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# SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)

## Refresher Training for TCPD Staff Report



FEBRUARY 25<sup>TH</sup>-26<sup>TH</sup>, 2016

THE  
UNIVERSITY  
OF RHODE ISLAND  
GRADUATE SCHOOL  
OF OCEANOGRAPHY



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**SPATIAL  
SOLUTIONS**

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**Cover photo:** Group picture of participants. (Credit: Hen Mpoano)

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Spatial Solutions:	<a href="http://www.spatialsolutions.co/id1.html">http://www.spatialsolutions.co/id1.html</a>

## **ACRONYMS**

CRC	Coastal Resources Center
EDA	Ellembelle District Assembly
FoN	Friends of the Nation
GIS	Geographic Information System
NEMA	Nzema East Municipal Assembly
SFMP	Sustainable Fisheries Management Program
TCPD	Town and Country Planning Department
URI	University of Rhode Island
USA	United States of America
USAID	United States Agency for International Development

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## 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.



**Figure 2: Mr. Justice C. Mensah giving welcome address and explaining the purpose of the event**

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.



Fisheries is water-dependent



Migrant fishers are landless

Coastlines are dynamic

**Sustainable Fisheries Management Project (SFMP)**

**Figure 3: Selected slide showing the need for spatial planning in fisheries management**

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



**Figure 4 Mr. Mensah presenting on Leveraging the Power of GIS for Informed Community Planning**

- 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



Figure 5 Selected slides from the presentation

### 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.

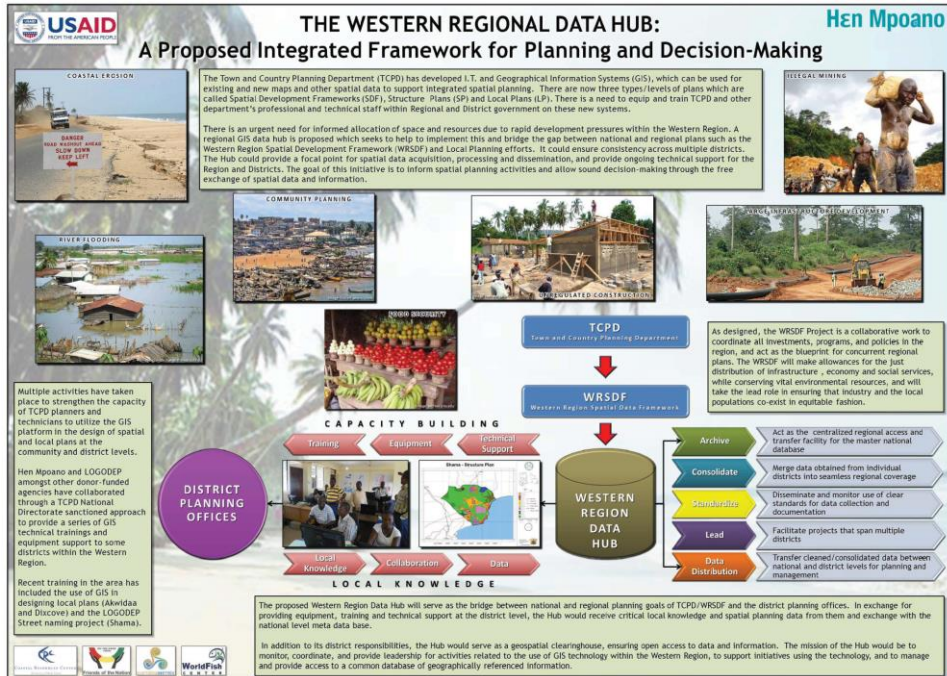


Figure 6: The GIS Hub model

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.

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*“We should adopt and embrace new changes and not go back to old ways of manual planning”*

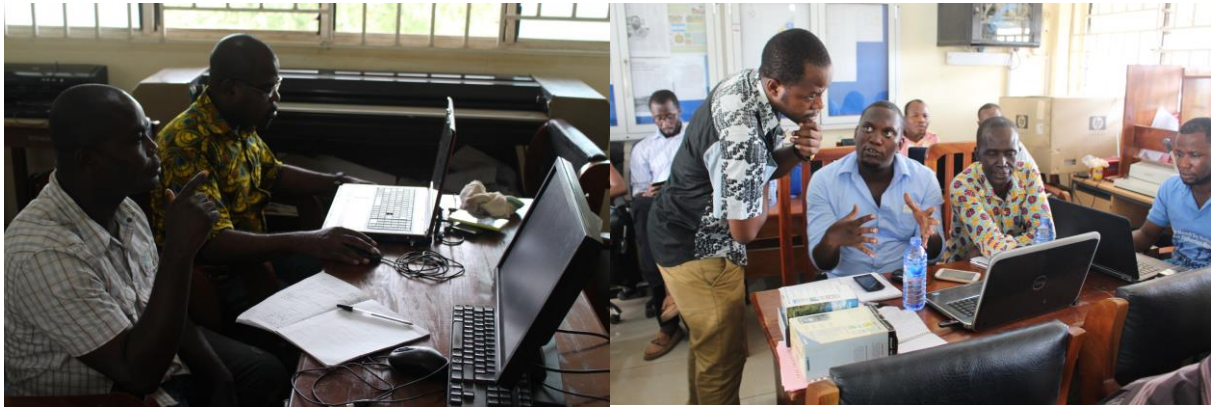
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Mr. Ebenezer Dadzie-Paintsil  
Regional Director TCPD

Figure 9 Quote by Ebenezer Dadzie-Paintsil



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



**Figure 11** Participants asking questions and making contributions during training section.

### **Participant Session**

Mr. Raphael Essilfie, a TCPD officer at the Ellembele 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.



**Figure 12** Mr. Essilfie, sharing and demonstrating what he learnt to the other participants

### **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.

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

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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

8:30am-9:00am	Arrival of participants/ Participant registration
9:00am-9:30am	Welcome, Introduction, Overview of SFMP and Purpose of the Event
9:30am-10:00am	<b>Presentation:</b> Leveraging the Power of GIS for Informed Community Planning
10:00am-10:45am	Plenary Discussion
10:45am-11:00am	<b>Snack Break</b>
11:00am-1:00pm	<b>QGIS Training:</b> Basic Computing and File management
1:00pm-1:30pm	<b>Lunch Break</b>
1:30pm-3:15pm	<b>QGIS Training:</b> Data acquisition (primary data)
3:15pm-3:30pm	<b>Snack Break</b>
3:30pm-4:45pm	<b>QGIS Training:</b> Data acquisition (secondary data)
4:45pm-5:00pm	Adjourn



## Day 2

8:30am-8:45am	Participant registration
8:45am-9:00am	Recap
9:00am-1:00am	<b>QGIS Training:</b> Data types/formats and data interoperability
11:00am-11:15am	<b>Snack Break</b>
11:15am-1:15pm	<b>QGIS Training:</b> Coordinate systems and data Projections
1:15pm-1:45pm	<b>Lunch Break</b>
1:45pm-3:00pm	Group Assignment
3:00pm-3:15pm	<b>Snack Break</b>
3:15pm-3:30pm	Next Steps
3:30pm	Departure

## 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  Three days or longer

First Name	Surname	Organization/Community	Sex		Do you wish to receive messages on SFMP?	
			M	F	Y	N
		TCPD/AGONA	X			
		TCPD	X			
		TCPD	X			
		TCPD/REGIONAL	X			
		TCPD/STMA	X			
		TCPD		X		
		TCPD/AGONA	X			
		TCPD/AGONA	X			
		TCPD/RCC		X		
		TCPD	X			
		TCPD	X			
		TCPD	X			
		TCPD/SHAMA	X			
		TCPD/SHAMA		X		
		TCPD				
		TCPD	X			
		TCPD/REGIONAL	X			
		TCPD	X			
		TCPD/AHWD	X			

First Name	Surname	Organization/Community	Sex		Do you wish to receive messages on SFMP?	
		TCPD/EDA	X			
		TCPD/NEMA	X			
		TCPD/JDA	X			
		TCPD	X			
		TCPD	X		X	
		TCPD	X			