book" (due to the color of its cover) and defined the desired conditions along the shore as well as the protection strategies. The Red Book did not address the complexities of pressures, jurisdictions and issues in watersheds, and urban redevelopment zones. Currently, in a fourth generation of program development, Rhode Island is in the process of negotiating goals, strategies, rules for areas of concern as Special Area Management Plans (SAMPs) that are applied to potential uses such as wind energy generation, aquaculture, recreational and commercial fishing. Furthermore, issues of climate change, sea level rise, preparations for intense storm events have required further adaptations

EXAMPLES OF MANMADE AND NATURAL FEATURES

- ★ Tidal Waters
- ★ Beaches and Dunes
- ★ Undeveloped Barrier Beaches
- ★ Moderately Developed Barrier Beaches
- ★ Developed Barrier Beaches
- ★ Coastal Wetlands
- ★ Cliffs, Bluffs, and Banks
- ★ Rocky Shores
- ★ Manmade Shorelines
- ★ Areas of Historic/ Archaeological Significance

EXAMPLES OF PROPOSED ACTIVITIES FEATURES

- ★ Filling, Removal, and Grading of Shoreline Features
- ★ Residential Structures
- ★ Marinas
- ★ Residential Docks, Piers, and Floats
- ★ Individual Sewage Disposal Systems
- ★ Structural Shoreline Protection Facilities
- ★ Dredging-Improvement
- ★ Beach Nourishment

and changes to the policy. For example, the policies will accommodate a base rate of expected 3 - 5 foot rise in sea level by 2100 in the siting, design, & implementation of public & private coastal activities. The policies will take into account different risk tolerances for differing types of public and private coastal activities. Finally the policies will be revisited by the Council periodically to address new scientific evidence.

SUMMARY PRESENTATIONS TO THE ADVISORY COUNCIL

On the final day, each of the five groups presented a 10-minute summary of their finding as part of a final training exercise, to introduce key issues facing the ICFG Initiative to the ICFG Initiative Advisory Council. These presentations were designed to give each group the opportunity to build experience in working in small, diverse teams and to present a complex topic to a high level audience.

GROUP MEMBERS

- ★ **LAND USE GROUP:** Elvis Addae, Nana Efua Ewur, Nana Bozza IX, Solomon Kusi-Ampofo, Kofi Agbogah
- ★ **SHORELINE GROUP:** Kyei Kwadwo Yamoah, Frank Ameko, Kwadwo Opoku-Mensah, Nathan Asamoah, Kwesi Johnson, Mohammed Habib, Justice Nketsia
- ★ **BIODIVERSITY AND ECOTOURISM GROUP:** Balertey Gormey, Joseph Debrah, Becky Dadzie, Richard Adupong, Aba Mohammed, Stephen Kankam
- ★ **FISHERIES GROUP:** Godfred Ameyaw, Linda Dsane, Patricia Aba Mensah, Thomas Opoku, Adolph Taylor, John Eshun, and Brie Finegold
- ★ **ICFG INITIATIVE GOALS AND POLICIES GROUP:** Mark Fenn, Don Kris Mevuta, Elisabeth Arthur, Bernard Yankum, Sally Deffor, Denis Aheto, Quansah Atta, Duodu Acheampong Adje

As anticipated, the groups presented material that both overlapped to some degree and strongly complimented each others findings. The following set of results are a condensed summary of the presentations to provide a snapshot of the type of material presented as part of this training exercise. Since the ICFG Initiative Goals and Policy Group served as an umbrella, and touched on each of the four topics, their results are woven into each groups findings:

LAND USE-Key Findings

- To be able to achieve the overall goals under the various themes of ICFG, there is the need for integration and coordination of all the policies across sectors
- There is the need to improve land administration and sustainable land use in the selected coastal communities in the western region
- Capacity of institutions needs to be strengthened to be more involved in land use planning e.g. Physical Planning Department, Lands Commission

Target 1st Order Outcomes:

- Develop clear **goals** such as: To improve land administration and sustainable land use in selected coastal communities of the Western Region of Ghana
- Develop an **action plan** to achieve the goals that is based on analysis of key issues such current policies and regulations, and work with chiefs to reduce land litigations, increase participation in Land Administration Project and secure certification for their lands, increase enforcement of bye-laws on land acquisition and building codes by District Assemblies

- Build **constituencies** for a plan of action that includes stakeholders from Ministry of Lands and Natural Resources, Traditional Authorities, Lands Commission/Land Administration Project, MMDAS, and community members
- Secure formal **commitment** from the appropriate agency to map and zone areas for various uses and that they will follow and enforce the zoning

Early Actions will be piloted in 3 Districts (Shama, Ellembele and Jomoro) to increase community participation in land use planning, strengthen collaboration and coordination among land use planning agencies/departments, identify key agencies who need to be involved in land use planning and enforcement, conduct a coastline vulnerability assessment along the Western Region Coast in respect of Climate Change and Sea Level Rise. Refine processes for mapping for various land uses and education of: District Assembly members, land owners, and community members.
Securing **commitment** to strengthen on-going pilot sanitation programs in target communities, collate the necessary logistics for spatial planning, create awareness about climate change through public fora and community workshops.

SHORELINE MANAGEMENT-Key Findings

- The interplay between shoreline features (both induced and natural), and uses of shorelines (recreation, social and economic) and impacts (degradation, increased risk and poverty) are very dynamic and complex and requires deeper understanding.
- Considering just one aspect of uses generates a complex web of interactions that are exacerbated by extreme poverty that is felt throughout the region.
- The ICFG needs to build the enabling conditions for effective and coordinated shoreline management starting with capacity, securing commitment from the proper authorities, establishing goals and engaging a broad and well informed constituency.

Target 1st Order Outcomes:

- Develop clear **goals** such as: To reduce sand winning, mangrove harvesting and improper waste disposal in selected areas and improving the natural and aesthetic conditions of the shoreline
- Develop sufficient **capacity** to achieve the goals by focusing on the necessary knowledge and information required to select pilot sites for pilot demonstrations.
- Build **constituencies** to identify partners and potential adversaries to design site specify strategies and increase stakeholder coordination and collaboration and liaise with other donor-funded programs on issues such as sanitation in the region.
- Secure formal **commitment** from the District Assemblies in all 6 districts for enforcement of bye-laws to improve shoreline management and harmonize bye-laws of the MMDAs on shoreline management to be adopted at the regional level.

Early Actions will be to compile and study all ongoing activities for shoreline management 6 coastal districts. (traditional, formal, community-led, etc) conduct mapping of shorelines in partnership with UCC, GPHA and others. Provide seedlings for enrichment planting, dust bin for proper waste disposal through the small grant program. Develop and implement communication plan with targeted materials to carry out education and sensitization campaign with EPA, DAs, NADMO, etc on radio, community meetings, etc. Develop a short, simple and fun set of good practices leaflet.

Build **capacity** to implement suitable erosion control measures along the west coast using available knowledge and institutions and secure **commitment** to enforce local laws banning destructive practices e.g. sand winning along the shore by building **capacity** of existing institutions as well as integrating programs on proper sanitation in coastal areas.

BIODIVERSITY AND ECOTOURISM-Key Findings

- There was an evolution of management practices from precolonial to independence and from traditional management of biodiversity using cultural norms, beliefs, practices to more modern expressions of extraction at all costs - including biodiversity
- In the past, Chiefs served as icons and custodians of the local traditions
- Post-independence – Policies, enactment of laws and regulations have done little to stop the rampant exploitation of biodiversity dues to ineffective policies, declining traditional beliefs and norms due to influence of modernity and weak enforcement of regulations.
- However, there is still much biodiversity to protect and preserve in the area including 53 lagoons and estuaries, abundance of birds, mangroves, fishes. Marine species such as dolphins, turtle, corals and terrestrial hot sports of biodiversity such as Cape three points forest reserve (tropical rainforest) and Ankasa serve great potential for protected areas.
- Threats to lagoons and estuaries include solid and liquid waste pollution, settlement / housing development and cutting of mangroves. Threats to the marine environment include by-catch and targetting of dolphins, sharks, turtles harvested by operators of drift gill nets, destruction of turtle nesting sites and sand winning.
- There are great opportunities such as further protection of Amansuri Wetlands which is visited by 90% of Ghanaians and building upon existing conservation programs at the community level spearheaded by wildlife division of the Forestry Commission.

Target 1st Order Outcomes:

- Develop clear **goals** such as: To restore and protect degraded and pristine lagoons, mangroves, forests and estuaries in the W/R by 2014; to contribute to enhanced productivity of wetland and forest ecosystems in the W/R; to enhance livelihoods in biodiversity rich rural areas through promotion and development of the Western Region as an Eco-tourism destination
- Build **capacity** of inhabitants in biodiversity rich rural areas near marine turtle sites to work with ecolodges on sea turtle recovery programs. Build capacity in the restoration of mangrove-degraded areas by 2014. Build capacity to understand what is necessary to establish MPAs and what is involved in specifying whether it is as a Marine reserve or a marine parks depending on the ecosystem function e.g. Dolphin watching at Dixcove, Bird watching at Esiama, Bird watching in the wetlands e.g. Ebonluwa.
- Increased capacities for eco-tourism operations in biodiversity rich rural areas by 2014.
- Identify and establish **constituencies** such as with eco-tourism programs of regional tourist boards, Ricerca e Cooperazione (RC), SNV, district assemblies and other NGOs and enhance community participation in biodiversity conservation and eco-tourism development.
- Build commitment for biodiversity conservation and eco-tourism development as evidenced by inclusion in the development plans of Ellembelle, STMA, Shama and Ahanta West Districts / Metropolitan Assemblies with the outcome that existing policies and programs on eco-tourism at the district level are strengthened.

Early Actions: build upon current education and awareness raising campaigns on radios, in schools, etc. on topics that focus on biodiversity conservation and eco-tourism promotion. Organize periodic study tours for students to potential ecotourism sites. Using sea turtles as a key area of focus, create technical training for the ecolodges who are working with sea turtles, identify good models to build tour guides, custodians of land, opinion leaders etc. Conduct waste management on a pilot basis in a community e.g. waste segregation for compost making (codify as a good practice). Encourage reforestation in target areas e.g. mangroves and coconut planting, greening using CREMAs, schools.

FISHERIES GOVERNANCE-Key Findings

- Declining Fish Stocks: increased number of fishing vessels, canoes, light, chemical fishing, etc.
- Conflicts at sea are increasing between different types of fishers over fishing grounds
- Weak governance as demonstrated by lack of adequate representation at Fisheries Commission, poor record of community-based fisheries management committees, diminished role and effect of rules set by Chief fishermen, etc
- Pre-mix/Landing Beach Committees: Composition of committees is not representative, black marketing of pre-mix fuel, inadequate supply, etc
- Destructive Fishing Practices such a light fishing, use of harmful chemicals, pair trawling
- Overcapitalization and investment in more boats leads to increased fishing effort which lead to decreased catch
- Habitat destruction
- Long term effects of climate change

Target 1st Order Outcomes:

- Develop clear **goals** such as: A Thriving Fishing Industry in the Western Region of Ghana with improved fisheries productivity
- Build **capacity** of fisheries management institutions actively collaborating such as community co-management structures while increasing enforcement of fisheries by-laws e.g. provision of equipment for MCS (Monitoring, Control and Surveillance).
- Evidence of increased government **commitment** to address these issues through improved enforcement regulations
- Identify and establish **constituencies** who may agree to voluntary compliance with reformed fishing practices such as researchers, fisheries commission, security agencies, fishermen institutions and build gender mainstreaming into fisheries policies
- Develop programs that provide resources for diversified livelihoods and conduct effective stakeholder collaboration especially through co-management practices

Early Actions: Livelihood diversification e.g. value addition (Aquaculture, farming, ecotourism, salt, coconut production). Sensitization through communication programs, increased education Target capacity building programs for key fisheries institutions such as governmental organizations and local institutions. Collaboration with the chieftaincy system for implementing traditional fisheries regulations

"OUR COAST" UPDATE

Stephen and Glenn co-facilitated a session on the development of the "Our Coast" Report. They described the document as a tool that will hopefully signal a threshold of a new era in which government, civil society and markets and the traditional Chieftancy system will all come together to negotiate a new form of governance that is effective in promoting a stewardship ethic in directing the massive forces of ecosystem change in this region towards a desirable future in which the stewardship ethic is the centerpiece.

The report will attempt to describe the many social and environmental issues that face people in the Western Region and how they have developed over time and relate to each other. Ideally, the result of the report will be a tool that will inspire diverse groups to work together to define the features of a desirable and equitable future that builds on current strengths in the existing governance system while recognizing its weaknesses. There are major limitations on what is possible so the document should be a source of inspiration for a shared vision that inspires hope, while being practical and identifying what is achievable. The document will set forth a set of near-term goals that are specific and where possible expressed in quantified and time limited terms. Such goal setting is essential even though it is difficult for there are a diversity of intrests and forces at work. Finally, the "Our Coast" document should be a source of and for ideas in phase 2 of the ICFG Initiative

The group selected a basic look and feel for the layout of the document and discussed the process and timeline for review. Mark Fenn noted that a slogan campaign is underway and may help inform the name of the report and the naming of the initiative. He noted that rather than a typical report, the document will be developed to read more like a story that articulates a shared aspiration. While biodiversity and coastal features are important, it is crucial to "put people first."

SUMMARY REFLECTIONS ON TRAINING #2

From the perspectives of the trainers, the four day session was a positive second gathering to build upon results from training #1 and further build toward a team based vision for the ICFG Initiative. Based on the formal and informal feedback from many participants the training was well received. Upon further reflection, we draw the following conclusions regarding what we need to improve:

- The early alignment into the groups seemed to work well as did the shifting around so that the group in "focus" was front and center and paying close attention to the content. It also provided a bit of movement.
- The working relationship among the larger ICFG team is developing as evidenced by the beginnings of a shared language of ecosystems governance as derived from the methods, such as issue – goals and strategies process cycle and orders of outcome, however, if there is to be continued use of the framework, reinforcement through specific activities to support the development of the "Our Coast" document would be ideal.

- The presentations were uneven, some well prepared and others less so
- There was not enough time for a proper debriefing with the full group - that is a very important step to help improve future workshops

The training session provided a forum for input into key topics as well as the strengths and weaknesses of the current governance system. In summary, the trainers strongly encourage all participants to review their roles and become familiar with the ideas, definitions, and conceptual framework of ecosystem based governance. It is important to become comfortable with the development of a shared language to increase our ability as a team to understand each other when we speak about the challenges in the Western Region. The next training in August will build upon this shared language and will provide an opportunity to review the draft of the "Our Coast" Document. We look forward to seeing everyone at that time and being back in the beautiful country of Ghana.

Training #2 Evaluation Results:

1. What aspect of the Second training did you find most useful?

The most votes went to:

- Module on Shoreline Issues and Trends in the Western Region (n=19)
- Module on Biodiversity and Opportunities for Ecotourism (n=18)
- Module on Governance Challenges in Fisheries in the Western Region (n=16)

2. What aspect of this training was least useful?

The most votes went to:

- Module 3 (n=4/28)

3. How would you rate the location (poor fair good excellent). Of 26 responses:

11% = fair, 61% = Good, 27% = Excellent

4. How do you rate the overall workshop (poor fair good excellent). Of 26 responses:

46% = Good, 54% = Excellent

PARTICIPANT NAME	EMAIL	REPRESENTING
Coastal Resources Center		
Mark Fenn	_____	CRC/ICFG
Kofi Agbogah	_____	CRC/ICFG
Godfred Ameyaw Asiedu	_____	CRC/ICFG
Sally Deffor	_____	CRC/ICFG
Balertey Gormey	_____	CRC/ICFG
Rebecca Dadzie	_____	CRC/ICFG
Stephen Olsen	_____	CRC/ICFG
Digi deGraft-Johnson	_____	CRC/Consultant to ICFG
University of Cape Coast		
Denis Aheto	_____	University of Cape Coast
Joseph Debrah	_____	University of Cape Coast
Government of Ghana		
Kwadwo Opoku-Mensah	_____	EPA, Western Region
Manwerehene of Akatakyi-Ahanta Traditional Area		
Nana Bozza IX	_____	Traditional Ruler
District Planners Western Region		
Duodu Acheampong	_____	Half Assini (Jomoro District Planner)
Frank Ameko		Nzema East (Planner)
Elizabeth Arthur	_____	STMA, Sekondi
Nathan Asamoah	_____	Ahanta West (Community Development Officer)
Baba Mohammed Iddrisam	_____	Ellembele District (Asembly)
Mohammed Habib	_____	Shama (Planner)
Friends of the Nation		
Donkris Mevuta	_____	FoN/ICFG

PARTICIPANT NAME	EMAIL	REPRESENTING
Kyei Kwadwo Yamoah	_____	FoN/ICFG
Friends of the Nation (Continued)		
Elvis Addae	_____	FoN/ICFG
Stephen Kankam	_____	FoN/ICFG
Bernard Yankum	_____	FoN/ICFG
Richard Adupong	_____	FoN/ICFG
Nana Efua Ewur	_____	FoN/ICFG
Kwesi Johnson	_____	FoN/ICFG
Justice Nketsia	_____	FoN/ICFG
Eshun John Dickson	_____	FoN/ICFG
Patricia Aba Mensah	_____	FoN/ICFG
Linda Dsane	_____	FoN/ICFG
University of Ghana		
Francis K.E. Nunoo	_____	University of Ghana
Fisheries Commission		
Adolph Taylor	_____	Fisheries Commission, Half Assini
SustainaMetrix		
Glenn Page	_____	SustainaMetrix
Regional Coordinating Council		
Quansah Atta K.	_____	WR RCC (Regional Planner)
World Fish		
Brie Feingold		World Fish