

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

TECHNICAL COOPERATION PROGRAMME

Country: Regional: Ghana, Liberia, Nigeria, Cote d'Ivoire,
Benin, Togo.

Project Title: Strengthening routine fisheries data collection in West
Africa

Project No.: TCP/ RAF/FCWC

Starting date: January 2015

Completion Date: December 2016

Government counterparts: Departments of Fisheries

Institution responsible for
project execution: Fisheries Committee for the West Central Gulf of
Guinea (FCWC)

FAO Contribution: US\$ **523 000**

Signed:

Signed:

Mr. DEDI Nadjé Séraphin
Secretary General
(On behalf of Fisheries
Committee for the West Central
Gulf of Guinea)

José Graziano da Silva
Director General
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Date of signature:

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1. BACKGROUND

1.1 General Context

Three out of four poor people in developing countries live in rural areas. Most depend directly or indirectly on agriculture for their livelihood. Agricultural development (including fishing) is essential to achieving the Millennium Development Goals (MDGs), particularly those related to poverty, food security and environmental sustainability. Agriculture contributes to the development of economic activities, through provision of livelihoods, and environmental services. Its important roles have been outlined in detail in the 2008 Report on Global Development "Agriculture for development" (World Bank, 2008). Recognition of the importance of agriculture has led to renewed engagement with agriculture within the international development community. The assistance and investments to promote agricultural / fishery growth must be based on solid information on the key factors of agricultural production, economic and social situations that producers face, and their interaction with matters concerning the climate change. Relevant statistics should measure and evaluate the impact of these factors. However, at present the lack of reliable statistical data is an obstacle for effective decisions making on marketing, investment, management or even political decisions.

1.2 Sectoral Context

Responsible fisheries management has become a main concern to policy and decision makers recognizing the increasing threats to ecosystem diversity and productivity and to the sustainable contribution of aquatic resources to the nutritional, economic and social well-being of the world's growing population. To give guidance to policy-makers, the "Code of Conduct for Responsible Fisheries" (CCRF) was developed by FAO and adopted by its Member States in 1995. Together with its Technical Guidelines and related International Plans of Action (IPOAs), the CCRF has become a widely accepted global standard defining principles and methods for developing and managing fisheries and aquaculture in a sustainable manner. In order to facilitate the implementation of the CCRF,

Knowledge of the status and trends of capture fisheries, including socio-economic aspects, is a key to sound policy-development, better decision-making and responsible fisheries management. It is necessary at the national level for the maintenance of the food security and for describing social and economic benefits of fisheries. Such information is also essential for assessing the validity of fisheries policy and for tracking the performance of fisheries management. With increasing number of countries taking up a scheme of decentralized management of fisheries, more accurate and timely information should reach at community level and result in a better-informed public that supports efforts to manage fisheries and aquatic resources in a responsible manner.

However, chronic problems of insufficient human and financial resources allocated for data collection often resulted in poor quality of information that further led to non- or limited use of statistics for fishery management and policy development. Consequently only dwindling support was given to systematic improvement of national fishery data and information collection systems. There is an urgent need to terminate this vicious cycle of problems.

Concerned with those persistent deficiencies of fisheries data and information collection systems worldwide, FAO, on request of the Committee on Fisheries (COFI), developed the "Strategy for improving information on status and trends of capture fisheries".

The Strategy was adopted by consensus at the Twenty-fifth Session of COFI and endorsed by the Hundred and Twenty-fourth Session of the FAO Council and by the United Nations General Assembly (UNGA) in 2003. The FAO strategy STF provides a practical framework for the improvement of knowledge and understanding of fishery status and trends. It is a document that provides guiding principles for implementation arrangements, and sets forth objectives, policies, programmes, actions and decisions that define who will do what and why.

The collection and analysis of fishery data is a costly, time-consuming and effort-intensive exercise. Fishery line agencies, which in many cases suffer from chronic problems of budget and human resource limitations, often struggle to produce reliable information in a timely manner. Poor quality of information creates a general sense of distrust on fishery information among intended users (e.g. policy makers and fisheries managers) which results in non- or very limited use of fishery statistics. This would further lead to a situation where low priorities/attentions are attached to data collection activities. Thus a vicious cycle of problems is created, which continues to inhibit effective fishery administration and management based on the information.

Many fisheries in the West African region are typically characterized as multi-species/multi-gear tropical fisheries, in which a large number of small-scale operations predominate. Conventional data collection methods that are primarily designed to monitor large-scale commercial fisheries in temperate waters may not be always adequate if applied to such fisheries.

1.2.1 Development priorities FAO Strategic Framework and MDGs

Improving fisheries data collection supports the implementation of the FAO Code of Conduct for Responsible Fisheries (CCRF). The main objective of the CCRF is "the sustainable use of fisheries resources in terms of food security, employment, trade and leisure, and the long-term preservation of ecosystems and social-economic well beings of the human populations around the world." It supports in particular MDG 1: Eradicate extreme poverty and hunger and MDG 7: Ensure environmental sustainability.

Marine fishing is a part of the coastal rural economic complex that supports job creation and food production. This complex is the key to economic growth, which can improve the standard of living, food security, and poverty reduction, which are directly related to the objectives of the MDGs.

1.3 Sectoral Policy and Legislation

The Conference of African Ministers of Fisheries and Aquaculture (CAMFA, 2010), urged AU Members States and Development partners to put in place efforts to improve scientific knowledge and build capacity.

Fisheries and aquaculture constitute an important role in the overall rural and agriculture complex of employment generation and food production in Africa. This complex is key to economic growth, enhanced living standards, poverty reduction and increased food security and is directly linked to the Millennium Development Goals (MDGs) and the Comprehensive Africa Agriculture Development Program (CAADP).

The Comprehensive Africa Agricultural Development Program, which includes fisheries and aquaculture, is designed to help African countries reach a higher path of economic growth. As

an African-led and African-owned process, through the African Union's New Partnership for Africa's Development (NEPAD), CAADP addresses policy and capacity issues across the entire agricultural sector and the African continent.

Therefore, the African Union prioritised the need to improve the information of African fisheries and aquaculture through the development of a strategic framework; "The Pan-African Strategy on Improvement of Fisheries and Aquaculture Data Collection, Analysis and Dissemination" With support of the NEPAD FAO Fish programme this Pan African strategy was developed and recommended for implementation by AU Joint Conference of Ministers of Agriculture, Rural Development, Fisheries and Aquaculture (28 April– 2 May 2014, Addis Ababa, Ethiopia);

2. RATIONALE

2.1 Problems/Issues to be Addressed

Many fisheries in the West African region are typically characterized as multi-species/multi-gear tropical fisheries, in which a large number of small-scale operations predominate. Conventional data collection methods that are primarily designed to monitor large-scale commercial fisheries in temperate waters may not be always adequate if applied to such fisheries. Assistance of FAO is requested to support the technical development of sample based surveys of small scale fisheries and national/sub regional fisheries information systems in the FCWC region.

2.2 Stakeholders and Target Beneficiaries

The immediate beneficiaries are the staff of governments, ministries of fisheries, whose capacity to plan, develop and implement appropriate data collection systems would be strengthened. The final beneficiaries are fishermen, fishing-dependent communities, and society as a whole. The availability of reliable information would allow them to achieve the proper management of fisheries and to ensure long-term sustainability of fishery resources and their livelihoods.

2.3 Project Justification

The collection and analysis of fishery data is a costly, time-consuming and effort-intensive exercise. Fishery line agencies, which in many cases suffer from chronic problems of budget and human resource limitations, often struggle to produce reliable information in a timely manner. Poor quality of information creates a general sense of distrust on fishery information among intended users (e.g. policy makers and fisheries managers) which results in non- or very limited use of fishery statistics. This would further lead to a situation where low priorities/attentions are attached to data collection activities. Thus a vicious cycle of problems is created, which continues to inhibit effective fishery administration and management based on the information. FAO reported recently that 21 (39%) of 54 African countries have not presented anything on their national fisheries statistics and 12 other countries (22%), the data presented were considered insufficient compared to the relative importance of fishing in the country.

The proposed project will be implemented within the framework of the FAO Strategy for improving information on status and trends of captured fisheries. The objectives of the project include *inter alia*:

Development:

Increased knowledge of exploitation of fishery resources and the livelihood of fishers communities, contributing to more sustainable development of capture fisheries, ensuring food security and alleviate poverty.

Medium-term

Decision-making on management, planning and development of fisheries and national policy related to food security and poverty alleviation in fishing communities will be based on timely information.

2.4 Past and Related Work

From 2007 till 2010 the FAO FishCode STF supported the improvement of fisheries data collection in cooperation with two sub regional fisheries organizations; Fisheries Committee for the West Central Gulf of Guinea (FCWC) and Regional Fisheries Committee for the Gulf of Guinea (COREP). For all member states of FCWC and COREP national profiles of fisheries data collection were prepared, The profiles were used at two sub-regional workshops (2007) to identify the major constraints in fisheries data collection in the region. Collection of data on small scale fisheries was identified as a major constraint, especially the lack of structural data and appropriate approaches to collect the data in a staff and budget limited situation. As follow up of the workshops the FAO FishCode STF project supported national activities to improve data collection. The following activities were carried out over the period 2008-2010:

- Implementation of full frame surveys for small scale fisheries in Benin, Liberia, Togo, Cote d'Ivoire, RD Congo and Rep Congo.
- Strengthening of data collection in Cameroon
- Pilot scheme on registration and embossment of marine fisheries canoes in Ghana
- Establishment of a adhoc working group on fisheries statistics of FCWC
- Development of a regional training course on fisheries data collection in collaboration with the Legon University, Accra, Ghana.
- Training of 32 staff members of fisheries departments of Togo (1), Nigeria (17), Ghana (7), Liberia (2), Gambia (1), Cote d'Ivoire, (2) and Cameroon (2) in sample based fisheries surveys.

In most of the countries structural and socio economic data of small scale fisheries is now available. In a second phase the available information will be used to; strengthen and redesign data collection schemes of small scale fisheries and to improve dissemination and exchange of information at national and regional level.

FIRMS represents an authoritative example of international mechanism for data exchange, based on duly established protocols and it is present in the area thanks to the partnership with CECAF. During past interactions, representatives of CSRP, FCWC and COREP, expressed their interest in the FIRMS – CECAF interaction and work and were encouraged to become Observer organizations in FIRMS. In particular FCWC could be involved in the process through a formalization of its role of contributor under the aegis of CECAF. Doing so, FCWC could be more closely involved in FIRMS and could take advantage of what is already available in terms of information exchange. In addition, it could be encouraged to update the inventories when it meets to address fishery monitoring/management related issues. Well establish framework for the updating (and use) of fisheries inventories would become part of their own processes. Having FCWC part of this framework, could enhance the collaboration

among institutions within the region, creating a synergic effect in terms of information exchange and dissemination

3. PROJECT FRAMEWORK

3.1 Impact

The overall impact of the project would be: "A better understanding of the exploitation of fisheries resources and livelihoods of fishing communities, contributing to a more sustainable development of fisheries to food security and poverty alleviation

3.2 Outcome and Outputs

Outcome 1: Appropriate systems for fisheries data collection developed and implemented

Output 1. Development of appropriate and cost effective sample based surveys systems for artisanal fisheries

Activity 1.1. The frame survey data will be used to redesign existing data collection schemes taking into consideration the budget limitations of the countries. The data collection schemes include at least all the target species covered by the CECAF scientific working groups.

Activity 1.2. The improved data collection schemes will be implemented and test for at least 12 month, after which data will be analyzed and where needed the systems will be adapted.

Activity 1.3. In one country data collection through involvement of local fishing communities will be piloted.

Activity 1.4. National staff will be trained fisheries statistics, data collection and in basic principles of sample based surveys

Outcome 2: Exchange of fisheries information at national, subregional level is improved

Output 2.1 Development of national Fisheries Information Systems

Activity 2.1.1. National fisheries information systems will be developed by making use of local expertise. The Fisheries Information systems will follow international standards and include requirements of regional fisheries and economic organizations. Existing Catch and Effort data bases will be improved by making use of FAO open ARTFISH

Activity 2.1.2. FIRMS Fisheries inventories of FCWC member states will be updated.

Activity 2.1.3. National staff will be trained in operation and maintenance of the Fisheries Information system

Output 2.2 Establishment of institutional linkages and exchange of information between FCWC and regional economic organizations

Activity 2.2.1:Key indicators for the different segments of the fisheries sector will be identified to enable effective policy formulation and fisheries management

Activity 2.2.2: Partnership arrangements will be developed at regional to improve quality and availability of key information on small scale fisheries, to disseminate key information.

Output 2.3: Development of a sub regional Fisheries Information System at FCWC

Activity 2.3.1. A sub regional Fisheries Information system will be developed at FCWC. The system will be compatible with the national information system and include the requirements of CECAF, regional economic organizations and the recommendations of the adhoc working group on fisheries statistics

Outcome 3: The national capacity on fisheries data collection is improved

Output 3.1 Development of regional training course in fisheries data collection and statistics for francophone countries

Activity 3.1.1. A regional training course in fisheries data collection and statistics for francophone countries will be developed in collaboration with a selected institute(s) in a francophone country. The training course will cover the modules of the training course developed by FAO with Legon University (Ghana) for the Anglophone countries

Activity 3.1.2.Key staff members of the FCWC member states, which did not yet receive training, will be trained in fisheries data collection and statistics.

3.3 Sustainability

<i>Outcomes and Outputs</i>	Follow-up action to ensure sustainability of each Output	Institution responsible for this follow-up action and the resources it will provide (human, physical and financial)	Contribution of each Output to the sustainability of project Outcome	Contribution of each Output to the impact and the catalytic effects expected to be generated
<i>Outcome 1: Appropriate systems for fisheries data collection developed and implemented</i>				
<i>Output 1. Development of appropriate and cost effective sample based surveys systems for artisanal fisheries</i>	The developed system would be incorporated into national systems of data collection and the National Strategy for the Development of Statistics to provide annual funding	The Ministry of Fisheries is responsible for managing the system. It is essential that the annual budget of the Department of Fisheries includes an allocation allowance for the collection of fisheries data	100%	100%
<i>Outcome 2: Exchange of fisheries information at national, sub regional level is improved</i>				
<i>Output 2.1 Development of national Fisheries Information Systems</i>	The information systems will be located within the Ministry of Fisheries. Qualified staff will take care of the maintenance and operation of the system.	Department of Fisheries. Qualified in the DOF (Department of Fisheries) staff take care of the maintenance and operation of the system	60%	60%
<i>Output 2.2 Establishment of institutional linkages and exchange of information between FCWC and regional economic organizations</i>	FCWC develops its minimum data requirements and communicate them to the regional economic bodie(s). The development of the system would take	Both FCWC and the regional bodies are responsible for the exchange of information	20%	20%

	into account these requirements. The different organisations organizations would establish protocols for exchange of information			
<i>Output 2.3: Development of a sub regional Fisheries Information System at FCWC</i>	The Information system will be established within FCWC	FCWC is responsible for the operation and maintenance of its regional fisheries information system and should allocate qualified staff and an annual budget for the system to operate	20%	20%
<i>Outcome 3: The national capacity on fisheries data collection is improved</i>				
<i>Output 3.1 Development of regional training course in fisheries data collection and statistics for francophone countries</i>	The institution in charge of organizing a regional training course would be chosen during the implementation of the project. This course then becomes part of the regular program of the selected institute. The course will be given on demand and will be given on the basis of full cost recovery	The institution in charge of organizing a regional training course	100%	100%

3.4 Capacity building and sustainability

The project will use the services of FAO FishCode STF project staff, FAO FIPS staff, international and national consultants. Success of its operations will largely depend on acquired national skills and expertise. One of the major outputs of the project will be the upgrading of national capacity sample based surveys, in database design, information systems and processing, analyses and dissemination of fisheries related data. A major point of attention will be sustainability and creation of local understanding sample based surveys and of the structure and internal functions of the developed fisheries information systems.

3.5 Exit strategy

The collection of fisheries data is a national responsibility, which must be financed by national governments. However, during the last decades, governments have allocated little or no funds for the collection of data. To reverse this situation most countries are developing the National Strategy for the Development of Statistics (NSDS) and it is essential that the collection of fisheries data is included in the NSDS, and is connected and incorporated into the National Statistical System from the beginning of the project. Without this, it would be extremely difficult to obtain appropriate financing after the project finishes.

Ensuring the viability of the redesigned data collection systems is the main challenge of the project. The question always to be asked is whether the developed and implemented data collection system can be maintained through government funding only? The commitment of the Department of Fisheries and Government is crucial for the long-term viability of the data collection systems. The staffs of the Department of Fisheries are the main counterpart during the development and implementation of the data collection systems, but they will not be paid by the project for their inputs. If data collection itself is financially supported by the project, then the system put in place will be short-term solution only and will not be sustainable once the project is completed.

3.6 Risks and Assumptions

It is a prerequisite that the Department of Fisheries of the countries concerned is committed to improving of data collection, allocate their permanent staff to the project, and allocate national funds. However, some countries may not consider the data collection as a priority and / or national funds are not available or are not sufficient. This could result in failure to achieve all objectives. The first action to take in such a situation would be to remedy this situation by the NSDS or adapt the system for fisheries data collection to these conditions.

Fisheries data collection in Nigeria is the responsibility of the Federal States, with the available budget it will not be possible to cover all federal states therefore under the project one Federal state will be included to serve as a pilot example for Nigeria.

Improvement of fisheries data collection systems and the development of fisheries information systems in Ghana is presently be carried out in the frame work of a project supported by the WorldBank. Therefore Ghana is most likely not in need of support by the present TCP project.

4. IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

4.1 Institutional Framework and Coordination

The project is a follow-up activities of the FAO FishCode STF implemented in collaboration with FCWC over the period 2007-2012 and based on the recommendations of regional workshops (FAO 2008).

The Fisheries Committee for the West Central Gulf of Guinea (FCWC) was established in 2007. This to facilitate cooperation in fisheries management between the member countries: Liberia, Côte d'Ivoire, Ghana, Togo, Benin, and Nigeria. The countries have several shared fish stocks and identified a need for cooperation and shared management of these resources

The overarching goal of FCWC is *“To ensure the sustainable development of the fisheries resources in the FCWC Convention Area”*

Because of its mandate and the previous collaboration between FAO and FCWC on improving fisheries data collection, FCWC is the main counterpart of the project and will be responsible for the coordination of all national and regional activities

4.2 Strategy/Methodology

Improving data fisheries collection and exchange of fisheries information is based on: i) the FAO Strategy STF, ii) the Pan-African strategy for improving fisheries data collection, and analysis and dissemination of information and iii) the recommendation of the FAO regional Workshop on improving data collection of fisheries in the FCWC region.

The main strategy of the project is strengthening national capacity to design, develop, and implement appropriate, statistical valid and sustainable, fisheries data collection systems.

The second strategy adopted by the project is to harmonize data collection and exchange of information in the region which directly contribute to fisheries management of the fish stock covered by the by the scientific working groups of the Fishery Committee for the Eastern Central Atlantic (CECAF).

4.3 Government Inputs/FCWC inputs

- .Nomination of a National Project Coordinators
- Provision of an adequate staff support and budget for data collection
- The Government will assume responsibility for the sustainability of the established statistical system and its regular operation in project and post-project period

4.4 FAO Contribution

Technical advice for different subject matters will be provided by , staff of FAO FIPS staff, and international and national consultants

FAO experts

FAO FIPS staff, international and national consultants will provide the technical support for all aspects of the project. An international consultant is required to assure coherency with; i) previous implemented activities of FAO FishCode STF, ii) the Global FAO Strategy on the

improvement of Fisheries data collection, iii) the draft pan African Strategy on the improvement of Fisheries and Aquaculture data collection, analyses and dissemination, iv) the developments of Fisheries statistical training courses in Africa and v) other technical support on the improvement of fisheries data collection in Africa provided by FIPs.

For this all the countries will be visited on a regular bases.

Regional coordination

Regional project coordination will be provided by FCWC and will be supported by FAO

National Consultants

The fisheries data base and information system will be developed through local expertise under supervision of FAO staff and international consultants. If local expertise on designing and developing information systems is not available within the fisheries line agencies and will be recruited locally

Training

The development of a regional training course on sample based fisheries data collection in French, will be supported by FAO through the TCP. The training course will follow the format of the English training developed by FAO at the Department of Oceanography of the University of Legon (Accra, Ghana). For the development of the training course, contracts will be made with a selected regional institute and after its development, minimal three staff members involved in fisheries data collection, for each francophone country, will participate in the developed training. Detailed budget estimates cannot be made presently, but will be provided after the regional institute has been selected

Regional Workshops

FAO through the TCP project will support meetings of national statistical experts to discuss improvement and harmonisation of national statistics data collection systems, aligning them to the regional needs, in particular those of COREP. After an initial inception meeting, it is foreseen that the regional experts will meet at least another two times during the implementation of the project. Detailed budget estimates cannot be provided presently.

Equipment

The TCP is not expected to provide equipment neither to national nor regional institutions. However, when needed, FAO through the TCP will provide computer equipment for the development of the TCP common activities.

5. OVERSIGHT, MONITORING, MANAGEMENT INFORMATION AND REPORTING

5.1 Monitoring and Knowledge Sharing

Within the framework the ACP fish2project for FCWC a strategy for the exchange of information and knowledge has been developed in collaboration and an interactive website. The site would be used as a major tool for the exchange of information among the various collaborators and scientific working groups.

5.2 Communication and Visibility

The web site of FCWC will be the major tool for communication of the results of the project.

5.3 Reporting Schedule

- The FAO experts and international consultants will submit mission reports at the end of each mission and will also contribute in the preparation of the final report at the end of the project.
- The regional coordinator will prepare six month progress reports on the various activities and results of the project.
- Each of the national coordinators will prepare interim progress reports and a final technical report.

ANNEX 1: PROJECT BUDGET (in US Dollars)

Project Symbol and Title			
STF REG RAF FCWC			
Improvement of fisheries data collection in West Africa			
FAO FISHCODE STF, RAF & FIPS			
Comp.	Component Description	Sub Comps.	Main Comp.
5013	Consultants		175,000
5542	Consultants - International	105,000	
5543	Consultants - National	70,000	
5014	Contracts		40,000
5650	Contracts Budget	40,000	
5020	Overtime		-
5652	Casual Labour - Temporary Assistance	-	
5021	Travel		106,400
5684	Consultants - International	81,400	
5692	Travel TSS	10,000	
5698	Travel - Non staff (e.g. counterparts)	15,000	
5023	Training		89,800
5920	Training Budget	89,800	
5024	Expendable Equipment		8,000
6000	Expendable Equipment	8,000	
5025	Non Expendable Equipment		28,000
6100	Non Expendable Equipment Budget	28,000	
5027	Technical Support Services		24,656
6111	Report Costs	1,850	
6120	Honorarium TSS	22,806	
	Back charges		4,000
5028	General Operating Expenses		13,191
6300	General Operating Expenses Budget	13,191	
5029	Support Cost		33,953
6118	Direct Operating Costs	33,953	
	Grand Total		523,000

ANNEX 2: Work plan

The following activities will be carried out

Output 1: Development of appropriate and cost effective sample based surveys systems for artisanal fisheries

Activities

- 1.a) The frame survey data will be used to redesign existing data collection schemes taking into consideration the budget limitations of the countries. The data collection schemes include at least all the target species covered by the CECAF scientific working groups.
- 1.b) The improved data collection schemes will be implemented and test for at least 12 month, after which data will be analysed and where needed the systems will be adapted.
- 1.c) National staff will be trained fisheries statistics, data collection and in basic principles of sample based surveys.

Output 2.1: Development of national Fisheries Information Systems

Activities

- 2.a) National fisheries information systems will be developed by making use of local expertise. The Fisheries Information systems will follow international standards and include requirements of regional fisheries and economic organizations. Existing Catch and Effort data bases will be improved by making use of FAO open ARTFISH
- 2.b) FIRMS Fisheries inventories of FCWC member states will be updated
- 2.c) National staff will be trained in operation and maintenance of the Fisheries Information system

Output 2.2: Establishment of institutional linkages and exchange of information between FCWC and regional economic organizations

Activities

- 3.a) Key indicators for the different segments of the fisheries sector will be identified to enable effective policy formulation and fisheries management
- 3.b) Partnership arrangements will be developed at regional to improve quality and availability of key information on small scale fisheries, to disseminate key information.

Output 2.3: Development of a sub-regional Fisheries Information System at FCWC

Activities

- 4.a) A sub regional Fisheries Information system will be developed at FCWC. The system will be compatible with the national information system and include the requirements of CECAF, regional economic organizations and the recommendations of the adhoc working group on fisheries statistics

Output 3.1: Development of regional training course in fisheries data collection and statistics for francophone countries.

Activities

- 5.a) A regional training course in fisheries data collection and statistics for francophone countries will be developed in collaboration with a selected institute(s) in a francophone country. The training course will cover the modules of the training course presently being developed with Legon University (Ghana) for the Anglophone countries .

The time frame of all activities is presented in the table below

OUTPUT/ACTIVITY	Month																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<i>Project Inception/Inception workshop</i>																								
<i>Output 1. Development of appropriate and cost effective sample based surveys systems for artisanal fisheries</i>																								
Regional workshop on harmonisation																								
(re) design of national data collection systems																								
Implementation of national data collection system																								
Mid-term evaluation of national data collection systems																								
Pilot community involvement in data collection																								
<i>Output 2.1 Development of national Fisheries Information Systems</i>																								
Development of national Fisheries information systems																								
Training in the use of FIS																								
Implementation of national FIS																								
FIRMS Fisheries inventories																								
Mid-term evaluation of national FIS																								
<i>Output 2.2 Establishment of institutional linkages and exchange of information between FCWC and regional economic organizations</i>																								
Establishment of minimum requirements																								
Development of protocol of exchange of information between FCWC and Regional economic																								

Terms of reference

International Consultant in fisheries data collection and statistics

Under the general supervision of the sub regional FAO office and the technical supervision of the Lead Technical Unit, the consultant will:

- Provide general guidance for project activities
- Provide technical support for the design and implementation of appropriate data collection systems for the marine artisanal fisheries
- Provide technical support for the development of national and regional fishing information systems
- Provide technical support to the development of a regional training course on data collection and fishery statistics

Duration:
190 days

Qualifications:

- At least ten of experience in the design and implementation of data collection systems for artisanal fishing.
- At least ten years' experience in the design and implementation of fisheries information systems
- Strong ability in the statistical mathematics of sample based fisheries data collection
- Experience in data collection in artisanal fisheries in West Africa
- Strong ability in the use of Geographic Information Systems
- Good communication skills in the preparation of reports.
- A good working level in French is essential.

Terms of reference

International consultant fisheries inventories FIRMS

Under the general supervision of the sub regional FAO office and the technical supervision of the Lead Technical Unit, the consultant will:

- Collaborate with FCW and TCP involved persons to prepare a Workshop on FIRMS-FCW. In particular the consultant will be involved in the preparation of:
 - a. preliminary documentation such as agenda and list of participants
 - b. technical and working documentation (prospectus documents, *etc.*)
- Provide technical lead of the workshop.
- Work of the report of the workshop and the roadmap for the follow up activities.
- Interact with key person from FCW countries to follow up the Workshop and provide outputs.

Expected outputs as follows:

- Preparatory stages of capacity building workshops delivered as required:

- 1) agenda for the FIRMS_FCW Workshop and tentative list of participants
- 2) prospectus and working documents for the Workshop

- Follow-up of the workshop:

- 1) new FIRMS inventories for FCW member states (i.e. Liberia, Ghana, Nigeria) finalized and related fact sheets ready for publication
- 2) updated of existing inventories for FCW member states (i.e. Côte d'Ivoire, Togo and Benin) and related fact sheets ready for publication
- 3) report of the FIRMS-FCW workshop
- 4) draft proposal for distributed responsibilities among CECAF, FCWC, Member Countries National institutes, and FIRMS Secretariat addressing content ownership, reporting, quality control, copyright, etc..."

- Any other activities possibly emerging during the project, related to FIRMS-FCW interaction.

Duration:

40 days

Qualifications:

- Extensive knowledge of FIRMS partnership.
- At least 10 years of experience in:
 - dealing with harmonization, standardization and interpretation of data on fisheries and marine resources;
 - creation of information fact sheets (to be first stored in DB and then published on internet).
- Good communication skills to produce working documentation and liaising with national experts.
- Good communication skills for delivering ad hoc Workshop and produce follow up documentation.
- Good training capacities.
- French working knowledge.

Terms of reference

National consultant(s) database development

Under the general supervision of the sub regional FAO office and the technical supervision of the Lead Technical Unit and the international consults, the consultant will:

- Build the Fisheries Information System according to the functional design provided by FAO technical staff
- Preparation of technical documents and manuals for maintenance and operation of the information system
- Assist in the development and implementation of training seminars on the operation and maintenance of the newly established fisheries database and information system

Duration:

100 days

Qualifications:

- At least ten (10) years experience in database design, including Geographical Information Systems
- Strong communication and reporting skills.
- A good working level in English is essential