SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)

Canoes Authorization Cards & Control of New Entrants of Canoes

FEBRUARY, 2015
This publication is available electronically in the following locations:

*The Coastal Resources Center*

http://www.crc.uri.edu/projects_page/ghanasfmp/

*Ghanalinks.org*

https://ghanalinks.org/elibrary search term: SFMP

*USAID Development Clearing House*

https://dec.usaid.gov/dec/content/search.aspx search term: Ghana SFMP

For more information on the Ghana Sustainable Fisheries Management Project, contact:

USAID/Ghana Sustainable Fisheries Management Project
Coastal Resources Center
Graduate School of Oceanography
University of Rhode Island
220 South Ferry Rd.
Narragansett, RI 02882 USA
Tel: 401-874-6224  Fax: 401-874-6920  Email: info@crc.uri.edu


Authority/Disclaimer:


This document is made possible by the support of the American People through the United States Agency for International Development (USAID). The views expressed and opinions contained in this report are those of the SFMP team and are not intended as statements of policy of either USAID or the cooperating organizations. As such, the contents of this report are the sole responsibility of the SFMP team and do not necessarily reflect the views of USAID or the United States Government.

Cover photo:
Detailed Partner Contact Information:

USAID/Ghana Sustainable Fisheries Management Project (SFMP)
10 Obodai St., Mempeasem, East Legon, Accra, Ghana

Telephone: +233 0302 542497  Fax: +233 0302 542498

Maurice Knight  Chief of Party  Email: maurice@crcuri.org
Kofi Agbogah  Senior Fisheries Advisor  Email: kagbogah@henmpoano.org
Nii Odenkey Abbey  Communications Specialist  Email: nii.sfmp@crcuri.org
Bakari Nyari  M&E Specialist  Email: hardinyari.sfmp@crcuri.org
Brian Crawford  Project Manager, CRC  Email: brian@crc.uri.edu
Ellis Ekekpi  USAID AOR  Email: ekekpi@usaid.gov

Kofi.Agbogah
kagbogah@henmpoano.org

Resonance Global
(formerly SSG Advisors)
182 Main Street
Burlington, VT 05401
+1 (802) 735-1162
Thomas Buck
tom@ssg-advisors.com

Andre de Jager
adejager@snvworld.org

SNV Netherlands Development Organisation
#161, 10 Maseru Road,
E. Legon, Accra, Ghana
233 30 701 2440

Victoria C. Koomson
cewefia@gmail.com

CEWEFIA
B342 Bronyibima Estate
Elmina, Ghana
233 024 427 8377

Lydia Sasu
daawomen@daawomen.org

Donkris Mevuta
Kyei Yamoah
info@fonghana.org

DAA
Darkuman Junction, Kaneshie Odokor Highway
Accra, Ghana
233 302 315894

For additional information on partner activities:
CEWEFIA:  http://cewefia.weebly.com/
CRC/URI:  http://www.crc.uri.edu
DAA:  http://womenthrive.org/development-action-association-daa
Friends of the Nation:  http://www.fonghana.org
Hen Mpoano:  http://www.henmpoano.org
Resonance Global:  https://resonanceglobal.com/
SNV:  http://www.snvworld.org/en/countries/ghan
<table>
<thead>
<tr>
<th>ACRONYMS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCM</td>
<td>Centre for Coastal Management</td>
</tr>
<tr>
<td>CEWEFIA</td>
<td>Central and Western Region Fishmongers Improvement Association</td>
</tr>
<tr>
<td>CRC</td>
<td>Coastal Resource Center</td>
</tr>
<tr>
<td>CSLP</td>
<td>Coastal Sustainable Landscape Project</td>
</tr>
<tr>
<td>DAA</td>
<td>Development Action Association</td>
</tr>
<tr>
<td>DFAS</td>
<td>Department of Fisheries and Aquatic Science</td>
</tr>
<tr>
<td>DMFS</td>
<td>Department of Marine Fisheries Sciences</td>
</tr>
<tr>
<td>DQF</td>
<td>Daasgift Quality Foundation</td>
</tr>
<tr>
<td>FtF</td>
<td>Feed the Future</td>
</tr>
<tr>
<td>GIFA</td>
<td>Ghana Inshore Fishermen's Association</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>GNCFC</td>
<td>Ghana National Canoe Fishermen’s Council</td>
</tr>
<tr>
<td>HM</td>
<td>Hen Mpoano</td>
</tr>
<tr>
<td>ICFG</td>
<td>Integrated Coastal and Fisheries Governance</td>
</tr>
<tr>
<td>MESTI</td>
<td>Ministry of Environment Science and Technology</td>
</tr>
<tr>
<td>MOFAD</td>
<td>Ministry of Fisheries and Aquaculture Development</td>
</tr>
<tr>
<td>NDPC</td>
<td>National Development Planning Commission</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-Governmental Organizations</td>
</tr>
<tr>
<td>SFMP</td>
<td>Sustainable Fisheries Management Project</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Enterprises</td>
</tr>
<tr>
<td>SNV</td>
<td>Netherlands Development Organization</td>
</tr>
<tr>
<td>SSG</td>
<td>SSG Advisors</td>
</tr>
<tr>
<td>STWG</td>
<td>Scientific and Technical Working Group</td>
</tr>
<tr>
<td>UCC</td>
<td>University of Cape Coast</td>
</tr>
<tr>
<td>URI</td>
<td>University of Rhode Island</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WARFP</td>
<td>West Africa Regional Fisheries Development Program</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

- Acronyms ........................................................................................................... iii
- SECTION 1: INTRODUCTION ........................................................................... 1
- SECTION 2: RATIONAL .................................................................................... 1
- SECTION 3: OBJECTIVES .................................................................................. 3
- SECTION 4: FISHERIES COMMISSION AND PREMIX COMMITTEE ACTIVITIES SUPPORTED BY USAID’S SUSTAINABLE FISHERIES MANAGEMENT PROJECT .... 3
  - 4.1 Moratorium of new entrants: The Web-Based Fishing Vessels Registry and Licensing System.................................................................................................................. 3
  - 4.1.1 Outcome of Canoe Registration and Embossment .................................. 3
  - 4.2 Canoe Authorization Cards (CAC) ............................................................. 4
  - 4.3 Sale and Distribution of Premix In the sale and distribution of premix in the marine sector, the card will be used to curb and track the sale of premix at all sales stations. This will address the diversion and sale of premix to non-fishers. It will also provide real time data for the premix committee to inform management decision such as allocation for specific landing sites and canoe fleet size......................................................... 5
  - 4.4 Canoe management system: Fish Canoe app®™ ....................................... 6
  - 4.5 Tools ........................................................................................................... 6
  - 4.6 Registration ................................................................................................ 6
  - 4.7 Devices for the Administration of Sale and Purchase of Premix Fuel .......... 7
  - 4.8 Data auditing .............................................................................................. 7
  - 4.9 Benefits to Fishermen ............................................................................... 7
- SECTION 5: REDUCE TOTAL NUMBER OF FISHING CANOES REGISTERED ...... 8
- SECTION 6: SPECIFIC ACTIVITIES AND TIMELINES .................................... 8
- SECTION 7: EXPECTED OUTCOMES .................................................................. 9
SECTION 1: INTRODUCTION

The Marine Fisheries Management Division MFMD of the Fisheries Commission organized a 3 day working meeting for the executives of the Ghana National Canoe Fishermen’s Council (GNCFC), the coastal Zonal and Regional Directors between July 17 – 19 2017 at the Royal Lee’s Hotel. The purpose of the meeting was to deliberate the Canoe Registration and Embossment exercise amidst the major challenge of increasing influx of new entrants of canoes. A proposal to finalize the Canoe Registration and regulate the influx of canoes in line with the National Fisheries Management Plan (2015 – 2019) was discussed and presented to USAID/SFMP for support. This proposal entailed the introduction of Canoe Authorisation Cards as tool for regulating Access. The proposed project was reviewed and approved for funding in SFMP’s year 4 and subsequent year work plan (FY18)

SECTION 2: RATIONAL

In the past, small pelagic fisheries contributed significantly to employment, food security and poverty reduction objectives of the national government. If managed properly this sector will provide a stable source of employment and contribution to food security in Ghana. More than 150,000 fishermen, processors and traders earn their livelihood directly from the marine fisheries sector. It is estimated that about 10% of the total population of Ghanaians depend directly or indirectly on fish for their livelihoods or about 2.9 million people of the current population of 29 million. Fish is the preferred source of relatively inexpensive animal protein in Ghana. It is estimated that 75% of the total domestic production of fish is consumed locally, representing 60% of total animal protein intake nationally. It is estimated that protein intake from fish can be higher than 90% in coastal fishing areas.

The small pelagic fishery consists mainly of round sardinella (Sardinella aurita), flat sardinella (Sardinella maderensis), anchovies (Engraulis encrasicolus) and mackerel (Scomber colias). These species make up between 70 to 80% of total marine fish landings in Ghana and are of major importance to the canoe (artisanal) fleet that lands more than 80% of the total small pelagic fish catch. The canoe sector is the major provider of employment in the marine fisheries sector.

These statistics demonstrate that the canoe sector, marine fish and fish products, especially the small pelagic, play a very important role in the national economy. In spite of the important contribution marine fisheries provide to the national economy, the marine small pelagic resources are considered severely overfished (STWG, 2016; STWG, 2017; FAO/CECAF, 2015). This situation results in the loss of tens of thousands of metric tons of high nutritional quality, low-cost and locally produced food protein supply due to poor management and overfishing.
The decline in catches are directly affecting the livelihoods of over a hundred thousand fisherfolk and many more that rely indirectly on the fishery. The result is a loss of overall profitability in the sector, a loss of locally produced food supply, and increasing poverty in coastal fishing communities.

The small pelagic fisheries, particularly sardinella, are on the verge of collapse. Annual landings have been in decline for more than a decade as fishing effort has increased (fig 1). The current sardinella stocks are estimated to be already as low as 14% of late 1990s levels. Scientifically, a stock is considered collapsed when it reaches 10% of highest yields. A complete collapse of this fishery would have huge impacts to direct employment, the economy, food security and poverty levels across Ghana.

One of the major contributing factors to the drastic decline in Ghana’s small pelagic stock is overcapacity (too many boats) in the fishing fleet that results in the overfishing. The current race to catch the last fish is a direct result of Ghana’s open access artisanal fisheries that put no restrictions on new entries into the canoe fleet. There is an absence of sufficient regulatory and enforcement measures to restrict canoe fleet catch and effort to sustainable levels. As a result, the current size of the canoe fleet is more than double the fleet size in 1980. The recently updated Vessel Registry System (2018) of the Fisheries Commission shows that the canoe fleet has increased from 12,700 in the 2016 to over 14,700 canoes.

This recent canoe fleet numbers and continuing growing trend under free and open access represents a record high in the canoe fleet numbers. Not only has the number of canoes increased but so has their efficiency. Over the past decade or so the size of the canoes has dramatically increased, fishing nets have become larger and longer, the horsepower of canoe outboard motors enables - fishers to go far per trip and fuel subsidies prevent the real cost of canoe fishing to be felt by fishers. At the same time, current estimates of the small pelagic fisheries stocks show a parallel downward trend with estimated that they are within 2-3 years of total collapse. Total cumulative landings have reached all-time lows despite the growth in number of boats.

Increased capacity and efficiency of artisanal canoes have resulted in severe overfishing and the reduction of stocks drives fishermen to spend more hours/days at sea as they struggle to make fishing profitable, even with government supported fuel subsidies. Using the
information in the STWG\textsuperscript{1} report on the status of the small pelagic stocks in Ghana, reveals that stocks are likely to collapse completely in the near future unless there is a significant and rapid reduction in fishing pressure. This demonstrates the urgent need for interventions to halt and reverse this trend.

**SECTION 3: OBJECTIVES**

The overall objective of this project is to regulate the increasing canoe fleet in order to reduce fishing effort to aid in the rebuilding and management of Ghana’s small pelagic stocks. Other key objectives include improving efficiency in the sale and distribution of premix to fishers while managing the overall data on fishing fleet in the fishing industry. This will aid decision makers to formulate and implement policies that promote the sustainable management of the fish stock.

**SECTION 4: FISHERIES COMMISSION AND PREMIX COMMITTEE ACTIVITIES SUPPORTED BY USAID’S SUSTAINABLE FISHERIES MANAGEMENT PROJECT**

4.1 Moratorium of new entrants: The Web-Based Fishing Vessels Registry and Licensing System

In fulfillment of Component 1 under the WARFP (2014) “Good Governance and Sustainable Management of the Fisheries” activity 1.2.3 “implement phased registration and licensing of all fishing vessels”, the FC developed and transitioned onto a modern fisheries registry system which has relevant data on ownership and characteristics of all fishing vessels (industrial, semi-industrial and canoes). With the completion of this, Ghana opened a new era for transparency and accountability in its fisheries management system.

Industrial and semi-industrial fleets, already long registered, were reregistered and data checked and corrected. In 2014, for the first time a nation-wide canoe registration effort was started and unique registration numbers were assigned for all canoe managers and each canoe itself in the following format:

- RR – DT – XXXX – CM
- RR – DT – XXX – FVG

Where RR = initials coastal region, DT= Coastal District, XX=serial numbers, CM=canoe manager and FVG=fishing village.

4.1.1 Outcome of Canoe Registration and Embossment

\textsuperscript{1} STWG: The Scientific Technical Working Group (STWG) is an ad-hoc scientific group with an overarching mission to provide science-based assessments of the status of stocks and propose non-political management advice to assure long-term sustainability of stocks based on the best available scientific information.
The ongoing national canoe registration survey by the Ghana National Canoe Council and Fisheries Commission staff with help from SFMP, will provide the first up-to-date registration on canoes across the entire coastal region when completed. Results so far show that;

- Total canoe numbers increased from 9,567 in 2014 to over 14,700 in August 2018 (and counting).
- Increasing canoe numbers are primarily from a rapidly growing number of newly constructed canoes.

A Moratorium on new entrants to the artisanal fisheries sector is one of the key steps to reduce effort to sustainable levels and prevent collapse of the fishery. Raw numbers of canoes would drop as fishers grow old and retire from fishing. Some provisions will need to be considered for succession of operational canoes but new capital investments (construction of new boats) must be limited. This is necessary to halt the alarming increase in the canoe fleet, save the small pelagic fisheries from complete loss, and avoid the attendant widespread food security and income/livelihood impacts that would result. The period of the moratorium provides the opportunity for MOFAD/FC to collaborate with fishers to map out measures/strategies to reduce or manage the current canoe fleet based on recommendations in the fisheries management plan.

The ongoing registration and embossment exercise with SFMP support provides an opportunity for FC to educate fishers on the rationale behind the registration across the four coastal regions of Ghana. Through the SFMP’s Fisher-to-Fisher (F2F) dialogues, the FC is working with chief fishermen to verify the canoe registry of inactive and ‘ghost’ canoes that might have been registered, as well as address other issues identified during the registration period. Once completed, this up-to-date canoe registry provides the best opportunity to declare a Moratorium while considering other effort reduction measures.

A Moratorium on new entrants is in fulfillment of one of the objectives of the 2015 – 2019 National Fisheries Management Plan which set out specific targets for 2017 to manage the artisanal (canoe) fishing fleet through effort control measures including the following:

- C1.1: Survey and registration of all active canoes
- C1.2: Increase the traditional one-day per week fishing holiday to two (2) days per week
- C1.3: Control of new entrants to the canoe fishery
- C1.5: Implement a national co-management framework

The currently proposed declaration of a moratorium on new entrants of canoes meets the NFMP requirements for C1.3: Control of new entrants to the canoe fishery.

4.2 Canoe Authorization Cards (CAC)

Canoe Authorization Card (CAC) is a barcoded card that will be used as a tool to manage and monitor the influx of new canoes. It will be linked to the web-based Fishing Vessels Registry and Licensing System of the FC in order to achieve the desired results. The smart card will contain personal information, domicile address and other data about the holder. Its features will be in line with the Fisheries Act 2002 (625) as follows:

- Artisanal fishing licence and renewal
  - A licence for artisanal fish shall
  - specify the period of validity of the licence;
  - indicate the activity for which the licence is issued; and
o state the markings and identity of the artisanal vessel

Among others the purpose/rational of the card is to provide;

- legitimacy, identity and recognition to all canoe owners/managers
- statistics for planning
- help FEU in maintaining security at sea
- regulate the allocation, distribution and sale of premix fuel
- prevent the use of one registration number for multiple canoes

The Fisheries Act, 2002 (625), Sub-part III states:

- A person shall not use a canoe for fishing in the fishery waters unless a license has been issued for the canoe for the purpose of fishing.

A fishing licence shall not be issued for a canoe unless the canoe

- is owned by a citizen of Ghana, a company or a partnership registered in Ghana under the relevant law in which the shares are beneficially held by a citizen;
- has been registered with the Commission through the District Assembly of the area where it is to be used; and
- bears the markings of identity allocated to it by the Commission

The CAC provides the needed platform to license all canoes if MOFAD/FC decides to activate the Fisheries Act in the aforementioned paragraph.

The CAC will rely on the robust foundation of the web–based Fishing Vessel Registry and Licensing system which is one of the most efficient database system managed by the FC. Developed in 2013 under the World Bank West African Project (WARFP), the system currently houses all marine industrial, semi industrial and over 14,700 canoes.

The system is maintained and managed by officers from the Fisheries Commission’s MFMD and the 4 coastal regions. The CAC will be an enhancement of the database and will introduce diversified users which will contribute to its sustainability.

4.3 Sale and Distribution of Premix÷ In the sale and distribution of premix in the marine sector, the card will be used to curb and track the sale of premix at all sales stations. This will address the diversion and sale of premix to non-fishers. It will also provide real time data for the premix committee to inform management decision such as allocation for specific landing sites and canoe fleet size.

In as much as the CAC is to support reducing the influx of canoes beyond sustainable levels for the fishery, most significantly it can also be used to check illegal fishing. Distribution of the cards can first be given to canoe managers in good standing. As such, individuals identified as engaged in open seas transshipment (saiko), use of monofilament nets, use of chemical and use of light for night fishing, will not be eligible. These individuals will be identified with the help of the respective chief fishermen and the GNCFC.
4.4 Canoe management system: Fish Canoe app®™

![Diagram of Canoe management system]

Figure 2: Primary uses of the Canoe management System

4.5 Tools

- **Canoe registration** – This will capture all the necessary information concerning each manager/boatswain and canoe leading to the issuance of barcoded cards.
- **Canoe Management System linking to Vessel Registry System** – Will link all the canoe data that FC has to each canoe in the system.
- **Premix sale and distribution management system** – Will provide a platform for the sale and distribution of premix and an automated payment system within the industry
- **Query & report generation** – Fish Canoe app ®TM will have the ability to make queries within the system and receive specific reports for analysis and decision-making.

4.6 Registration

Canoe Registration is at the final stage during and after the period when FC and fishers are collaborating to clean up the registry of inactive vessels. District level engagement in all four coastal regions will be implemented through the joint SFMP-FC-GNCFC **Fisher-2-Fisher (F2F)** dialogues to complement the ongoing database cleanup exercise. In addition, this process will move forward in collaboration with canoe owners/managers and District Assemblies as appropriate towards the proposed **December 31 2018 Temporal Closure for New Canoes**.

A key component of the Fish Canoe app ®TM system is the Vessel Registry System linkup, through which the system will be updated with the data of registered canoes each linked to a barcoded card for each specific canoe. This system will be fully completed and launched to ensuring that each canoe owner/manager/boatswain can conduct verified (and traceable) transactions within the system. Taking the system to full operation from the beginning also puts trust in the system and will provide the opportunity for other financial institutions like insurance companies and banks to take more interest in creating products and services to enhance the livelihood of fishermen.
4.7 Devices for the Administration of Sale and Purchase of Premix Fuel

Any simple android powered smartphone with a camera can be used to verify and process transactions at the respective landing/premix sale points. The simplicity of the app means that any smartphone with the android software can be use. It does not need to be a high-end phone. Where necessary, a simple handheld Bluetooth enabled printer can be purchased to issue receipts upon successful sale of premix.

Installation of the Fish Canoe app on the smartphones of FC officers will give them access to the canoe management system to effect all necessary transactions including verification of canoes by FEU officers.

4.8 Data auditing

All databases are not subject to potential flaws. Issues of double registration are one of the common problems during the period of canoe registration. The approach ensures that the database is cleaned, reliable, robust and free of such potential flaws before the issuance of the Authorization Cards. Below is an illustration of the five-step system to ensure accuracy:

- Registration
- Deduplication
- Arbitration
- Duplicate removal
- Card issue

Figure 3: Five step process to ensure a smooth and problem-free database

Step 1: Registration of canoe details
Step 2: Deduplication: cross-checking the registration database to ensure that no canoe has registered twice in different coastal areas or there is no other duplication of other types of data within the system
Step 3: Arbitration – resolving any outstanding issues identified in the deduplication exercise
Step 4: Removing any outstanding duplicates after arbitration
Step 5: Issue card

4.9 Benefits to Fishermen

- Works to secure livelihoods of legitimate fishers
- A more dependable way of purchasing and ensuring availability of premix fuel
- Gives canoe managers confidence to engage with the management system with the knowledge that their verification details cannot be faked by others
- Provides a platform that enables easy participation by other programs designed by local, state, national and international agencies to specifically benefit fishers
- Canoe managers can be provided with a multi-purpose smart card that will store canoe managers’ personal data and electronic wallets
- Easy to identify for business opportunities
SECTION 5: REDUCE TOTAL NUMBER OF FISHING CANOES REGISTERED

One benefit of the Moratorium is to achieve the NFMP objective of reducing effort to sustainable levels. It is hoped that the Moratorium and canoe registration, together with other effort reduction measures can reduce the canoe fleet from the July 2018 estimate of 14,700 vessels (FC Fishing registry and licensing system) to 9,095 at an appropriate time in the future. This is the recommended number of canoes needed for sustainable fishing as per the 2015 Fishery Management Plan (See appendix of the Fisheries Management Plan of Ghana, MOFAD, 2015). This will represent a 38 % reduction of the current estimated number of canoe vessels. In this case, unregistered or unlicensed canoes would not be allowed to fish at all and a canoe vessel reduction strategy would need to be developed and implemented. The measure would reduce total fishing effort considerably. It would however require stringent monitoring and should be co-managed with the local community in order to avoid collusion and cheating. It also requires serious outreach and education of the fishers by MOFAD/FC, DAs and all relevant CSOs/NGOs. The socio-economic impact of this is that fishing incomes will drop initially, but in the medium term incomes will increase and additional jobs in processing will be created as stocks rebound and catch increases.

SECTION 6: SPECIFIC ACTIVITIES AND TIMELINES

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Date</th>
<th>Venue</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canoe registry clean up</td>
<td>Collaboration between MOFAD/FC, Canoes owners and GNCFC</td>
<td>Ongoing – end date is December 31, 2018</td>
<td>All landing sites</td>
<td>MOFAD/FC¹, GNCFC²</td>
</tr>
</tbody>
</table>
| Regional meeting with DAs, Canoe Owners, GNCFC, Premix agents and MOFAD/FC | Organize four (4) regional meetings with key stakeholders agree on proposed moratorium of new entrants of canoes  
Sign an MOU with DAs to administrate the canoe registration and licensing while the FC Regional Offices exercise oversight responsibility,  
Draw a road map towards the sustainability of the CAC, the reduction or management of canoes during the closer for new entrants. | Oct 15 – 19, 2018    | District Assembly Halls in all Four regions | MOFAD/FC¹, Premix¹, SFMP², GNCFC³ and DAs³ |
<p>| Declaration of moratorium on new entrants of canoes | Declare a Temporal moratorium on new entrants of canoes for <strong>December 31, 2018 closer</strong>                                                                                                                   | Oct 30, 2018          | MOFAD/FC conference hall          | MOFAD/FC¹, GNCFC²          |</p>
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Date</th>
<th>Venue</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hire Consultant</td>
<td>Hire a consultant to develop Fish Canoe app and Canoe management system</td>
<td>Oct 9, 2018</td>
<td>SFMP Accra</td>
<td>SFMP¹, MOFAD/FC²</td>
</tr>
<tr>
<td>Build Canoe Management System</td>
<td>Fish Canoe app and Canoe management system built and</td>
<td></td>
<td>MOFAD/FC office</td>
<td>Consultant¹, SFMP², MOFAD³</td>
</tr>
<tr>
<td>Vessel Registry Linkup</td>
<td>Data of individual canoes linked to the Vessel Registry in preparation for printing on smart cards</td>
<td>Oct 10 – 31, 2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement and printing of ID cards</td>
<td>Advertise the procurement and printing of smart ID cards</td>
<td>Nov – Dec 2018</td>
<td>SFMP Accra</td>
<td>SFMP¹, MOFAD/FC</td>
</tr>
<tr>
<td>Fisher-2-Fisher Dialogues</td>
<td>Organize sixteen (16) district level meetings between MOFAD/FC, GNCFC, NAFPTA, DAs, Traditional authorities and other stakeholders on management measures outlined in the NFMP; Moratorium on new entrants, canoe registry clean up, Closed season?, CAC etc</td>
<td>Oct – Dec 2018</td>
<td>16 Selected key landing sites</td>
<td>GNCFC¹, NAFPTA², MOFAD/FC³, SFMP⁴</td>
</tr>
<tr>
<td>Launch of CAC</td>
<td>Official launch of the CAC by the Hon Minister</td>
<td>January 15, 2019</td>
<td>TBD</td>
<td>MOFAD/FC¹, SFMP², GNCFC³, NAFPTA³, GIFA, GITA etc</td>
</tr>
<tr>
<td>Distribution of CAC</td>
<td>Distribute the CAC to fishers</td>
<td>January 15, 2019</td>
<td>Respective landing sites</td>
<td>GNCFC¹, DAs², MOFAD/FC³, SFMP²</td>
</tr>
<tr>
<td>National training for sales agents</td>
<td>Train premix sale agents on the use of premix management system for transactions</td>
<td>January 22, 2019</td>
<td>TBD</td>
<td>MOFAD/Premix¹, SFMP²</td>
</tr>
</tbody>
</table>

**SECTION 7: EXPECTED OUTCOMES**

The expected outcome is to regulate the artisanal canoes fleet size in consultation with the fishers. The desired results is a full implementation of management measures outlined in the National Fisheries Management Plan (2015 – 2019) for the Artisanal fisheries, with direct involvement of fishers. The project will focus specifically on:

- C1.1: Survey and registration of all active canoes
- C1.3: Control of new entrants to the canoe fishery
- Improve sale and distribution of premix using Canoe Authorization Cards
- Administration of canoe registration and licensing will be ceded to the MMDAs whiles the Regional FC exercise oversight responsibility.

Role of the SFMP
SFMP will provide technical and financial assistance for this project.  
SFMP will hire a consultant recommended by MOFAD/FC to build the management system  
SFMP provide financial support for the organization of the 4 Regions Workshops with the (MMDAs and the Fishers)

Role of MoFAD/FC

- MOFAD/FC will provide guidance for and participate in stakeholders’ engagement in the implementation within the context of fisheries management laws and regulations.  
- MOFAD/FC will further take lead role in the declaration of a Moratorium on new entrants of canoes and official launch of the CACs by December 2018.

Role of the Premix Secretariat

- The Premix Secretariat will provide financial support for a one-day national training for its sales agents on the use of the premix management system.  
- Purchase handy printers for sale and purchase

Role of the GNCFC

- The GNCFC will facilitate 16 district level Fisher-2-Fisher dialogues for its membership to build consensus amongst them in aid of the management measures. This will be achieved based on consultation and an awareness campaigns in the local languages and under traditional settings