Integrated Coastal and Fisheries Governance (ICFG) Initiative for the Western Region of Ghana

HƐN MPOANO (OUR COAST)

Semi-Annual Report

October 1, 2010 – March 30, 2011

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Cover Photo: Algal Bloom in the Nets of Fishermen in the Western Region Ghana

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The Integrated Coastal and Fisheries Governance (ICFG) Program for the Western Region of Ghana

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Coastal Resources Center, University of Rhode Island

In partnership with:

The Government of Ghana
Friends of the Nation
SustainaMetrix
The WorldFish Center

April 2011

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List of Acronyms

ACDI/VOCA	Agricultural Cooperative Development International/Volunteers in Overseas Assistance
ADVANCE	Agricultural Development and Value Chain Enhancement
BALANCED	Building Actors for Livelihoods and Advancing Communities Excellence in Development
BCS	Behavior Change Support
CBAG	Community Based Advisory Groups
CBD	Community Based Distributors
CHW	Community Health Workers
CEWEFIA	Central and Western Region Fishmongers Improvement Association
COSPE	Co-Operation for the Development Of Emerging Countries
CRC	Coastal Resources Center
CREMA	Community Resource Management Area
CSOs	Civil Society Organizations
CSR	Corporate Social Responsibility
DCEs	District Chief Executives
DP	Development Partners
ECHNTS	Essiama Community Health Nurses Training School
EPA	Environmental Protection Agency
FiC	Fisheries Commission
FP	Family Planning
FtF	Feed the Future
FWG	Fisheries Working Group
GIS	Geographic Information System
GOG	Government Of Ghana
GSBA	Globally Significant Biodiversity Area
GSO	Graduate School of Oceanography
IBA	Important Bird Area
ICFG	Integrated Coastal and Fisheries Governance
ICM	Integrated Coastal Management
IEC	Information Education and Communication
IEHA	Initiative to End Hunger in Africa
ILGS	Institute Of Local Government Studies
IMCS	International Monitoring Control and Surveillance Network

LCA	Leadership for Conservation in Africa
LI	Legislative Instrument
LOGODEP	Local Government and Decentralization Program
M&E	Monitoring and Evaluation
MCS	Monitoring Control and Surveillance
MEST	Ministry of Environment Science and Technology
MFRD	Marine Fisheries Research Division
MOFA	Ministry of Food and Agriculture
MPAs	Marine Protected Area
MPs	Members of Parliament
NGO	Non Governmental Organization
NORAD	Norwegian Agency for Development Cooperation
NSV	National Service Volunteers
ONR	Office of Naval Research
PEs	Peer Educators
PHE	Population Health and Environment
PMP	Performance Monitoring Plan
RCH	Reproductive and Child Health
REDD	Reducing Emissions From Deforestation And Forest Degradation
RRA	Rapid Rural Appraisal
SO	Strategic Objective
STMA	Sekondi- Takoradi Metropolitan Assembly
TBD	To Be Determined
ToR	Terms of Reference
UCC	University of Cape Coast
URI	University of Rhode Island
USA	United States of America
USAID	United States Agency for International Development
USG	United States Government
WAPCA	West Africa Primate Conservation Association
WERENGO	Western Region Network of NGOs
WR	Western Region
WRCC	Western Regional Coordinating Council

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Executive Summary

The *Integrated Coastal and Fisheries Governance (ICFG)* Initiative is a four-year (2009-2013) U.S. Agency for International Development (USAID) supported Program in Ghana with funding is from the United States Congress Food Security (Feed the Future) and Biodiversity Earmarks. The Program is implemented through a cooperative agreement with the Coastal Resources Center (CRC) University of Rhode Island (URI), USA. Key partners are the WorldFish Center, SustainaMetrix and Friends of the Nation.

Program activities have been concentrated in six coastal districts of the Western Region where coastal communities and their local governments are the intended primary beneficiaries. Given the nature of some of the issues and the scale at which they need to be addressed, the program also links local actions with national programs as well.

In Year 1 or Phase 1 (2009-2010), a series of studies and field based assessments culminated in the publication of the "Our Coast" document. This document communicates the evolution of ecosystem change and ecosystem governance at both the sea and landscapes in the 6 districts. The document presents a way forward and outlines what the ICFG Initiative seeks to accomplish in Years 2 to 4. The document which was launched in Accra and Takoradi in March 2011 has been widely distributed throughout the coastal zone of Ghana.

The first six months of Year 2 of the ICFG or ***Hεn Mpoano***[1] Initiative saw the implementation of activities towards achieving the planned objectives. The activities focused on capacity building and training for Program Staff and key partners on Integrated Coastal Management (ICM) planning to address the critical issues identified in Phase I. A total of 58 Civil Society Organizations (CSOs) and government agencies (48 CSOs and 10 government agencies) received capacity building and training support (Indicator 3) (see Annex 2 for details on the Program Indicators). The number of individual stakeholders from local communities participating in capacity building and resource management initiatives was 516 people, of which 83 were females (Indicator 4). Finally, the number of government personnel, community leaders, and private sector stakeholders trained was 260 of which 89 were females. The investments in capacity building have greatly enhanced engagement at all levels and have bolstered a growing sense of local ownership of the Hεn Mpoano "brand" of thinking and action, or constituency building (a major part of the First Order Outcome for enabling conditions).

For Phase II, three focal land and seascape areas were identified as priorities for both biodiversity and food security as well as for developing models for integrated coastal zone planning. They are the Shama District, the Greater Cape Three Points Area and the Greater Amansuri Wetlands. During this reporting period, activities have focused Shama and Cape Three Points. A demand driven participatory spatial planning exercise in the Shama District yielded exciting results and generated enthusiasm both within and outside the District. The Shama District process has become a model for participation and training of local government (district) personnel as well as traditional leaders, elected district assembly representatives and community members. The exercise has also contributed to behavior change and pro-active actions for communities and districts vulnerable to the effects of climate change, notably flooding and shoreline erosion.

[1] ***Hεn Mpoano*** means 'Our Coast' in the local Fante dialect. It emerged as a slogan context to identify a local catch phrase that the local people can relate to and that which reflects the aspirations of the Initiative. It is now the brand name of the ICFG Initiative.

The ongoing profiling of the critical issues in the Shama District has also enlightened leaders as to the most pertinent priority area that local government needs to address together with other partners. This process has also involved collaboration with the Geography and Regional Planning Department of the University of Cape Coast and has already influenced the Department's technical training programs. As other donor supported programs have shown interest and committed funding to support and complete Spatial Planning in the District, Hεn Mpoano will focus its support to the District to address the critical coastal issues of seashore erosion, flooding and coastal wetlands degradation.

Progress on the Greater Cape Three Points focal area included stakeholder consultations that have led to the creation of a working group that has begun addressing issues of uncontrolled access into the Cape Three Points Forest Reserve. This forest is the last remaining coastal rainforest in West Africa and is of critical importance for conservation of two rare primates and several bird species. The working group has begun the revision of the management plan of the forest reserve (Indicator 2) that will include community co-management of the forest and peripheral areas. Community awareness and patrolling actions have resulted in a decline of some of the flagrant illegal activities of artisanal mining and logging. Thus we can say that the 5100 hectares of forest reserve are already under improved management (Indicator 6).

Feasibility and reconnaissance studies for a future Marine Protected Area (MPA) covering critical wetlands areas and marine habitats - east and west of Cape Three Points and contiguous to the forest reserve have begun. The Hεn Mpoano Initiative is playing a lead role in supporting an inter-ministerial committee that is identifying modalities (process and institutional) for establishing and managing MPAs in the future.

Management planning for the three urban wetlands (240 hectares in the Sekondi-Takoradi Metropolitan Area (STMA) as well as future community managed wetland areas where local NGOs have been provided grants for conservation initiatives (6000 hectares) are advancing and many of the NGOs will be provided with follow-up grants to continue these programs. The Department of Fisheries and Aquatic Sciences of the University of Cape Coast has begun a collaborative program to develop educational and participatory monitoring with schools and communities adjacent to 10 priority wetland sites. One of these sites is the third focal area of the Greater Amansuri Wetlands. Preliminary meetings have been held with local conservation NGOs and traditional leaders to discuss scenarios for establishing a community managed protected area for the Amansuri area.

A collaborative agreement has been reached with Forest Trends (US based NGO) to identifying opportunities and completing feasibility studies for long-term funding for this large wetland area either through carbon sequestrations schemes (REDD or voluntary) or biodiversity offsets. Scenarios for formalized conservation status for the Amansuri wetlands and over 10 other wetlands areas will be based upon district by-laws presently being developed for the three urban wetlands in the STMA. These wetlands are of critical importance for biodiversity conservation and buffering the effects of climate change.

Progress on seascape and fisheries management focused on actions aimed at addressing food security concerns; improved fisheries data collection; support for the new fisheries regulations; the establishment of a fisheries sector "working group"; a fisheries value chain study; and CRC leading efforts to understand and addressing the problems associated with algae blooms. These

actions ultimately contribute to a fisheries sector plan that aims to maintain and restore the fisheries which is an essential element of food security for the country.

Innovative data collection programs are being piloted by the WorldFish Center with the use of 10 National Service Volunteers spread across the six districts. The data on fisheries effort has already provided useful insights into how fisher folk make decisions. Catch data is revealing information on ecological trends in the fisheries that will orient strategies for managed fisheries in the near future. The WorldFish Center led a "value chain" study in order to identify where market and process interventions could improve both quality and economic returns for local livelihoods.

Essential support to the Fisheries Commission to promote the new Fisheries Regulations included several forums for communicating the regulations and discussing means for promoting compliance. In addition, workshops were organized for the various agencies responsible for enforcement to render more efficient the prosecution of flagrant violations of the Regulations. A Fisheries Sector Working Group, comprising pertinent stakeholder groups has been created in the Western Region with the benediction of the Fisheries Commission. This "group" has already been instrumental in communicating the ecological justifications for the new fisheries regulations and in defusing several emerging conflicts resulting from them.

A critical action, relative to addressing evolving food insecurity in the Ellembelle and Jomoro Districts has been CRC's instrumental role in awakening the national conscience on the "green-green" algae bloom problem and leading scientific to determine the source and drivers of the marine algae bloom which has plagued the two coastal districts for nearly two decades. To this end, a national task force (which includes representation from CRC) has been established by the Honorable Minister of Environment Science and Technology to consider study the impacts of the bloom on the coastal communities in the two districts and recommend possible interventions by the Government of Ghana. CRC has also facilitated the start of a research program that will identify the cause or origins of the bloom with researchers from the University of Rhodes Island and the US Environmental Protection Agency. Early indications, coming from assessments of the nitrogen isotopes, point to sources from municipal sewage drifting from the Ivory Coast (as compared to agricultural or industrial pollutants or the natural marine upwelling). CRC initiated a collaborative research with colleagues in the Ivory Coast but the process has been stalled by the political situation on that country.

Several programs aimed at improving social conditions and diversifying livelihoods which contribute to food security objectives have been developed. Most noteworthy are the Hɛn Mpoano Small Grants scheme that provided several grants for promising actions in diversified revenue to families in fishing communities and a pilot "population-health-environment" (PHE) program that extends family planning extension and nutritional education programs to rural communities through a local NGO (CEWEFIA). The PHE program is supported by the USAID funded "BALANCED" program to CRC that operates in several countries worldwide.

The communications component of the Initiative has been an essential element for all of the aforementioned actions and evolving collaborative programs. The communications strategies and activities revolve around the use of various visual mediums, rural drama, and collaboration with local FM radio stations to produce programs that will address many of the critical issues in the coastal districts. Communications programs are increasingly being designed together with other

USAID funded health and governance programs in the Western Region, notably LOGODEP and the Behavior Change Support (BCS) Program.

To date, the Initiative has a few early success stories that are highlighted in the report. However, there have been some constraints in program implementation, notably, that of a diversity of actors with support programs for spatial planning in the Districts, postponement of the planned study and exchange trips to the Ivory Coast (due to the unstable political situation), and an increase in illegal mining activities in river valleys. Measures for addressing these constraints have been identified and are discussed in detail.

1.0 Introduction

The *Integrated Coastal and Fisheries Governance (ICFG)* Program is a four-year (2009-2013) Initiative supported by the U.S. Agency for International Development (USAID). It is implemented through a cooperative agreement with the Coastal Resources Center (CRC) University of Rhode Island (URI). Key partners include the WorldFish Center, SustainaMetrix, Friends of the Nation, the Fisheries Commission, coastal districts in the Western Region and other key government, private sector and civil society groups along the coast.

1.1 Geographic Area of Focus

Program activities have been concentrated in six coastal districts (Figure 1) of the Western Region, where coastal communities and their local governments are the intended primary beneficiaries. Given the nature of some of the issues and the scale at which they need to be addressed, the Program links local actions with national initiatives as well.

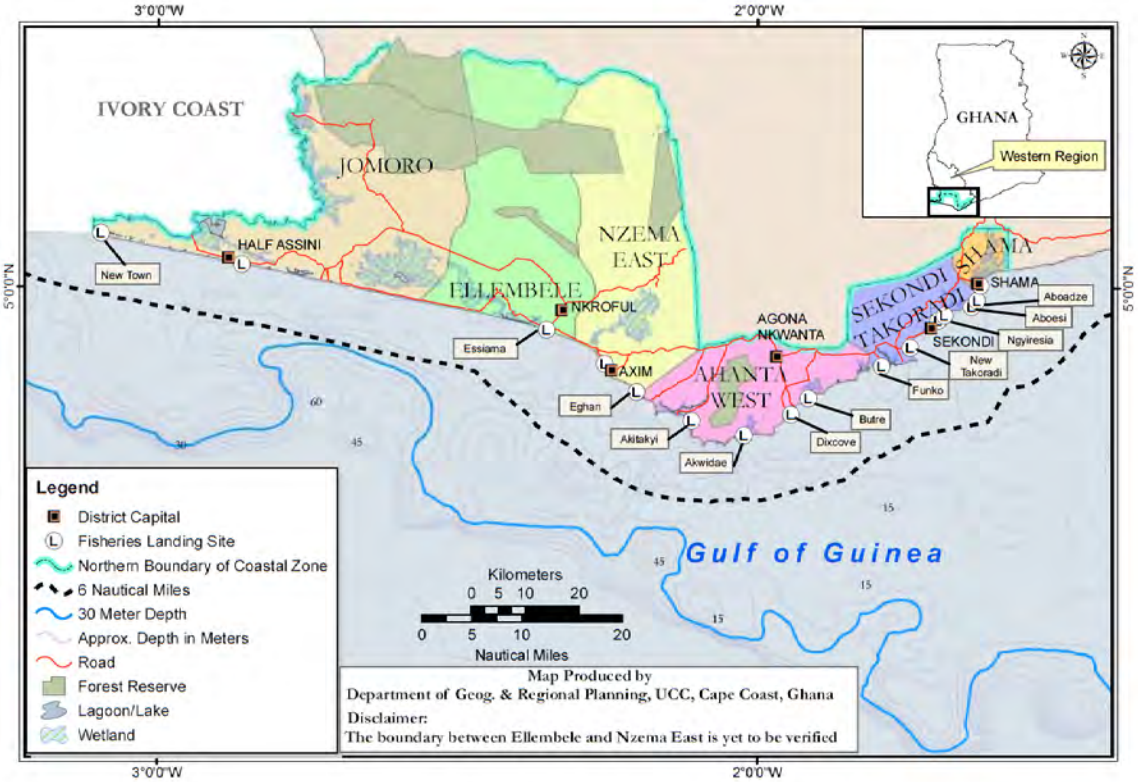


Figure 1: Map of the six coastal districts in the Western Region of Ghana

1.2 The Project Goal and Results Framework

The goal of the ICFG Program (***Hεn Mpoano Initiative***) is to support the government of Ghana in achieving its development objectives of poverty reduction, food security, sustainable fisheries management and biodiversity conservation by contributing to the following 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.

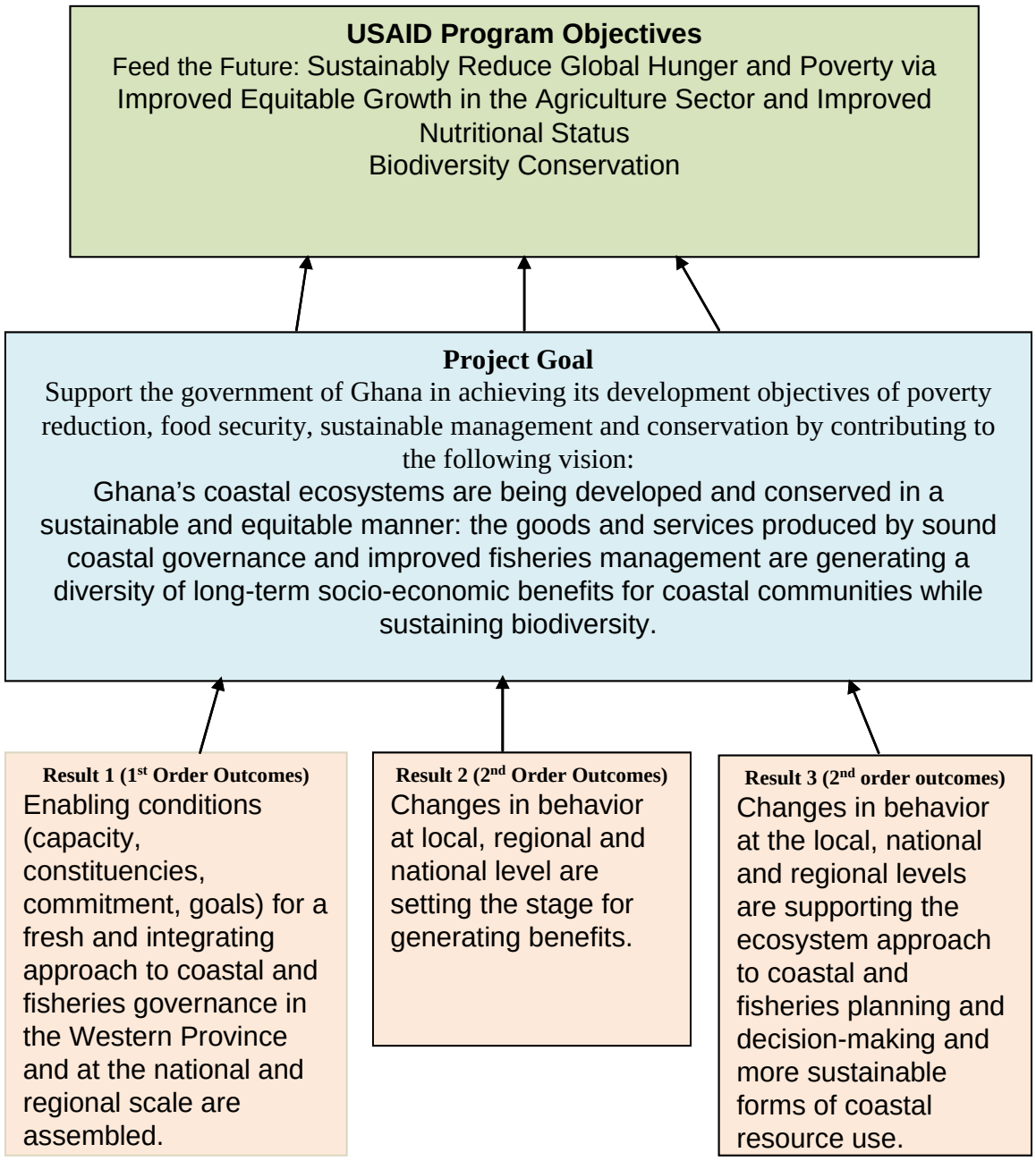


Figure 2: Hɛn Mpoano Results Framework in relation to USAID Program Objectives

The diagram (Figure 2) describes the project results framework, including the project goal and intermediate results and their relationship to the USAID/Ghana program objectives. More specifically, the Hɛn Mpoano activities have been designed to address:

- critical food security (Feed the Future-FtF) challenges of improving the governance and management of the fisheries and fisheries value chains (*Feed the Future Initiative's goal to Sustainably Reduce Global Poverty and Hunger* - see Fig. 3) and
- biodiversity conservation through sustained management of marine and coastal resources based on the USAID biodiversity code criteria.

Also, the Program addresses several cross cutting themes on gender, decentralization, public-private partnerships and empowering Ghanaians (See Annex 1 for details). Monitoring of program activities is based on baseline conditions as they relate to the Orders of Outcomes framework (articulated in Box below) as well as a number of standard USAID FtF and biodiversity indicators (see Annex 2).

Orders of Outcome Framework

The Orders of Outcomes is our results framework and development hypotheses which disaggregate the goal of the program into a sequence of more tangible outcomes. The 1st Order Outcomes define four enabling conditions while 2nd Order Outcomes are measured by changes in the behavior of governmental institutions, relevant groups exploiting or otherwise affecting ecosystem conditions; and of those making financial investments in the system. The 3rd Order marks the achievement of the specific societal and environmental quality goals that prompted the entire effort. The achievement of a sequence of 3rd Order goals marks the path to the sustainable forms of development that are defined as the 4th Order.

1st Order Outcomes will be the major emphasis of the Program in the first four years.

Result 1: Enabling conditions for an integrated approach to coastal and fisheries governance in the Western Region and at the national and regional scales are assembled. (This result area defines targets on issues of local, national and regional governance, policy reform and communication, and private partnerships and alliances).

2nd Order Outcomes are possible as expressed in the following two result areas once a sufficient threshold of enabling conditions are achieved:

Result 2: Changes in behavior at local, regional and national level are setting the stage for generating benefits.

Result 3: Changes in behavior at the local, national and regional levels are supporting the ecosystem approach to coastal and fisheries planning and decision-making and more sustainable forms of coastal resource use.

As these 2nd Order Outcomes are achieved, the potential for building evidence toward achievement of 3rd Order Outcomes as expressed in the goal statement become possible. Together, the goal statement and the sequence of orders of outcome results described above, make up our results framework and development hypotheses.

1.3 Hεn Mpoano's Contribution to Feed the Future

The Importance of Fisheries in Ghana's Food Security

Fish protein is an important constituent (60%) of animal protein in the diet of Ghanaians and more importantly the fisheries sector contributes about 4.5 % to agricultural GDP. The marine resources which include many pelagic and demersal fishes of which sardinellas (sustained by the rich upwelling ocean system of the Gulf of Guinea) are the mainstay of the fisheries of the coastal people, providing more than 2.5 million Ghanaians (10% of population) with livelihoods. Equally important is the fact that much of the fish caught in Ghana's marine waters is smoked, dried and transported long distances to the Northern areas of the country as well as to other sub-Saharan countries in the region where it provides an essential high quality food protein to these inland populations.

A Fisheries Sector Review of Ghana (carried out as part of the Year I activities) suggests a fisheries in crises. Figures 3 and 4 below show a general decline in landings over the past decade, particularly in many of the lower value small pelagic species that are a main food protein source for coastal communities, northern regions of Ghana and other Sahel countries as well. The main cause of this situation is poor governance of the fishery that has resulted in a dramatic increase in fishing effort over the last decade of the small-scale canoe and commercial fishing fleets. Government fuel subsidies to the canoe sector have exacerbated this situation.

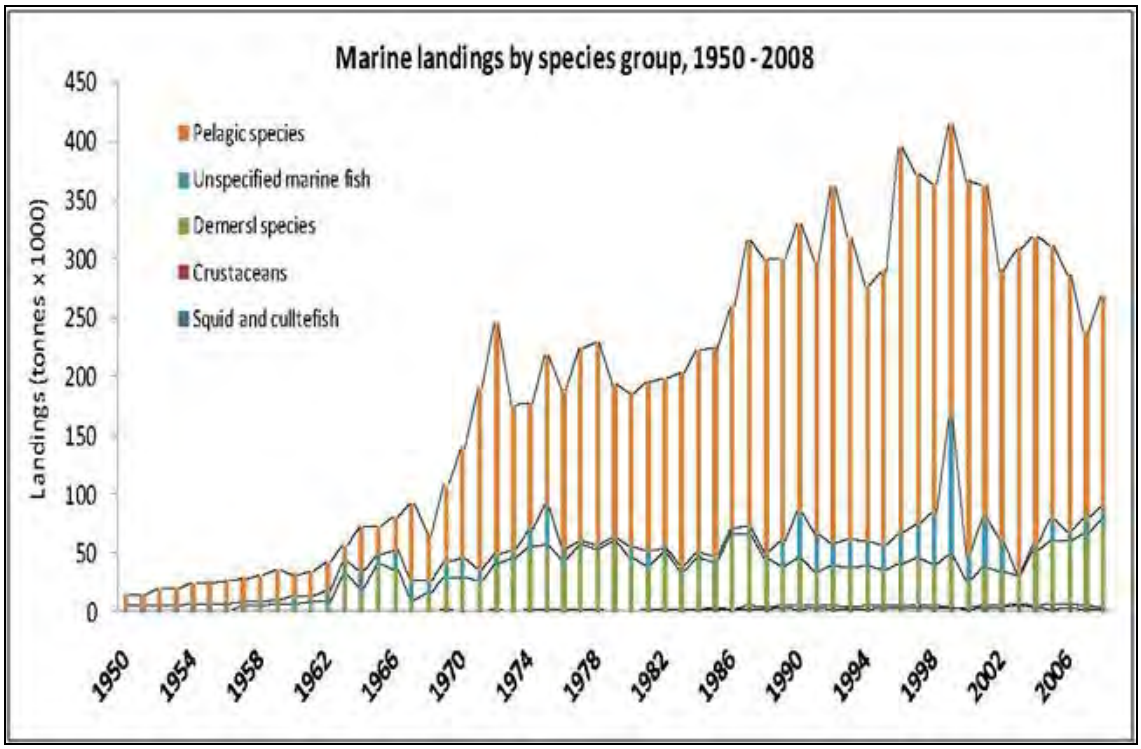


Figure 3: Fish landings by species group, 1950-2008

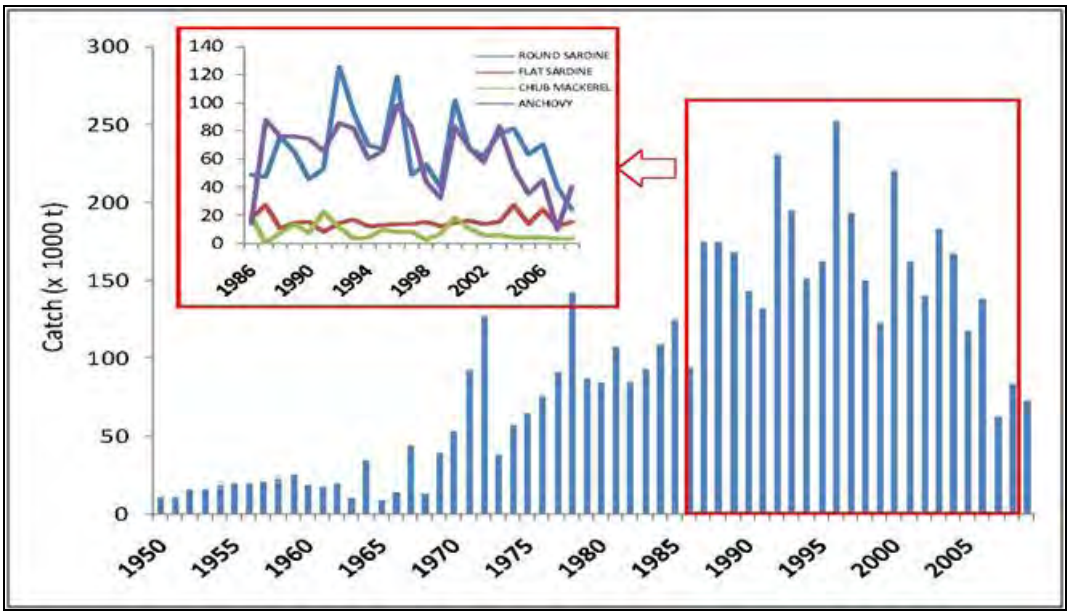


Figure 4: Landings of Sardines (small pelagic) 1968-2010

Most of Ghana's marine fisheries are now considered overexploited, more simply put – too many fishermen chasing too few fish. Without improved governance of the fishery, this situation is likely to get worse with lower levels of cheap fish protein supplied domestically to some of those most in need – poor rural fishing and farming households in Ghana. Further exacerbating these problems will be the impacts of climate change on the coastal zone – where sea level rise is threatening to inundate much of the land-based fisheries infrastructure that supports harvesting, processing and settlement areas for the tens of thousands of fishing households dependent on this resource.

Project Activities in Relation to the Ghana FtF Results Framework

Figure 5 shows the USAID mission results framework for the Feed the Future initiative and how key project activity components contribute to intermediate result areas of the USAID FtF initiative.

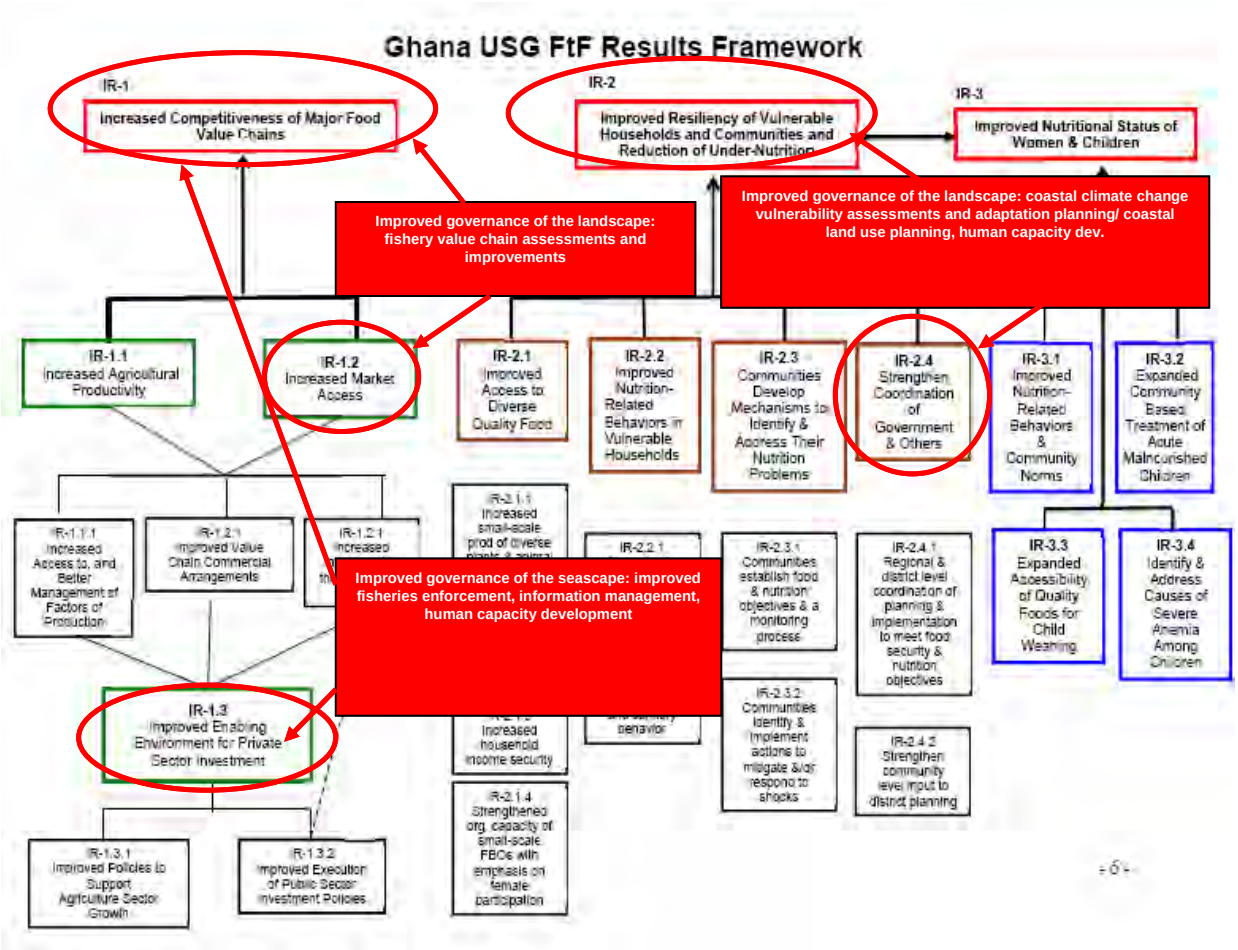


Figure 5: USAID FtF Results Framework in Relation to Hɛn Mpoano Program Elements

1.4 Hɛn Mpoano's Contribution to Biodiversity Conservation in Ghana

Areas of Biological Significance

The six focal districts of the Hɛn Mpoano Initiative within the Western Region harbor biologically significant coastal and marine biodiversity assets of Ghana. Their many wetland ecosystems (fresh and brackish water) are important nursery grounds for juvenile fish, critical habitat for migratory waterfowls and a sink for carbon. Also, the sandy shores are nesting areas for 4 endangered marine turtles and several species of dolphins. The Cape Three Points Forest Reserve (the last coastal rainforest in West Africa) has two rare species of primates and is a designated Globally Significant Biodiversity Area/Important Bird Area (GSBA/IBA). Offshore of Cape Three Points is an important calfing ground for the humpback whale.

Threats to Biodiversity

A number of studies were carried out during Phase I (Year I) of the project which identified threats to the biodiversity assets of the coastal areas of the Western Region and provided baseline environmental information on their current status and conditions. The studies included:

- Biodiversity Threats Assessment of the Western Region
- Assessment of Critical Coastal Habitats of the Western Region
- Rapid Biodiversity Assessment of Three Urban Wetlands of the STMA
- Assessment of Local Knowledge of Fishing Grounds and critical habitats in the Nzema East and Ahanta West Districts

The major threats to biodiversity were identified as:

- Over-exploitation of marine fisheries resources including use of destructive fishing practices
- Loss of coastal habitat (due to destruction of wetlands)
- Pollution of the marine and coastal environment from land based sources - enriching coastal waters with nutrients (leading to blooms of marine green algae)
- Climate change impacts
- Weak governance, legislation and institutional framework, and lack of political will to enforce legislation
- Development of offshore oil and gas resources

How the Project is Addressing these Threats

Activities in Year II and detailed in Section 2 of this report have been designed to address identified threats. They include the following key objectives:

- Protection of the Amanzuri wetlands and initiating steps to raising its status to a Ramsar site due to its special biodiversity features
- Development of legislation for the protection and conservation of the Cape Three Points Forest reserve
- Protecting endangered species such as marine turtles, cetaceans and manatees
- Improving land use planning that prevent conversion of critical coastal wetlands and protect fishing settlements and fish production infrastructure from impacts of climate change
- Establishment of by-laws to protect three wetlands in the STMA
- Improved enforcement of the fisheries laws that are designed to reduce overfishing and destructive fishing
- Supporting actions for the establishment of the first Marine Protected Areas in Ghana to protect critical habitats where fish spawn

- Applied research to determine the source of the harmful algal bloom (green-green) in the coastal waters of the two westernmost districts which impact adversely on fishing livelihoods and the coastal communities
- Providing diversified livelihood opportunities for fishing households to make them less dependent on fishing

Figure 6: Illegally caught live turtles in the trunk of a Taxi

Figure 7:Rescued turtles released to sea near Cape Three Points

1.5 How the Project is Monitoring Progress on Addressing Biodiversity and FtF Objectives

The Hɛn Mpoano Initiative tracks progress on activities under the Feed the Future and Biodiversity through nine (9) customized performance indicators (see Annex 2). For example, Indicator 1 tracks three initiatives (Cape Three Points, Amanzuri and Shama) and Indicator 2 provides evidence of an Integrated Coastal Management and Fisheries strategy, plans, policies and by-laws to be adopted by government while Indicator 3 tracks the number of organizations strengthened for advocacy in and management of natural resources. The other six indicators track of progress on other activities.

1.6 Overview of Year 2

This semi-annual report covers the period October 1, 2010 to March 31, 2011 of the second year of the project. The first year focused on a learning period that included: issues identification and profiling in the coastal districts; building constituencies and developing partnerships; training and initial capacity building of program partners; and piloting small scale activities to test new ideas and possible social approaches. A series of sector assessments and field based research culminated in the summary publication "Our Coast" which analyzed the evolution of governance within the coastal zone of the Western Region in relation to the land and seascapes, identified and profiled critical issues that will need to be addressed, and suggested a way forward.

Year 2-4 (2010-2013) considered as Phase II, focuses on defining and achieving the four enabling conditions for the sustained practice of the ecosystem approach as defined in the project document and subsequent annual work plans. Experience suggests that the transition to the full scale implementation of an ICM program can be anticipated only when all four of the following conditions are present:

- A core group of well informed and supportive constituencies supports the program
- Sufficient capacity is present within the institutions responsible for the program to implement its policies and plan of action
- Governmental commitment to the policies of a program has been expressed by the delegation of the necessary authorities and the allocation of the financial resources required for long-term program implementation
- Unambiguous goals define both the societal and the environmental conditions against which the efforts of the program can be measured

The assessments conducted in Phase I set the stage for designing the specific activities to be implemented in the subsequent years of the Hεn Mpoano Initiative as well as key partnerships to be developed. The key issues identified in Phase I were discussed during several stakeholders forums as part of the work planning process for Phase II and Year 2 in Takoradi in August, 2010. The outcomes of these forums led to the development of five specific objectives for Phase 2. These objectives were developed into the following programmatic components as stated below.

- *Component 1: Develop and Formalize a Nested Governance System for the Coastal Zone of the Western Region*
- *Component 2: Improve Governance of the Landscape*
- *Component 3: Improve Governance of the Seascape*
- *Component 4: Build Capacity for the Governance of the Coastal Zone and Marine Fisheries*
- *Component 5: Monitor and Evaluate Progress and Learning*

These objectives are being implemented through a series of activities within the six coastal districts. However, as we progress towards meeting these objectives, we expect that there may be needs and opportunities that emerge from this experience that requires work at the national level on revised policies, regulations or laws that enable improved governance at the local scale (regional, district and community scales). Activities in fulfillment of the objectives stated above are presented in detail in Section 2 of this report.

This semi-annual report presents the progress made to date in Phase II. In addition to reporting progress, it highlights successes, lessons learned, and emerging constraints to successful implementation and measures identified to address them. The annexes report on the monitoring and evaluation indicators that are integral parts of the Performance and Monitoring Plan.

2.0 Program Activities

2.1 Component 1: Develop and Formalize a Nested Governance System for the Coastal Zone of the Western Region

Introduction

Under this objective, the Initiative seeks a formal governmental commitment for a nested system of governance that provides a model for a future national program. The strategy is to assemble enabling conditions for a long-term program by engaging in a variety of activities that build capacity and a constituency for a fresh approach to fisheries and coastal governance in Ghana.

The Component has three sub-activities which provide forums where options for a nested coastal and fisheries governance systems are discussed and strategies for sustaining a coastal and fisheries program formulated. The institutional partners under this component include: the Fisheries Commission, Western Region Coordinating Council (WRCC), the 6 focal District Assemblies, USAID Program on Local Governance and Decentralization Program (LOGODEP), Ministry of Local Government and Rural Development, Traditional Authorities and relevant civil society organizations.

2.1.1 Activity 1.1. Coordination of Activities and Assessment of Governance Options through the ICFG Advisory Council

A nine-member Advisory Council chaired by the Chief Director of the WRCC has oversight responsibility on the Hɛn Mpoano Initiative. The Council meets quarterly to deliberate on experiences and results emerging from program activities.

The Advisory Council met twice during the period and among the major issues considered were steps to be taken to protect the three urban wetlands in the Sekondi Takoradi-Metropolis; the menace, impacts and opportunities associated with the algal bloom (green-green) phenomenon in the coastal waters of Ellembelle and Jomoro Districts; and matters arising from the Fisheries Sector Review for Ghana undertaken during Phase I.

As a result, the Chairman of the Council wrote to the Metropolitan Chief Executive and Assemblymen/women of the STMA advising the Assembly to consider the roles and importance of these wetlands (Figure 8) and establish processes, including the delineation, development and gazetting of by-laws for protecting these wetlands. This pilot wetlands action will set the stage for a larger evolving wetlands conservation effort across the six coastal districts.

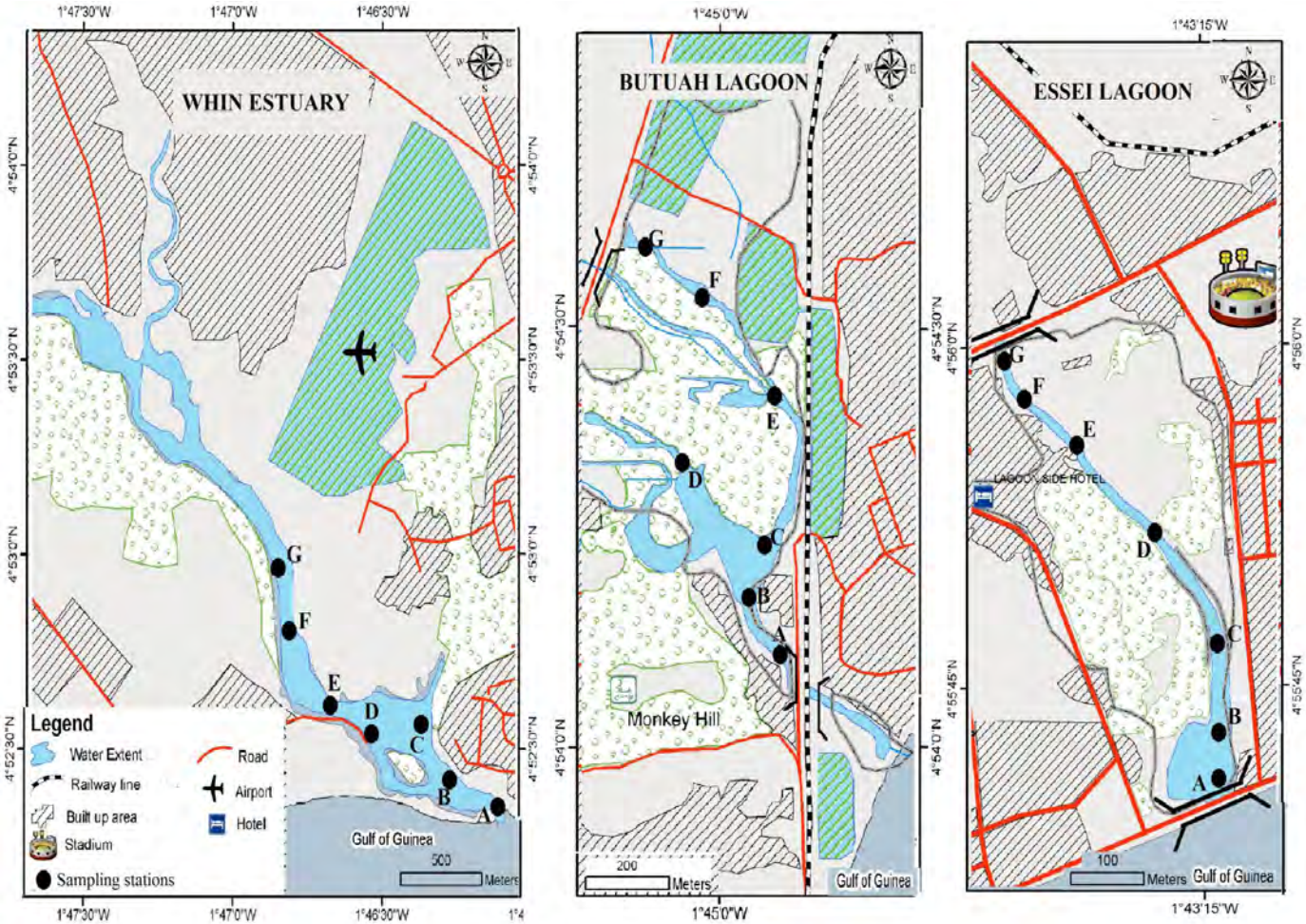


Figure 8: Map of the three wetlands in the Sekondi Takoradi Metropolis with the monitoring sites established in a collaborative program with the Fisheries and Aquatic Sciences Department of the University of Cape Coast.

Success Story

Evolving Wetlands Conservation and Collaboration

The urban wetlands program in the Sekondi-Takoradi Metropolitan Assembly (STMA) District has generated much needed attention with both local government and community stakeholder groups. Through two events held at the Essei Lagoon site, prominent local officials, notably the Metropolitan Chief Executive, Members of Parliament, and the Regional Directors for Planning and the Environmental Protection Agency have pledged their support to CRC's objective of creating Ghana's first urban nature reserves for the three wetland areas.

The STMA program, combined with the small grants wetlands program, will form the basis for a larger effort to bring wetlands conservation to the forefront through schools and interactions among community voluntary monitoring groups that CRC hopes will be supported by the private sector. A program for participatory monitoring with communities and schools, coached by UCC and funded by the private sector, is set to evolve into a friendly competition with wetlands scorecards whereby participants will be rated on conservation, restoration, and threat abatement indicators. The competition seeks to create better awareness, and notably pride, for the conservation of the wetland areas.

2.1.2 Activity 1.2 Assessment of Legal/Institutional Options for a Nested Coastal Governance System

The present local governance/decentralization system has been evolving since 1988. This activity is intended to review how expectations and objectives (of the decentralization process) have changed over time. The expected outcome includes the identification of options to be pursued to strengthen and clarify authority and responsibility for land use and fisheries management at the community, district and region scales.

A draft Terms of Reference for this assessment has been designed to clarify the sources and scope of district level authority over land use, shoreline development, and fisheries management. The task has been provisionally put on hold to allow for the review of an earlier study on the 'Status of Decentralization in Ghana' conducted by Development Partners (DP) and the Government of Ghana (GOG). Also, LOGODEP indicated its interest in the study and will collaborate and advise on the possible next steps in the coming semester.

2.1.3 Activity 1.3 Fisheries Working Group for the Western Region

Constraints to effective fisheries management identified in the Phase I included:

- low level of communications between community level efforts in fisheries, the district assemblies and the fisheries authorities and
- weak consultation among stakeholders resulting in poor and frequently ineffective enforcement of rules and regulations.

To address the observed constraints, the Hɛn Mpoano Initiative sought and received the approval of the Fisheries Commission to constitute and pilot a *Fisheries Working Group* (FWG) – a committee of fisheries stakeholders from the Western Region - to work with the Directorate of Fisheries in addressing some of the observed concerns. The FWG is comprised of 11 persons drawn from 9 institutions and representing: Canoe Fishermen, Fishmongers, Industrial and Semi-industrial fleet, Navy, Police, EPA and Attorney General's Department.

Lessons Learned and Opportunities

Fisheries Working Group

Deliberations of the Fisheries Working Group brought out deep-seated issues and sometimes the subtle, and not so subtle, conflicts and tensions existing between the various fishing groups – issues which often would ordinarily degenerate into heated arguments and blame passing. The platform provided by the Initiative has offered an opportunity for open and frank discussions and brought together an otherwise disjointed power players and efforts at managing the fisheries sector.

Also, the intricate nature and complexities within the sector has become apparent as the cross-sectoral inputs allowed representatives to understand largely the mandates and the workings of the various sectors and therefore the imperative for one organization or the other to be represented on the Working Group. For example, the Working Group had a rare opportunity to address the petition of the *Sekondi Canoe Owners Association* on the new Fisheries Regulations (LI 1968) whereby the Association sought to provisionally reverse the ban on light fishing and threatened prolonged non-compliance. This issue was brought to the Working Group and the Attorney General's Department representative led in the resolution of this misunderstanding as well as other issues in the petition. The Working Group is quickly evolving as the "defacto" forum for discussing and addressing fisheries related issues in the Western Region.

Opportunities: Representatives of the fleets raised some doubts about the official statistics reported on fish landings and associated information. To this end, the inshore semi-industrial fleet has welcomed the Initiative and the Fisheries Commission to develop and pilot a data collection system at the Sekondi Fishing Harbor. As the Initiative is already working with the Commission to improve on catch data and information, the National Service Volunteers and agents of the Commission will be assigned to work with the semi industrial and industrial fleets in the Region on data collection. The semi-industrial fishers have also invited the Initiative to extend its education and other activities to their members as they together with the artisanal fishers share the same marine space and are confronted with similar issues.

The group has been mandated to bring up and collectively address the issues/concerns in the sector as well as advise the directorate of the Fisheries Commission in the Western Region. The Director of the Fisheries Commission in the Western Region is an ex-officio member.

The group held three meetings to consider pressing issues in the sector to identify channels and mechanisms for communicating the issues to various stakeholders. Also considered were constraints to compliance and enforcement of the new fisheries regulation (LI 1968) passed in August 2010 to give effect to the Fisheries Act 625 of 2002. The group is expected to be inaugurated in the next quarter by the Minister in charge of Fisheries to formalize its activities.

2.2 Component 2: Improved Governance of the Landscape

Introduction

This component seeks develop the enabling conditions and test actions that will coherently address the critical landscape issues identified in Phase I. These issues include: high population pressures; accelerated and unplanned development resulting in the loss of agricultural areas for local food production and hence food and livelihoods insecurity; maintenance of ecosystem services and function; weak governance of the landscape; and vulnerability to climate change.

At the outset, the main challenge is developing capacity for district level planners and local traditional authorities for landscape planning and adherence to negotiate planning that best provides for the food and livelihoods security of communities while maintaining vital ecosystem services and biodiversity. Other important challenges include slowing the pace population growth while identifying promising diversified livelihood activities that fisher folk can practice as fish harvests continue dwindle. Though only a portion of funds for the ICFG Initiative come from the Feed the Future (food security) funding, the piloting of fisheries into food security programs is essential for countries like Ghana where both livelihoods and food security as well the overall economies of the coastal zones and the nation, are heavily dependent a healthy fisheries sector.

The component addresses development-related issues and promotes the conservation of biodiversity and actions designed to sustain the flow of ecological goods and services. It also seeks to improve the social conditions of the coastal population and identifies activities for diversifying livelihoods. Long-term success will depend on changing behaviors and effective co-management of the landscape where communities and districts play a more significant role in steering the development process with the support of the traditional leadership.

The component features three sub-activities:

- Building capacity and commitment for fresh approaches to coastal landscape issues at three focal sites (the Shama District, the Greater Cape Three Points Land and Seascape; and the Greater Amansuri Wetlands and Coastline).
- Strengthening the capacity of district planners and their respective Assemblies to address land use issues and steer the development process towards desired outcomes
- Engagement in cross-district coordination and learning.

2.2.1 Activity 2.1 Landscape Planning and Management in Three Focal Areas

The three focal areas selected for detailed landscape planning and management are the Greater Amanzuri Wetlands, (Jomoro and Elembelle Districts), the Cape Three Points Land and Seascape (Ahanta West District) and the Shama District. During this semester activities have focused principally on the Shama and Cape Three Points focal areas.

2.2.1.1 Shama District Focal Area

During the first year of the Hɛn Mpoano Initiative, the District Chief Executive of Shama requested for assistance in strengthening the District's spatial and land use planning efforts as Shama District was experiencing accelerated and uncontrollable development driven by evolving extractive industries and spill over expansion of the STMA. Also, the gas powered electricity generation station begun massive expansion which is encroaching on wetlands in the District. The compulsory acquisition of land for planned projects such as free trades zones, new airport and harbor facilities are also creating problems for land use planning.

Figure 9: Map of Shama showing the Pra river estuary, built-up area and the coastline
Source: Environmental Sensitivity Map of the Coastal Areas of Ghana.
Volume 1 Atlas, October 2004 (EPA)

If proper planning did not happen within the coming year, both food and livelihoods security for more than half of the rural tenant farmer population would be at risk. Finally, and of equal importance, Shama experiences the effects and social impacts of climate change with an eroding seafront that was densely populated (Fig. 9) and major flooding on the Pra river that cost 11 lives in 2010 and forced the resettlement of two communities. As such, urgent spatial planning assistance was factored into the Year II activities.

The Hɛn Mpoano Initiative catalyzed a series of consultations which culminated in a pilot spatial planning and participatory land use mapping exercises. A field team of District Assembly officials, representatives of Shama Traditional Council, locals (men, women, youth and farmers), faculty of the Department of Geography and Regional Planning (University of Cape Coast) and staff of the Hɛn Mpoano Initiative was constituted. The processes explored spatial/land use information in 4 thematic areas: past, present, land-based livelihoods and future/preferred land uses.

The exercise resulted in the delineation of the district landscape into 4 traditional boundaries that were defined through sub-chieftaincies and other social criteria (Fig.10) that coincided with the areas of jurisdiction of the chiefs. A series of maps were generated through the exercise (Fig. 11) which addressed the aspiration of stakeholders; categorized into present, future land uses (men, women and youth).

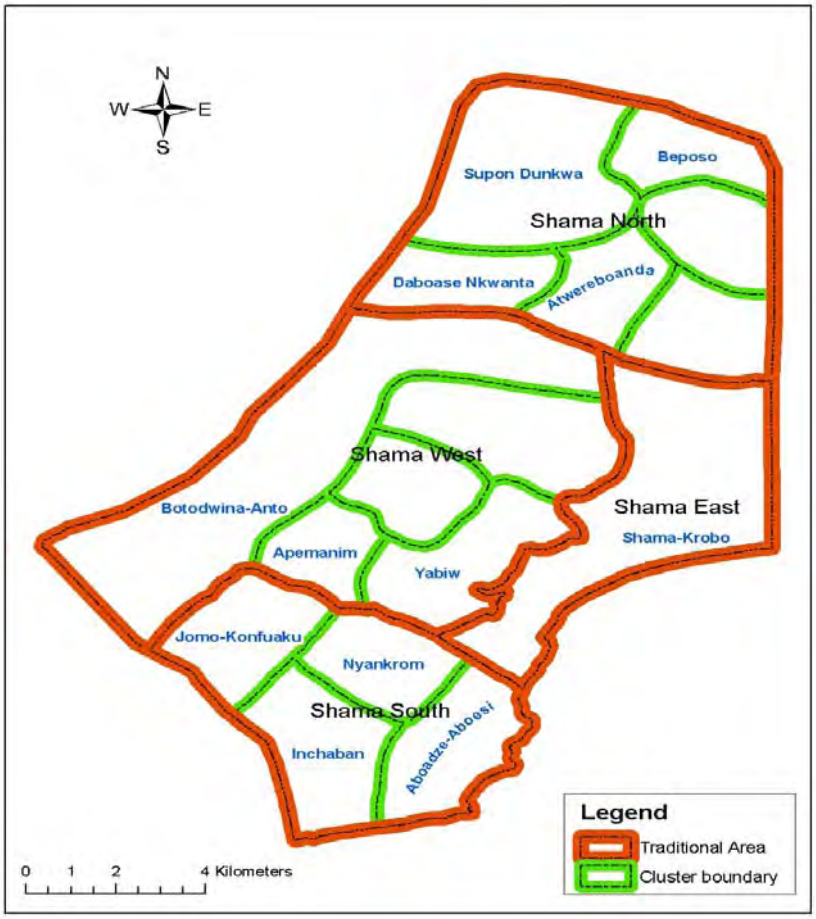


Figure 10: Map of Traditional Areas and Community Clusters

The priority/critical issues identified for follow up studies are described below:

Flooding

Although Shama is a relatively low lying coastal district it is strongly affected by the high amount of rainfall in the Western Region, as well as its intensity. Major floods have caused widespread damage and loss of life in the watershed and downstream flood plains of the Anankwari River. In recent years, the banks and floodplain of the Pra River have been experiencing severe flooding due to intense periods of rain, prompting the need to resettle some villages. The mouth of the Pra River consists of a barrier spit and dynamic near shore environment that is generally accumulating beach area due to the fact that the Pra is a major source of sand to the beaches of the region. However, other parts of the shoreline along the length of Shama town are experiencing high rates of erosion prompting the installation of hardened shoreline, mainly riprap.

Inadequate means to resettle

The District encounters resistance from some community members on whether to leave flood prone areas and demands for nearly full financial and material support to implement relocation agreements. As additional flood prone areas are discovered, relocation sites and support to families will be required.

Competing land uses

Land uses, usually are kept separated, are found overlapping and crowding out each other. In some cases, when a more financially rewarding use becomes a possibility, tenant farmers are forcibly relocated. Industrial, commercial, and tourism uses are increasing, **notably with quarries, sand and gravel extraction and other forms of mining that are of serious concern for the District.**

Prime areas used for food production (as contrasted to cash crops such as palm oil, forest products) are being converted to industrial, business and residential uses without reference to any land development objectives or spatial planning scheme.

Lack of access to potable sources of water

The major water treatment and distribution facility and reservoir for Shama and the STMA is located in Shama District. It combines water taken upstream from the Pra River as well as the rain-fed surface water reservoir. The quantity of water is also affected by upstream water withdrawals piped to the Central Region. The quality is affected by periodic salt water intrusion, high sediment loads due to land use and mining operations. Shama has a low rate of household coverage for potable water, and the system is generally unable to meet the continually growing demand for water. Finally, flooding periodically impacts the reservoir overspilling the dam, in part due to siltation and non-functioning dam water release mechanisms.

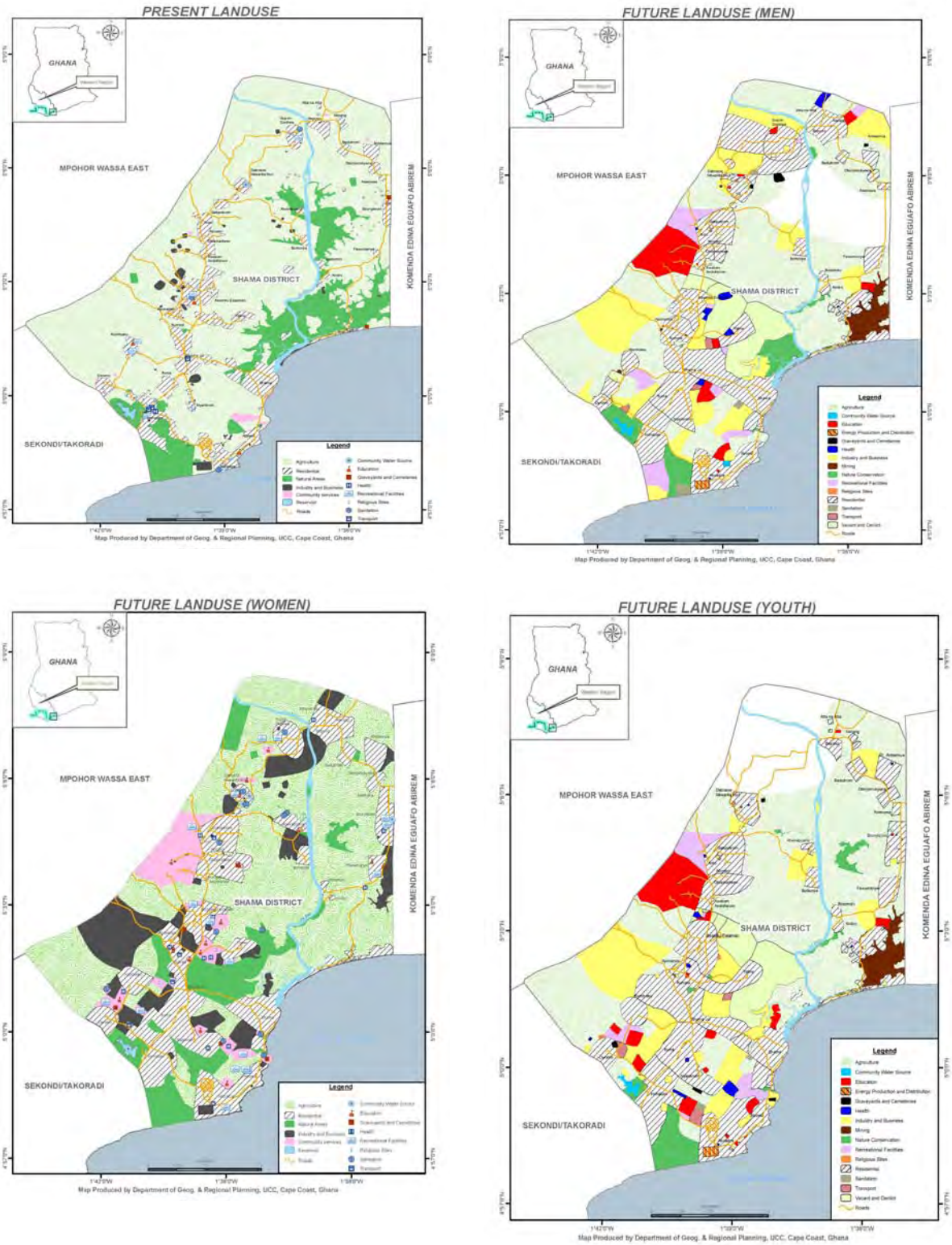


Figure 11: Maps generated through participatory mapping and visioning process in Shama

Success Story

Empowering Local Leaders and Communities to Make Decisions

Two rather unexpected and quick successes came from the Shama exercise. Unexpected, because this behavior change happened so quickly dramatically. In land use/spatial planning decision-making at the district level, the roles of chiefs, land owning families, clans and peasant farmers living off land had, traditionally, been largely ignored. They were only engaged in post-planning information transfer resulting in alienation and apathetic behavior towards land use planning process. In this exercise, the stakeholders were pleased to be recognized and their participation in the process gave them a sense of ownership and not just passive recipients of a plan generated by government officials, as is often the case. The exercise has generated enthusiasm among stakeholder groups and their assembly representatives in completing the process of shaping the future of what the Shama District should look like. The exercise also revealed to the traditional authorities and community leaders, the resources and potentials available within their territories as well as the critical decisions that would need to be made to protect lives and livelihoods. The initial issues profiling has also generated interest in other planning programs that are now poised to assist the Shama District in addressing certain competing land-use issues through spatial planning.

One example of this is that of the Anlo Beach community (See Fig. 7). Anlo Beach is a fishing community in the Shama District on the eastern side of the estuary of the river Pra (the second largest river in Ghana after the Volta). The settlement has over 300 permanent dwelling situated on a dune with rapidly eroding shoreline. The community is faced with a two pronged threats - annual flooding of the river and sea level rise due to the evolving impacts of climate change. Past attempts at resettling this community to a new area were met resistance. After involving community members in mapping the spatial features and ‘‘visioning’’ for future land uses, the leadership of *Anlo Beach* became aware of the imperative to relocate.

The community leadership has expressed willingness to be resettled. This decision by the community was explicitly linked to the wave of awareness created through the participatory land use mapping exercises. This story demonstrates how mapping of spatial information with community people can enhance understanding of landscape vulnerability and risk to potential impacts of climate change at the local level and facilitate informed land use decision making.

Climate Change Vulnerability Assessment

Through this spatial planning exercise, three sites have been identified for piloting best practices in climate change vulnerability assessments and adaptation planning as well as modeling behavior for the practice of integrated coastal management. They are: 1) the Inchaban reservoir and its floodplain; 2) the Pra river delta and estuary and; 3) the coastline of the Shama District and its adjoining wetlands. The Hɛn Mpoano Initiative is presently engaging other actors such as LOGODEP, the Jubilee Partners Oil and Gas Consortium, and leveraging other support for the District itself in addressing the other critical issues mentioned above in order to complete the District-wide spatial management plan as a collaborative effort.

2.2.1.2 The Greater Cape Three Point Focal Area

The Greater Cape Three Points Focal Area includes the Cape Three Points Forest Reserve and peripheral areas that includes numerous coastal wetlands and diverse marine habitats (Fig. 12) that are important for biodiversity and fisheries ecology. During this semester, the Initiative began with the urgent need to address a virtual open access situation resulting in accelerated degradation of the Cape Three Points Forest Reserve. The Reserve, located in the Ahanta West District, has a surface area of 51 km^2 and represents the last remaining Guinean coastal rainforest in West Africa. As such, it has been designated as a Globally Significant Biodiversity Area (GSBA) and Important Bird Area (IBA). The Reserve is threatened with losing its status of GSBA/IBA as it is faced with various pressures from human activities including logging, mining, charcoal production, hunting and farming.

Figure 12: Map of Cape Three Points Forest Reserve and fringe communities

CRC-Ghana through the Forestry Commission initiated a process of working towards the conservation of the Reserve. In February 2011, the Hɛn Mpoano Initiative supported a 2-day retreat at Akwidaa (a fringe community to the reserve) to discuss the status and conservation of the Forest Reserve. The gathering brought together stakeholders from the private sector, development partners, fringe community members, forest guards, Community Based Advisory Groups (CBAG), traditional authorities and the Ahanta West District Assembly.

The outcome of the retreat was the formation of an 8-member working group to develop a conservation and management action plan for 2011 and a 5-year management plan for the reserve. The working group has representatives from the private sector, NGOs, local elders, and government. It held its maiden meeting in March to review previous management plans and other literature on the reserve.

It is important to note that CRC has been given the benediction from the Executive Director of the Forestry Commission and the Director of the Wildlife Division for leading the program for more effective conservation management of the forest reserve and peripheral wetlands. To this end, the Wildlife Division has posted an agent, (full time) to be based in the Ahanta West District to collaborate directly with the Hɛn Mpoano Initiative. Also on board the working group is the Ghana based representative of the "Leadership for Conservation in Africa" (LCA) Program. The LCA program re-groups corporations operating in Ghana whom are interested

in pooling corporate social responsibility funds for biodiversity conservation actions and has provisionally selected the Cape Three Points Forest Reserve as a site for long-term investment in Ghana.

In the periphery of the forest reserve several actions have been initiated through the small grants program and partnerships for wetlands conservation. These include wetlands conservation programs at Butre and Akwadaa as well as educational programs and tourism guide training at these sites as well as Busua and Princestown. Progress on the marine protected area aspect of this focal area is described under Activity 3.4 of this progress report.

2.2.1.3 Greater Amansuri Wetlands Focal Area

For the Greater Amansuri Wetlands Focal Area (Fig. 13), progress to date has mainly consisted of the development of partnerships and preparation of future surveys. A Memorandum of Understanding (MOU) has been signed with Forest Trends (a US based NGO specializing in identifying markets for ecosystem services for either REDD funding, voluntary carbon offsets, or biodiversity offsets). Forest Trends is developing a program aimed at assisting the Initiative to study carbon sequestration and stocking of the diverse wetlands habitats in the Greater Amansuri Area as well as the opportunities for long-term funding for the conservation of these habitats through evolving mechanisms for paying for ecosystem services. "Blue carbon", or wetlands and marine, sinks are increasingly showing high carbon sequestration rates and storage and, as such, are increasingly gaining prominence for ecosystem service payment schemes. A series of studies will be developed and implemented in the coming quarter.

Other stakeholder groups within the Western Region, notably the two Nzema Paramount Chiefs, the Wildlife Division (which is the government institution mandated for wetlands conservation), the Ellembelle and Jomoro District Assemblies, and the NGOs Ghana Wildlife Society and COSPE have been consulted and planning workshops have been scheduled for April 2011. Other conservation organizations working in both Ghana and the Ivory Coast under the umbrella of the West African Primate Conservation Association (WAPCA) are also consulting with the Initiative on a larger program that would link the Amansuri Wetlands to vast wetland areas across the border into Ivory Coast. This larger area would provide better opportunities for seeking ecosystem services payments.

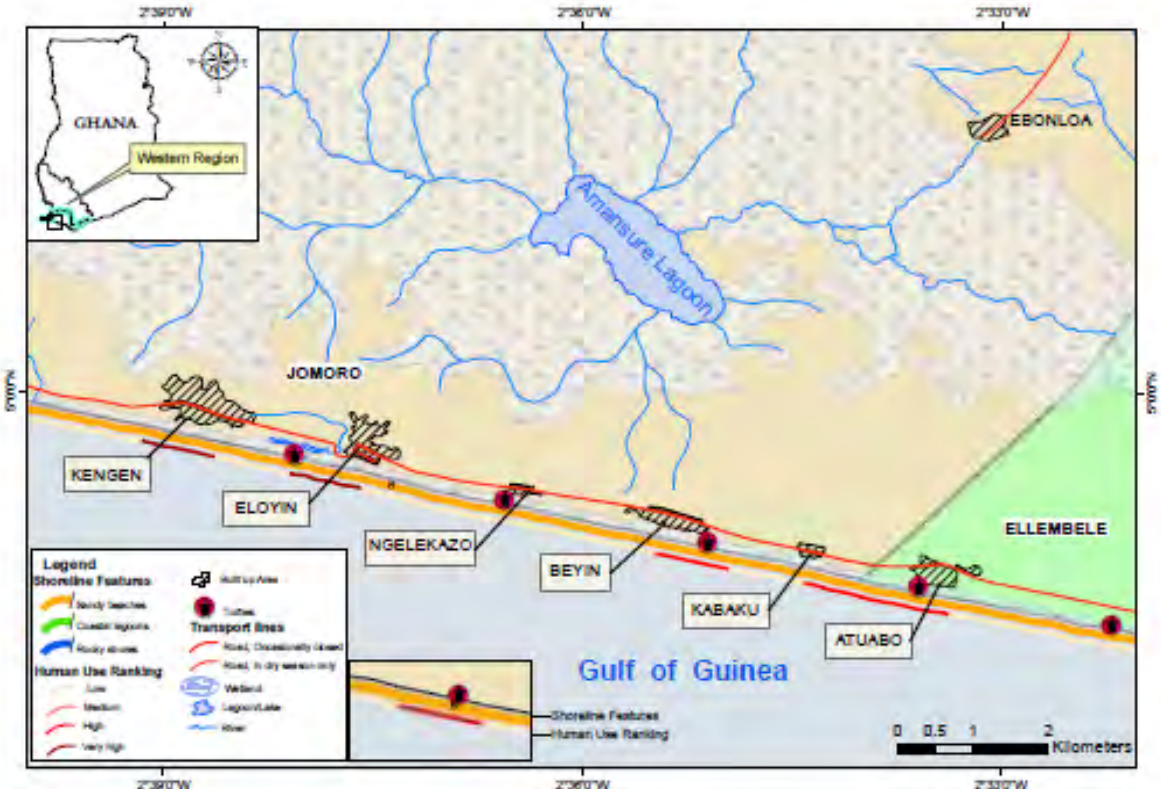


Figure 13: Map of the Amanzure Lagoon and associated wetlands in the Jomoro and Ellembelle Districts

2.2.2 Activity 2.2 Land Use Management at the District Scale

While focusing efforts on the three focal areas, it is essential to also involve the District Chief Executives and District planners in the activities and ensure that they are seen as examples of an approach to land use management that should be applied throughout each coastal district. Thus, the Hɛn Mpoano Initiative is investing in a Geographic Information System (GIS) based at University of Cape Coast (UCC) to provide the coastal districts with the fundamental mapping and data processing tools needed for such planning. The districts will be provided with training in GIS and map production as well as providing the District planners with computers, appropriate software and internet access and basic equipment.

The knowledge and tools will equip the districts in generating resource maps for planning and other purposes. Also a pilot web-based knowledge management system that provides access to the information gathered will be developed together with other partners. This will be supplemented by training workshops associated with the semi-annual M&E events (Component 5). To date, representatives of the six District-level planning units have visited both the ongoing process in the Shama District and the UCC Geography and Regional Planning Department in order to prepare the process for spatial planning in their respective Districts. The Planner for Shama District has been trained at the University of Rhode Island in March 2011 to prepare him for his role in completing the visioning and spatial planning process for Shama. This training focused on mediation and negotiation relative to competing land uses among stakeholders and consensus building. The outcome of the Shama process

will inform the training schedules of the other planners who will also be involved in the Cape Three Points and Amansuri exercises.

In March 2011, CRC assisted the LOGODEP to develop and hold a workshop on District level spatial planning that brought together representatives from the Shama District as well as four other Districts in the Western Region. In attendance were the other institutions that will also be supporting spatial planning such as the Town & Country Planning Department, the Jubilee Oil and Gas Partners, and the Norwegian government (NORAD) support program for the Ministry of Environment Science and Technology (MEST) for the regional planning framework. A special sub-group was established for ensuring collaboration on spatial planning for the six coastal districts. Unfortunately, the Jubilee Partners program, run by Tullow Oil and the Korean government support to the Ahanta West District, appears to want to develop spatial planning on their own with very little consultative process.

2.2.3 Activity 2.3 Enhancing Livelihoods and Social Conditions

Several activities were identified as those that could contribute to diversifying livelihoods, improving social conditions and quality of life, and making families and communities more resilient to ecosystem change. Targeted activities were tested for viability and where appropriate, scaled-up for improved food security and poverty reduction. These activities were funded through small grants to local NGOs or associations with technical support from the Initiative.

This report focuses on progress and achievement of three activities:

- Small Grants
- Population Health and Environment (PHE)
- Livelihood opportunities /Partnership with Babson College

2.2.3.1 Small Grants

The Small Grants Program was rolled out in August 2010 and extended into Phase II. Major activities of the grant program centered on monitoring the supported projects to ensure they were executed as planned. Thirteen out of the sixteen supported activities were completed. The projects, grant amount and status of each activity are shown in Table 1.

Three projects on livelihoods succeeded in providing beneficiaries with enhanced livelihood schemes. Under food security activities, 20 households (19 women and 1 man) were trained on improved household poultry management and were also supplied with a total of 200 chicks (10 each) to help them increase their income and also improve their family's nutritional status. Furthermore, 30 other women were supported through the rehabilitation of their working sheds to enable them smoke and sell fish throughout the year. Also, skills training in batik tie and dye benefitted 20 young mothers who are expected to engage in small scale business activities batik tie and dye and soap making.

The conservation program earmarked three major areas for expanded support in the Ahanta and Amanzuri wetlands. During Phase 1, general awareness was created and the enabling condition for community support now exists. At Butre, for example, a permanent committee

has been established to implement a community by-law for the protection of the mangrove forest. Under ecotourism, 140 tour guides in the west coast tourism destination area were trained.

One of the main constraints in the implementation of the small grants is low capacity of recipient organizations in proposal and report writing, project management and accounting. To address these issues, three training sessions were organized for Western Region Network of NGO (WERENGO) members. As a result, there has been improved capacity in project design and management. However, more needs to be done to ensure effectiveness of operations in the next round of grants which will be rolled out in June 2011.

Table 1: Summary of small grant recipients, activities and grant amount

ORGANIZATION	PROJECT	TYPE	AMOUNT GHC	BENEFICIARIES AND TARGET
SNV-Western Region Portfolio	Seminars for four west coast Destination Management Area (DMA) and district assemblies on tourism development in the DMA	Eco-tourism	4,185.00	75 trained in tourism, 4 tourism plans developed for 4 districts
SNV-Western Region Portfolio	Training program for tour guides in the west coast DMA	Eco-tourism	6,662.50	65 tour guides trained
SNV-Western Region Portfolio	Marketing of tourism products in five coastal communities of the Ghana west coast DMA	Eco-tourism	9,970.00	Tourism products promoted and marketed in 5 coastal districts
Ghana Instinct	Cycling in paradise eco-biking	Eco-tourism	7,890.00	20 people trained in eco-biking 10 bikes and helmets to be acquired
Crisis Action Solutions	Towards Essei Lagoon ecological restoration and conservation	Wetland conservation	4,260.00	Bakano sanitation improved, Three school clubs for 300 pupils formed and functioning 300 mangroves planted Mangrove destruction halted
Conservation Foundation	Mangrove restoration and conservation project	Wetland conservation	5,013.60	900 mangroves planted Community bye laws enacted and enforced
Esemaman Development Association	Towards conservation and preservation of coastal resource	Coastal conservation	3,890.00	2000 hand outs produced to educate community members, 200 member school clubs formed 2 sign posts mounted in community
Rural Environmental Care Association	Enhancing local participation in wetlands conservation and management through education and awareness creation	Wetlands conservation	8.300.00	Community educated on importance of wetland. Ampain community and chief made by-law to ban fishing in mangroves
Nzimitianu Community Biodiversity Project Association	Nzimitianu wetlands conservation project	Wetlands conservation	3,134.00	1500 mangroves planted Community members aware of need to protect mangroves

Ghana Wildlife Society	Domunli conservation and echo-tourism project	Wetlands conservation and eco-tourism	7,480.00	Eco-tourism livelihood developed for community 20 people trained in eco-tourism 500 mangroves planted
Anoomasatu	Training in realistic livelihood scheme	Diversified livelihood	7,774.00	20 youth mothers trained in batik, tie and dye and soap making
Master Care Ministries	Rehabilitation of sheds for fishmongers in Shama	Fisheries livelihood	8,700	30 women provided with 10 rehabilitated sheds
Organization For Livelihood Enhancement Services	Household nutrition through local poultry production systems by women in rural communities	Food security/livelihood	5,091.00	20 household trained in improved poultry production and provided with 10 chicks to grow to ensure food security
Foundation Of Action And Development	A survey of the sanitation situation in Ngyeresia	Research on sanitation	2,080.00	Research complete on sanitation in Ngyeresia
Department Of Parks And Gardens-Sekondi	Developing Private-Public Partnerships for upgrading and restoration of Green Public Areas in Sekondi-Takoradi	Private-public partnership	10,000	5 out of 8 public green areas rehabilitated Gardens seats provided at public park at Adiembra
Total			94,430.10	

Success Story

Improved food security through household poultry systems in Busua

Busua is a fishing community and a popular tourist/conference destination in the Western Region of Ghana. As local livelihoods evolve around fishing, keeping poultry is not a common venture. Fish landings have dwindled both in the bumper and off seasons due to the apparent crises in the fisheries.

To date, most of the chicken consumed in the tourism destination of Busua, and in most of the other tourism destinations in the Western Region, is purchased in Takoradi and over 75% of that is imported. The taste of imported chicken and the industrial-raised chickens is not appreciated by many, hence, there is also a growing demand for locally produced, “free range”, chicken that have more flavor and texture.

To promote diversification to ensure food security in this community, OLIVES - a local NGO, with grants from the USAID-funded Hɛn Mpoano Initiative embarked on working with women to improving household nutrition through local poultry production in the fishing communities of Busua and New Amanfrom.

Grace Dadson is a mother of four with two more orphans to feed. Characteristic of most women, she kept poultry at a subsistence level. Grace narrates, “We kept the fowls like our mothers and grandmothers did. The birds did not have a coop and they slept in the trees and fed freely around the neighbourhood. We did not even know the specific number we may have”.

OLIVES came in to turn things round for some of these women. They put up semi-enclosed coops, distributed cockerels, trained them on improved methods of keeping the birds and helped them access veterinary extension services. The impact of this assistance, from the point view of the women has been remarkable. Their compounds are now cleaner because the birds have been enclosed; the birds are growing bigger because they are better fed. It is also easier to track the eggs and hatchlings. The women also use the droppings of the chickens to fertilize their plantain and banana trees grown in the backyard.

Grace notices that her young children are actually growing and looking healthier since she started including eggs in their daily diet. The children are happier and smile more often. “Now, whenever I send them on errands, they are eager to go because they know that an egg is at stake for breakfast time”, she recounts with a laugh.

“I know what women in this community and the surrounding communities go through with the fishing season being as it is; especially if they have large families like mine. They would all benefit greatly if this project is extended to them”, she concludes.

Figure 14: A semi-enclosed improved chicken housing for a Small Grants beneficiary

Figure 15: A grant recipient Grace Dadson (in Blue Dress) showing other women around her chicken farm

2.2.3.2 Population Health and Environment (PHE)

This Program has been supported by another USAID (Washington) funded program implemented through CRC's "Building Actors for Livelihoods and Advancing Communities

Excellence in Development" (BALANCED) program in several countries. This program focuses on two districts, Shama and Ellembelle. Key Hɛn Mpoano Initiative partners have been trained with the goal to increase awareness of Population, Health and Environment linkages.

Formal partnerships have been established with the Central and Western Region Fishmongers Improvement Association (CEWEFIA) - which is implementing PHE programs in Shama; and the Essiama Community Health Nurses Training School (ECHNTS) in the Ellembelle District. CEWEFIA has a long experience in developing programs with fish mongers in both the Central and Western Regions. The collaboration with ECHNTS supports the training of student-nurses in PHE and facilitating awareness creation in communities in the district. In the Ellembelle District, PHE activities have engaged community and organizational leaders including staff and management of the ECHNTS, Ghana Health Service, Ghana Education Service and the District Assembly.

At Shama where the Ghana Health Service has partnered CEWEFIA in the implementation of activities, four communities benefitted from the pilot PHE activities which have focused on Reproductive and Child Health (RCH) and Family Planning (FP), youth promiscuity, teenage pregnancy and early marriage. Linked to reproductive health issues is integration of environmental issues including beach littering, sand-winning and coastal erosion; mangrove conservation and protection of wetlands, usefulness of Moringa[2] trees as food supplement for

Figure 16: Peer Educators at Shama

humans, animal feed and the consequences of unsustainable fishing practices. This integrated approach has been well received in the Shama District and holds promise for an expansion of the program further west into other Districts.

Preliminary accomplishments include:

[2] *Moringa oleifera* (Moringa Tree) is a multipurpose plant, as the leaves, pods, fruits, flowers, roots and bark of the tree can be utilized. It is promoted as a means to combat poverty and malnutrition. It grows quickly in many types of environments, and much of the plant is edible, including by livestock. The leaves contain all essential amino acids and are rich in protein, vitamin A, vitamin B, vitamin C, and minerals. It has been proven that various parts of the moringa tree can be used to cure a minimum of 300 diseases. Feeding the leaves to cattle has been shown to increase weight gain by up to 32% and milk production by 43 to 65%.

- Orientation of CEWEFIA staff on PHE
- Rapid Rural Appraisal (RRA) to ascertain the PHE situation
- Community durbar to launch PHE in the target communities,
- Identification and training of 20 Community Based Distributors (CBDs) and Peer Educators (PEs)
- Engagement and support of local stakeholders including the Ghana Health Service, Environmental Protection Agency, Department of Social Welfare, District Assembly, Fishers groups and Traditional Authority.

The USAID-supported Behavior Change Support (BCS) project operating in the Western Region donated Information Education and Communication (IEC) materials to support activities in the 4 selected communities

2.2.3.3 Diversified Livelihoods

Babson College Partnership

An MoU with the Babson College in Massachusetts, USA was signed on behalf of the Initiative by SustainaMatrix. It features collaboration with their on-going program for small enterprise development in the Western Region of Ghana. The Babson program has been working in the Western Region in the last 10 years on business plan development with high school students and has produced a Draft Entrepreneurship Guide for the Western Region of Ghana which could be customized by the Hɛn Mpoano Initiative into a valuable tool.

A review of the Entrepreneurship Guide suggests a remarkable document that could serve as the basis for capacity building for diversified livelihoods in the coastal districts of the Western Region. Customization and a co-branding strategy are suggested so that Hɛn Mpoano can co-publish with Babson College the effort as part of diversified livelihood program. If an artisan cooperative were to be formed, a version of the guide could be adapted to produce a well structured 'How to' create your own business in artisanal crafts with bamboo and coconut. Local researchers will work alongside students from Babson College to identify markets and assess the feasibility of developing products for domestic and international markets.

<u>Business plans for artisans near ecotourism lodges</u>

As part of the efforts to diversify livelihoods, three locations - Beyin, Ankobra/Axim and Butre were targeted for artisans training in developing simple business plans. These locations also host hotels that attract a growing number of tourists seeking sea turtle nesting activity and local crafts. Eight students from the Babson College Ghana Entrepreneurship Program assisted 15 artisans to complete and improve on their business plans. There has been follow-up visits to leaders of the local cooperatives of the artisans to:

- Review the business plans and recommend and potential next steps
- Branding strategies for sea turtle iconography and
- Business case study

A clear purpose was to build awareness of the demand and improve business thinking so that the artisans can generate a regular supply of locally made handicrafts to meet growing demand. Since accuracy of sea turtle images is important, the team provided clear details on the different types of species of sea turtles that have been identified on Ghanaian beaches.

Success Story

Additional Evolving Pilot Initiatives

Sea turtles

The Hɛn Mpoano Initiative is currently supporting several private-sector tourism operators to render their sea turtle conservation activities more coherent. These include methods for patrolling, data collection, maintaining nesting sites and eggs, monitoring and handling of the hatchlings, and eventual regrouping of their individual efforts under one common program that could benefit their respective businesses and increase support for their efforts. Working with the individual operators, and trying to get them to adopt "best practices" for sea turtle nest conservation actions and data collection has been a challenge but slowly it will come. During this reporting period, a SustainaMatrix volunteer intern, Mr. Aaron Rivera, spent four months working with the hotel owners and their patrolling staff and volunteers to share techniques for data collection and monitoring of nests. The hotels now have the confidence of the Hɛn Mpoano Initiative and they are coming together slowly on common methods.

Bamboo

One diversified livelihood opportunity that holds promise the harvesting and use of bamboo that is abundant in the coastal zone of the Western Region. Though in an early stage, Babson College students are completing a series of studies on evolving bamboo markets and opportunities for developing small-scale industries for either the raw material or for value added items such as artisanal products, furniture, and buildings. It is important to note that this industry existed during the presidency of Kwame Nkrumah in the town of Axim in the Nzema East District. Interviews with residents have found that much of the local knowledge and technical expertise still exists in the Western Region. Thus there is an existing knowledge and human resources capacity that could help to develop this industry if the ongoing feasibility studies show promise. There may also be potential for collaboration with the ACDI-VOCA program on this activity.

While this level of outreach and action are useful, the question of both scale and follow through with the artisans is important. To this end, an official of the Nzema East District Assembly (John Mahama Alidu) and Ray Agbo, a sculptor from STMA area were engaged to review the business plans with the artisans and develop a plan which would be submitted for funding. CRC will consider funding the artisans' work through its Small Grants Program or possible set up a revolving fund accessible by the artisans.

2.2.4 Activity 2.4: Value Chain Analysis of selected fisheries commodities

The sustainability of livelihood opportunities in populous and poor coastal communities underlines the need for this sub-activity which focused on analyzing current trends in the fish trade both within Ghana and internationally. It comprises 5 elements, namely:

- value chain analysis
- identification and development of pilot value chain interventions
- livelihoods analysis of significant planned or mooted investments targeting the Western Region fishery economy
- training and workshop events
- collaboration with the ACDI-VOCA program

The main focus of the value chain analysis was smoked marine fish which is overwhelmingly originating in Western Region destined for markets in Accra and Kumasi, as well as Togo, Benin and Nigeria.

Preliminary findings include:

- the value chain is relatively straightforward and mostly involves "fish mothers", fish processors and market retailers
- power is strongly concentrated in the hands of "fish mothers" who pre-finance fishing operation
- there is no physical loss of fish, since all fish finds a market (fish that is spoiling is diverted into processing that involves fermenting and drying)
- with the exception of the fish destined for regional export markets, there does not seem to be any significant market at present for a premium smoked product as up-market supermarkets do not generally stock smoked fish
- supply to the regional market is carefully managed to avoid a glut

Follow up activities on this component will be carried out in the third quarter.

2.3 Component 3: Governance of the Seascape

Introduction

Within this component are coherent set of activities that seek to address the existing predicament in the fisheries sector that includes: open access, non-compliance with fisheries regulations, and over-fishing that, for various fish species, damaging the capacity of stocks to recover. In addition, the marine seascape has important biodiversity features that are global conservation priorities, notably marine mammals and sea turtles. The Western Region seascape serves as an important migration and reproductive zone for humpback whales and four species of sea turtles. In addition, there are numerous species of dolphins that migrate through the coastal zone and manatees have been observed in the past in coastal lagoons. Though the seascape programs revolve around restoring healthy fisheries for both food and livelihoods security, efforts in the fisheries will also significantly contribute to biodiversity conservation and related tourism development.

This component focuses on piloting the enabling conditions for fisheries management in order to identify approaches that can serve as models for the other three coastal regions of Ghana. The Hɛn Mpoano Initiative is thus working in close cooperation with the Fisheries Commission at various levels, and with other stakeholders to build consensus on measures for improving the management of the sector. Other activities include supporting efforts at the creation of the first marine protected areas (MPAs) in Ghana and assessment of water quality in coastal waters of the Region relative to the algal bloom phenomenon.

It is important to note that the World Bank will soon be signing off on a 5-year support program to the Fisheries Sector (Fisheries Commission) with an investment of US$ 50 million. CRC has played an important role this reporting period in the briefing of several technical scoping and project development missions so as to ensure coherence on approaches for promoting reform and best practices in the fishing sector.

2.3.1 Activity 3.1: Capacity Development for Best Practices in the Governance of Fisheries

Despite many years of official recognition of the need to improve fisheries management in Ghana, there has been little progress on implementing rules and procedures to regulate how fisheries are conducted. The Fisheries Sector Review in Year I highlighted the fundamental importance of a more effective marine fisheries management regime and the various challenges including over-fishing, pre-mix subsidy, light fishing, and the rapidly increasing numbers of semi-industrial boats and larger well-equipped canoes.

Again despite the 2002 Fisheries Act and recently passed regulation (LI 1968) that backs the Act, the absence of structures and procedures for their enforcement pose enormous challenges to its implementation. As such, the Hɛn Mpoano Initiative has embarked on a bottom-up approach to creating a wave of understanding of the regulations and for voluntary compliance among the fishing fleets. This has been started with the Western Region Canoe Fishermen's Council where Chief Fishermen and their fishing groups (over 70 of them) have been tasked to discuss with their respective councils on social approaches for enforcing the LI 1968 and

what role they can and should play as the regulations are applied. District level meetings with Chief Fishermen are ongoing into the coming semester. This sub-component is complementary to and builds upon Activity 3.2.

2.3.2 Activity 3.2: Strengthening the information base for improved fisheries management

Activities under this component include:

- Pilot data collection on fishing effort
- Detailed assessment of the interaction between environmental factors, fish biology and fishers behavior
- Survey-based assessment of displaced effort
- Development of improved indicators for fisheries monitoring.

2.3.2.1 Updating the census of the fishing fleets operating in Ghana's marine waters.

The current estimates of the Ghanaian canoe fleet is based on the census (Frame Survey) undertaken in 2004. The data on the fleet may be out of date and this necessitated the conduct of a new survey. Considering the intensity of boat building along the shores of Ghana there is the need to review the boat registers lodged at the Fisheries Commission.

Under the planned support for the Fisheries Commission, the Hɛn Mpoano Initiative committed to collaborating and partially supporting the Commission to carry out a nationwide survey on the fleet and has negotiated to support the survey work from the western border of Ghana to Elmina in the Central Region while the Fisheries Commission commits to funding the rest of the survey to the eastern border of Ghana. The 10 National Service Volunteers working on the Hɛn Mpoano Initiative will assist with the survey. The survey has been on hold pending the decision of the Fisheries Commission.

2.3.2.2 Survey-based assessment of displaced effort

This activity generally involves surveys among fishers as well as working with the Fisheries Commission. The components on effort measures were incorporated in a survey instrument rolled out by the National Service Volunteers (NSV) with focus on changes in gear use and the likely response of fishers to changes in legislation regarding gear type (also termed ‘displaced effort’) - which refers to the response of fishers to legislative or enforcement changes. Thus, if a set of regulations (e.g. LI 1968) is passed in order to decrease catch, fishers are likely to look to other ways to increase catch.

The Hɛn Mpoano Initiative worked closely with the Marine Fisheries Research Division (MFRD) of the Fisheries Commission at Tema to understand the data entry process and the systems used (for data from artisanal, inshore and commercial fleets). An example/result generated from MFRD data from Dixcove in the Western Region and recalibrated as Catch Per Unit Effort measurement is presented in the Box below.

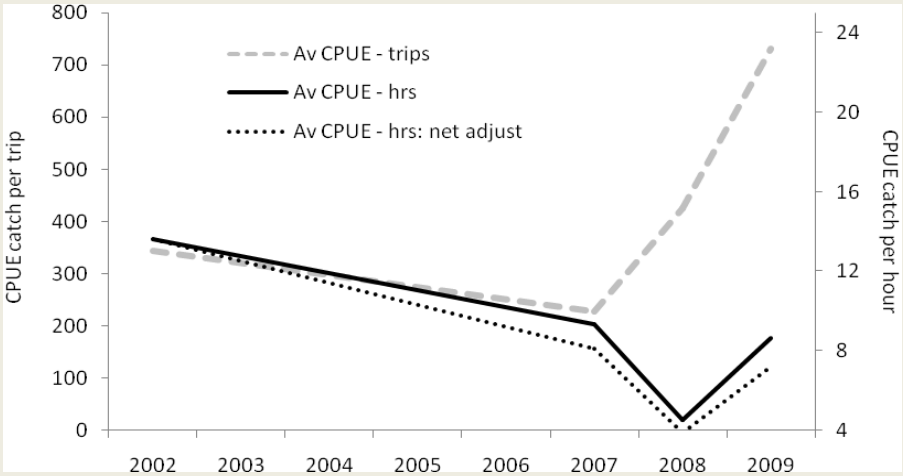
Recalibrating catch data

When the current fisheries data system was established (1969/70), Ghana was at the forefront of fisheries data collection in the region. There is no doubt that the survey design and the extrapolation systems are very solid. However, the system was not set up to be adaptive, and thereby cope with long-term change in the fishery. The rate and depth of innovation seen in the last 40 years has meant that long-term comparisons of catch data can no longer be considered valid.

Fundamental to this issue is the way fishing effort is recorded in the data system. Currently, for artisanal and inshore vessels, catch is recorded per TRIP (i.e. TRIP is the measure of effort) while for industrial vessels, catch is recorded per DAY (a better system, although the industrial data suffers from other issues). New types of gear (e.g. monofilament nets, light fishing) and gear modifications (e.g. nets getting longer), introduction of new technologies (e.g. mobile phones) have all added to the ability of vessels to catch more fish (or exert more 'fishing power') in a trip or a day. As a result, the statistics do not provide an indication of change in the fish stocks, but rather present a complex mix of change in fishing power of the fleet, fishing behavior, and change in fish stocks.

The problem is well illustrated by an extreme example for Dixcove. The graph below shows catch per 'unit' effort (or catch rate) for the drift gill net boats from Dixcove. The dashed grey line is catch per trip, as recorded in the current data system. Looking at this, you could conclude that the fishery was quite healthy, as catch rates are going up! However, a technical innovation in 2007 – the building of ice chests in boats – meant that in the space of a few months, most trips went from 1 day, to 3-4 days in length. Catch per trip therefore went up. The black line shows catch per day rather than per trip. The black dotted line goes a step further by incorporating change in net length into the calculation as well. This tells a very different story about the health of the fishery. This graph represents a period of only 7 years – in the 40 years since the system was inaugurated, many such changes will have occurred.

Untangling these issues not only provides us with a better picture of historical changes in the status of stocks, but also provides good information on useful new indicators to incorporate in improved data systems.



2.3.3 Activity 3.3: Strengthening Capacity for Fisheries Compliance and Enforcement

This activity is aimed at encouraging voluntary compliance by working closely with the Fisheries Commission (FiC) and fisheries stakeholders at the regional, district and community levels. It also supports the piloting of local citizen observer groups that report to law enforcement and denounce infractions publicly and advocating for and seeking support for the piloting of environmental courts in the Western Region.

Key sub-tasks undertaken during the period included:

- Coordination with the FWG and the FiC for voluntary compliance and enforcement.
- Translation and socialization of laws (community meetings).
- District and community level meetings to discuss voluntary compliance.
- Meeting with fisheries groups.
- Orientation seminars for selected judges and prosecutors and the security agencies (Navy, Police and MCS, etc).
- Facilitate the creation of a Western Region environmental court system.

As presented under Activity 1.2, a Fisheries Working Group for the Western Region was constituted to work with and advise the regional Director of Fisheries. Part of the mandate of the working group was to consider the opportunities to work with other stakeholders towards effective management of the fisheries sector.

2.3.3.1 Translation and Socialization of Laws

The Fisheries Act of 2002, Act 625 and the Fisheries Regulations LI 1968 of 2010 provide the legal regime for regulating and managing fisheries in Ghana. Despite their existence, these important documents are not easily accessible to fishers. The language in which the laws are written is not easily understood and appreciated by the fishers. Although the Fisheries Commission has plans to translate the laws into the several local languages used by fishermen, it is envisaged that the translations may not be completed and made available to fishermen anytime soon.

Within the Western Region, the Hɛn Mpoano Initiative has widely distributed the documents to most of the fisher folk leaders. The Initiative has also been working in fishing communities to explain in the local language relevant aspects of the laws and has advanced plans to translate the law and the regulations into the two important local dialects spoken along the western coast. To this end, the Initiative together with the fisheries leaders have identified the relevant sections of the laws to be translated and is in the process of contracting the exercise to competent translators. This activity will be completed by the end the 3rd quarter.

From the interactions with the fishermen it was apparent that most of them were ignorant of the various sections of the laws as they have perceived them to be only targeting light fishing. After interactions and explanations of the laws in simple language, it became apparent that majority of them now appreciate the spirit behind the laws and they have now become acutely aware of the benefits and reforms the laws would bring to the fisheries sector. They are of the

opinion that successful enforcement would lead to sustainable fisheries management and rebuilding of the stocks.

2.3.3.2 Orientation on Enforcing Fisheries Laws

Advocacy action was directed towards the Fisheries Commission and Attorney General's Department to follow through with the implementation of provisions set forth in the fisheries regulations (LI 1968). This advocacy sought to support the piloting of the environmental courts for adjudicating cases of fisheries infractions. The Chief Justice of the Republic of Ghana accented to piloting an environmental court in the Western Region and two circuit courts in the STMA have been designated to hear cases on fisheries and environmental infractions. It was noted there have been challenges in the prosecution chain and fisheries infractions were not successfully prosecuted in court.

To address the constraints, the Hɛn Mpoano Initiative organized 3-half days training sessions for targeted stakeholders in the prosecution chain, i.e. the Navy, Police, Fisheries Commission, Attorney General's Department and Circuit Court Judges. Below is a presentation of some constraints in the prosecution of fisheries violations and how the training provided an opportunity towards addressing those constraints.

Figure 17: Training session on compliance and enforcement

Compliance and Enforcement of Fisheries Laws

Checks from the Attorney General's Department and the Fisheries Commission revealed that in the past most fisheries violations that went to the courts were dismissed for lack of prosecution or poor preparation of cases while others have been settled out of court. There was a telling frustration on the part of the Attorney General's Department in the Western Region regarding repeated loss of cases or cases thrown out of court due to improper evidence collection or poor case preparation.

Consequently, the Initiative in collaboration with the FWG organized a series of orientation sessions for the two circuit court judges of the designated courts, the prosecutors from the Attorney-General's Department, Navy, Police, Environmental Protection Agency (EPA) and Monitoring, Control and Surveillance (MCS) Division of the Fisheries Commission. The 3 half-day sessions discussed, among others, the ecological justifications of the fisheries law and regulations, arrests at sea, how evidence is taken and the prosecutorial process. The participants shared their experience and knowledge on what needs to be done to ensure a successful prosecution of infractions.

Coincidentally, the sessions were conducted at a time when some artisanal boats and a trawl vessels had been recently seized for fisheries violations. One of the seized vessels was used as a case study with inputs into the processing of the case for the courts. The initiative is keenly following the outcome of the case as such violations in the past have not been successfully prosecuted.

Lessons learned: Ensuring enforcement of the fisheries laws requires that all actors in the enforcement chain have adequate knowledge of the laws and work together to achieve enforcement objectives. The orientation offered the various participants the opportunity to sharpen their skills on how they can contribute to the enforcement of the laws. At the training one judge admitted to not knowing of the existence of the new regulations. The other judge said "I am supposed to be hearing fisheries cases but have not been aware of the existence of this new regulation until this meeting. This training has made me appreciate the grieviousness of some of these fisheries offences"

The training provided an opportunity and orientation on how cases could be prepared before prosecution. This was clearly evidenced in the active participation and valuable contributions from the Navy (who makes the arrest), the MCS (who confirms the offence), the Police (who collect the evidence), the Prosecutors/ Attorney Generals Department (who advises, prosecutes or prepares witnesses) and the judges who hear the cases. This training and inter-active workshop was subsequently conducted at the national level by the Fisheries Commission.

2.3.4 Activity 3.4: Marine Protected Areas (MPAs)

Ghana presently has no MPAs, fishing reserves, or closed seasons. There is, however, significant local knowledge about the ecology of some fish species and areas that are known to be important spawning grounds. In the past, some of these areas were considered off limits and today many fishermen still do not fish there due to the risk of entangling their nets on rocky sea floors. This is a feature of work being undertaken in the Cape Three Points focal area. The concept of MPAs is woven into the visioning and planning process under Activity 2.1.

Preliminary reconnaissance surveys were completed during this reporting period. Initially, a team conducted interviews with knowledgeable fishermen around the Cape Three Points area to assess local knowledge on the sea floor and fisheries ecology. Surveys which were completed for areas stretching from Ankobra river estuary to the Butre river estuary lead us to believe that the best opportunities for Ghana's first MPAs would be a network of protected areas from the estuary and inland mangrove areas of the Ankobra River and eastwards to the rocky shores of Butre. The information was validated and mapped using GPS in collaboration with some private sector tourism operators. These areas are also potential sites for promoting scuba diving, even if the MPA is set up with a principal fisheries sector objective.

Meanwhile the Initiative is supporting national actions (an inter-ministerial committee) to develop plans for establishing MPAs in Ghana. The Committee which has representation from the Fisheries Commission, EPA, Wildlife Division Ministry of Tourism, Department of Oceanography and Fisheries (University of Ghana) Friends of the Earth and CRC considered among other issues, the assessment of the technical, social, institutional and financial feasibility for setting up MPAs.

Success Story

CRC has effectively taken a lead "support" role in the establishment of Ghana's first MPAs. The Fisheries Commission has formally asked CRC to support and coach the Inter-Ministerial Commission as it sets out to determine scenarios for creating and administering to Ghana's future MPAs as well as identifying the priority areas for MPA creation. The Hɛn Mpoano Program has also successfully integrated the creation of MPAs into the planning of the Ghana planning for the GC-LME program. This institutional support will greatly facilitate current thinking for Ghana's first MPA in the Western Region.

2.3.5 Activity 3.5: Water Quality Issues in the Fishing Grounds

The bloom of algae (*Enteromorpha spp*) in the coastal waters of the Western Region has been of national concern for nearly 20 years. The bloom seriously curtails fishing activities and fuels food insecurity and poverty in the impacted communities. Previous occurrences of the bloom lasted for a few weeks to a few months. However, the 2010 incidence was unprecedented as the bloom lasted the whole year. Earlier investigations conducted by government agencies on the drivers of the bloom have been inconclusive. For the 2010/2011 activity phase, the Hɛn Mpoano Initiative committed to contributing towards finding solutions to the problem. The Box above presents the preliminary results of scientific investigations on the algal bloom.

Research on Green-Green

The green algae bloom (green-green) in the Western Region has been of national concern since 1993. Scientific studies conducted by Ghanaian institutions to determine the drivers of the phenomenon have been inconclusive but generally acknowledge that nutrients (especially Nitrogen) fuel the bloom. Analyses of water samples taken during bloom events have indicated slightly elevated levels of Nitrogen but did not implicate any source. It was however speculated that the nutrients were from either 1) agricultural run-off or 2) land based activities particularly from Ivory Coast. For many years, efforts at collaborative investigations with scientist from Ivory Coast have been unsuccessful.

Learning and experiences from Year 1 of Hɛn Mpoano activities compelled CRC to solicit assistance from expert institutions in Rhode Island, USA (the Graduate School of Oceanography, URI and US-EPA) for a refined study. This study was guided by 3 assumptions. The nutrients may be from:

1oceanic processes
2agricultural fertilizers
3municipal sewage.

The nutrients from these different sources exhibit different signatures of the ***Nitrogen isotope***** (δN^{15}). In December, 2010, algae, water (both near shore and offshore) and fish were taken from the Ankobra estuary westwards to Newtown (border with Ivory Coast) to Rhode Island (USA) for analysis. The US-EPA assisted with the Isotope analysis which is an expensive laboratory exercise.

Preliminary results indicated consistently high levels of sewage δN^{15} isotope. The results are only preliminary and further studies would be conducted when the bloom returns. It is hoped that further studies would involve Ghanaian and Ivorian scientists. An interim report has been submitted to the Minister of Environment Science and Technology (MEST) and the Task Force on the green-green.

Constraints: The political impasse in Ivory Coast did not allow for studies in that country. It is hope that when calm returns to that country studies can be conducted. Meanwhile, CRC has advised Government of Ghana through the Minister of MEST to initiate bilateral talks to pave the way for the studies.

** **Nitrogen-15 (**(δN^{15}): Natural *Nitrogen* (N) consists of two stable isotopes, ^{14}N, which makes up the vast majority of naturally-occurring nitrogen, and ^{15}N. Nitrogen-15 is a stable, non-radioactive **isotope** of Nitrogen. It is often used in agricultural and medical research. Nitrogen-15 is extensively used to trace mineral nitrogen compounds (particularly fertilizers) in the environment and when combined with the use of other isotopic labels, is also a very important tracer for describing the fate of nitrogenous organic pollutants.

Putting *Green-Green* on Government's Agenda

The green-green (algal bloom) phenomenon in the Western Region of Ghana was unprecedented in 2010. This period coincided with the first year of work of the Hɛn Mpoano Initiative. The presence of bloom in the coastal waters seriously impacted the livelihood of fishermen and coastal communities including beach front hotels/lodges and tourists who come to seek the sand, sun and sea.

The plight of these coastal communities compelled the Initiative to forcefully bring the issue to public attention through discussions and meetings with traditional leadership, District Assembly officials, the Initiative's Advisory Council (chaired by the WRCC Chief Director), newspaper and multi-media publications and at public forums. The Initiative staged a press event in November 2010 which brought together 8 news organizations to highlight the impact on the communities. The outcome was wider multi-media publications to further highlight the issue and bring it to national and international attention.

In December 2010, the government of Ghana through the Minister of Environment Science and Technology, set up an inter agency task force to investigate the impact of the bloom and recommend possible interventions by the Government. CRC-Ghana was made a member of the task force to complement the efforts at addressing the issue. CRC has since advised the task force to concentrate on the socio-economic/livelihood aspects while CRC provides the scientific/laboratory support. The preliminary report on the scientific investigations has been submitted to the Hon. Minister and the task force. CRC has also advised the government to open bilateral talks with the Ivorian counterparts on the green-green issue when the political situation in that country is resolved.

Meanwhile, CRC has initiated efforts for collaborative research into the algal bloom in the two countries. Also, Ghana National Action Plan which inputs into the Guinea Current Large Marine Ecosystem Program (GCLME) program has the study of the algal bloom phenomenon as one of five priority research activities.

Opportunities: The Hɛn Mpoano Advisory Council tasked the Initiative to use resources and expertise to research into the possible opportunities (uses) of the green algae. Relative to this, the Initiative intends to support graduate students to study the various opportunities that the algal bloom could provide including its use as animal feed, organic fertilizer, production of biogas and possible industrial uses. Also, during the visit government task force to the impacted communities, a strong indication was expressed by several of the communities to be involved in other livelihood activities including poultry, piggery and fish farming; as well as rice, vegetables, oil and coconut palm cultivation.

***Challenges*:** There appears to be very low level of awareness of the sources of the green algae. Most of the community members interviewed thought the algae is an inorganic substance (toxic material) deliberately dumped into the ocean by passing vessels. Others claimed they have seen sacks containing strange materials being washed ashore. In some communities it was difficult to convince them that the substance is living material which thrives in the oceanic waters. It has been agreed in the interim to organize campaigns to educate the communities on what the bloom is and what it is not.

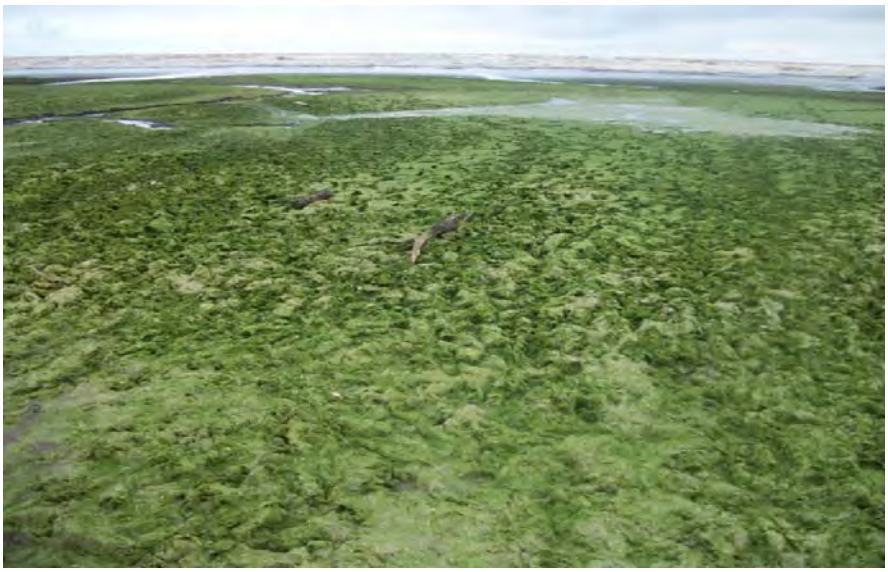


Figure 18: Algae deposits near the Ankobra river Estuary

Figure 19: Task Force members inspecting the onset of the algal bloom at the shore of Ezilibo in the Jomoro District

2.4 Component 4: Capacity Building

Introduction

The major focus of capacity building efforts in Year 2 is training community leaders and government representatives in the three focal areas on the concepts and tools that support effective land use planning and good practices in the management of the coastline and co-management of fisheries. Training programs of a more academic nature, in secondary and tertiary institutions, will serve to prepare the human resources required for sustained land and seascape governance in an era of accelerating climate change.

This component includes communications activities that focus on the three areas and target audiences in the Western Region and in some instances national level decision and policy makers.

2.4.1 Activity 4.1 Training

Training activities were carried out for both staff and partners. So far 260 people have been trained under the different components. Table 2 below shows the training activity, number of participants disaggregated by gender.

Table 2: Training activities and Number of Persons trained between September 2010 and March 2011

Training	No. of Participants	Males	Females
Training and Orientation for National Service Volunteers, Graduate Students and Fisheries Technical Assistants	22	17	5
Training on Monitoring and Evaluation for Project Staff	30	22	8
Capacity Building for Journalist	23	15	8
Orientation Training for Field Team and Planning for Data Collection	30	17	13
Capacity Building Seminar on Report writing and Project Accounting for Small Grants recipients	19	13	6
Training on Integrated Coastal Management	22	14	8
Training on Mangrove Management and Conservation for grantees working on mangrove conservation	15	9	6
Artisanal Business Plan Development Training	58	36	22
Communications: Entertainment – Education Training Workshop	21	14	7
Training on Integrated Coastal Zone Management and Introduction to Coastal Ecosystems and Profiling	20	14	6
All FY 2011 First Half Trainings	**260**	**171**	**89**

During this Phase II, scholarships were awarded to 6 students (5 from the University of Cape Coast and 1 from University of Ghana; and two of whom are women) to undertake studies leading to the award of a Masters degree. Four of the students are conducting their research in the Western Region and are working on the following topics:

- *Alternative livelihood strategies among selected fishing communities in the Western Region*
- *A socio-cultural study of the conservation and management of mangroves in the Western Region*
- *Baseline studies on the conditions of the Cape three Points and Whin Estuary mangrove ecosystems in the Western Region*
- *Analysis of selected chemical contaminants in three demersal fish species landed by Artisanal Fishers on the Western Coast of Ghana.*

Two of the awardees will undertake their studies at the University of Rhode Island in September 2011. The CRC is following the progress of the students in the field and they will present their findings and submit copies of their thesis to the CRC.

Currently 10 National Service Volunteers are on the Hɛn Mpoano Initiative and stationed in communities in the 6 coastal districts. They are working to support the Initiative's fisheries and other programs.

2.4.1.1 Coastal Platform

During Year 1, four persons were sponsored to undertake a study tour to the USA to learn how civil society organizations there have engaged the Oil and Gas industry. Lessons and experiences from the visit has resulted in one of the participants, (the Paramount Chief of Western Nzema Traditional Area), to lead efforts for the formation of a civil society platform in the Western Region to protect coastal communities from the impacts of the Oil and Gas activities. The Box below details out the successes so far.

Civil Society Platform for the Protection of Coastal Communities

In May 2010, the Coastal Resources Centre sponsored four persons to undertake an Oil and Gas Study tour to the USA. As part of the lessons learned, Awulae Annor Adjaye III, Paramount Chief of Western Nzema Traditional Area, one of the beneficiaries of the trip has led in catalyzing the formation of a civil society group to be the mouthpiece/advocate for coastal communities in the Western Region

The initial gathering brought together 30 persons who are indigenes from the coastal communities. They included other paramount chiefs, sub- chiefs and queen mothers, imams, pastors, lawyers, NGO representatives, retired security persons, professors and school teachers, youth groups and press personnel, among others, Persons present at the initial meeting had 'founding member' status conferred on them.

The founding members selected a steering committee of nine persons to consider the next steps in the establishment of the platform. The drafted constitution and an action plan were adopted by the general assembly at the second meeting. The name adopted for this new civil society group is 'Platform for the Protection of Coastal Communities'.

Lessons: The enthusiasm, attendance and punctuality, incredible engagements and intensity of discussions at the meetings suggested the Platform was a felt need and feelings exhibited suggested a true sense of ownership. Participants were happy to be part of an evolving civil society organization which speaks to their aspiration. Also, to some, it was a rare opportunity to have open and healthy dialogue on matters which were very dear to them with their traditional leaders and other important persons from their communities. As an anecdote, a day after the maiden meeting, the two Imams present made a surprise house visit to Awulae Annor Adjaye III palace to personally thank him for inviting them to such an important meeting. It was the first time the traditional authority has reached out to other faith-based group to discuss stewardship of the environment. Hɛn Mpoano is committed to supporting and growing this platform.

2.4.2 Activity 4.2: Communication Strategy

A refined communications strategy and guidelines document for the Hɛn Mpoano Initiative has been developed. The strategy includes a graphic standards identity to better communicate the Hɛn Mpoano brand and the USAID support based on the USAID branding rules.

2.4.2.1 Publications and other media outreach events

- Newsletter
- 'Our Coast' Document
- A Visual Image Library
- New media - Facebook and twitter were on Hɛn Mpoano were out-doored.
- A Media outreach program – in conjunction with USAID, was organized to highlight pertinent issues in the coastal fishing communities notably the algae bloom issue and fisheries livelihoods.
- Entertainment Education (Edutainment) campaigns – Radio drama series are being developed for the promotion of social change for stakeholders in the Western Region.

Figure 20: Back covers of the 'Our Coast Document and Newsletter

2.4.2.1 Special Events

Some special events were celebrated during the period. These events were also a means to reach out to partners and communities where the Hɛn Mpoano Initiative operates. The activities include:

350 Work Party – an international event and campaign dedicated to building a movement to unite the world around solutions to the climate crisis. Participants get to work on community projects that can cut carbon emissions to 350 parts per million (350ppm) and build the clean

energy future. The event which focused on mangrove conservation and organized by CRC and partners was held in Sekondi.

- ***World Meteorological Day:*** The World Meteorological Day is celebrated on 23.March of every year. This year's celebration was organized in partnership with the Ghana Meteorological Agency (GMA). The theme for the celebration was 'Climate and You'. The occasion was marked with tree planting, public speeches and community drama at Shama, one of the focal areas of the Hɛn Mpoano Initiative.

Figure 21: Poster for the festival and a human choreograph of 350

- ***Ghana West Coast Mountain Biking:*** The Initiative partnered Escape Three Points (a tourism facility operator) to promote and supporting pro-poor tourism intervention and ecotourism development with a mounting biking project which aimed at showcasing the rich diversity of the Cape Three Points area to the outside world whiles involving local community actors.

- ***Launching of Our Coast Report:*** The 'Our Coast–Our Future' document, a flagship and strategic communications document summarizes learning and achievements of the first year of implementation of the Hɛn Mpoano Initiative. It also a baseline against which the Initiative's interventions would be measured. The launch was aimed drawing national attention to coastal and fisheries issues in the country and especially in the Western Region. It was targeted at government officials, ministers of state, members of parliament, district chief executives, traditional authorities, the clergy, academia and schools, international/donor organizations, civil society groups, the media and the general public

- ***Draw 'Our Coast' Art Competition:*** This competition involved 7 high schools from three districts (Ahanta West, STMA, and Shama). Over 50 entries were received with drawings depicting present and future issues in the coastal communities as seen through the eyes of adolescents. The winning art works were developed into a calendar for 2011 and distributed in the communities, offices, schools, hotels, etc in the coastal areas of the Western Region.

- ***Ankobra River Trip:*** The Initiative organized a study/familiarization trip upstream the Ankobra River upon receiving reports that the Ankobra river estuary was being poisoned by illegal gold mining. The objective of the trip was to bring together targeted stakeholders to familiarize with the river Ankobra river delta and to consider opportunities for conservation, ecotourism and river water quality monitoring as well as facilitate partnerships and seek the support of the traditional authority. Participants on this trip included two important chiefs from the area, local NGOs working on wetlands conservation funded through the CRC Small Grants, some hoteliers and officials of Adamus Mining Resources (a major gold mining concessionaire in the area). Participants enhanced their knowledge on fisheries of the estuary, the status of mangroves, opportunities for ecotourism, illegal mining and pollution of the river as well as livelihoods of riparian communities.

2.5 Component 5: Monitoring and Evaluation

The Hɛn Mpoano Initiative carries out three forms of monitoring namely:

- monitoring using the 9 selected USAID indicators for performance reporting to USAID including standard USAID programmatic indicators that have been selected for reporting to USAID/Ghana
- monitoring activities using the CRC indicators for assessing progress based on the "Orders of Outcome" framework and
- monitoring to update information on coastal/marine ecosystem trends at the scale of the Western Region and Ghana.

Reporting format for all 9 USAID indicators (Annex 2) and the CRC indicators for assessing progress (ecosystem governance scorecards) have been completed. Also, the Initiative has designed an activity monitoring template and a program planning checklist to monitor all program activities (meetings, workshops, trainings or events). This has worked well as it tracks progress and reports on all program activities.

A Monitoring and Evaluation workshop conducted in March 2011 brought together all technical program staff and partners to participate in and to assess progress on activities in the focal areas. During the review and evaluation workshop, ecosystem governance scorecards were completed for the program (See Annex 3) and for the Shama focal area. Scorecards for the Cape Three Points and Amanzuri focal areas will be completed in the next monitoring and evaluation workshop in July 2011 year. Progress on all five component activities discussed in this report is presented in Annex 4.

Monitoring progress using the USAID indicators has also been completed and the outcomes summarized in Annex 2. The CRC Performance Monitoring Plan was also reviewed to capture suggestions from USAID/Ghana.

3.0 Challenges, Constraints and Measures Adopted

3.1 Diverse Spatial Planning Support Programs for Coastal Districts

As the support program for the Shama District spatial planning process began in 2010, several other similar support programs emerged. First, the Town & Country Planning Department announced it would be rolling out their national program in the coastal districts of the Western Region. Then, the USAID funded LOGODEP program identified spatial planning as a priority for Districts in the same region. In relation to the evolving oil and gas sector, both NORAD (through MEST) and then Tullow Oil also announced that they too would be supporting spatial planning processes for the coastal Districts. Finally, the Korean Government embarked upon a support program for the Ahanta West District and actually completed a draft spatial planning process focusing on industrial and residential development for a futuristic vision of an expanded oil industry. All of these programs have their own interests and most have limited time-frames that will not allow for adequate participation, consultation, negotiated future visions, and most importantly, ownership by the District Assemblies.

The concurrence of emerging spatial planning support programs has created confusion. To this end, CRC assisted LOGODEP to plan a workshop that brought together the various support programs and selected District representatives in an effort to identify participatory methods for spatial planning that would be led by the Districts themselves. The Shama case-study provided an example of how the various organizations and institutions could work together in a complementary manner to support spatial planning that is nested within the framework of the national Town & Country Planning Department. The only "wildcard" is that of the Tullow Oil/Jubilee Partners program which has been put out to tender for consultants to complete spatial planning for the six coastal districts in a six month period. Though various communications have been directed at Tullow Oil representatives in order to promote collaboration, there have been no concrete discussions on how to render the support programs coherent and complementary. The fear is that Tullow Oil will push ahead with support programs that do not consider what spatial planning work has been done to date by either the Hɛn Mpoano Initiative nor the Koreans.

Hɛn Mpoano Initiative has developed close working relationships with both the Town & Country Planning Department and the Districts. In the case of the Shama District, CRC will focus down on coastal issues along the shoreline and flood prone areas as well as the watershed of the Inchaban Reservoir water supply. For the Ahanta West District, CRC will provide refinement of the existing Korean plan relative to the green-belt surrounding the Cape Three Points Forest Area and the coastal and marine areas to include the wetlands and future marine protected area. As concerns the other Districts, CRC support will be focused on the Ellembelle and Jomoro Districts that are home the Greater Amansuri Wetlands. For these Districts, as well as that of Nzema-East and STMA, the Hɛn Mpoano Initiative will be providing the following technical support services for spatial planning:

- Assessments of the food and livelihoods security of people in these districts in light of accelerated transformation of agricultural lands that formerly produced food for local consumption

- Climate change vulnerability assessments with a focus on flooding and shoreline erosion (consequences of sea-level rise and extreme weather events)

- Assessment of ecological functions and services that need to maintained in the landscape, notably the hydrological aspect and wetlands areas and

- Planning for priority biodiversity conservations areas.

In each of the Districts, the Hɛn Mpoano Initiative will work with the Assembly sub-committees on spatial planning to ensure their participation and lead in the focused planning for the coastal zones that is integrated into the overall District plans that will most likely be completed by other programs, either Tullow Oil, the Korean Development Agency or the Town & Country Planning Department.

3.2 Study Tours to the Ivory Coast

Two planned study tours to the Ivory Coast were postponed due to the political conflict and insecurity in that country. The study tour concerning fisheries management has tentatively been rescheduled for the month of June as well as the exchange trip concerning the proliferation (blooms) of the green-green algae. If the security situation does not improve, the fisheries visit will be put back again. As for the green-green algae situation, researchers from the Ivory Coast will be invited to Ghana for training on specimen collections and discussions on monitoring of the blooms.

3.3 Illegal (Galamsey) Mining

Given the extremely high market prices for gold as of late, illegal artisanal and semi-industrial gold mining activities and sites in the Ankobra and Pra River valleys and beds have greatly increased. The Districts are presently unable to cope with the situation. Many of these operations are contributing to the siltation and poisoning of fresh water supplies through the processes used to extract the gold from river sediments. This has created situations where the principal source of water for many communities is now contaminated as are many of the fish. There have been fatalities on the Ankobra River. Both the Pra and Ankobra Rivers have extensive tidal estuaries and mangrove areas in the coastal zone that are also of importance for the marine fisheries.

As the Districts alone are unable to re-dress this situation for various reasons, both political and lack of capacity, the Hɛn Mpoano Initiative has begun to work with regional authorities and Paramount Chiefs in developing a strategy for controlling illegal mining and for catalyzing campaigns for cleaning up the rivers. The Hɛn Mpoano Initiative also seeks advice from similar river campaigns around the world. This strategy will be developed in the coming semester and will form part of the Year 3 workplan.

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Annex 1. Program Results Area in Relation to USAID Strategic Objectives

Indicators for Each Program Result Area in Relation to USAID Strategic Objectives

Indicator	USAID SO/ Cross-Cutting Theme
1st Order enabling conditions (Result 1)	
Improvements assessed by a governance scorecard addressing goals, constituencies, commitment and capacity dimensions	SO1 Governance
Evidence of ICM and fisheries strategies, plans, policies, bylaws adopted by government with time bound quantitative environmental and socio-economic targets	SO1 Governance SO2 Economic Growth (biodiversity, food security)
Amount of private sector and/or government agency resources ($$) allocated for planning or implementation of ICM and fish management plans or strategies	SO2 Economic Growth (biodiversity, food security)
Number of CSOs and government agencies strengthened	SO1 Governance SO2 Economic Growth (biodiversity)
Number of formal partnerships developed with partners with initiatives in the region	Public-Private Partnerships
Number of stakeholders participating in resource management initiatives, workshops regional meetings/exchange visits	SO1 Governance SO2 Economic Growth (biodiversity), Gender
Number of public education and outreach events	SO1 Governance Gender
Number of government personnel, community leaders and private sector stakeholders trained	SO1 Governance Gender
Hectares(terrestrial and marine) in areas of biological significance under improved management such as: – Shoreline development management plan (~170km coastline X 1 km inland) – Western region fish mgt plan and/or area of District coastal and fisheries mgt. plans/ regulations adopted by district councils (~50km x 170 km) – Wetlands management by districts (~1000hct) – Area of MPAs and fisheries no-take reserves established (TBD) – Area of restored coastline habitat (e.g. mangroves, sea grass) (TBD)	SO2 Economic Growth (biodiversity)
Evidence of ICM or fisheries management best practices being implemented as demonstrated by such indicators as the following. – Tourism businesses that adopt best practices for coastal development/siting – Plans adopted and implemented that demonstrate ecosystem-based approach – Fishing units with technical innovations that reduce	SO2 Economic Growth (biodiversity)

Indicator	USAID SO/ Cross-Cutting Theme
destructive fishing /overfishing	
Policies adopted and implemented at the local or national level that foster co-management, such as: – District level natural resources management plans ~ 6, – District by laws ~ 3 – Decentralized national coastal management policies ~ 1 – Reforms to national fisheries policies ~ 1	SO2 Economic Growth (biodiversity)
2nd Order Changed Practices (Result 3)	
Number of enterprises or households benefiting economically from interventions: – households receiving assistance packages (assets, grants, training) – households with improved access to loan capital (benefiting from microfinance)	SO2 (Economic Growth) Food Security, Gender
3rd Order (Long-term Goal)	
Hectares under effective management (targets set at end of year 1)	SO2 (Biodiversity)
Number/percent of beneficiary households with increased diversity of income sources security (will be measured but no targets)	SO2 (Economic Growth)
Average household dietary diversity score in targeted coastal communities (will be measured but no targets)	Food Security

Annex 2: Hεn Mpoano Results to Date (FY 10 – March 31, 2011) and Targets for FY 12 and FY 13

No.	Indicator	FY 10 Target	FY 10 Results	FY 11 Target	FY 11 Results	FY 12 Target	FY 13 Target
1	Improvements on a governance scorecard covering, goals, constituencies, commitment and capacity dimensions, including measures that legislation and regulations are being implemented and complied with, and budgetary investments by government in fisheries management	Areas for score carding determined	4 areas selected for baselining Western Region baseline completed	Increasing	Shama Baseline completed March 2011. Cape Three Points baselines planned for third quarter Western region Time2 scorecard planned for July	Increasing	Increasing
Comments: Four initiatives tracked – Western Region as a whole and 3 focal areas: Shama, Cape Three Points Forest Reserve, the Amanzuri wetlands. Scorecard is also being used to track progress on Fisheries Enforcement and Compliance and Rural Radio Drama but not as performance targets. Western region baseline was established in FY10 and published in the Our Coast Document. At the midterm review workshop in March 2011, Shama baseline was developed. Score carding for the Cape Three Points forest reserve and the Amanzuri wetlands will be completed in FY 2011 and FY 2012 respectively.							
2	Evidence of ICM and fisheries strategies, plans, policies, bylaws adopted by govt. with time bound quantitative environmental & socio-economic targets	Areas requiring management plans, strategies, policies and bye-laws determined	Areas selected: 3 STMA wetlands Shama Cape Three Points Amanzuri	3 wetlands in STMA targeted	Work on management plans, policies and district bye-laws underway in STMA and Shama.	4 (Cape 3 Points and community wetlands	1 (Amansuri)
Comments: Scientific studies have been conducted to inform decision makers about the importance these wetlands have for flood control and bio-diversity significance. Several meetings have been held with the STMA and the Wildlife Division of the Ghana Forestry Commission to legally establish ordinances at the district level as protected areas. Maps are being prepared for each of the three wetlands.							

No.	Indicator	FY 10 Target	FY 10 Results	FY 11 Target	FY 11 Results	FY 12 Target	FY 13 Target
3	Number of CSOs and govt. agencies strengthened such as local NGOs, alliances of NGOs, trade associations or community management committees or advocacy groups (biodiversity), district natural resources offices, etc.	53 targeted, qualitative narrative provided in PMP on how each is being strengthened	NA as target just set in FY10	53 targeted	58 strengthened, qualitative narrative provided in PMP on how each is being strengthened	53, qualitative narrative provided in PMP on how each is being strengthened	53, qualitative narrative provided in PMP on how each is being strengthened
Comments: 53 organizations were targeted for strengthening as the main targets. The Initiative is working with most of these in Year 2 but expects strengthening to continue through end of project so no annual increase in targets. Friends of the Nation, WERENGO (assn of 45 NGOs), Hotel Operators assn, Oil and Gas platform, NGOs/CSOs are receiving small grants to conduct resource management and livelihood development activities (~15), Fisheries Commission, coastal districts (6), UCC Dept of Geog and Department of Fisheries and Aquatic Sciences, Community Health Workers college. The number of organizations receiving assistance is now at 58. UCC and CHW College are also receiving contracts for specific work. The strategy here is to have these organizations learn by doing and mentors or advisors are assigned to each group. Many of these organizations are also being strengthened via training of the personnel and these results are captured in Indicator No. 5 – see below							
4	No of stakeholders participating in resource management initiatives, workshops, regional meetings, exchange visits.	Tracked but no target	512 persons Males – 390 Females - 122	Tracked but no targets	516 persons Males – 433 Females – 83	Tracked but no target	Tracked but no target
Comments: Tracked but no target Several resource management initiatives, workshops, meetings and trainings involving stakeholders such as Fishermen's Associations, Fishmonger Associations, Community Resource Users, Spatial Planners, the Fisheries Commission and Wildlife Division (of the Forestry Commission) were organized during the reporting period. 3 people from Friends of the Nation, Shama District Assembly and the University of Cape Coast participated in an exchange visit to the CRC-URI to discuss Land Use Management and Spatial Planning for Shama.							

No.	Indicator	FY 10 Target	FY 10 Results	FY 11 Target	FY 11 Results	FY 12 Target	FY 13 Target
5	Number of government personnel, community leaders and private sector stakeholders trained	100	216 Males - 170 Females – 46 (Investigating whether a better corrected estimate can be provided)	100	260 people (government personnel, NSVs, graduate students, community leaders and private sector stakeholders) have been trained as at the end of March, 2011. 171 Males and 89 Females	100	100

Comments: Year 1 results seemed high and it is due to the fact that some meetings were being counted as training workshop when they probably should not have been. Measures to rectify this situation underway and only truly training events and training workshops or study tours capture here.

Employees from the Fisheries Commission, the Environmental Protection Agency, the District Assemblies, Fishermen Associations, the Civil Society Platform for Oil and Gas, Friend of the Nation, the University of Cape Coast Department of Fisheries and Aquatic Sciences and the Department of Geography and Regional Planning all benefited from Hɛn Mpoano trainings. 4 graduate students from the University of Ghana and the University of Cape Coast were awarded field research grants and were trained to undertake research in the Western Region for their Masters thesis. 10 National Service Volunteers were also trained to assist the Initiative to collect fisheries data to strengthen the information base on fisheries in the Western Region.

No.	Indicator	FY 10 Target	FY 10 Results	FY 11 Target	FY 11 Results	FY 12 Target	FY 13 Target
6	Number of hectares in areas of biological significance under improved management	Areas of biological significance to be considered for improved management determined (See indicator No 2 above)	Targets set	600 hectares (3 wetlands in STMA) targeted	Butuah lagoon – 27.3hct Whin estuary – 204.9hct Essei lagoon – 8.0hct Total Area = 240htc.	11,100htc Cape Three Points 5,100 CREMA wetlands 6000 hectares	Amansuri – 21,000 hectares
Comments: 32,700 hct (initial estimates but more precise estimates provided on UCC has district and focal area GIS mapping completed). We plan to disaggregate this by hectares under planning, adoption and implementation phases Amansuri – 21,000 hectares Shama - hectares TBD, STMA wetlands 600 hectares, Cape Three Points 5,100 hectares, Community-based (CREMA) wetlands – 6000 hectares Hɛn Mpoano is working closely with the Wildlife Division of the Forestry Commission, STMA and the Survey Department to demarcate the 3 wetlands in STMA for improved management. The Survey Department are in the process of budgeting for the demarcation while the STMA and the Wildlife Division are also working with Hɛn Mpoano to draw management plans, policies and to enact district bye-laws to govern these wetlands. The same process will be followed in the Cape Three Points forest reserve and the Amanzuri wetlands in FY 2012 and FY 2013 respectively. Actual hectares of the three wetland areas in STMA (water + vegetation area only) is 240.2hct only as per GIS mapping done by consultants from CCU – see Tech report – Rapid biodiversity assessment on Essei and Butuah lagoons and Whin River Estuary – so the initial estimate of 600 hct was wrong. A conservative estimate of size using only the water extent in 2010 and vegetated area in 2010 was used in the calculation.							
7	Amount of private sector and/or government resources allocated for planning and implementation of ICM and fisheries management plans or strategies	Tracked but no target	No data available – see comments below	Tracked but no target	No data available – see comments below	Tracked but no target	Tracked but no target
Comments: Tracked but no targets, expected to be increasing annually. Government personnel and Private Sector operators have spent time and efforts to attend Hɛn Mpoano resource management meetings and workshops on several occasions and even contributed office space and conference facilities to hold such meetings and workshops. The Shama District Assembly provided personnel for the Land use management planning exercise in Shama. Budget allocated for planning and implementation of ICM and fisheries management plans or strategies by the Government of Ghana the Western Region have been difficult and so far impossible to obtain from the agencies. Therefore we are recommending that this indicator be eliminated or a qualitative measure of effort via narrative description be provided as evidence.							

No.	Indicator	FY 10 Target	FY 10 Results	FY 11 Target	FY 11 Results	FY 12 Target	FY 13 Target
8	Number of rural households that benefit directly from USG Assistance	0	70	50	70 (cumulative number) No new beneficiaries until second round of grants to be let in July 2011.	100	150
Comments: Life of project numbers are cumulative. Rural households were supported through the Small Grants Program to undertake different projects in the fishing communities of the 6 coastal districts of the Western Region that Hɛn Mpoano is working in. Small grants will be awarded to qualified applicants again in the coming fiscal years. Households benefiting were beneficiaries or recipients of small grants program. Three small grants focused on livelihood development and included: Batik and soap making for 20 women; improvement of fish monger stalls for 30 fishmongers and assistants; training of 20 women and supply of inputs for poultry production. In these cases number of households benefiting for each activity were 20, 30 and 20 respectively.							
9	Average household food group diversity score	Tracked but no target	NA	Tracked but no target	No data available yet – see comments below	Tracked but no target	Tracked but no target
Comments: Tracked but no target as impossible to demonstrate or expect project attribution at the community or district scale for this indicator. Planning is in progress to train people to do the survey to track the diversity of food groups that are consumed by different households in Hɛn Mpoano focal areas and also control areas in the Central Region.							

Annex 3: Baseline Conditions as of October 1, 2010 for the Process of Establishing a Nested Governance Program for the Coastal Zone of the Western Region: Progress in Assembling the Enabling Conditions (1st Order Outcomes).

UNAMBIGUOUS GOALS & OBJECTIVES (3 INDICATORS) KEY QUESTIONS					RANK TIME 1	RANK TIME 2	RANK TIME 3	RANK TIME 4
Have management issues been identified and prioritized by the Hɛn Mpoano Initiative?	**0**	**1**	**2**	**3**	**2**			
	No action to date	Broad issues identified by project team; some stakeholder involvement	Specific issues identified with stakeholders; prioritization underway	Issues have been identified and prioritized with stakeholders	Justification for current (Time 2) rank:			
Time 1 Comments – The community surveys, a series of technical reports and the Our Coast document have identified the issues associated with trends in the social and environmental conditions and current human activities in the coastal zone. To varying degrees the issues have been discussed with stakeholders but the process of prioritization, the setting of objectives and selecting the strategies for addressing them—are incipient. As Phase 1 draws to a close, these crucial decisions are being addressed through the preparation of the Phase 2 workplan and initial discussions with the Advisory Council.								
Do the Hɛn Mpoano Initiative goals define both desired societal and environmental conditions?	**0**	**1**	**2**	**3**	**1**			
	No goals defined	Goals are being negotiated but have not been formalized	Desired long-term goals address either societal or environmental outcomes	Goals define both desired societal and environmental outcomes	Justification for current rank:			
Time 1 Comments – A long term goal (10–20 years) for the coasts and fisheries of Ghana to which Hɛn Mpoano hopes to contribute was defined in broad terms in the submission to USAID. Specific societal and environmental goals at the scale of the coastal zone of the Western Region have been discussed with participants in general terms.								

Are the Hɛn Mpoano Initiative goals detailed through time bound and quantitative targets (how much, by when)?	**0**	**1**	**2**	**3**	**0**			
	No targets defined	Targets are expressed in non-quantitative terms	Targets specify either a date or a quantitative measure, but not both	Targets have been defined in quantitative terms (how much, by when)	Justification for current rank:			
Time 1 Comments – Specific goals for a future coastal zone governance program for the Western Region have not been discussed with stakeholders. Quantitative targets as required by USAID are in the process of being defined for some elements of the program								

CONSTITUENCIES (4 INDICATORS) KEY QUESTIONS					**RANK TIME 1**	**RANK TIME 2**	**RANK TIME 3**	**RANK TIME 4**
Do the user groups who will be affected by the actions of the Hɛn Mpoano Initiative understand and support its goals, strategies and targets?	**0**	**1**	**2**	**3**	**1**			
	Many important user groups are unaware of the program's goals, strategies and targets	User groups are aware of program's goals and targets but the degree of support varies	With a few important exceptions, key user groups understand and support the program	Relevant user groups understand program goals and targets and actively support them	Justification for current rank:			
Time 1 Comments: While many important groups in government, civil society and the market are aware of the program they do not yet know its goals, strategies or targets since these have thus been expressed only in general terms.								
	0	**1**	**2**	**3**	**1**			

for the Hɛn Mpoano Initiative?	There is little public awareness or support of the program within institutions that could be important partners during implementation	While pertinent institutions are aware of the program, their degree of awareness and support is incipient	Public support is building up due to public education efforts, positive press coverage, endorsements from community leaders	Evidence (surveys etc.) shows that pertinent institutions understand and strongly support the program, and are or will be involved in implementing the program's goals and targets	Justification for current rank:
Time 1 Comments: During Phase 1 of the Initiative, selected stakeholders have participated in work- shops and the community survey introduced the program to residents on coastal settlements. Media attention has been growing and a detailed communications plan is being developed					
Do the institutions that will assist in implementing Hɛn Mpoano understand and support its agenda?	**0**	**1**	**2**	**3**	**1**
	There is little awareness of the program within institutions that will be important partners during implementation	While pertinent institutions are aware of the program, their degree of awareness and support is unclear	With few exceptions pertinent institutions understand and support the program and have publicly endorsed it	Hɛn Mpoano program recognized as important and legitimate by institutions that will be involved in implementing plan of action	Justification for current rank:
Time 1 Comments: Institutions believed to be important to the implementation of the program have agreed to serve on the Advisory Council. Traditional Chiefs have been invited to program events and have expressed interest in the program as have the planners in the coastal districts and at the regional level, representatives of some national agencies and the Fisheries Commission as well as several university faculty members have begun to participate in program activities.					

FORMAL COMMITMENT (3 INDICATORS) KEY QUESTIONS					RANK TIME 1	RANK TIME 2	RANK TIME 3	RANK TIME 4
Have the Hɛn Mpoano Initiative policies and plan of action been formally approved by the appropriate level of Ghanaian government?	**0**	**1**	**2**	**3**	**0**			
	Formal approval process has not been initiated	There is a governmental mandate for the initiative	Policies and actions are being negotiated with appropriate authorities	The plan of action and policies have obtained approval required for implementation	Justification for current rank:			
Time 1 Comments: A proposal for a nested governance system for the coastal zone of the Western Region of Ghana has not been initiated.								
Has the government provided the Hɛn Mpoano Initiative with the authorities it needs to success- fully implement its plan of action?	**0**	**1**	**2**	**3**	**0**			
	No government support	Acknowledgement by some leaders of necessary authorities needed - support for long-term is unclear	Commitments are being negotiated between government representatives and responsible institution(s)	formal commitment (law, decree, or decision) cements legitimacy of program	Justification for current rank:			
Time 1 Comments: While collaborative relationships have been established with governmental institutions in the Western Region and at the national level, a proposal for a nested governance system for the coastal zone of the Western Region of Ghana has not been initiated.								
Have sufficient	**0**	**1**	**2**	**3**	**2**			

financial resources been committed to fully implement the program over the long-term?	No financial resources committed for implementation of the plan of action over the long term	Some pledges and commitments, but significant funding gap remains	Adequate short term funding (3–5 years) secured for pro- gram design	Sufficient financial resources in place to fully implement program over long term	Justification for current rank:
Time 1 Comments: USAID has committed to fund the project for an initial 5 year period. Similarly the World Bank is planning major investments in fisheries reforms at the national scale and other donors are sponsoring activities that can contribute to the outcomes promoted by this program. However, no proposal for a Western Region fisheries and coastal governance program has been to the government. This proposal is anticipated to emerge in years 3 and 4 of the program.					

INSTITUTIONAL CAPACITY (4 INDICATORS) KEY QUESTIONS					RANK TIME 1	RANK TIME 2	RANK TIME 3	RANK TIME 4
Does the Hɛn Mpoano Initiative possess the human resources to implement its plan of action?	**0**	**1**	**2**	**3**	2			
	No personnel have been assigned responsibility for program implementation	Staffing for program implementation is in place but likely inadequate	Staffing is adequate for SOME of the project's needs but not in others	Sufficient human resources are in place to fully implement the program	Justification for current rank:			
Time 1 Comments: Staffing appears to be adequate for the initial implementation for the Phase 2 Workplan. Capacity to practice the ecosystem approach in the Districts and in institutions responsible for fisheries is weak. Capacity building needs are being identified and are being addressed through a variety of activities.								
Has the Hɛn Mpoano	**0**	**1**	**2**	**3**	2			

Initiative demonstrated their capacity to implement its plan of action?	Institutional capacity necessary to implement program is not present	Institutional capacity to implement program is marginal	In some key institutions institutional capacity is adequate but there are important weaknesses in others	Sufficient institutional capacity is present in institutions with responsibilities for implementing program	Justification for current rank:
Time 1 Comments: The Hɛn Mpoano team is building its internal capacity through a combination of training and learning by doing activities. Capacity in partner institutions at the regional and national levels in many instances is weak. Capacity building needs are being identified and are being addressed through a variety of activities.					
Has the Hɛn Mpoano Initiative demonstrated the ability to practice adaptive management?	**0**	**1**	**2**	**3**	**1**
	No evidence of adaptive management	Practice of adaptive management is incipient and is being expressed as minor adjustments to operational procedures	Important institutions engage in periodic self assessments and have modified their behavior based on experience and learning	Program as a whole has demonstrated its ability to learn and adapt by modifying important targets and/or policies	Justification for current rank:
Time 1 Comments: It is not possible to assess the practice of adaptive management at such an early stage of a new initiative					
Is the focal area for	**0**	**1**	**2**	**3**	**1**

Hɛn Mpoano, the coastal zone of the Western Region, structured as a decentralized planning and decision making system?	Power and responsibility are concentrated at one level in the governance system; planning and decision making will likely be unilateral	Program provides for some responsibility and initiative at various levels	Decision making and responsibility is increasingly decentralized, but there are significant coordination and efficiency issues	Program successfully integrates top-down and bottom-up planning and decision making; it is structured as a decentralized system without sacrificing efficiency	Justification for current rank:
Time 1 Comments: While the decentralization of government has in actuality retained power and authority within central government, there are nonetheless opportunities for building a decentralized system.					

Have important actions and policies been successfully tested at the pilot scale?	**0**	**1**	**2**	**3**	**1**
	No pilot programs have been initiated	Pilot programs are underway to assess viability of actions and policies	Pilot programs are completed and outcomes have shaped actions and policies	Action plans and policies have been successfully tested at pilot level	Justification for current rank:
Time 1 Comments: Pilot activities are being designed at the time of this baseline.					

Annex 4: Progress on the Five Component Activities for FY11

Component and Activities	Expected Date of Completion	Status	Notes
COMPONENT 1			
1.1 Develop and Formalize a Nested Governance System for the Coastal Zone of the Western Region			
Coordination of Activities and Assessment of Governance Options through the ICFG Advisory Council	September 2011	Ongoing	Council supportive and involved in actions for developing by laws for urban wetlands in the STMA
Advisory Council Quarterly Working Sessions	September 2011	Quarterly meetings	One Meeting held in Q1. Members actively involved in Midyear review workshop. Q2 meeting postponed to April
Semi Annual Program Review Meetings	September 2011	1st Review meeting held	Review Meeting held as part of the Mid-year review of the M&E training session in March 2011
1.2 Assessment of Legal and Institutional Options for a Nested Coastal Governance System			
Prepare TORs for Consultants	December 2010	On hold	Activity on-hold to refine TOR for Consultant. Activity to resume in May 2011
Participation of Consultants in M&E working Sessions	September 2011	-	Consultants were not part of the M&E working session in March 2011
Conduct Workshops/Roundtables in Accra & Takoradi	September 2011	-	Workshops still to be organized
Prepare discussion papers on legal and institutional options for decentralized Fisheries and Coastal Governance	June 2011	-	Yet to be initiated
1.3 A Fisheries Working Group for the Western Region			
Creation of Fisheries Working Group and Action Plan	December 2010	Completed	Working group created and action plan drawn. Group yet to be officially inaugurated.
Bi-monthly meetings of Fisheries Working Group	September 2011	On-going	Meeting yet Bi-meeting started in February 2011 and ongoing
Stakeholder forums	September 2011	Forums yet to be held	Preparations underway for first for a to be held
COMPONENT 2			
2.1 Improved Governance of the Landscape :Detailed Landscape Planning and Management in Three Focal Areas -*Amansuri, Cape Three Points, Shama*			
Participatory mapping and Visioning	June 2011	Completed for Shama	Participatory mapping and visioning completed for Shama but the exercise yet to be carried out in Cape Three Points and Amansuri

Assessment of the Ecological and Social Landscape (Biodiversity Study)	June 2011	Not initiated	Initial Biodiversity Threats assessment conducted for the whole of the coast but study for the Amansuri yet to be completed
Mapping of the Amansuri Wetlands including social aspects and habitats	June 2011	Yet to commence	The mapping exercise itself has not been done for the Amansuri wetlands but work has been initiated.
Reports from stakeholder consultation meetings	June 2011	Reports for Shama available	Reports for the C3Ps forest reserve and the Amansuri wetlands to be done after meetings have been held in those focal areas
Feasibility report and action plan for accessing REDD funding	June 2011	Underway	MoU with consultant finalized. Activities will begin in Q3
Directed small grants to local civil society groups for conservation initiative	June 2011	On-going	Grant making will begin in 3rd Quarter
Action plan for strengthening co-management of the Cape Three Points Forest Reserve.	June 2011	Ongoing	Working group of Stakeholders formed. Faunal Assessment in progress
Development of a capacity building program for NGOs and schools	June 2011	Ongoing	Hɛn Mpoano is working closely with the University of Cape Coast in the development of the program. Needs assessment underway.
Coordinated efforts for sea turtle nesting conservation	June 2011	Ongoing	2 meetings held with stakeholders. Action plans have been prepared. Stakeholders include Hoteliers, representatives from Wildlife Division of FC and a number of NGOs
Educational programs and materials produced	June 2011	Ongoing	Under discussion with Ghana Education Service and University of Cape Coast
2.2 Land Use Management at the District Scale			
Mapping of physical and natural features in 2 districts	March 2011	Completed for Shama	Mapping completed for Shama district but yet to be done in second district
Climate change vulnerability assessments	March 2011	Underway	Assessment being done with the University of cape Coast Department of Geography and Regional Planning
Participatory mapping and Visioning	March 2011	Completed for Shama	Planning underway for the Cape Three Points Forest Reserve and the Amansuri Wetlands
Purchase and Delivery of Computers to Districts	June 2011	Not Initiated	Activity will be undertaken in Q3
Training of districts Planners	June 2011	-	Only the Planner for Shama District trained as part of Visioning process. The outcome of the Shama process will inform the training schedules of the other planners who will also be involved in the Cape Three Points and Amanzuri Process.
2.3 Enhancing livelihoods and Social Conditions			
Develop MoU with Babson College	December 2010	Completed	MoU with the College completed through Sustainamatrix and an active collaborative program is on going
Feasibility leading to funding decisions on selected business plan implementation	September 2011	Underway	Feasibility team identified and planning ongoing
Selection of partners for Chorkor demonstration	September 2011	Not Initiated	Will be initiated in Q3. Collaborator under this activity, CEWEFIA, CSIR-Food Research Institute and Communities identified
Collaborative studies on coconut and bamboo products and markets with Babson College	September 2011	Underway	Partners identified and study underway

Testing of improved fish smokers	September 2011	Not initiated	Will be initiated in 3rd Quarter.
Piloting of family Planning	September 2011	Ongoing	Partnerships have been formed with CEWEFIA, Ghana Health Service, Nurses Training School, etc. Four established community based peer educator groups and trained, drama programs initiated in the four communities, linkages for accessibility to health services for communities established.
2.4 Value Chain Analysis of selected fisheries commodities			
Analyses of fish value chains and markets to identify opportunities for pro-poor growth	March 2011	Field work completed	This activity had a late start. However, fisheries value chains studies were conducted in coastal communities and major fish markets in Ghana. Analysis and the results will be ready in the 3rd Quarter
Identification and development of pilot value chain "interventions"	March 2011	Preparatory activities underway	Activity delayed. This activity will be undertaken based on the results and conclusions from the fisheries value chains studies
Analyses of the livelihood impacts of significant planned/mooted investments	September 2011	Yet to be initiated	
Training and workshop events	June 2011	Yet to be initiated	
Collaborative program with ADVANCE program	September 2011	Initiated	Preliminary discussion held
COMPONENT 3			
3.1 Governance of the Seascape			
Capacity development for Best Practices in the Governance of Fisheries	December 2011	Ongoing	There has been capacity development for the Fisheries Commission, the Navy, the Police and the Judiciary
International expert consultation	December 2011	Ongoing	This is planned for August 2011 and will involve key Ghanaians and a smaller number of International experts
Guided study visits	March 2011	Ongoing	This will take place in August 2011in Senegal or other West African country as the intended location (Ivory Coast) has been politically unstable
Workshops and guest lectures in Accra and in the Western Region	September 2011	Ongoing	World Fish Center staff give presentations on their visits to Ghana but a program of presentations is being developed for May 2011
Development of adaptive fisheries management training modules	June 2011	Ongoing	Work on this is proposed to be carried out in May 2011.However, preparations are being made towards the training activity
Implementation of training modules	June 2011	Ongoing	Work on this is proposed in May 2011
Indentify/ develop, field test and review approaches to capacity development	Sept 2011	Ongoing	This is also proposed for May 2011

3.2 Strengthening the Information Base for Improved Fisheries Management			
Updating the census of the three fishing fleets operating in Ghana's marine waters	December 2010	On hold	Awaiting final decision and financial commitment of the Fisheries Commission. ICFG will support the census activities from the WR to Elmina while the Fisheries Commission is expected to support the study from the Central to the Volta Region
Piloting data collection on how fishing efforts is changing	December 2010	Ongoing	Preliminary studies completed. Results as inputs for further investigations
A detailed assessment of the interaction between environmental forcing factors and fishery behavior	March 2011	Ongoing	Studies will be completed in Q3
Assessment of displaced effort and related particularly to light fishing	March 2011	Ongoing	Studies
Development of improved indicators for monitoring	September 2011	Not Initiated	Indicator will be developed from study results and will be discussed with the Fisheries Commission (FiC)
3.3 Strengthening Capacity for Fisheries Compliance and Enforcement			
Field training in surveillance and enforcement process	March 2011	On going	
Support for strategic planning for enforcement activities at sea and landing beaches	March 2011	Ongoing	Planning meetings held with the Fisheries Commission on the way forward for enforcement activities
Printing of Manuals and guidelines relative to enforcement	June 2011	On going	The fisheries Act 2002 and the fisheries regulations 2010 and other materials were printed and distributed to the relevant groups
Facilitation of the establishment of an environmental court and training of judges	June 2011	First round of training completed	Training held for MCS staff, Police, Navy, Prosecutors and Judges. Circuit Courts in Takoradi designated to adjudicate on Fisheries and environmental offences
Develop a program on safety measures for fisherman at sea and safety gear	September 2011	-	Not Initiated
3.4 Marine Protected Areas(MPAs)			
Reconnaissance of potential sites	December 2010	Completed for WR	Reconnaissance underwater diving completed for some sea floors in WR. Local Knowledge of sea floor from R. Ankobra Estuary to R. Butre estuary completed.
Inter-ministerial commission meetings	September 2011	Ongoing	Meetings underway supported by the Initiative. Stakeholders include Fisheries Commission, Wildlife Division, Friends of the Earth, Min. of Tourism, EPA, University of Ghana
Study tour	September 2011	Not Initiated	
Stakeholder consultations	September 2011	Ongoing	Ongoing
Potential MPA sites identified	September 2011	Underway	Potential sites for the WR identified. Inter Ministerial Committee to include sites along the breath of the Ghanaian Coast
Institutional mandates for MPA proposed	September 2011	Ongoing	Legal Mandates for institutions being studied by inter ministerial Committee as input into strategic plan for the establishment of MPA

3.5 Water quality Issues in the Fisheries Grounds			
Research on algae proliferation	September 2011	Ongoing	Sampling of coastal waters in the WR and analysis (undertaken by GSO/URI and US-EPA) completed. Preliminary results ready and forwarded to the MEST. CRC serves on task force studying the impacts of the bloom on coastal livelihoods. Further studies will be undertaken in collaboration with Scientists from Ivory Coast
Workshop on algae proliferation	June 2011	On hold	Activity on-hold due to unrest in Ivory Coast. The workshop will involve Scientist from Ghana and Ivory Coast and other stakeholders
System for water quality assessments	June 2011	Underway	Negotiations, identification local institutions and scientists underway
COMPONENT 4			
4.0 Capacity Building			
4.1 Training of Trainers In the Concepts and Practice of ICM			
Training of ICFG partners	March 2011	Two trainings Completed	Lecturers from the University of Cape Coast and Coastal Managers from the CRC provided training for ICFG partners
Development of manuals	June 2011	On going	Working closely with the University of Cape Coast on this
Training of stakeholders in focal areas	June 2011	Assessment underway	Capacity building assessment needs underway in the focal areas to be followed by training
4.2 Training for government representatives, CSOs, community leaders on coastal ecosystem governance			
Training on co-management in fisheries	March 2011	Ongoing	World Fish Center has organized a couple of trainings on co-management
Training on climate change	June 2011	Initiated	Curriculum development with the University of Cape Coast underway
Technical support and training for civil society oil and gas platform	June 2011	Ongoing	Support for CSO underway. Platform formed and action plans drawn.
4.3 Development of Academic training programs			
Development of a high school ICM curriculum package	March 2011	Ongoing	A contract has been signed with the Fisheries and Aquatic Science Department of the University of Cape Coast to develop the curriculum. Development of the curriculum is underway.
A UCC curriculum assessment	June 2011	Ongoing	Assessment on the UCC curriculum has been completed. Suggestions and recommendations will be made to the University and the Department for the inclusion of new modules which are of interest to the University and the Initiative
Awarding and orienting in-country and overseas scholarships for degree training	June 2011	Completed	Graduate scholarships were awarded to 6 students, 5 from the University of Cape Coast and 1 from University of Ghana. Two of the awardees will undertake their studies at the University of Rhode Island in September 2011. Students who received local awards are focusing their studies in the WR and will complete their thesis in June 2011. Two of the awardees are females.

Development of an institute short-course on climate change at UCC	June 2011	Underway	Curriculum development underway. Discussions by resource persons and visit to the University of Cape Coast by scientist from the CRC-URI
4.4 Develop and Implement the ICFG Communications Strategy			
Communication standards for Hɛn Mpoano	March 2011	Completed	Hɛn Mpoano graphic standards developed in conformity with USAID Branding rules
Development of radio and community drama	September 2011	Ongoing	Training of stake holders ongoing. Drama troupes constituted in some communities and Script for Radio drama under development
Visual image library	March 2011	Ongoing	Image library Review continuously. Most of the Images are captured on CD ROMs and DVD
Regular radio programs	September 2011	On going	Initiative Team members discuss topical issues on Radio. Radio jingles on behavior change developed by the Initiative played on various stations
Installation of bill boards	December 2011	Completed	Bill boards on the initiative installed at vantage locations in all the six coastal districts of WR
Newsletter	September 2011	Ongoing	Bi annual newsletter. First Edition published in November 2010
Celebration of special events	September 2011	Ongoing	A number of special events celebrated. This include: 350.org, World Meteorological Day and Mounting Biking in Cape Three Points
COMPONENT 5			
5.1 Monitoring and Evaluation			
Finalization of all M&E planning and training of ICFG personnel and partners	December 2010	Completed	Performance Monitoring Plan documented and ICFG personnel and partners trained on M&E procedures
Semi Annual Reviews	March 2011	On course	Semi-annual review for FY 2011 carried out in March 2011 during an M&E workshop
Social Thermometer	December 2010	Not initiated	Planning to carry out social thermometer in progress
Household diversity Index	March 2011	Not initiated	Planning to carry out household diversity index in progress
Environmental screening of small grants	March 2011	Not initiated	Planning process underway
Trainet reporting	September 2011	Completed	All Trainet reporting completed for all trainings to date
Wetland Scorescard	September 2011	Planning process ongoing	Planning process ongoing to complete scorecards for the 3 wetlands in STMA and the greater Amansuri wetlands
IUCN Protected area evaluation	December 2010	Not initiated	Planning process for this evaluation underway
Monitor carbon footprint	September 2011	Not initiated	Carbon fund set up and contributions are being made to it to start the process