SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)
Refresher Training for TCPD Staff Report

FEBRUARY 25TH-26TH, 2016

THE UNIVERSITY OF RHODE ISLAND
GRADUATE SCHOOL OF OCEANOGRAPHY

Hen Mpoano

SOS
SPATIAL SOLUTIONS
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: Group picture of participants. (Credit: Hen Mpoano)
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 maurice@crc.uri.edu
Kofi Agbogah  Senior Fisheries Advisor kagbogah@henmpoano.org
Nii Odenkey Abbey  Communications Officer nii.sfmp@crcuri.org
Bakari Nyari  Monitoring and Evaluation Specialist hardinyari.sfmp@crcuri.org
Brian Crawford  Project Manager, CRC brian@crc.uri.edu
Justice Odoi  USAID Administrative Officer Representative Jodoi@usaid.gov

Kofi Agbogah kagbogah@henmpoano.org
Stephan Kankam skankam@henmpoano.org
Hem Mpoano
38 J. Cross Cole St. Windy Ridge
Takoradi, Ghana
233 312 020 701

Andre de Jager adejager@snvworld.org
SNV Netherlands Development Organisation
#161, 10 Masereu Road,
E. Legon, Accra, Ghana
233 30 701 2440

Donkris Mevuta info@fonghana.org
Kyei Yamoah info@fonghana.org
Friends of the Nation
Parks and Gardens
Adiembra-Sekondi, Ghana
233 312 046 180

Peter Owusu Donkor powusu-donkor@spatialdimension.net
Spatial Solutions
#3 Third Nautical Close,
Nungua, Accra, Ghana
233 020 463 4488

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

Victoria C. Koomson
cewefia@gmail.com
CEWEFIA
B342 Bronyibima Estate
Elmina, Ghana
233 024 427 8377

Lydia Sasu
daawomen@daawomen.org
DAA
Darkuman Junction, Kaneshie Odokor
Highway
Accra, Ghana
233 302 315894

Gifty Asmah
giftyasmah@Daagift.org
Daagift Quality Foundation
Headmaster residence, Sekondi College
Sekondi, Western Region, Ghana
233 243 326 178

For additional information on partner activities:
CRC/URI:  http://www.crc.uri.edu
CEWEFIA:  http://cewefia.weebly.com/
DAA:  http://womenthrive.org/development-action-association-daa
Friends of the Nation:  http://www.fonghana.org
Hen Mpoano:  http://www.henmpoano.org
SNV:  http://www.snvworld.org/en/countries/ghana
SSG Advisors:  http://ssg-advisors.com/
Spatial Solutions:  http://www.spatialsolutions.co/id1.html
<table>
<thead>
<tr>
<th>ACRONYMS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRC</td>
<td>Coastal Resources Center</td>
</tr>
<tr>
<td>EDA</td>
<td>Ellembelle District Assembly</td>
</tr>
<tr>
<td>FoN</td>
<td>Friends of the Nation</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>NEMA</td>
<td>Nzema East Municipal Assembly</td>
</tr>
<tr>
<td>SFMP</td>
<td>Sustainable Fisheries Management Program</td>
</tr>
<tr>
<td>TCPD</td>
<td>Town and Country Planning Department</td>
</tr>
<tr>
<td>URI</td>
<td>University of Rhode Island</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

ACRONYMS .................................................................................................................. ii
TABLE OF CONTENTS ................................................................................................. iv
LIST OF FIGURES ......................................................................................................... v
INTRODUCTION ............................................................................................................. 1
OBJECTIVES .................................................................................................................. 1
  Format of Training ..................................................................................................... 1
WELCOME ADDRESS AND BACKGROUND TO THE SFMP .................................. 2
PRESENTATION AND DISCUSSION .............................................................................. 2
  Key Messages ............................................................................................................ 3
  Brainstorming Session ............................................................................................. 4
EXPECTATION OF PARTICIPANTS ................................................................................. 5
TRAINING MODULES ................................................................................................... 5
  Group Assignment ................................................................................................... 6
  Participant Session .................................................................................................. 8
WAY FORWARD ............................................................................................................. 8
CLOSING REMARKS ..................................................................................................... 9
ANNEX 1: TRAINING AGENDA .................................................................................... 10
ANNEX 2: TRAINING PARTICIPANT LIST ................................................................... 12
LIST OF FIGURES

Figure 1 A cross-section of participants at the training .............................................................. 1
Figure 2: Mr. Justice C. Mensah giving welcome address and explaining the purpose of the event ........................................................................................................................................ 2
Figure 3: Selected slide showing the need for spatial planning in fisheries management .......... 3
Figure 4 Mr. Mensah presenting on Leveraging the Power of GIS for Informed Community Planning .................................................................................................................................. 3
Figure 5 Selected slides from the presentation .............................................................................. 4
Figure 6: The GIS Hub model ......................................................................................................... 4
Figure 7: Mr. Richard John-Jones taking participants through the use of QGIS ......................... 6
Figure 8 Quote by Richard John Jones .......................................................................................... 6
Figure 9 Quote by Ebenezer Dadzie-Paintsil .............................................................................. 6
Figure 10: Mr. Ebenezer Dadzie-Paintsil (Regional Director, TCPD) contributing to the Training .................................................................................................................................. 7
Figure 11 Participants asking questions and making contributions during training section. .... 8
Figure 12 Mr. Essilfie, sharing and demonstrating what he learnt to the other participants .... 8
Figure 13 Quote by Ebenezer Dadzie Paintsil .............................................................................. 9
INTRODUCTION

The Sustainable Fisheries Management Project (SFMP) is a five year effort to revamp the decline small pelagic Fisheries. As part of activities being implemented under the SFMP, Hen Mpoano is working with planners and staff of the TCPD within the Western and Central regions to build their capacity on the use of GIS in planning and increase the practicability of the Western region GIS data Hub.

Under the Integrated Coastal and Fisheries Governance (ICFG) initiative, the Western regional TCPD was supported to establish a GIS Data Hub which serves as central point for storing, retrieving and managing data and also for training of staff. During the life of the ICFG initiative, 27 staff (8 Planners, 19 Technicians) were trained in the application of GIS in coastal planning. The Sustainable Fisheries Management Project is working to replicate the Data Hub concept in the Central region whilst strengthening the capacities built in the western region.

The refresher training is a follow up activity to the exchange visit event that was organized for planning staff from western and central regions to initiate peer-to-peer learning among them. Some lessons from the event revealed gaps in the implementation of the hub model and identified the need to update planners on new tools and techniques in the face of rapid infrastructural development within the coastal zone

OBJECTIVES

The refresher training is one of the activities aimed at reactivating the Western region GIS Data Hub to function more effectively as the central clearinghouse of all spatial data in the region. The specific objectives for the 2-day training were:

- To review the functionality of the GIS data Hub and identify possible solutions to issues of concern
- To introduce the use of Quantum GIS for basic data collection and mapping purposes

Format of Training

The Refresher Training was composed of two main sessions. The first session involved two presentations on the goal of the SFMP and the purpose of the Refresher training. This was followed with another presentation on the application of the iterative Hub model and best practices. The two presentations set the stage for a brainstorming session aimed at developing actionable steps to address the issue.

The second session was devoted to classroom trainings and some practical hands-on activities which planners conduct on day-to-day basis.

Figure 1 A cross-section of participants at the training
WELCOME ADDRESS AND BACKGROUND TO THE SFMP

Mr. Justice C. Mensah, the GIS officer on the SFMP welcomed participants to the workshop. In his welcome statement Mr. Mensah reiterated the commitment of Hen Mpoano and the SFMP to build the capacity of TCPD on the use of GIS in planning and the development of spatial plans within the coastal districts.

He further introduced the SFMP and placed the GIS Hub in perspective. He acknowledged the different partners the project is working with from the Western, Central and Greater Accra with a common goal to revamp the decline in fishery. He added that, the project is working with the Ministry of Fisheries and Aquaculture development, District Assemblies and Town and Country planning Department to see how the coastal areas and marine space can be planned out to respond to the decline in fish stocks and address the issues of climate change. Though the SFMP has a fisheries focus, Mr. Mensah explained that coastal spatial planning plays an important role of achieving this goal. He went on to explain why spatial planning in a fisheries management project is necessary. This, according to him, is because more than 90% of fishing activities is carried out on land hence the need for sustainable and use planning to accommodate the teeming migrant population and the dynamic coastline.

PRESENTATION AND DISCUSSION

Two presentations were delivered by Mr. Mensah on Sustainable Fisheries Management Project (SFMP) 2014-2019 and Leveraging the Power of GIS for Informed Community Planning.

Talking about the SFMP, Mr. Mensah indicated that the main goal of the project is to rebuild marine fisheries stocks and increase production through effective fisheries management strategies and adoption of responsible fishing practices. He highlighted the different intermediate results areas that are expected to lead to the overarching goal and rightfully put in the refresher training in perspective.
Presenting on Leveraging the Power of GIS for Informed Community Planning Mr. Mensah explained to participants the importance of a data hub, the Goals and Primary Functions of a hub. He then added the benefits of having working with a centralized GIS Data Hub.

**Key Messages**

- Using GIS to understand the link between land base activities and fisheries
- Addressing spatial planning in a fisheries management project
- Even though fisheries is water dependent, migrant fishers are land base
- Coastlines are dynamic
Brainstorming Session

The second presentation was meant to generate discussions on the functionality of the GIS data Hub with the goal of outlining practical steps to address the data problem of data sharing between the districts and the hub. Participants were taken through the iterative model of the hub that was developed under the ICFG to support the department. Their opinions were then solicited on the ways to ensure regular and continuous flow of data from the districts to the hub and vice versa.

Some of the key points that were raised are listed below:

- Hardware and MIS officer for the hub (LAN)
- Local/district officers should be trained to identify relevant data
- Mode of transmission of data
- Official email address (internet)
- Use of dropbox
- The use of compact disks
- Willingness on the part of Planners to share data
- Data quality
- The need for a structure
- Data should come from planning officers or dedicated officers from the district
- Regional officers should be responsible for requesting for data on regular basis.
- Equipment for Data hub and the districts should be simple and easy to repair when they break down

**EXPECTATION OF PARTICIPANTS**

Prior to the training, the expectations of participants were sampled. This was necessary to tailor the training modules and exercises to meet their expectations and to improve their day-to-day application of GIS.

Some of the expectations were to:

- Know the difference between map maker and QGIS
- Use QGIS for planning
- Use QGIS for digitizing
- Use QGIS for spatial planning
- Acquire more skills in QGIS
- Have practical experience in QGIS
- Have more hands-on training in spatial planning
- Use QGIS in solving practical and realistic challenges

**TRAINING MODULES**

Mr. Richard John-Jones, took the participant through different modules on the use of QGIS in spatial planning. Among other things taught were Digitizing, Geo-referencing and data format and conversions. Modules taught during the training were;

**Day One**

- **Module One:** Basic Computing and File management
- **Module Two:** Data acquisition (primary data)
- **Module Three:** Data acquisition (secondary data)

**Day Two**

- **Module Four:** Data types/formats and data interoperability
- **Module Five:** Coordinate systems and data Projections
Figure 7: Mr. Richard John-Jones taking participants through the use of QGIS

“It’s all about innovation, because map maker can’t geo-reference and hence not good for proper planning. No coordinates on designs”

Mr. Richard John Jones
Assistant Regional Director TCPD

Figure 8 Quote by Richard John Jones

Group Assignment

On the second day of the training, the knowledge of the participants was tested with some practical assignments. Participants were grouped and assigned to different task of mapping, digitizing and geo-referencing. Members in each group were able to execute the assignment given them successfully.
“We should adopt and embrace new changes and not go back to old ways of manual planning”

Mr. Ebenezer Dadzie-Paintsil
Regional Director TCPD

Figure 9 Quote by Ebenezer Dadzie-Paintsil

Figure 10: Mr. Ebenezer Dadzie-Paintsil (Regional Director, TCPD) contributing to the Training
Participant Session

Mr. Raphael Essilfie, a TCPD officer at the Ellembelle District who participated in the training shared his new knowledge. He demonstrated how one can digitize and also geo-reference an image using QGIS and Map Maker.

WAY FORWARD

The training was successful in bringing TCPD staff particularly planners from the western region together to introduce them to the use of QGIS and to identify possible ways to address the data transfer issues at the Hub.

On the functionality of the Hub, participants eventually agreed that they could use their quarterly meetings to share new data between the districts and the Hub. During the quarterly meeting of Planning officers, officers from the Hub will request for new data or updates to existing data that need to be archived at the Hub. District planners and the dedicated Technical officers will make the data available on compact disks. The SFMP GIS officer will monitor the process.

Spatial Solutions will organize a similar training for the Central region planning officers. This training will precede a learning event that will bring together the central and western planners to share their knowledge and experiences.
CLOSING REMARKS

In his closing statement, Mr. Ebenezer Dadzie-Paintsil was pleased that the training had come to a successful end and acknowledged the financial support of USAID and the expertise of URI/CRC and Hen Mpoano through the SFMP. He added that, this training had served a capacity building and development exercise for the TCPD staff present. He encouraged participants to use the new skills they have acquired in their work to enhance efficiency and quality of work.

“We must water the seed you have grown today so it can germinate, grow and bare fruits”

Mr. Ebenezer Dadzie-Paintsil
Regional Director TCPD

Figure 13 Quote by Ebenezer Dadzie Paintsil
ANNEX 1: TRAINING AGENDA

Ghana Sustainable Fisheries Management Project (SFMP)
Refresher Training for Western Region TCPD Officers
February 25-26, 2016
Western Regional GIS Data Hub, RCC, Sekondi

Objectives
- To review the functionality of the GIS data Hub and identify possible solutions to issues of concern
- To introduce the use of Quantum GIS for basic data collection and mapping purposes

AGENDA

Day 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30am-9:00am</td>
<td>Arrival of participants/ Participant registration</td>
</tr>
<tr>
<td>9:00am-9:30am</td>
<td>Welcome, Introduction, Overview of SFMP and Purpose of the Event</td>
</tr>
<tr>
<td>9:30am-10:00am</td>
<td>Presentation: Leveraging the Power of GIS for Informed Community Planning</td>
</tr>
<tr>
<td>10:00am-10:45am</td>
<td>Plenary Discussion</td>
</tr>
<tr>
<td>10:45am-11:00am</td>
<td>Snack Break</td>
</tr>
<tr>
<td>11:00am-1:00pm</td>
<td>QGIS Training: Basic Computing and File management</td>
</tr>
<tr>
<td>1:00pm-1:30pm</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>1:30pm-3:15pm</td>
<td>QGIS Training: Data acquisition (primary data)</td>
</tr>
<tr>
<td>3:15pm-3:30pm</td>
<td>Snack Break</td>
</tr>
<tr>
<td>3:30pm-4:45pm</td>
<td>QGIS Training: Data acquisition (secondary data)</td>
</tr>
<tr>
<td>4:45pm-5:00pm</td>
<td>Adjourn</td>
</tr>
<tr>
<td>Time</td>
<td>Activity</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8:30am-8:45am</td>
<td>Participant registration</td>
</tr>
<tr>
<td>8:45am-9:00am</td>
<td>Recap</td>
</tr>
<tr>
<td>9:00am-1:00am</td>
<td><strong>QGIS Training</strong>: Data types/formats and data interoperability</td>
</tr>
<tr>
<td>11:00am-11:15am</td>
<td><strong>Snack Break</strong></td>
</tr>
<tr>
<td>11:15am-1:15pm</td>
<td><strong>QGIS Training</strong>: Coordinate systems and data Projections</td>
</tr>
<tr>
<td>1:15pm-1:45pm</td>
<td><strong>Lunch Break</strong></td>
</tr>
<tr>
<td>1:45pm-3:00pm</td>
<td>Group Assignment</td>
</tr>
<tr>
<td>3:00pm-3:15pm</td>
<td><strong>Snack Break</strong></td>
</tr>
<tr>
<td>3:15pm-3:30pm</td>
<td>Next Steps</td>
</tr>
<tr>
<td>3:30pm</td>
<td>Departure</td>
</tr>
</tbody>
</table>
## ANNEX 2: TRAINING PARTICIPANT LIST

### GHANA SUSTAINABLE FISHERIES PROJECT-HM

**PARTICIPANTS ROSTER INFORMATION**

Required in English

Please Print

---

**Title of Course:** REFRESHER TRAINING FOR WR TCPD STAFF

**Activity:** TRAINING

**Date:** 25<sup>TH</sup> TO 26<sup>TH</sup> FEBRUARY, 2016

**Length of Course:** Less than three days  

<table>
<thead>
<tr>
<th>First Name</th>
<th>Surname</th>
<th>Organization/Community</th>
<th>Sex</th>
<th>Do you wish to receive messages on SFMP?</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCPD/AGONA</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td>X F</td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td>X F</td>
<td></td>
</tr>
<tr>
<td>TCPD/REGIONAL</td>
<td></td>
<td></td>
<td>X F</td>
<td></td>
</tr>
<tr>
<td>TCPD/STMA</td>
<td></td>
<td></td>
<td>X F</td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td>X F</td>
<td></td>
</tr>
<tr>
<td>TCPD/AGONA</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD/AGONA</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD/RCC</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD/SHAMA</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD/SHAMA</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD/REGIONAL</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>TCPD/AHWD</td>
<td></td>
<td></td>
<td>X M</td>
<td></td>
</tr>
<tr>
<td>First Name</td>
<td>Surname</td>
<td>Organization/Community</td>
<td>Sex</td>
<td>Do you wish to receive messages on SFMP?</td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td>------------------------</td>
<td>-----</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCPD/EDA</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCPD/NEMA</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCPD/JDA</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCPD</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCPD</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TCPD</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>