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USAID/UCC FISHERIES AND COASTAL MANAGEMENT CAPACITY BUILDING SUPPORT PROJECT



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Cover Photo: National Project Launch of the USAID/UCC Fisheries and Coastal Management Capacity Building Support Project at the University of Cape Coast (Photo Credit: Department of Fisheries and Aquatic Sciences, University of Cape Coast).

EXECUTIVE SUMMARY

The Fisheries and Coastal Management Capacity Building Support Project contributes to USAID's development strategy for Ghana as outlined in its Country Development Cooperation Strategy (CDCS), directly in support of the Ghana's Sustainable and Broadly Shared Economic Growth. Within the third quarter activities, accomplishments were made in the following key areas namely the hosting of coastal management specialist from the University of Rhode Island as part of operationalization of the Centre for Coastal Management. The project launch and commissioning of the Fisheries and Coastal Research Laboratory at the University of Cape Coast were also undertaken during the period. A refresher course on Fish Stock Assessment for DFAS academic staff and students was completed in collaboration with the Sustainable Fisheries Management Project (SFMP) among others. Also, three (3) consultants from local and private sector were recruited to co-facilitate, identify and prioritize strategies for addressing critical coastal zone issues notably (i) climate change adaptation (ii) supplementary livelihoods and (iii) policy dialogue and sensitization. M&E indicators have been outlined pointing to the progress indicators. Adverse conditions which limit the project to meet the objectives of the award in terms of timelines, providing notification on actions taken or contemplated, and any assistance needed to resolve the situation have been noted in this report.

1. INTRODUCTION

The Fisheries and Coastal Management Capacity Building Support Project operates on a partnership agreement signed on 24th October, 2014 between the United States Agency for International Development (USAID) and the University of Cape Coast (UCC). The project adds value to the work of the Department of Fisheries and Aquatic Sciences (DFAS) of the University in terms of administrative, technical and financial assistance. USAID's total contribution to this Project is up to the tune of US\$5,500,000, which will be sub-obligated on yearly increments to enable DFAS effectively coordinate capacity building at various levels for sustainable marine fisheries management in Ghana over a period of five years (2014-2019). The USAID award represents a strategic investment from the American people for food security in Ghana programmed under the US Government's Feed the Future Initiative¹ and subject to the terms and conditions of the Agreement signed with the University of Cape Coast (PIL No.: 641-A18-FY14-IL#007).

Therefore the project activities contributes to USAID's development strategy for Ghana as outlined in its Country Development Cooperation Strategy (CDCS), directly in support of the Development Objective Two: Sustainable and Broadly Shared Economic Growth². It is expected that by the end of the project, capacity building for sustainable marine fisheries



management in Ghana can be quantitatively proven and demonstrable management outcomes for the country's coastal-marine space and resources will be evident.

These achievements will come on the back of a strengthened local scientific capacity in specific areas of emphasis such as quality and relevant educational programs, practical research, extension and advisory services that will support the management of Ghana's fisheries and coastal resources to enhance the country's social and economic development. One of the key objectives to deliver this vision is to build sustainable partnerships with institutions with shared research and training interests by creating a platform for regular interaction and dialogues with local and foreign universities, particularly with Centres, Institutes and Departments at the University of Rhode Island (URI).

¹ Is a US Government-led initiative for food security in developing countries

²To obtain the full report, please visit

http://www.usaid.gov/sites/default/files/documents/1860/Ghana_CDCS_fy2013-17.pdf

This project has also enabled targeted collaborations with relevant partners including the Ministry of Fisheries and Aquaculture Development (MoFAD) and the Fisheries Commission of Ghana, libraries and research institutions with the idea to promote increased use of science and applied research for decision making, law enforcement, climate change adaptation and biodiversity conservation for poverty alleviation.



An add-on effect of this project will be the upgrade of skills of academic and technical staff in the use of new technologies and scientific equipment, refurbishment of the fisheries and coastal research laboratory, library and offices of academic staff, acquisition of vehicles for field research, extension and the procurement of equipment for the creation of marine and fisheries database working with other international data sources and host centres.

These improvements coupled with award of student scholarships will facilitate the training of 10 PhD, 20 masters and 150 undergraduate students. The package also includes financing of short courses on climate change adaptation, fisheries and coastal management for other relevant professionals over the course of five years. The short courses will be run under the ambit of the Centre for Coastal Management (CCM)³ as part of its operationalization. The project will also support the implementation of its strategic plan, develop business plans for the Centre, enhance roundtable policy dialogues, and undertake critical research with the help of its newly refurbished Fisheries and Coastal Research Laboratory within DFAS.



³ CCM was established in December 2013 by the Academic Board of the University of Cape Coast.

Summary of Accomplishments to Date

During the third quarter, programmatic actions completed include:

- Hosting of coastal management specialist from the University of Rhode Island as part of operationalization of the Centre for Coastal Management
- Commissioning of the Fisheries and Coastal Research Laboratory at the University of Cape Coast
- Strengthened program management procedures of the Project Management Board (PMB) and the Project Management Team (PMT) both serving as a multidisciplinary institutional anchor for the Initiative.
- Catalyzed actions for policy dialogue/stakeholder consultations at district and national levels in all four coastal regions and targeted inputs into the Fisheries Law Act 625 and Regulations that was recently passed into law (LI 1968 of 2010)
- Refresher course on Fish Stock Assessment for DFAS academic staff and students completed in collaboration with the Sustainable Fisheries Management Project (SFMP).
- Memoranda of understanding (MOU) with Florida Gulf Coast University signed, initiated partnerships with other universities (Ghana, Norway and UK) and collaboration with 10 public sector institutions in Ghana for research initiated
- Ten (10) scholarships awarded for PhD and MPhil studies within DFAS
- Conducted planning processes and recruitment of three (3) consultants from local and private sector—to identify and prioritize strategies for addressing critical coastal zone issues notably (i) climate change adaptation (ii) supplementary livelihoods and (iii) policy dialogue and sensitization and
- The completion of tendering and contracting process for the procurement of equipment for the newly refurbished Fisheries and Coastal Research Laboratory.
- Acquisition of a 65 kVA generator set, computers and accessories.

In addition to the accomplishments outlined above, this quarterly progress report updates on progress in meeting the M&E indicators and point to some adverse conditions which limit the project to meet the objectives of the award in terms of timelines, providing notification on actions taken or contemplated, and any assistance needed to resolve the situation.



Table 1: List of Indicators for the Fisheries and Coastal Management Capacity Building Project: Indicator Numbers, Title of Indicators, Results and Narratives as at the end of Quarter 3, FY 2015

Indicator No.	Title of Indicators	Results and Narratives as at end of Quarter 3, FY 2015
1	Prevalence of Poverty: Percent of people living on less than \$1.25/day.	The Project focuses on the coastal districts of the Central and Western Regions in general and in selected communities in particular. The Project has focused more on setting up structures for project management and infrastructure development for the Centre for Coastal Management (CCM), Academic Staff and Students of DFAS since the beginning of project to date. Though initial field visits and planning for project intervention activities have been carried out, actual implementation of programs that will have impact on poverty in the project's focal areas will take place from the second year beginning October 2015. Prior to the beginning of the second year, the Project will collaborate with METSS to determine the percentage of people living on less than \$1.25/day in Project focal areas as a baseline in September 2015 against which Project performance will then be measured subsequently.
2	Per capita expenditures (as a proxy for income) of USG targeted beneficiaries.	Similar to the reasons given for measuring the prevalence of poverty (percentage of people living on less than \$1.25/day) in Project focal areas given above, baselines to determine per capita expenditures in Project focal areas will be established in September 2015 in collaboration with METSS against which future changes in expenditures will be measured.
3	Quantity and/or size of fish landed by selected canoe fishermen in Central and Western Region of Ghana.	In collaboration with the Sustainable Fisheries Management Project, the Project has undertaken some initial fieldwork with fishermen and fishmongers on the biology and ecology of some commercially important fish species particularly in the Western Region where quantities and size of fish landed have been described and measured. The Project intends to build on the contacts established to work with fishermen and fishmongers to determine the quantities and sizes of fish landed in September 2015 as a baseline. Changes will then be determined after every quarter when actual implementation of project activities start.

Indicator No.	Title of Indicators	Results and Narratives as at end of Quarter 3, FY 2015
4	Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance	The Project intends to work with District Assemblies, Community-Based Organizations, natural resource users and other stakeholders through research, sensitization and dissemination of information relating to natural resource use and to designate areas that are of biological/natural resource significance as area under improved management. The project has so far established good working relationships with all the stakeholders with a number of visits to the communities. Communities to benefit have been selected for this purpose but specific areas to be put under improved management are yet to be identified and agreed upon.
5	Number of hectares in areas of biological significance and/or natural resource showing improved biophysical conditions as a result of USG assistance	Number of hectares in areas of biological significance and/or natural resource showing improved biophysical conditions will be determined after selection of critical areas in selected communities to be put under improved management and constant monitoring as has been described above in relation to indicator number 4. These will be determined during the actual implementation of community programs which is planned to begin in in year 2 of the project.
6	Number of person hours of training in natural resources management and/or biodiversity conservation supported by USG assistance	The first 3 quarters of the project have mainly been dedicated to setting up management structures, infrastructure development, purchasing and installation of field and laboratory equipment with emphasis placed on the preparation of training sessions. Trainings to be conducted in the first year are scheduled to take place in the last quarter of Year 1. Details of trainings held will be reported on at the end of the 4th quarter in the Year 1 Annual Report.
7	Number of people receiving USG supported training in natural resources management and/or biodiversity conservation	This will be reported on at the end of the 4th quarter as all the trainings planned for are taking place in the last quarter of the year.

Indicator No.	Title of Indicators	Results and Narratives as at end of Quarter 3, FY 2015
8	Score, in percent, of combined key areas of organization capacity amongst USG direct and indirect local implementing partners.	This is a custom indicator to assess the capacities of relevant organizations that are considered as key implementing partners to the Project. At the moment the project has identified some of the organizations that are considered as key collaborators and is in the process of signing MoUs with them detailing out specific areas for the collaboration. Different organization capacities will be determined after the signing of the MoUs against which project interventions in areas of capacity strengthening will be gauged.
9	Percentage of graduates from USG-supported tertiary education programs reporting themselves as employed by DFAS and other tertiary institutions	Since the beginning of the project a few months back, the project has not recorded any graduates from the Department of Fisheries and Aquatic Sciences that have reported themselves as employed by the Department or any other tertiary institutions. The first batch of final year undergraduate students who received support from the project to carry out their field research for their thesis just graduated. Postgraduate students to benefit from the project have now been selected to start their programs beginning next academic year. Hopefully, some of the students will be employed by the department or other tertiary institutions.
10	Number of tertiary institution faculty or teaching staff whose qualifications are strengthened through USG-supported tertiary education programs	So far in course of the project no tertiary institution faculty or teaching staff have had their qualifications strengthened but some academic staff will benefit from the training programs that are currently taking place in the last quarter of the first year both in Ghana and in the US.
11	Number of farmers and others who have applied new technologies or management practices as a result of USG assistance.	Fishermen, fish farmers, fishmongers and other community-based organizations are currently being strengthened to apply new technologies and management practices. Actual numbers of people who apply the new technologies and management practices acquired through the capacity strengthening programs will be determined by monitoring their activities from time to time.
12	Number of training and capacity building activities conducted with USG assistance	Training and capacity building activities are scheduled to take place in the last quarter of Year 1. Details of the activities will be reported in the project's Year 1 Annual Report.

Indicator No.	Title of Indicators	Results and Narratives as at end of Quarter 3, FY 2015
13	Number of individuals who have received USG supported long-term agricultural sector productivity or food security training.	7 final year undergraduate students were given financial support by the project to conduct field research for their thesis and have successfully submitted their thesis awaiting graduation. 5 Masters and 5 PhD students have been selected to receive scholarship to study fisheries and coastal management at the University of Cape Coast beginning next academic year. In addition 1 Masters and 1 PhD students have also been awarded scholarships to study Marine Affairs and Fisheries Science at the University of Rhode Island in the US beginning next academic year.
14	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training.	Short-term agricultural sector productivity or food security trainings will be taking place during the last quarter of Year 1 and will be reported on in the next reporting period.
15	Number of beneficiaries receiving improved infrastructure services due to USG assistance	12 people (1 Professor, 1 Lecturer, 8 Research Assistants, Project Management Support and Project Monitoring and Evaluation Support Personnel) have had their offices and working spaces refurbished and are now enjoying the comfort of working from such places. The rest of the Academic staff will also have their offices refurbished in the last quarter of the Year 1.
16	Number of vehicles bought with USG assistance.	1 4x4 cross-country vehicle has so far been acquired for the project with the other 2 yet to arrive. Plans are far advanced to get them in as quickly as possible.
17	Number of public-private partnerships formed as a result of FTF assistance.	The project actively participates in monthly meetings of USAID/Ghana projects in the Western Region of Ghana to share thoughts on the coordination of program activities on the Western Region. The project has so far signed MoUs with the University of Rhode Island in the US, Florida Gulf Coast University in the US and the Environmental Justice Foundation. More MoUs will be signed between the project and other organizations that are going to collaborate with the project in the development of marine and coastal fisheries data. Exact numbers of public-private partnerships formed will become clearer after a planned meeting to discuss details of the MOUs.

Indicator No.	Title of Indicators	Results and Narratives as at end of Quarter 3, FY 2015
18	Number of new research collaborations established between USG-supported beneficiaries and other	This will also become clearer after the planned meeting on coastal and marine fisheries database and will be reported in the next quarter report
19	Number of scientific studies published or conference presentations given as a result of USG assistance for research programs	Seven (7) Undergraduate students who were supported by the project have published their thesis based on scientific research conducted. Currently, consultants are in the field carrying out scientific surveys that will lead to conference presentations in policy dialogue sessions and the publication of policy briefs. The outcome will be presented in the next quarter report.
20	Number of private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance.	As a follow up to initial work done by the project in coastal communities to collaborate with fisheries groups, a consultant has been engaged by the project to support the development of capacity strengthening and sensitization strategies for selected community-based fisheries groups to be able to apply new technologies and management practices. The groups will be counted and reported on after the adoption of such new technologies.
21	Number of hectares under improved technologies or management practices as a result of USG assistance	Areas to be put under improved technologies or management practices are yet to be selected in consultations with community people and respective District Assemblies.
22	Number of dialogues and stakeholder consultations held on fisheries and coastal management	Stakeholder consultations on fisheries and coastal management issues are currently ongoing at the community, district, regional and national levels which will be followed by district, regional and national dialogues to deliberate on issues necessary for good fisheries and coastal management practices and policy formulation. These will be reported on in the next quarter report.

Indicator No.	Title of Indicators	Results and Narratives as at end of Quarter 3, FY 2015
23	Number of assessments conducted as a result of USG assistance.	The project intends to carry out fisheries stock assessments and assessment of critical coastal habitats but to date no such assessments has been conducted even though work is in progress to plan for the commencement of such assessments.
24	Number of food security private enterprises (for profit), producers organizations, water	The groups will be identified in the currently ongoing capacity strengthening and sensitization work in communities. Number of groups to receive assistance and the nature of the assistance will be reported on in the next quarter report.
25	Number of rural households benefiting directly from USG interventions.	This will mostly be determined after on-the-ground implementation of project activities at the household level but some information on rural households will be gathered through the currently ongoing capacity strengthening and sensitization work in communities after which numbers of will be counted.
26	Number of vulnerable households benefiting directly from USG interventions	This will also be determined after on-the-ground implementation of project activities at the household level but some information on rural households will be gathered through the currently ongoing capacity strengthening and sensitization work in communities after which numbers of will be counted.
27	Number of members of producer organizations and community based organizations receiving USG assistance.	Information on such organizations will be gathered through the community work currently being undertaken in the communities and future project interventions.
28	Number of CSOs and government agencies strengthened	Project interventions including trainings and other forms of capacity strengthening activities targeted towards CSOs and government agencies are just beginning to take place which will be reported in the next quarter.

2. OPERATIONALIZATION OF THE CENTRE FOR COASTAL MANAGEMENT

The capacity of the University of Cape Coast to create knowledge across the country and build practical lessons for effective fisheries and coastal management practices will be substantially enhanced through the Centre for Coastal Management. This approach will also enhance the number of applications of improved science and extension in support of coastal and marine conservation and their sustainable use. The Centre for Coastal Management (CCM) was approved by the University's Division of Academic Affairs in December 2013. Presently the Centre is in a special relationship with the Department of Fisheries and Aquatic Sciences which is overseeing its operations⁴. A major thrust of the work of the Centre within the third quarter was the hosting of a coastal management specialist in the person of Prof. Richard Burroughs of the Coastal Institute of the University of Rhode



Island from May 9 – May 23, 2015. The purpose of his trip was to advance the objectives of the Fisheries and Coastal Management Capacity Building Support Project of the University of Cape Coast and the Sustainable Fisheries Management Project of the University of Rhode



Island both concurrently supported by USAID. The specific terms of reference (TOR) for the visit to University of Cape Coast (UCC) are appended (see Appendix I) and the memorandum of understanding between UCC and the University of Rhode Island (URI) with the following as major outputs of his visit.

Indeed, part of the mandate of the coastal management specialist was to consider funding sources for the Centre to enable it expand on its operations beyond the scope of the USAID grant, identify other Centers in the US aside Coastal Resources Centre (CRC) and initiate discussions. Additionally,

initiate the process for linking research conducted by the Centre for extension support for the civil society and engagement of government officials, support particularly promising students from UCC and mid-career professionals from the Fisheries Commission and provide graduate education at URI and deliver public lecture on Coastal Management.

⁴Letter from the Division of Academic Affairs, UCC dated 18 December 2013

The following relate to key progress and recommendations made during the visit:

- (i) **The Centre for Coastal Management Strategic Plan (TOR 1):** The strategic plan discussed and initial round of comments provided (see Attachment C).
- (ii) **Business Plan and Attracting Grants (TOR 2, 3):** A review of private foundations providing grants of over US \$100,000 to Ghana was conducted and 26 organizations were identified. A logic behind establishing rate structures for sample analyses, social science data set collection, and mapping was provided
- (iii) **Collaboration with Centres in the US (TOR 4):** UCC has memoranda of understanding (MOU) with Auburn, University of Delaware, and, in connection with this project, the University of Rhode Island (Attachment B).
- (iv) Potential functions for the Centre that would serve these ends discussed. Expanded presentation of options for Centre provided in public talk.
- (v) **Research/Extension/Engagement (TOR 5):** Sector-based management initiatives presented by topic area (ports, oil and gas, sanitation, and fisheries) and the role of bridging organizations in connecting topical knowledge with individuals, civil society organizations, and government. For each of the topic areas the bridging organizations were identified to initiate further discussion about the role of the Centre at UCC. Students in the areas of stock assessment, coastal management, and sardinella biology have been selected and their files are being prepared for forwarding to URI.
- (vi) **USAID/ SFMP Student Scholarships (TOR 6):** Memorandum of Understanding relative to student scholarships advanced. During the period, the PMB approved the nomination for an SFMP scholarship to pursue a 3-year PhD Degree in Fisheries Science at the Graduate School of Oceanography, URI. Mr. Evans Kwasi Arizi is a native of Jaway in the Jomoro District of the Western Region of Ghana. He attended Half-Assini Senior High School from 2001-2004. Subsequently, he gained admission into the University of Cape Coast where he obtained a Bachelor of Science Degree in Fisheries and Aquatic Sciences and a Master of Philosophy Degree in Aquaculture in 2009 and 2013 respectively. He did his national service at the Department of Fisheries and Aquatic Sciences (DFAS) as a Teaching Assistant and was subsequently employed in the Department as Principal Research Assistant. Evans has two scientific publications to his credit. Aside his key line of duty, Evans participates in academic and social debates and diligently contributes to ongoing research work in the Department. Evans has the ambition to become a Fisheries Scientist in Ghana. His grant is one among a series of capacity strengthening grants for DFAS/CCM to be drawn from the USAID/SFMP Project.





In the same line of action, PMB approved the application of Miss. Ivy S. G. Akuoko to pursue an MA (Marine Policy). Ivy is also Ghanaian and from the Ashanti Region. She had her Senior High School Education in Kumasi Girls' Senior High School, Kumasi. In the year 2010, she gained admission to the University of Cape Coast (UCC) to pursue a Bachelor's degree in Biological Sciences and majored in Environmental Science. She holds certificates in Introduction to Environmental Law and Policy as well as Global Health from the University of North Carolina, USA and University of Copenhagen, Denmark respectively. Ivy is currently a Teaching Assistant at the Department of Environmental Science of the University of Cape Coast. Ivy has the ambition to become a university lecturer and an environmental advocate back home after her studies in the States.

Recommendations:

- The strategic plan should be viewed as a living document with revisions completed every two years during the life of the project. The plan and its evolution will become a record of the largest coastal management grant to a university in West Africa and perhaps beyond. Through the plan readers should become familiar with the practical problems the Centre will consider and the means of linking multiple departments at the University to contribute to their resolution as well as the new technical capacities/services that the Centre will provide. The plan is also an opportunity to specify intentions with respect to interacting with the general public, officials, and civil society organizations. Centre leadership may consider public dissemination of the strategic plan, which would likely include figures and illustrations to capture the themes and the directions of the Centre. See US National Sea Grant plan or state Sea Grant plans as examples of content for public versions of strategic plans. To be effective the breadth of the Cape Coast plan will be much more targeted than these examples. Also consider communicating with the Coastal Resources Center (CRC) at URI as they compete an update of their plan.

- Expand the analysis of potential funding organizations by creating a list of national donors (JICA, SIDA, CIDA, USAID, DANIDA, and others) and international organizations (WB, GEF, and others) with a history of funding coastal and fisheries projects. Complete analysis by checking websites and begin writing letters of inquiry in a year or two. When the new technical capabilities of the Centre become established create a rate sheet for the services available for faculty/students, government, and private sector. University support will be important as you negotiate with donors, and it may be considered in the forms of space, technical staff, and new faculty positions.
- Open correspondence with the University of Miami, University of Oregon, and Woods Hole Oceanographic Institution among others and over the first three years of the USAID funding establish at least one more MOU
- Use the current livelihoods project as well as other initiatives to develop and test extension and engagement strategies. Select among mechanisms presented in the talk those most appropriate for Ghana.
- Consider establishing a speaker series with one talk sponsored by the Centre each semester so that professors from Ghana and abroad, prominent officials, civil society leaders, and others with specific interests in the coast can address the University
- Complete the design of the selection process at the Fisheries Commission and process initial applicants. Establish the timing and review in future years to coincide with URI admission requirements – namely that applicant files should be complete by January for a start in September of the same year.



3. COMMISSIONING OF THE FISHERIES AND COASTAL RESEARCH LABORATORY AT THE UNIVERSITY OF CAPE COAST

One of the key achievements within the quarter was the completion of renovation works at the Fisheries and Coastal Laboratory, a key thrust for the training of students and promotion of research within DFAS. The activity involved purchasing, refitting and installations of state-of-the art facilities in order to provide a functional laboratory space that allow for the required equipment to be fitted. The Minister for Fisheries and Aquaculture Development Hon. Sherry Ayittey commissioned the laboratory. Present at the ceremony were key dignitaries from USAID led by the Director of the Economic Growth Office of USAID/Ghana Mr. Peter Trenchard and the Omanhene of Cape Coast, Osabarima Kwasi Atta II, the Pro-Vice Chancellor and Registrar of the University in the persons of Prof. Nelson Buah and Registrar Mr. Kofi respectively.



The commissioning ceremony was the highlight of the national launch of the project which took place on the 9th June, 2015. In his five-minute speech open remarks delivered at the launch focused on the commitment and support of the U.S. Government to food security, especially fisheries, in Ghana. The Minister of Fisheries, Hon. Sherry Ayittey, presented the keynote address on government's commitment to the fisheries sector and collaborations with USAID to improve the sector (see full speeches, Appendix II & III).



Seven media houses (print, electronic) with nationwide impact were in attendance: GTV, TV3, UTV, Ghana News Agency, Daily Graphic, Radio Central and ATL FM were in attendance.



In order to promote science and technology for coastal management the Fisheries and Coastal Management Lab was refurbished DFAS is delivering a vision for improved fisheries and coastal management training in Ghana. An add-on effect is the upgrade of skills of faculty and technical staff in the use of new scientific equipment such as an atomic absorption spectrophotometer (AAS), mass spectrophotometer and gas chromatography units and other field equipment. In view of the unreliable power supply (*dumsor*), a 65 kVA generator set was also acquired during the period, yet to be installed. The facility is expected to power the

heavy-duty equipment in the laboratories, general office as well as offices of academic staff of DFAS. Two photocopiers for the DFAS general office space and the CCM office space in FELT were procured. In addition, thirty-four computers and accessories including UPS units plus a 52" Television were procured with the latter meant for video teleconferencing and teaching purposes. These improvements will support the training of 10 PhD, 20 MPhil, and 150 BSc graduates over the five years of the project.



4. PROJECT MANAGEMENT, RESEARCH & TECHNICAL SUPPORT

The Department of Fisheries and Aquatic Sciences is the lead implementer of the project activities overseen by the Project Management Board (PMB) that was established by the Vice-Chancellor (VC). The PMB will have fiduciary responsibility, and serve as an advisory and decision-making authority for the project. In addition, the Board has the responsibility of approving project work plans and budget, and monitor activities on regular basis. In line with its mandate, the board met on 26th of June, 2015 to among others approve the terms of reference for relevant partnerships and put in place more formidable systems and mechanisms for project implementation. One of such approaches is to engage external consultants with relevant expertise, work with government agencies or civil society organizations to support or co-facilitate some activities as follows:

- i. Delivery of Short course on Climate Change Adaptation for district planners and national disaster management officials
- ii. Development of Capacity Strengthening and Sensitization Strategies for Selected Community-based Fisheries Groups in the Western and Central Regions of Ghana
- iii. Policy and Research Dialogues on Sustainable Fisheries and Coastal Management in Ghana.

Short course on Climate Change Adaptation for district planners and national disaster management officials

Indeed, one of UCC's goals is to respond to capacity needs and provide "knowledge stop-gaps" for coastal management practitioners, planners, disaster management officials and other professionals where one of the elements would be to develop and deliver training courses on coastal climate change adaptation for the public. The essence of this activity is to update existing training modules (produced by DFAS under the ended USAID funded Integrated Coastal and Fisheries Governance Project) for short training programs for stakeholders in climate change adaptation and mitigation. It is envisaged that at the end of the project, a climate change adaptation and mitigation guidebook and educational materials would have been produced and presented to key stakeholders.

Ms. Anita Takura was given the nod to co-facilitate this activity by the PMB. Anita is an Environmental Scientist with expertise in Climate Change, Environmental management systems and natural resource management specializing in Environmental Change Management. With over ten years functional professional experience in Environment and natural resources management, Anita has advanced knowledge and experience in training facilitation and has been engaged in several consultancies involving workshops and field environmental



management and research techniques. Anita also has extensive experience in the implementation of environmental management programs of USAID funded projects and has consulted previously on such projects. Anita has excellent working knowledge and understanding of the environmental conditions and major issues in all major ecological zones across Ghana. Notable amongst Anita's skill sets is her extensive Knowledge in the issues and driving forces of Climate change in Africa. Paramount in this is Climate Change Policy and planning for different sectors. Anita holds a Master of Science (MSc) in Environmental Change Management from the School of Geography and Environment (Environmental Change Institute) University of Oxford in the UK, BSc in Biological Sciences from the University of Ghana. She is currently a registered PhD student in Environmental Sciences at the Department of Biosciences, University of Nottingham and scheduled to graduate in January 2016.

Development of Capacity Strengthening and Sensitization Strategies for Selected Community-based Fisheries Groups in the Western and Central Regions of Ghana

The program seeks to develop and evolve diversified livelihoods and value chain improvements for fisher folk in coastal communities. The idea is to target fishing households to limit degradation of the marine and coastal environment as well as fisheries, and promote supplementary programs that seek to provide training on "best practices" for the communities and sensitize decision-makers and investors within both the private and public sectors to support the selected communities. Therefore the development of an efficient capacity strengthening and sensitization



program for community-based fisheries management groups in the Western and Central Regions is paramount to this process in order to allow for the goal of sustainable fisheries to be achieved based on the activities:



- Undertake a needs assessment for fisheries management in eight (8) rural coastal communities (four from each Region);
- Facilitate establishment of community-based fisheries management groups where necessary;
- Develop capacity strengthening strategies for realization of the objectives of the community-based groups providing documentation and share with stakeholders examples of lessons on best practices of community-based management activities in other parts of Africa as well as organize a close-out workshop for each community.

On the basis reviews of applications received, Mrs. Abena Acheampong was selected by the PMB to co-facilitate the process. She is the Country Director of World University Service-Canada. Abena has over 15 years practical experience working at different levels in both the community development, Education and the NGO sectors. She has many years of experience developing, implementing and monitoring programs related to the Ghana Growth and Poverty Reduction Strategy including 10 years of managing development projects, international volunteers programs and partners and holds a Certificate in NGO Management from the Ghana Institute of Management and Public Administration (GIMPA), an M.A. Development Studies from the University of Ghana, B.ED (Hons) Social Studies and a Diploma in Geography from the University of Cape Coast.

Policy and Research Dialogues on Sustainable Fisheries and Coastal Management in Ghana

By improving governance of marine fisheries and related research, societies could capture a substantial \$50 billion annual economic loss. Through comprehensive reforms, the fisheries sector could become a basis for economic growth and the creation of alternative livelihoods in many countries. At the same time, a nation's natural capital in the form of fish stocks could be greatly increased and the negative impacts of the fisheries on the marine environment reduced. Indeed, modern fisheries management is often referred to as a governmental system of



appropriate management rules based on defined objectives and a mix of management means to implement the rules, which are put in place by a system of monitoring control and surveillance. The sustainable use and conservation of marine living resources is encouraged

through legislation, regulations, education and awareness creation programs as well as the enforcement of existing regulations and legislation.

Therefore the primary objective of this intervention is to implement policy and research dialogues on fisheries and coastal management in Ghana in collaboration with the DFAS/UCC for sustainable fisheries management through:

- Assessments for relevant fisheries and coastal management issues for policy and research dialogues at the district, regional and national levels
- Round table meetings with policy makers for discussions on the above issues
- Development of policy briefs on fisheries & coastal issues and best practices emanating from the meetings
- Conferences of researchers to discuss sustainable fisheries and coastal management issues in Ghana
- Linkages among personnel in relevant government agencies and researchers in Ghana
- Documentation and sharing with stakeholders, examples of best practices in fisheries and coastal management in Africa.

Out of the four applications received for evaluation, the PMB found Dr. Benjamin Campion, a lecturer at the Kwame Nkrumah's University of Science and Technology (KNUST), most suitable to undertake this activity. He doubles as Examinations Officer and coordinator of postgraduate programmes of the Department of Fisheries and Watershed Management at the Kwame Nkrumah University of Science and Technology. Dr Campion has a very diverse academic upbringing: he has a BSc Botany (Honours), MSc Aquatic Ecology, MSc Resources Management and a PhD in Climate and Vegetation Geography. Dr Campion is also a licensed High Conservation Value (HCV) assessor and a member of the Association for the Sciences of Limnology and Oceanography. His research has been on natural resources conflicts, especially, conflicts and trends in the management of communal resources such as fishing grounds, communal land and urban green spaces. Aside research, Dr Campion has worked as consultant on management of artisanal fisheries and coastal communal resources; aquaculture and management of impoundments (for drinking water, irrigation and aquaculture) in Ghana; nutrient loading, dispersal and management of aquaculture on the Volta lake. His academic contributions in these subject areas are reflected in his numerous publications that are available to the wider audience.

5. REFURBISHING AND EQUIPPING NEW OFFICE/LECTURE/COMPUTER ROOMS AND LIBRARY

This activity involved refurbishing CCM office space and lecture room for postgraduate students located within FELT building and the CCM library. These facilities have been upgraded to be able to facilitate educational, training and research activities. The following are outputs to date:

- Office spaces, lecture and computer room furnished
- Library refitted
- Computers and accessories procured
- Procurement of softwares contracted to suppliers



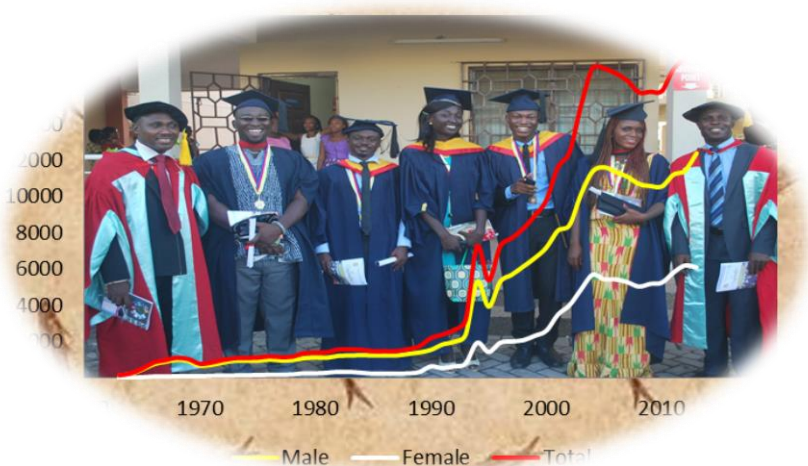
Departmental/ CCM library



Centre for Coastal Management Office Space, FELT

6. UNDERGRADUATE AND POSTGRADUATE SCHOLARSHIPS

In relation to the scholarship program, DFAS prepares communications that announce available scholarships from the grant for the department in both print (Daily Graphic and Ghanaian Times) and electronic media (including UCC websites, DFAS Facebook pages). Subsequently, the Department forms a committee to review the applications and propose the successful candidates to receive the scholarship support to the university for the award specifying the terms of the contract that includes the funding budget available for the studies including stipends, specific schedule and expected communications to come from the research. It is noteworthy to state here that, the DFAS since its inception in 2002 to date is 100% male-dominated in



terms of its academic staff. The USAID capacity strengthening grant has provided an entry point for the design of a quota system for gender mainstreaming that will ensure that female researchers are recruited as part of its affirmative action policy. For gender parity among students, the quota system has instituted mentorship in favour of female admission up to about 60% of total student enrolment within the USAID/UCC Capacity Building Support Program.

During the period seven (7) undergraduate student grant beneficiaries of the DFAS successfully completed/ passed their undergraduate dissertations. Postgraduate scholarship awarded during the period are as follows:

Table 2: PhD Scholarship awards (2015/16) academic year

No	Name	Gender	Institution	DFAS Degree Program
1	Margaret Fafa Dzakpasu	F	University of Cape Coast	Oceanography & Limnology
2	Jemimah Etonam Kassah	F	University of Ghana	Fisheries Science
3	Ahia Lawrence Armah	M	University of Cape Coast	Aquaculture
4	Rebecca Kyerewa Essamuah	F	University of Ghana	Oceanography & Limnology
5	Michelle N.K. Clottey	F	University of Ghana	Fisheries Science

Table 2: MPhil Scholarship awards (2015/16) academic year

No	Name	Gender	Institution	DFAS Degree Program
1	Mercy Johnson-Ashun	F	University of Cape Coast	Fisheries Science
2	Jennifer Eshilley	F	Kwame Nkrumah University of Science & Technology	Oceanography & Limnology
3	Divine Worlanyo Hotor	M	University of Cape Coast	Fisheries Science
4	Simon Kyei Gimah	M	University of Cape Coast	Aquaculture
5	Kezia Baidoo	F	University for Development Studies	Fisheries Science

7. VEHICLES TO SUPPORT EDUCATIONAL, TRAINING, RESEARCH AND EXTENSION ACTIVITIES

Additional two vehicles i.e. Ford F 150 and Toyota Coaster Bus expected to be received from the respective suppliers namely Smice Company Limited and Mechanical Lloyd Company, both based in Accra with whom the university signed contracts failed to meet the delivery dates for the reason of manufacturing and import delays.

The Land cruiser Prado was branded with the name of the Project and the approved logo for the Centre for Coastal Management



8. ACADEMIC AND TECHNICAL STAFF CAPACITY STRENGTHENING

Fish stock assessment training: selected members of the DFAS mainly lecturers and postgraduate students⁵ alike took part in a one-week intensive training program in fish stock assessment methods run by the Sustainable Fisheries Management Project (SFMP). The main goal of the training was to strengthen the capacity of the Fisheries Commission and its partners in basic fish stock assessment techniques and prepare its professionals to take the next steps in stock assessment results and apply it to fisheries management.



Fish stock assessment synthesizes information on life history, fishery monitoring, and resource surveys, using mathematical models of population dynamics. Results from fish stock assessments are used to develop sound management measures.

Eligibility: This training is for individuals who are actively engaged in fisheries data collection, science and technology and fisheries management. Experience with statistics, fisheries sciences and computer programming is desired. The main goal of the training is to build capacity of professionals of the Fisheries Commission and other institutions in stock assessment and develop a strategy for professional development in advanced FISH stock assessment in Ghana.



Outcomes: The training program presented theoretical elements in fish population dynamics to guide participants in putting theory into practice in managing fisheries resources. The one-week program was under the tutelage of Mr. Najih Lazar, Senior Fisheries Advisor to the SFMP Project. The workshop provides instruction, demonstration, and exercises in fisheries stock assessment as applied to fishery resources. Working in teams, participants left the course with a wide range of assessment tools focused on data and information on small pelagic fisheries of Ghana.

⁵ DFAS members included: Prof. John Blay, Dr. Joseph Aggrey-Fynn & Dr. Denis Aheto (Academic Staff) and Messrs. Isaac Okyere, Isaac Osei, Evans Arizi as well as Miss. Elizabeth Effah, and Miss. Shiela Fynn-Korsah

It is expected that the practical exercises will feed information into fisheries management activities occurring as part of the Sustainable Fisheries Management Project and the USAID/UCC Fisheries and Coastal Management Capacity Building Support Project. These activities are implemented with support of the USAID/Ghana. The training used a range of methods including lectures, exercises, small group work, simulations and case studies to create a robust interactive and dynamic environment to learn new insights and skills in fish stock assessment. Specifically, at the end of the course, participants were able to:

- conduct single species assessment methods and understand data collection needs for different assessment methods
- familiarize with indicators and references points, both biological and economic, as tools in fisheries management, develop knowledge of fishery population and fishery processes by using simulation models to improve scientific advice for managers.



9. DEVELOPING GIS AND ENVIRONMENTAL DATA HUBS

In order to provide technical direction as DFAS develops a work plan for Year 2 activities, DFAS hosted Chris Damon in April 2015 during his visit on an SFMP assignment to discuss modalities for setting up the GIS and Environmental Data Hub. The vision is to develop an Environmental Data Centre, housed within the Centre for Coastal Management, which will be composed of a GIS unit of trained researchers and the underlying database(s) needed to organize and store environmental data. Indeed, CCM plans to embrace open data access with free exchange between universities, government agencies and NGOs, but there will likely be charges for commercial enterprises requesting data. A good portion of the discussion focused on the difference between what UCC is proposing with their Environmental Data Centre and the CR TCPD Central Planning Hub. While there will be cross-over in data usage, it was agreed that the two data centres are unique (both in data holdings and activity mandates) and will complement one another rather than compete against each other.

CCM also sees the need to support district planning activities and have proposed providing software/equipment/training to 1-2 districts in years 2-3 of their five year project.

Outcomes:

UCC is making good use of the time they have in Year 1 of their project to define both their vision and goals for the Centre for Coastal Management and the Environmental Data Centre.

Mr. Damon however cautioned CCM to avoid too many activities that could limit its overall effectiveness. For example:

- district training and support are likely better handled by TCPD CR. DFAS/ CCM has limited capacity to train district planners with MapMaker/QGIS, and developing this capacity will reduce their effectiveness at developing the much needed ESRI/ArcGIS capacity in-house, which is required to support their key role in the creation of new information and for scientific applications.
- The development of short, focused courses is also a worthwhile goal, but DFAS/CCM needs to be realistic in which aspects and capabilities they will be able to achieve in the next few years, recognizing that the URI Environmental Data Centre as a model has taken three decades to attain its current capacity. Much work will need to be done building GIS staff capacity, procuring equipment/software, developing data and doing research.

It was highly recommended that UCC explore the opportunities offered through Esri's Conservation Grants Program (ECP) and begin the application process.

It was noted that hardware/software/training are routinely provided to organizations that can demonstrate a need, and the potential exists to save a significant amount of money that would otherwise be allocated for software purchases and licensing. Though no financial resources for equipment support are available from the SFMP project, the SFMP could provide technical assistance with the Esri ECP application and direction with GIS development. One of the slots for URI Master's degree training for UCC staff/faculty could also be allocated to a staffer to train up on GIS skills. During this trip, no specifics for SFMP GIS assistance were discussed so this would require further discussion to determine UCC needs.

Also during the period under review, the Marine and Coastal Fisheries Database (MCFD) team undertook the following activities:

- Began evaluating the strengths of potential partner institutions for collaboration on the development of the database. The evaluation is based on the questionnaire administered to the institution during the previous quarter of this year.
- Composed MoU to support its collaboration with the institutions. A draft of the MoU has been submitted to the legal office of University of Cape Coast for advice (see Appendix VII). The draft MoU will be sent to potential partners for input as soon as it is received. A copy is attached to this report for further perusal.



10. BUILDING INSTITUTIONAL PARTNERSHIPS AND COLLABORATION

Ministry of Fisheries and Aquaculture Development

(MoFAD): In April, 2015 Prof. Edward Obodai, and academic staff of DFAS and a former member of the Fisheries Commission of Ghana together in the company of Mr. Godfred Asiedu (M&E Support) and the Project Manager officially announced the USAID/UCC capacity building effort to Hon. Minister of Fisheries and Aquaculture Development Madam Sherry Ayithey in Accra. Also in attendance was



Divisional Heads of the Ministry. The idea of the visit was to solicit their inputs, coordinate efforts and to discuss both short- and long-term training opportunities DFAS/UCC could offer the Ministry under our USAID capacity building grant. Also in attendance was the Director of the Fisheries Commission, Mr. Samuel Quaatey and Mr. Paul Bannerman, Head of Fisheries Scientific Survey Division at Tema.

Outcome: It was concluded to undertake a capacity needs assessment of the Ministry to estimate how the project may support in critical areas of need relative to the short and long-term graduate courses at the University of Cape Coast.

University of Rhode Island (URI): Prof. Anton Post, Director of the Coastal Resources Center, URI in the company of Dr. Brian Crawford, Chief of Party for the USAID/SFMP Project visited DFAS/CCM as part of arrangements towards implementing the purpose of the Memorandum of Understanding (MoU) between URI and UCC, which seeks to frame collaboration between the Coastal Resources Center (CRC) and DFAS on the development of joint research activities, teaching and professional training programs within the context and objectives of their respective “Fisheries Projects” for Ghana. CRC is the lead institution on the USAID Sustainable Fisheries Management Project (SFMP) Initiative and it seeks to develop several activities together with faculty and students of the DFAS/UCC that will be mutually beneficial and also contribute to the wise use of natural resources, biodiversity conservation, food security, and livelihoods development particularly for the coastal communities of the Western and Central Regions. The MoU also further seeks to support training (Masters and PhD) for DFAS/CCM in critical areas of need.

University of Ghana - ECOWAS Coastal & Marine Resources Management Centre

DFAS/CCM finds it expedient to collaborate with the ECOWAS Coastal & Marine Resources Management Centre led by Dr. George Wiafe to monitor small fishing vessels in Ghana for fish stock assessment studies. In a meeting held in April, a cooperative research strategy for sampling catches of targeted species from vessels in selected coastal districts based on pilot surveys will be explored as part of postgraduate (M.Phil) within DFAS. The meeting attended by Messrs. Robert Buzzard and Justice Odoi both of USAID and Prof. John Blay and Dr. Denis Aheto were of the opinion that the program could provide mapping data from logs on vessel tracks to complement fish stock assessment research by students based on

fish catch data. Collaborative research work is initiated and field work will begin in August 2015 with selected DFAS graduate students.

Florida Gulf-Coast University:

In contemplation of the relationship to be established for student and professional exchanges, DFAS represented by Dr. Denis Aheto signed a Memorandum of Understanding (MOU) with the Department of Biological Sciences of Florida Gulf Coast University (DBS-FGCU) represented by Prof. Phil Allman on the development of joint research activities and professional training programs within the context and objectives of ongoing sea turtle conservation and research activities within DFAS in the Central Region of Ghana. It is



anticipated that the collaboration will be mutually beneficial and will contribute to the enhanced protection of wildlife, appropriate use of natural resources, improvement of food security and economic development, and livelihood development for the coastal communities associated with the project. In respect of this modalities were initiated for four academic staff and two technicians to visit DBS-FGCU during the second year of the project as part of staff capacity strengthening for DFAS in the use of new scientific equipment and introduction to general wet lab procedures.

Netherlands Development Organization – SNV

As part of collaborative efforts with the USAID/SFMP Project, DFAS assisted with recruitment of ten (10) students as field staff for the Netherlands Development Organization in collecting information on fuel wood consumption in the four coastal regions in Ghana to help understand how the fuel wood supply chain operates. The aim of the project is to understand how the fuel wood supply chain functions, the individual beneficiaries and the main challenges encountered by the actors involved in the fuel wood chain business. This in the long term will transform the phase of the fuel wood business by placing it into a market oriented profitable and sustainable sector. The orientation program for the students took place at The Senior Common Room of the University of Cape Coast.



ACDI/VOCA in Ghana

During the period under review, DFAS hosted a visit from the USAID funded Farmer-to-Farmer Program (F2F) being implemented by ACDI/VOCA in Ghana led by Mrs. Mina Lassey, the Country Director. DFAS is seeking opportunities to enable the F2F Program feed its project activities with highly qualified professionals (volunteer consultants) with extensive experience in their fields of fisheries and coastal management to support the work of DFAS and CCM in critical areas of need mainly teaching and provision of extension services. In this arrangement, it is envisaged that the volunteers will be prepared to donate their time, talent and experience to transfer new skills and proven methods in the subjects of mutual interest.



In June 2015, DFAS submitted an application to ACDI/VOCA for consideration to obtain adequate volunteer technical assistance, technology transfer, training in the use of new laboratory equipment, provide hands on demonstrations and organizational capacity building in the second year of the project onwards.



Coastal Implementing Partners (IP)

During the quarter, DFAS participated in the May 2015 Implementing Partners meeting at Western Region Coastal Foundation's office at Anaji hosted by Mr. Matthew Armah (see full Coastal IPs, Appendix VIII). The objective of the IP meetings is to coordinate efforts and avoid overlaps in the implementation of project activities funded by same or different donors. Therefore the Coastal IPs meeting is a Dialogue Platform that also seeks to

- **Provide Update by IPS:** Member organisations brief members about their various organisations and activities
- **Themes for meetings:** Members take turns to make presentations on the themes at meetings of the platform. Each presentation on a theme should respond to the following:
(a) what are the dynamics/perspectives of the sector or topic (b) what is being done by

different actors to make a difference (c) what has been achieved (d) interrogate our assumptions (e) what are the lessons? What are the communities of practice? Suggested themes are:

- i. Fishing industry
- ii. Mangroves
- iii. Economic development
- iv. Alternative livelihoods



Next step:

- A data base of IPs was proposed to be developed that will have profiles of members.

Other potential collaborators - University of Plymouth

The Department also hosted Dr. Isaac Boateng, Senior Lecturer at the School of Environmental Design and Management (EDAM), University of Portsmouth (UK) and explored possibilities for collaborative work, student supervision and engagement in areas such as applied coastal geomorphology, GIS and coastal management, coastal adaptation to climate change, coastal vulnerability assessment, and shoreline management planning. His PhD research was on the topic coastal sediment budget analysis and integrated shoreline management planning, an application to Ghana's coast. Discussion on the development of an MoU was discussed.

11. KEY CHALLENGES AND WAY FORWARD

1. Internal bottlenecks

- Procurement bureaucracies

There has been improved performance in the procurement front. This is largely due to better communication and proactive effort by DFAS member in charge of all procurement issues related to the project. However, there are still some challenges with procurement documentation processes.

"Additional procurement challenges beyond the controls of the project management team have been the delays in the supply of the 30-seater bus in particular. The supplier has been unable to deliver within the agreed time window citing reasons related to tax exemption challenges to sourcing the bus from other suppliers. The way forward at present is to re-award the contract to a different supplier by UCC procurement office since terms of the contract is no longer valid"

- Administrative handling of physical works

This challenge has been by and large persistent since refurbishment works through this project has still seen limited supervision from Directorate of Physical Development and Estate Management (DPDEM) whilst the work is ongoing.

- Communication challenges amongst key stakeholders within UCC

Better channel of communication as well as increased frequency of communication has been established with the key stakeholders within UCC which has in turn improved understanding about the delivery mechanisms of the project.

- Slow pace of financial flow

Although there is still more room for improvement, the slow pace of financial flow has improved considerably. This challenge was largely due to lack of proper communication which was in turn affecting the proper documentation required to facilitate payment process. The efficiency of the account officer has also seen some improvement.

2. External challenges

- **Suppliers**

Delivering goods in batches by some suppliers and failing to present proper documentation on delivered goods by other supplies inherently slowing down the process for payment.

With better communication between suppliers and the project which is primarily facilitated by DFAS member in charge of procurement, proper documentations are being received by UCC central stores thereby improving the time taken from supply to payment. Staff at the central stores has also

become more proactive in working on documentation through regular visits by project management team.

- Slow pace of work by the contractors handling refurbishment of laboratories and offices which could be attributed to lack of supervision by the appropriate UCC authorities.
- Challenges with securing approval from Public Procurement Authority (PPA) for goods and services requiring approval for sole sourcing.

PPA is understood to meet on scheduled time intervals therefore such challenge when it comes to sole sourcing approval can only be considered as beyond the control of the project management team.

3. Other challenges

- ***Exchange Rate***

With the continuous depreciation of the Cedi on a daily basis, procurement and payment for services as well as payment for salaries have come under duress.

- (a) Under the present arrangement, DFAS expected to receive amounts based on the exchange rate at the time of transfer from USAID. However, all amounts received so far have been based on the exchange rate at the time of preparing the budget.
- (b) Foreign transactions (with respect to the procurement of field and laboratory equipment in particular) means buying the US\$ with a continuously weakening Cedi. When a budget reconciliation is prepared to account for the depreciation (in line with the agreement from USA), a further depreciation is encountered by the time it is ready for submission to USAID for approval, This is affecting the raising of a letter of credit for the overseas procurement.

Although a clarification has been obtained from USAID about this issue which imply that future funds will be sent at the prevailing exchange at the time of transfer, this issue still remain a major challenge to the project due to the volatile nature of the Ghana Cedi against major trading currencies.

- Power outages – referring to the “Dumsor” problem

This is an ongoing challenge but it is anticipated that this problem will be adequately addressed when the procured generator set for the project is installed.

12. APPENDICES

I. BUSINESS PLAN – Draft As of May 18, 2015 – By Prof. Richard Burroughs

Overview

Clients

- Foundations supporting work in Ghana
- Environmental sample collection/analytics for academia, government, industry
- Social sample collection and analysis
- Mapping services (Go slow?)

Foundations supporting work in Ghana

Eighty-eight foundations, largely from the US and including 11 companies, have made a total of 934 grants to Ghana over the last decade or so (Foundation Directory Online Professional). The grants target natural science, occasionally social science, civil society organizations, country partnerships, infrastructure, and medical assistance. Interestingly there is little evidence of direct support to government agencies and at least through the initial search little evidence of specific interest in fisheries or the coast.

By selecting those foundations with a record of giving individual grants of over \$100,000 to Ghanaian entities, a short list of approximately 26 organizations has been established (Table 1). In addition six funders with a history of interest or giving at far lower sums but in an area of interest to the center has been established (Table 2).

NAME	AREA	NOTES
Rita Marley Foundation	Not identified	
Care USA	Conservation Agriculture Project; grant in form of stock	
Yakote Women Farmers Project	Not identified	
National Council for Tertiary Education	Not identified	
Newmont Ahafo Development Foundation	Sustainable development	
Harvard University	Policy analysis in field of development	
Pennsylvania State University	Collaboration with Regional Institute of Population Studies	
Ashesi University Foundation	Multiple grants across several areas including University Leaders Forum	
Columbia University	Postpartum hemorrhage	
Yale University	Reproductive health	
Pacific Institute for Studies in Development, Environment and Security	Decision tool for water and sanitation	
Aspen Institute	West African Leadership Initiative	
British Museum	Multi-country grant	

UNICEF-Carter Centre	Trachoma disease	
Solace International	Infrastructure across several countries	
Columbia University	Innovations between Tanzania and Ghana	
Carter Centre	Guinea worm eradication	
TechnoServ	Entrepreneurship	
Ecobank	Low cost savings accounts	
CARE USA	Conservation agriculture	
Cambridge University	Research	
HopeXchange	Malaria diagnostic lab	
Ghana Centre for Democratic Development	Performance of public officials	
Health and Humanitarian Foundation	Not identified	
Forest Trends Association	Deforestation	

Table 1. Grants to Ghana of over \$100,000 from US organizations

NAME	AREA	NOTES
Tides Foundation	Collaborative at Institute of Philanthropy	
Calgary Zoological Society	Not identified	
Wingspan International USA	Not identified	
Plan International USA	Not identified	
Natural Resource Governance Institute	Not identified	
New England Biolabs	Mention only; no disbursement	

Table 2. Grants to Ghana of much less than \$100,000 from organizations whose mission may be aligned with the Centre for Coastal Management.

Three actions emerge from this analysis. First select a subset of funders and review their websites for support of themes pertinent to coastal communities. Inspection of annual reports and other materials will identify those organizations that should receive a letter of inquiry. Second, this search should be broadened to include West Africa as the geographic term of reference. Third, alternate means locating foundations from Europe and Asia who support work in West Africa should be identified.

Environmental sample collection/analytics for academia, government, and industry

- Insert applications paragraph here.
- Equipment: GCMS Manufacturer and model; continuous power supply considerations
- Technicians: by name, advanced degree and topic area, specific training on the instrument – Name of course(s), instructor, and his or her affiliation
- Intercalibration: Best if you can set this up with a lab in the US or Europe. Show results by different materials: petroleum hydrocarbons, mercury, pesticides, etc.

- Fee structure by individual determinations by sample. (Use fee structures from US/Europe adjusted to conditions here as models. Include components of staff time, instrument supplies, instrument insurance, accrual of replacement cost over time)
- Format for data reports to client
- Relevant publications from UCC

Social sample collection and analysis

- Social science data collection techniques available for hire
- Lead analysts and their backgrounds
- Fee structure (based on number of samples of a given type)
- Synthesis report: priced according to faculty/staff time
- Relevant publications from UCC

Mapping services (Go slow?)

- Insert applications paragraph here. Consult Chris Damon at URI about what products you should consider when starting out.
- GIS system you are operating and the number of licenses you have; number of computers by company and model; large flatbed color printer capacity; continuous power supply considerations
- Lead analysts and their backgrounds with highest degree and specific courses completed by instructor and organization
- Relevant publications from UCC

Attendance

The following people participated in the meeting:

Name	Organization	Position
Sherry Ayittey	MoFAD	Minister
Rebecca Amoah Aboagye	MoFAD	Chief Director
Raymond Babanawo	MoFAD	
Enock Boadu Ano	MoFAD	
Emmanuel M. Longi	MoFAD	
Samuel Kwame Oteng	MoFAD	
Jonathan Ankrah	MoFAD	
Samuel Quaatay	Fisheries Commission	Director
Paul Bannerman	Fisheries Commission	Head, MFRD
Thomas Insaidu	Fisheries Commission	
Matilda Quist	Fisheries Commission	Head, MFMD
Samuel D. Manu	Fisheries Commission	Head, Post-Harvest Unit
Peter Ziddah	Fisheries Commission	Head, Fish Health Unit
James Azamea	Fisheries Commission	
Emmanuel Aryee	Fisheries Commission	Head, IFMD
Edward Obodai	UCC/DFAS	Professor
Denis Aheto	UCC/DFAS	Head/Project Manager
Godfred Ameyaw	UCC/DFAS	Project M&E Support

**II. USAID/UCC FISHERIES AND COASTAL MANAGEMENT CAPACITY
BUILDING SUPPORT PROJECT LAUNCH
University of Cape Coast Main Auditorium, 9th June, 2015**

**Keynote address by Hon. Sherry Ayittey, Minister for Fisheries and Aquaculture
Development**

- Mr. Chairman
- Honourable Minister for Education
- Honourable Regional Ministers
- Director of Fisheries
- Honourable Members of Parliament
- Honourable MCE for Cape Coast
- Representatives of USAID
- Representatives of other Development Partners
- Vice-Chancellor of the University of Cape Coast
- Pro-Vice-Chancellor of the University of Cape Coast
- Provost, College of Agriculture and Natural Sciences, UCC
- Deans of Faculty,
- Chairman, Project Management Board
- Chairman, Centre for Coastal Management, UCC
- Project Management Team
- Members of the press
- Distinguished invited guests
- Ladies and gentlemen

I deem it an honour and privilege to be given the opportunity to deliver the keynote statement on the occasion of the launch of the Fisheries and Coastal Management Capacity Building Support Project being implemented by the Department of Fisheries and Aquatic Sciences, UCC and generously supported by the American people through the United States Agency for International Development (USAID). This occasion is also special to me because it is my first official engagement with the University of Cape Coast since I assumed office as the Minister for Fisheries and Aquaculture Development. I therefore wish to express my profound gratitude and appreciation to the University for the opportunity to be a part of this important event.

Let me use this occasion to express my sincere thanks to the USAID for their financial and technical assistance in making it possible for the realization of this dream.

Mr. Chairman, it would interest you to know that the President of the Republic of Ghana, H. E. John Dramani Mahama has the fisheries sector at heart and follows with keen interest issues concerning the fishing industry. It is important to learn that through the good leadership of the President, the government has identified the fisheries sector as very important and that it has the potential to contribute significantly to employment, GDP, foreign exchange earnings, nutritional requirement, raw materials for industry, food security and poverty reduction. The Government is very much committed to work with the University of Cape Coast towards the establishment of a Fisheries College at Anomabo. I am grateful for the contribution of UCC in developing and approving the academic curricula for that College. I commend the work of Committees including members of academic staff of the Department

of Fisheries and Aquatic Sciences and the School of Agriculture that worked tirelessly in making that possible.

Fishing is a major economic activity along the coast and in the lakes and rivers of Ghana. Fish capture, processing, marketing and associated services constitute a significant source of livelihood in Ghana with the sector generating over US\$1 billion in revenue each year and accounting for at least 4.5% of Ghana's GDP. An estimated 210,000 people work directly in Ghana's fisheries sector, and the sector employs, directly or indirectly, 2.2 million people or 20% of the Ghanaian workforce.

In spite of the contribution of the fisheries sector to the socio-economic development of the country, the sector has not been able to achieve its full potential for reasons that are of common knowledge to us all, and poverty is still high in many fishing communities. I am happy to inform you that, as part of efforts being made by government to improve fisheries in Ghana, the Ministry of Fisheries and Aquaculture Development is currently rolling out programs under the following thematic areas as part of the West Africa Regional Fisheries Program: improving fisheries governance and sustainable fisheries management, reducing illegal fishing activities, developing a sustainable aquaculture industry and improving value addition.

Mr. chairman, ladies and gentlemen, Ghana is faced with growing challenges in managing its coastal and marine resources, particularly the continuous decline in fish stocks and production in the last few decades, and the degradation of coastal environments. Overcapitalization of the fishing industry, the use of unsustainable fishing methods, and pollution of coastal ecosystems are among critical concerns. Coastal ecosystems, especially estuaries, lagoons and their associated wetlands are being increasingly degraded by pollution, deforestation, mining, damming and irrigation in their catchment areas which are threatening biodiversity and affecting their capacity to deliver essential ecological and socioeconomic services. This situation is partly attributed to a deficiency in monitoring and enforcement of our laws and regulations, lack of education, training, research, data gathering and analysis, and low investments in capacity building for effective natural resource management in the country. Poor incentive packages for staff and students to conduct research and undertake extension and outreach activities are inclusive of the factors militating against effective fisheries and coastal management efforts in the country. Indeed, the development of adequate human resource capacity for fisheries and coastal management through quality education programs and research is critical.

Mr. chairman, ladies and gentlemen, I have been informed that the USAID/UCC Fisheries and Coastal Management Capacity Building Support Project will be rolled out in the next 5 years the purpose of which is to build capacity of the Department of Fisheries and Aquatic Sciences to develop and provide quality and relevant educational programs and engage in research and advisory services that will support the management of fisheries and coastal resources on a sustainable basis. The project therefore could not have come at a better time.

I would like to commend the USAID and the Department of Fisheries and Aquatic Sciences of the University of Cape Coast for this effort and to assure them of the full support of the Ministry of Fisheries and Aquaculture Development towards the implementation of the project. It is my fervent hope and expectation that we will all do our best to ensure successful implementation of the project in order to develop the human resource capacity needed for fisheries and coastal management in Ghana.

Thank you for your attention, and may God bless us all.

III. WELCOME ADDRESS DELIVERED BY PROF. NELSON BUAH, PRO-VICE CHANCELLOR, UNIVERSITY OF CAPE COAST (UCC), LAUNCH OF USAID/UCC FISHERIES AND COASTAL MANAGEMENT CAPACITY BUILDING SUPPORT PROJECT LAUNCH

9TH JUNE, 2015

Mr. Chairman
Honourable Minister of Education
Honourable Minister of Fisheries and Aquaculture Development
Honourable Members of Parliament
Honourable MCE for Cape Coast
Acting Mission Director and Officials of USAID
Pro-Vice Chancellor, UCC
Registrar, UCC
Provosts, Deans and Head of Departments, UCC
Lecturers and Staff, UCC
Representatives of other Development Organizations
Representatives of Sister Universities
Members of the Media
Students, Distinguished Invited Guests
All Protocol Observed,

Ladies and Gentlemen,

I deem it a great pleasure to welcome you all to the University of Cape Coast, the University of Choice, and specifically to the launch of the USAID/UCC Fisheries and Coastal Management Capacity Building Support Project.

I extend a special welcome to our Honourable Ministers of State and other distinguished officials from Government and our friends from the United States Agency for International Development (USAID).

Mr. Chairman, the Ghanaian coast is nourished by the Guinea Current, one of the most productive upwelling systems in the world with great potential for substantial marine fish biomass production for the region. Of great economic and ecological significance is the high abundance of small pelagic species especially sardines, and anchovies which in turn support higher value large pelagic (tunas, mackerels) and demersal fish species (such as snappers and groupers) respectively.

Indeed, in the last few decades, Ghana's rich marine ecosystems continually supported increased fish yields, at least since the early 1970s until recently. Unfortunately, the fisheries subsector in Ghana is presently bedeviled with a significant downturn in production in wild capture fisheries as a result of:

- illegal, Unreported and Unregulated (IUU) fishing
- maritime climatic variability with attendant impacts on coastal upwelling
- loss of fish landing sites through coastal erosion
- bad fishing practices through use of dynamites and light for fishing
- low recruitment of juvenile fish into the marine environment through degradation of wetlands as a result of dumping of refuse in wetlands leading to pollution
- pollution of water bodies through illegal small-scale mining and solid waste disposal
- market failures, limited or no modern fishing technology
- lack of post-harvest technology
- little or no credit for fisheries sector

- little/no fisheries/livelihood support (i.e. limited extension staff and farmer/farmer colleagues)
- lack of supplementary livelihoods or alternatives for Fishers and farmers entrenching poverty and
- overcapitalization of the sector among others.

Official national statistics indicate a 30 percent decline in capture fisheries from a high of 492,776 metric tonnes (mt) in 1999 to 333,524 mt in 2011. In 2012, the overall annual fish requirement was estimated at 968,000 mt but only about 455,700 mt from the marine and inland fisheries was produced leaving a deficit of over 500,000 mt. Such huge deficits have grave consequences for Ghana's economy in terms of nutrition, food security, poverty alleviation and employment generation.

Today's launch is therefore reflective of the commitment of the United States Government through USAID/Ghana working through the Government of Ghana to help reverse the situation for the better and therefore could not have come at a better time.

On this occasion, I wish on behalf of the University Council, management, staff and students of our university, extend our immense gratitude to the people of the United States of America through USAID/Ghana for allocating US\$ 5.5 million in addition to UCC's counterpart funding in-kind amounting to US\$ 1.83 million towards the realization of the objectives of this project.

In order to further advance the goals of the project, the University recently signed a Memorandum of Understanding with the University of Rhode Island (USA) to implement a broad range of opportunities through the Sustainable Fisheries Management Project (SFMP) of the Coastal Resources Center (CRC/URI). The joint activities will provide scholarships for students, promote staff and student exchanges, undertake fisheries leadership and climate change courses for practitioners, and engage in applied research for marine governance processes.

I am particularly happy to note that activities to deliver the outcomes of this project will not only operationalize the Centre for Coastal Management here in this university, but will also support innovative, applied research, technology, teaching, training and extension as inputs for improved management and livelihoods in marine and coastal environments in the country. The point is, the project will strengthen the science upon which sustainable management and improved livelihoods depend and support university-based educational programs that apply knowledge gained through research to effect behavior change in the utilization of marine and coastal resources.

The grant will strengthen UCC/ DFAS/CCM as a center of excellence in applied science in fisheries management, coastal resource management (CRM) and adaptation to climate change in coastal zones. It will also strengthen DFAS programs of higher education and training, strengthen research networks relevant to the foregoing studies and build the capacity of DFAS/CCM in accessing, disseminating and extending research findings to improve management – essentially 'extension' in coastal and marine environments.

We are convinced that by the end of the project, the capacity of UCC would have been institutionally strengthened, and its value to stakeholders would have been quantitatively demonstrated in the target areas.

Mr. Chairman, I welcome you all once again to the University of Choice. Please, do allow me to use this opportunity to encourage persons visiting us for the first time to make time and tour our beautiful campus and other significant sites in Elmina and Cape Coast.

I thank you for your attention.

IV. Consultancy for the implementation of a Short Course on Climate Change Adaptation at the Department of Fisheries and Aquatic Sciences (DFAS) of the University of Cape Coast

Effective Dates: Between 1st May to July 31, 2015 (3 months)

Terms of Reference (TOR)

Principal Objective:

To develop a short-course on climate change adaptation with relevant contextual aspects for Ghana's coastal areas to be implemented at the University of Cape Coast

Specific Task:

The project will ensure that a well-developed and refined short course on climate change is implemented including:

- A needs assessment for District and Regional level planners and National Disaster Management Organization personnel.
- Materials and training manuals to instruct 5 days of course work and practical exercises.
- A workshop made up of presentations of courses and practical exercises.
- Documentation of best practices on climate change adaptation/ mitigation strategies within the West African sub-region.
- A practical exercise with a guide for coaching participants.

Target Groups:

Individuals actively engaged in the field of coastal management or whose work is increasingly affected by the issues of coastal development and climate change. Professionals in natural resources, fisheries, hazards, population, health and environment, university lecturers, staffs from non-governmental organizations addressing community development and the coastal environment, project managers in development organizations and development banks, businesses and corporations engaged in coastal development.

Outputs of the consultancy:

1. Needs assessment surveys conducted
2. Needs assessment report completed
3. Modules and trainers guides for climate change modules to be used in Ghana developed
4. Workshop with PowerPoint presentations for individual modules conducted
5. Planning and arrangement for all logistics including conference halls, food, accommodation and other relevant supplies provided.
6. Post-course field practical activities outlined.
7. A completed course evaluation assessment report.

V. Consultancy for the Development of Capacity Strengthening and Sensitization Strategies for Selected Community-based Fisheries Groups in the Western and Central Regions of Ghana

Effective Dates: Between 1st July – 30th September, 2015 (3 months)

In support of the Government of Ghana's (GoG) initiatives on food security, the United States Government (USG) through the United States Agency for International Development (USAID) is supporting a five-year capacity building programme for fisheries and coastal management in Ghana. The objective of the project is to strengthen capacity for sustainable marine fisheries and coastal resources management through increased use of science and applied research for poverty alleviation, regulatory compliance and law enforcement. The project contributes to GoG's overall grand fisheries and coastal development programme and USAID's Feed the Future (FtF) Initiative, the USG led global hunger and food security project designed to enhance economic growth in beneficiary countries. In this context, and as part of the deliverables, the Department of Fisheries and Aquatic Sciences (DFAS) at the University of Cape Coast is presently seeking to engage a consultant to support the development of capacity strengthening and sensitization strategies for selected community-based fisheries groups in the Western and Central Regions of Ghana in collaboration with the Department.

Terms of Reference (TOR)

Principal Objective:

This project seeks to develop a capacity strengthening and sensitization programme for selected rural community-based fisheries management groups in the Western and Central Regions of Ghana. This activity will be undertaken in collaboration with the Department of Fisheries and Aquatic Sciences (University of Cape Coast).

Specific Task:

The project will develop an efficient capacity strengthening and sensitization programme for selected community-based fisheries management groups in the Western and Central Regions of Ghana towards realization of the goal of sustainable fisheries. It will involve the following activities:

- Undertake a needs assessment for fisheries management in eight (8) rural coastal communities (four from each Region)
- Identify and sensitize existing community-based fisheries management groups on the objectives of the USAID/UCC Fisheries and Coastal Management Capacity Building Support Project
- Facilitate establishment of community-based fisheries management groups where necessary

Develop capacity strengthening strategies for realization of the objectives of the community-based groups

- Provide documentation and share with stakeholders examples of lessons on best practices of community-based management activities in other parts of Africa
- Organize a close-out workshop for each community

Eligibility:

- Individuals, researchers, professionals, and non-governmental organizations with experience in community-based natural resource management
- Consultant must have a natural science and/or social science background and should have been actively involved in rural community development issues

Outputs of the consultancy:

- Eight (8) coastal rural community-based groups in the two regions identified
- Capacity needs assessment for fisheries management in the eight (8) selected rural coastal communities undertaken
- Capacity strengthening strategies for realization of the objectives of the community-based groups developed
- Examples of best practices in community-based management in Africa documented and shared with local stakeholders
- A close-out workshop for each community organized

A proposal detailing how this project will be undertaken with clear goals, activity timelines, methods to achieve the set targets, a budget and curriculum vitae must be submitted alongside the application.

Applications MUST be delivered by email or courier by **Friday 26th June, 2015** to:

The Project Manager, USAID/UCC Fisheries and Coastal Management Capacity Building Support Project,

VI. Consultancy for the implementation of Policy and Research Dialogues on Sustainable Fisheries and Coastal Management in Ghana

Effective Dates: Between 1st July – 30th September, 2015 (3 months)

In support of the Government of Ghana's (GoG) initiatives on food security, the United States Government (USG) through the United States Agency for International Development (USAID) is supporting a five-year capacity building programme for fisheries and coastal management in Ghana. The objective of the project is to strengthen capacity for sustainable marine fisheries and coastal resources management through increased use of science and applied research for poverty alleviation, regulatory compliance and law enforcement. The project contributes to GoG's overall grand fisheries and coastal development programme and USAID's Feed the Future (FtF) Initiative, the USG led global hunger and food security project designed to enhance economic growth in beneficiary countries. In this context, and as part of the deliverables, the Department of Fisheries and Aquatic Sciences (DFAS) at the University of Cape Coast is presently seeking to engage a consultant who could support key policy and research dialogues on fisheries and coastal management in Ghana in collaboration with the Department.

Terms of Reference (TOR)

Principal Objective:

This project seeks to implement policy and research dialogues on fisheries and coastal management in Ghana in collaboration with the Department of Fisheries and Aquatic Sciences of the University of Cape Coast.

Specific Task:

The project requires the development of a comprehensive framework for policy and research dialogues on fisheries and coastal management in Ghana. Its implementation will include the following activities:

- Conduct assessment for relevant fisheries and coastal management issues for policy and research dialogues at the district, regional and national levels
- Facilitate round table meetings with policy makers for discussions on the above issues
- Development of policy briefs on fisheries & coastal issues and best practices emanating from the meetings
- Facilitate a conference of researchers to discuss sustainable fisheries and coastal management issues in Ghana
- Facilitate linkages among personnel in relevant government agencies and researchers in Ghana.
- Document and share with stakeholders, examples of best practices in fisheries and coastal management in Africa.

Eligibility:

- Individuals, researchers, professionals, and non-governmental bodies with proven organizational ability
- Consultant must have a natural science and/or social science background and should have expertise in natural resources management, fisheries, hazards, population issues, health and environment, and must have been actively involved in rural community development.

Outputs of the consultancy:

- Assessment of relevant fisheries and coastal management issues for policy and research advocacy at the different levels of government
- Roundtable discussions with policy makers undertaken
- Two policy briefs on fisheries & coastal issues and best practices published and disseminated
- Researcher and stakeholder conference on fisheries and coastal management organized
- Linkages established among personnel in relevant government agencies researchers
- Examples of best practices in fisheries and coastal management in Africa documented and shared with stakeholders.

A proposal detailing how this project will be undertaken with clear goals, activity timelines, methods to achieve the set targets, a budget and curriculum vitae must be submitted alongside the application.

Applications MUST be delivered by email or courier by **Friday 26th June, 2015** to:

The Project Manager, USAID/UCC Fisheries and Coastal Management Capacity Building Support Project,
 Department of Fisheries and Aquatic Sciences,
 University of Cape Coast,
 University Post Office,
 Cape Coast, Ghana

Email: daheto@ucc.edu.gh

**VII. MEMORANDUM OF UNDERSTANDING
BETWEEN
DEPARTMENT OF FISHERIES AND AQUATIC SCIENCES, UNIVERSITY OF
CAPE COAST
AND
XXX (WHERE “XXX”= NAME OF DATA PROVIDER)
ON
THE DEVELOPMENT OF MARINE AND COASTAL FISHERIES DATABASE**

Purpose

The Department of Fisheries and Aquatic Sciences (hereafter DFAS) and XXX enter into this Memorandum of Understanding (MoU) in order to develop a marine and coastal fisheries database. The overarching goal for the development of the database is to enhance research to support sustainable fisheries management in Ghana.

Background

In an increasing number of disciplines, large data collation is an important resource for the advancement of those disciplines. In domains as diverse as fisheries and coastal resources management, a broad scope of data including hydrography, nutrients, biogeochemical inventories and fluxes, trophic interaction and biological rates, as well as abundance and biomass of fish and plankton are required. Furthermore, policy makers and researchers that need to access and analyse these data are scattered all over the country.

A combination of large datasets, geographic distribution of users, and multidisciplinary nature of fisheries and coastal resources management requires stringent data archiving and management that are not met by existing infrastructure for fisheries and marine data management in Ghana. Rather, data on fisheries and the marine environment are scattered in the repositories of different national institutions such as CSIR, EPA, Universities, Government Ministries (e.g., of Fisheries and Aquaculture Development, Environment). This limits our capacity as scientists to effectively integrate long-term observations on fisheries development and other anthropogenic actions in our coastal regions. Furthermore, it does not encourage communication between researchers, users and managers of coastal resources.

Hence the overarching objective for this MoU is to outline the scope of activities to be taken by DFAS and XXX to organize historical data, new field observations and experimental results on marine and coastal fisheries into a comprehensive database.

Intended Outcomes of the Partnership

1. The main role of your institute/department/agency/library will be to facilitate project activities to (i) rescue historical data on marine and coastal fisheries, and (ii) collect and consolidate new field observations and experimental results on marine and coastal fisheries and resources. XXX will provide DFAS with privileged access to their data repositories on marine fisheries and coastal research in Ghana. This access will be limited to data already published or available in the public domain either in electronic or hard form.
2. DFAS will provide all equipment and personnel for all data gathering activities.
3. DFAS will develop protocols and methods to collate and transform both current and historical observations on marine fisheries and coastal research in Ghana for consolidation and archiving based on best practices and technologies for data management.

4. All data collated as part of activities 1, 2 and 3 will be hosted on a searchable open site that can easily be accessed by researchers and fisheries managers in Ghana and elsewhere.
5. XXX will be provided with privileged access to the searchable open site.
6. Except for the rights expressly granted to the DFAS under this agreement, all intellectual property right to information gathered shall be retained by the contributing institution or partner institutions when such information are jointly generated.

Administrative Provisions

1. This agreement is a non-financial understanding between the DFAS and XXX. No financial obligation by or on behalf of either of the parties is implied by a party's signature at the end of the agreement.
2. All activities related to data acquisition, data processing, data transport, and data archiving will be funded by DFAS as part of its fisheries management capacity building project (with implementation letter No.: 641-A18-FY14-IL#007).
3. Nothing in this MoU may be construed to obligate DFAS to spend funds for purposes except those to be used for data acquisition, data transport and data archiving.
4. Both DFAS and XXX understand and acknowledge that the sole purpose for this agreement is to organize historical data, new field observations and experimental results on marine and coastal fisheries into a comprehensive database. No provision in this agreement can be interpreted to obligate DFAS, XXX and their respective employees in any different way. However, this agreement has been signed with an expectation that the required information to satisfy the purpose for this collaboration will be available.
5. XXX understands that DFAS has or plans to engage other institutions to help with the database development objective of its fisheries management capacity building project (with implementation letter No.: 641-A18-FY14-IL#007).

VIII. SECOND (2ND) IMPLEMENTING PARTNERS' MEETING
6TH MAY, 2015
PARTICIPANTS LIST

No.	Name	Organization	Telephone Number	Email Address
1.	Stefanie Simon	Sekondi-Takoradi Chamber of Commerce & Industry	0544090977	Stefanie.Simon@hselearningcenter.com
2.	Justice Edward Blay	Daasgift Quality Foundation	0243719836/0260865431	blayjeb@yahoo.com amponsahblay66@gmail.com
3.	Aaron Kwesi Adingelah	Daasgift Quality Foundation	0208636033	aadingelah@yahoo.com aadingelah@gmail.com
4.	Emmanuel Ntiri	Coastal Sustainable Landscapes Project (CSLP)	0208244514	Cslp.asstdirector@gmail.com
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7.	Emmanuel Aziebor	SNV Netherlands Devt. Org.	0246444225	EAziebor@snvworld.org
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9.	Donna Torsu	Ghana Supply Chain Devt. Project	0548760335	dtorsu@pyxeraglobal.org
10.	Celestine Kpende	Ghana Supply Chain Devt. Project	0501317374	ckpende@pyxeraglobal.org
11.	Nicholas Smith	CEWEFIA	0268932330	Nicholassmith059@gmail.com cewefia@gmail.com
12.	Chrys Pul	LOGODEP	0244893862	cpul@snvworld.org
13.	Eva Osei	LOGODEP	0249443113	eosei@msi-ghana.com
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24.	Richard Jones	WRCF	0244710217	Richard_Jones@dai.com