



USAID | GHANA
FROM THE AMERICAN PEOPLE

SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)

Training of Certification Auditors for Class 1 Certification Scheme



APRIL, 2018

THE
UNIVERSITY
OF RHODE ISLAND
GRADUATE SCHOOL
OF OCEANOGRAPHY



SNV SMART
DEVELOPMENT
WORKS

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

Citation: Etsra, H.E., Tibu, G.A. (2018). Training of Certification Auditors for Class 1 Certification Scheme. The USAID/Ghana Sustainable Fisheries Management Project (SFMP). Narragansett, RI: Coastal Resources Center, Graduate School of Oceanography, University of Rhode Island and SNV Netherlands Development Organisation. GH2014_ACT209_SNV. 25 pp.

Authority/Disclaimer:

Prepared for USAID/Ghana under Cooperative Agreement (AID-641-A-15-00001), awarded on October 22, 2014 to the University of Rhode Island, and entitled the USAID/Ghana Sustainable Fisheries Management Project (SFMP).

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: Photo of a participant making a contribution during the training in Tamale (Credit: SNV)

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

Raymond Babanawo	Chief of Party	Email: raybabs.sfmp@rcuri.org
Enoch Appiah	Deputy Chief of Party	Email: eappiah.sfmp@rcuri.org
Kofi Agbogah	Senior Fisheries Advisor	Email: kagbogah@henmpoano.org
Perfectual Labik	Communications Officer	Email: perfectual.sfmp@rcuri.org
Mary Asare	M&E Officer	Email: mary.sfmp@rcuri.org
Brian Crawford	Project Manager, CRC	Email: bcrawford@uri.edu
Ellis Ekekpi	USAID AOR	Email: eekekpi@usaid.gov

Kofi.Agbogah
kagbogah@henmpoano.org

Stephen Kankam
skankam@henmpoano.org

Hen 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 Maseru Road,
E. Legon, Accra, Ghana
233 30 701 2440

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

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

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>
Resonance Global: <https://resonanceglobal.com/>
SNV: <http://www.snvworld.org/en/countries/ghana>

ACRONYMS

CEWEFIA	Central and Western Region Fishmongers Improvement Association
DAA	Development Action Association
FtF	Feed the Future
ICFG	Integrated Coastal and Fisheries Governance
SFMP	Sustainable Fisheries Management Project
SNV	Netherlands Development Organisation
UCC	University of Cape Coast
USAID	United States Agency for International Development

TABLE OF CONTENTS

ACRONYMS.....	iii
TABLE OF CONTENTS.....	iv
LIST OF FIGURES	iv
ACKNOWLEDGEMENTS.....	v
EXECUTIVE SUMMARY	1
1. BACKGROUND	1
1.1 Workshop objectives	1
1.2 Expected outcomes.....	1
2. PRESENTATIONS.....	3
2.1 Auditing skills and the role of the auditor	3
2.2 Training on demand aggregation for Ahotor oven for Zonal Fisheries Officers.....	4
2.3 Gender mainstreaming strategy for the fisheries sector - a gender mainstreaming training for zonal officers of Fisheries Commission nationwide.....	6
2.4 Introduction of the Class 1 recognition scheme for promoting healthy fish in the Ghanaian market	9
2.5 The Class 1 recognition scheme	10
2.6 Strategy on anti-child labor and trafficking in fisheries (CLaT)	12
2.7 State of processed fish in Ghana.....	16
3. CONCLUSIONS.....	19

LIST OF FIGURES

Figure 1. Madam Maureen Lartey delivering her presentation on auditing skills.....	4
Figure 2. Madam Doris Owusu delivering her presentation on demand aggregation	6
Figure 3. Miss Yaa Tiwaah delivering her presentation on Gender issues.....	9
Figure 4 The Multidisciplinary Committee	10
Figure 5. Mr. Samuel Manu leading discussions on the Class 1 certification scheme	12
Figure 6. Implementation mechanism for CLaT issues	15
Figure 7. Mrs. Benedicta Avega delivering a presentation on CLaT issues.....	16
Figure 8. Comparing BaP and PAH4 in smoked fish	17
Figure 9. The director of fisheries making a contribution during the discussions on the Ahotor oven.....	18

ACKNOWLEDGEMENTS

SNV Netherlands Development Organisation is most grateful to the Ministry of Fisheries and Aquaculture Development for collaborating with the project team towards the training of its Zonal officers as Class 1 certification auditors. Our fondest gratitude goes to the Director of the Fisheries Commission Mr. Michael Arthur Dadzie (Esq.), who did not only support the program financially but ensured the participation of all zonal officers and participated in the program himself to establish commitment of the FC to implement the scheme.

We also appreciate the effort of Mrs. Jessica Nkansah who lead the development of the checklist for the Class 1 scheme.

We are grateful to the trainers Madam Maureen Lartey, Mr. Samuel Manu and Madam Yaa Tiwaa Amoah, who made time to prepare and train the participants on the various thematic areas.

To our collaborating and funding partners, SFMP and Resonance Global, we say thank you for your continuous support.

EXECUTIVE SUMMARY

As part of the Class 1 Recognition Scheme pilot program, SNV Netherlands Development Organisation in collaboration with the Fisheries Commission organized a training workshop to train zonal fisheries officers as auditors for the scheme. The training was carried out for zonal officers countrywide, in two sessions, the southern sector and the northern sector. The training was aimed at building capacity of participants on the concept for the Class 1 certification scheme. Participants were trained on the protocols involved in carrying out the audits, the checklist and how to work with it. In addition they were trained on the Gender mainstreaming strategy and the child labor and trafficking strategy for the fisheries sector. The zonal officers, with respect to their role are the front liners working in the various communities and thus will be the direct implementers of all 3 strategies at the community and district levels.

1. BACKGROUND

The training of certification auditors for Class 1 certification scheme for both Southern and Northern Ghana fisheries zonal officers was done on 11th to 13th April, and 15th to 17th April, 2018 at Elmina and Tamale respectively. The training for the southern sector was done at Elmina Beach Resort, Elmina while that of the northern sector was held at Regal Hotel, Tamale.

The training started each day with the arrival and registration of participants. Dr. Margaret Atikpo gave the welcome address at each sitting. She emphasized on the importance of the training and urged participants to take it very seriously.

The trainers, drawn from FC, SNV, FDA, GSA, FRI, SSG Advisors, took turns to deliver presentations on key issues bordering on the Class 1 Certification Scheme and the Gender and Child labor strategies.

Madam Maureen Lartey of Food and Drugs Authority gave a presentation on auditing - the role of the auditor. In her introduction she emphasized on the need to protect public health and safety and called for the application of tested and approved operational systems (Food Safety Management Systems) in the food supply chain that will provide the required food safety assurance. She further explained that these operational systems, as adopted by the food industry have to be assessed periodically to ensure protection of public health and safety. She stated that auditing has therefore emerged as one of the most utilized tools for ensuring that these food safety systems and programs are both compliant and effective.

She further explained that food safety auditing requires knowledge of a number of very different fields which need to be combined to effectively audit or assess the risk and status of a food production, processing and/or distribution operation.

1.1 Workshop objectives

The objectives of the training workshop were to:

1. Train zonal fisheries officers as auditors for the Class 1 recognition scheme.
2. Train participants on demand aggregation for Ahotor oven, and the Class1 scheme.
3. Train zonal fisheries officers on the Gender and CLaT strategies for the fisheries sector.

1.2 Expected outcomes

Expected outcomes of the workshop included:

1. Zonal fisheries officers would be able to audit kitchens of applicants for the Class 1 scheme
2. Participants would be able to create demand for the Ahotor oven and encourage processors to enroll for the class 1 scheme
3. Zonal fisheries officers would be abreast with Gender and CLaT strategies and implement it at their zonal levels.

2. PRESENTATIONS

The trainers or facilitators took turns to make their presentations. The presentations were on the Class 1 recognition scheme, food safety management systems, healthy fish, Class 1 certification scheme, CLaT, gender mainstreaming strategy, demand generation for Ahotor oven and improved hand washing apparatus.

2.1 Auditing skills and the role of the auditor

The presenter Madam Maureen Lartey stated that Food Safety Management System is a composite of programs and activities regarded as best practices that will ensure food safety, from primary production through processing to final consumption. In addition, a Food Safety Management System defines operational concerns affecting food safety and the required controls that will effectively address these concerns. The concerns raised were:

1. The potential risk factors that can make the food unsafe i.e. food safety hazards
2. The type or nature of the food safety hazards
3. The sources of these risk factors
4. Methods of elimination, prevention or reduction of their effect to tolerable levels i.e. control measures

Some Food Safety Management Systems' applications are farming (crop and animal), transportation, storage, retailing, processing/manufacturing (packing, bulk breaking operations etc.) food service etc.

According to the presenter every Food Safety Management System must meet a set of requirements often referred to as standards; an operation is considered compliant when it meets these requirements or standards.

The presenter stated the following examples as good practices in a Food Safety Management System:

- Good Hygienic Practices (GHP) or Good Sanitary Practices (GSP)
- Good Manufacturing Practices (GMP)
- Good Warehouse Practices
- Good Transportation Practices
- Safe Catering Practices

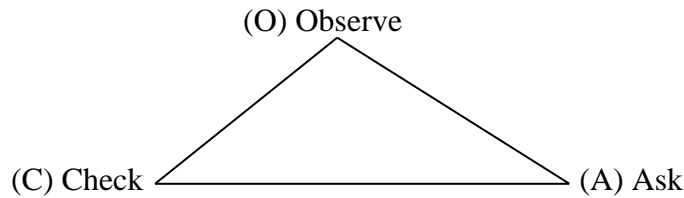
She said that food safety audit is usually centered on the defined requirements set out in food safety standards, legislation and internal standards of operation. It focuses specifically on those requirements, criteria, procedures, activities and data relating to the safe production and supply of food products.

She also stated that audits can be defined by the nature of the relationship between the auditor and the person/organization being audited. These are:

- **First Party Audit:** This is where a company or organization performs an audit on its systems and procedures. This is often referred to as an internal audit.
- **Second Party Audit:** This is where a company or an organization performs an audit on another company or organization. An example is where the food company performs an audit directly on its suppliers.

- **Third Party Audit:** This is where an organization performs an audit, independent of the client for the purposes of certification.

She added that in collecting evidence during auditing, the OCA approach must be used



- Ask questions to establish that a system is established.
- Check records to demonstrate that it has been happening that way.
- Positive confirmatory data is just as important as finding points of non-compliance.



Figure 1. Madam Maureen Lartey delivering her presentation on auditing skills

2.2 Training on demand aggregation for Ahotor oven for Zonal Fisheries Officers

The facilitator was Madam Doris Owusu from Resonance. According to her the objective of the demand aggregation training was to enable zonal officers provide fish processors with clear actionable information on the need to adopt the Ahotor oven.

Core issues

She spoke on some core issues bordering on the Ahotor oven. These are:

1. Awareness creation
2. Strengthened supply chain
3. Affordability
4. Financing
5. Ensuring sustained adoption

1. Awareness Campaign - Grassroot Outreach

On this issue, she said that the focus is on the following:

- Reduction in smoke inhalation, a better health and comfort for the processor
- Production of a healthier smoked fish for consumption
- Savings in fuel wood
- Increased income

2. Strengthen Supply Chain

Concerning this issue, she said 11 stove companies (with a total of 37 artisans) were trained and more artisans were to be trained, where necessary. Also, more manufacturers of key components were identified.

3. Affordability

On affordability, she said there is the option to retrofit old Chorkor or Morrison ovens to the Ahotor oven, buy oven components over time and purchase an oven unit only (to fit existing trays).

4. Financing

According to the presenter there are different ways to finance the Ahotor oven. These are:

- Asset financing with formal financial institutions
- On-going engagement with MASLOC to finance Ahotor ovens
- Savings (owns savings, micro savings groups)
- 30% grant from SFMP still available for first 200 adopters

5. Ensuring sustained adoption

According to the presenter, the zonal officers are supposed to:

- Support SFMP's outreach efforts
- Help to facilitate behavioral change that is necessary to embrace the Ahotor technology
- Strengthen partnerships between beneficiaries, artisans (stove companies), manufacturers/fabricators of oven components and financial institutions
- Incentive for zonal officers – GHS 50 per oven constructed



Figure 2. Madam Doris Owusu delivering her presentation on demand aggregation

2.3 Gender mainstreaming strategy for the fisheries sector - a gender mainstreaming training for zonal officers of Fisheries Commission nationwide

During her presentation, Miss. Yaa Tiwaah from FC touched on some terminologies that would be encountered during the training.

Terminologies

- ❑ **Gender** – Refers to the social attributes and opportunities associated with being male and female, and the relationships between women and men and girls and boys, as well as the relations between women and those between men.
- ❑ **Gender equality** – Refers to equal rights, responsibilities and opportunities of women and men, and girls and boys.
- ❑ **Gender parity** – Equal numbers of men and women at all levels of the organization.
- ❑ **Gender mainstreaming** - Mainstreaming a gender perspective is the process of assessing the implication for women and men of any planned action, including legislation, policies or programs, in all political, economic and societal spheres so that women and men benefit integral dimension of the design, implementation, monitoring and evaluation of policies and equally and inequality is not perpetuated.

Structure of the gender mainstreaming strategy

According to the presenter, the document is grouped into four (4) sections such as follows:

- ❑ Section 1: Introductory section which provides information on the vision and mission of MOFAD, as well as its mandate on gender.

- ❑ Section 2: Focuses on the value chain of the fisheries sector and draws out a SWOT analysis for the GMS initiative.
- ❑ Section 3: Focus on the GMS itself - key areas of interventions, 6 Strategies with specific objectives for each of the strategies identified and an action plan provided.
- ❑ Section 4: Outlines building blocks for effective implementation.

Strategic objectives and actions

According to the presenter, the key strategic areas identified for the gender mainstreaming effort can be grouped as follows:

- ❑ Entry points along the fisheries value chain that minimizes women’s workload (both productive and reproductive) and enhances their social relationships with their male counterparts.
- ❑ Entry points along the fisheries value chain that increases the value of women’s productive work.
- ❑ Entry points along the fisheries value chain that enhances women’s empowerment including their decision-making and management capabilities.
- ❑ Entry points for the efficiency and effectiveness of mainstreaming effort through gendered institutional policies, programs and processes.

Goal of the gender mainstreaming strategy

According to the presenter the goal of the Gender Mainstreaming Streaming strategy is to empower actors in the fisheries sector, in particular women through their active participation in fisheries management and decision making, facilitating their access to and control of resources and opportunities for an enhanced valuation of their contributions along the value chain for an equitable and sustainable development of the fisheries sector.

Strategic objectives/specific objectives

The objectives mentioned were to:

1. Reshape MoFAD/FC’s program work and cooperation with stakeholders in the fisheries sector from a gender perspective.
2. Integrate GMS into MoFAD’s goals, structures, management systems, working practices, processes and programs.
3. Strengthen gender mainstreaming capacity at policy and implementation levels of the fisheries value chain.
4. Equip staff and management with competencies in gender issues for program work relating to the knowledge, attitude, values and skills needed for their respective field of work.
5. Collaborate and support gender mainstreaming efforts in relation to stakeholders at all levels of the value chain.

6. Create an enabling environment to enhance the process of gender responsive fisheries management to ensure women and men have equal opportunities as fisheries decision-makers and co-managers.
7. Provide equal participation of women and men in fisheries decision-making and management.
8. Provide equitable representation of women on fisheries bodies to enhance women's voice in the fisheries value chain.
9. Strengthen the capacities of women and men fisheries associations including CSOs to solve problems through open and transparent communications, networking and shared decision-making.
10. Integrate gender responsiveness in all policies, programs and processes of fisheries associations and bodies.
11. Improve the fisheries value (through technological innovation and infrastructures, finance and research) and provide post-harvest training and technical know-how to women and men engaged directly and indirectly in the fisheries sector.
12. Strengthen the role of women, youth and marginalized groups in the fisheries sector through improvements in their operations, cash incomes and livelihoods.
13. Address specific needs and concerns of women and men on an equal basis in the fisheries sector.
14. Strengthen knowledge creation and information management of the fisheries sector through gender responsive monitoring and evaluation.
15. Develop and apply gender-responsive monitoring and evaluation (M&E) tools
16. Facilitate women's active participation in knowledge creation and information management of the fisheries sector.

Building blocks: Implementation strategy

The building blocks the presenter mentioned are:

- Accountability to gender equality
- Human and material resources
- Gender budgeting
- Partnerships and collaboration
- Gender sensitive M&E framework



Figure 3. Miss Yaa Tiwaah delivering her presentation on Gender issues

2.4 Introduction of the Class 1 recognition scheme for promoting healthy fish in the Ghanaian market

Background

According to the presenter, Mr. Samuel Manu from FC, smoked fish is a nutritious delicacy in Ghana and an estimated 70 – 80% of landed fish is smoked. The smoking industry in Ghana is largely unregulated with various oven types, hygienic issues and wood fuels used. About 90% of fish smoked in Ghana is sold in-country with the remainder exported to other regional markets.

The problem

The problems the presenter enumerated include:

- Unhealthy and poor fish processing practices and techniques
- Inadequate techniques and technologies
- Low adoption of improved fish processing techniques and technologies
- Non existing regulation of the local processed fish market

The multidisciplinary stakeholder committee

In his presentation, he said that the multi-disciplinary committee was formed in April, 2017. The committee is made of representatives of the Fisheries Commission, University of Ghana, University of Cape Coast, Food and Drugs Authority, Council for Scientific and Industrial Research -Food Research Institute, Food and Drugs Authority, Ghana Standards Authority, Food and Agricultural Organization, SNV Netherlands Development Organization, Development Action Association and CEWEFIA. The committee decided there was a need to develop a recognition scheme based on a number of research documents made available to the committee.



Figure 4. The Multidisciplinary Committee

2.5 The Class 1 recognition scheme

According to the presenter the main objective of the recognition scheme is to improve the production of safe and healthy fish for consumers and to empower fishers to improve upon their livelihoods through value addition.

The specific objectives of the scheme are

- To improve market access and income for fishers
- To develop guidelines for the regulation and production of safe and healthy smoked fish
- To serve as a monitoring tool for compliance to the Class 1 checklist

Registration and the award of the recognition certificate

The presenter said fish processors interested in obtaining the recognition status shall:

- Acquire improved fish smoking ovens (Ahotor oven, FTT oven, etc).
- Undergo the healthy fish handling training.
- Apply directly to the respective Zonal Fisheries Officers or fish processor associations.
- The District Healthy Fish Committee would conduct an internal audit of the processing facility with the help of the certification checklist developed by the multi-disciplinary stakeholder committee, present a report to the Healthy Fish Scheme Committee routed through the Director of Fisheries.
- The Healthy Fish Scheme Committee shall evaluate the report and make recommendations for the continuation or otherwise of the registration process.
- If the facility meets the required certification standards, a recognition status would be awarded to the fish processor.
- MoFAD shall be responsible for the provision of Class 1 certificates and healthy fish labels (stickers) to successful candidates.

Renewal and withdrawal of recognition certificate

In his presentation, the presenter said:

1. Fish processors awarded with the Class 1 certificate shall renew their Class 1 status yearly after an internal audit of the processing facility and the fish smoking process.
2. An audit fee of GHC100.00 shall be paid by the processor to the Committee, before an audit is conducted by MOFAD on the processing facility.
3. This fee covers the audit cost, the certificate cost and 500 copies of healthy fish labels.
4. Where there is a need for more labels, FC shall issue extra copies at a cost to be determined by the committee.
5. All fees and charges are non-refundable.
6. The Chairman shall, on the advice of the Committee, order the withdrawal of the Class 1 certificate from a fish processor or group of processors if the Committee has reason to believe that,
 - The smoked fish is exposed to the risk of contamination.
 - Misuse of labels, such as transfer or alteration.
 - Counterfeiting of labels.
 - Pasting labels on unapproved products.

The checklist

According to the presenter, the checklist covers the following themes:

1. Environmental hygiene.
2. Personal hygiene.
3. Layout of premises.
4. Water quality.
5. Storage.
6. Waste management.
7. Pest control.
8. Packaging.
9. Recall and traceability.
10. Record keeping.

The way forward

The presenter said the way forward is:

1. Acceptance and adoption of the scheme by the Ministry of Fisheries and Aquaculture Development.
2. Approval of the Minister for the SFMP to pilot the strategy with the Fisheries Commission.
3. The need for a fund to support periodic smoked fish sample testing during the pilot period.
4. Collaboration with other organizations towards formation of the Healthy Fish Standardization Committee.



Figure 5. Mr. Samuel Manu leading discussions on the Class 1 certification scheme

2.6 Strategy on anti-child labor and trafficking in fisheries (CLaT)

Definitions

The presenter, Mrs Benedicta Avega, from SNV gave the following definitions:

Child labor: Any work performed by a child which is detrimental to his/her health, education, physical, mental, spiritual, moral or social development (Article 32, 1989 Convention on the Rights of the Child). States are required to set a minimum age for employment and to regulate the hours and conditions of employment.

Human trafficking: Recruitment, transportation, transfer, harboring or receiving a person for the purpose of exploitation within or across a Ghanaian border by means of threat, force or other forms of coercion, abduction, fraud, deception, the abuse of power or exploitation of vulnerability, or giving or receiving payments and benefits to achieve consent abduction.

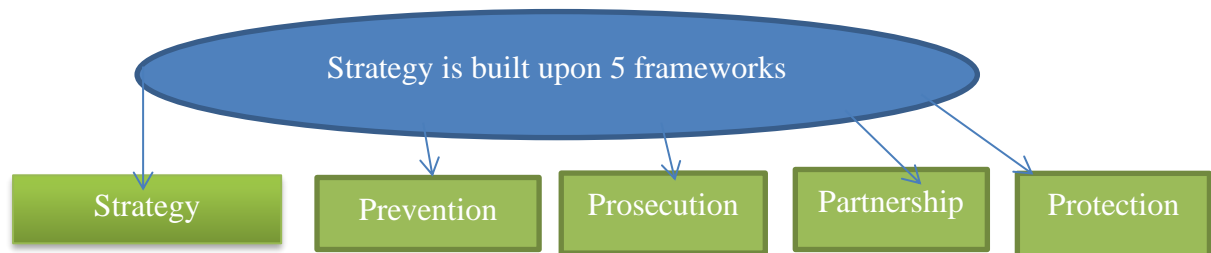
Child: A person below the age of 18 years.

Goal of the strategy

According to the presenter, the Anti-CLaT in Fisheries Strategy goal is to develop systems and structures that significantly reduces CLaT in the fisheries sector in Ghana. This shall be achieved through effective protection of children and prosecution of offences relating to child labor and child trafficking.

Specific strategies outlined include withdrawal and rescue, rehabilitation, integration, and preventive strategies. Other important strategies also outlined include community awareness and behavior change communication, investigations and prosecution, and institutional strengthening and capacity building strategies.

The strategy is built upon 5 PS frameworks.



She mentioned the following as some of the roles children play when they are involved in fishing activities:

1. Net making.
2. Boat building.
3. Working onboard vessels.
4. Unloading catches.
5. Preparing nets and baits.
6. Fish in aquaculture ponds.
7. Selling of fish.
8. Sorting of fish.
9. Feeding and harvesting.
10. Removing tree stumps from the river.
11. Processing of fish.

Fishing as a worse form of child labor

The presenter said fishing is a hazardous occupation which is worsened by the depletion of fish stock (ILO)

It involves:

- ✓ Bad weather which damages health, exposes to death.
- ✓ Less crew sizes which exposes to injuries and illness.
- ✓ Long shifts/hours which interfere with school.

- ✓ Poor safety and health standards that exposes to abuse.

Why the need for this strategy?

According to the presenter the Government of Ghana has joined the global fight to eliminating CLaT by ratifying several treaties, conventions and protocols. In spite of the efforts, Ghana does not fully meet the minimum standards for the elimination of trafficking and was therefore placed on Tier 2 Watch List. To avoid the risk of being placed in Tier 3 Watch List, Ghana is demonstrating commitment to working towards finding actions to combat the menace.

What are the strategy priority areas to be included into the mainstream?

- **Public awareness and advocacy** is needed to mobilize citizens actions against the engagement of children in fishing activities and trafficking in the industry.
- **The health and welfare** of children is paramount to ensure the growth and development of children; and the strategy will ensure that conditions are created to achieve safe childhood.
- **Welfare and social protection mechanisms to be implemented** are to help both the child and parents/guardians to support their growth.
- **Education, training and capacity building** are needed across all sectors and for all players to promote delivery of interventions to properly handle anti-CLaT issues.
- **Decent work and reintegration:** When children need to be engaged in some form of work, decent work environment needs to be created. Ultimately, rescued children must be reintegrated into society and into their families. This strategy will provide the opportunities to achieve these tenets.
- **Governance, legislation and enforcement:** Governance reforms are necessary to ensure efficient management of resources to cover children as well. Legislations to promote welfare and childhood development and critical enforcement of laws and regulations are key to attainment.

What are the elimination strategies to be adopted?

1. **Withdrawal and rescue strategies:** to pursue coordinated actions to withdraw and rescue all children engaged in marine and inland fisheries by providing desirable alternatives, ensuring compliance, and improving working conditions.
2. **Rehabilitation strategies:** to provide psychosocial, educational, career and moral counselling services for children withdrawn and/or rescued.
3. **Integration strategies:** providing withdrawn and/or rescued survivors with appropriate protection so they can reintegrate back into their families and communities.
4. **Preventive strategies:** involve pursuits to prevent children from being engaged in child labor or trafficked into fisheries activities.
5. **Community awareness and behaviour change communication strategies:** seek increased knowledge about CLaT in communities by increasing awareness, mobilizing communities to resist child labor and trafficking.
6. **Investigation and prosecutions strategies:** CLaT issues and particularly protecting the rights of trafficked children should be at the heart of all investigation and prosecution activities.

- Institutional strengthening and capacity building strategies:** Effective labor laws and regulations are fundamental to underpin action against child labor and trafficking. SFMP/SNV will be available for technical support.

The presenter explained the implementation mechanism to involve MoFAD or FC, ministries, partners, civil society, private sector, departments and agencies as illustrated in the figure below:

Implementation Mechanism

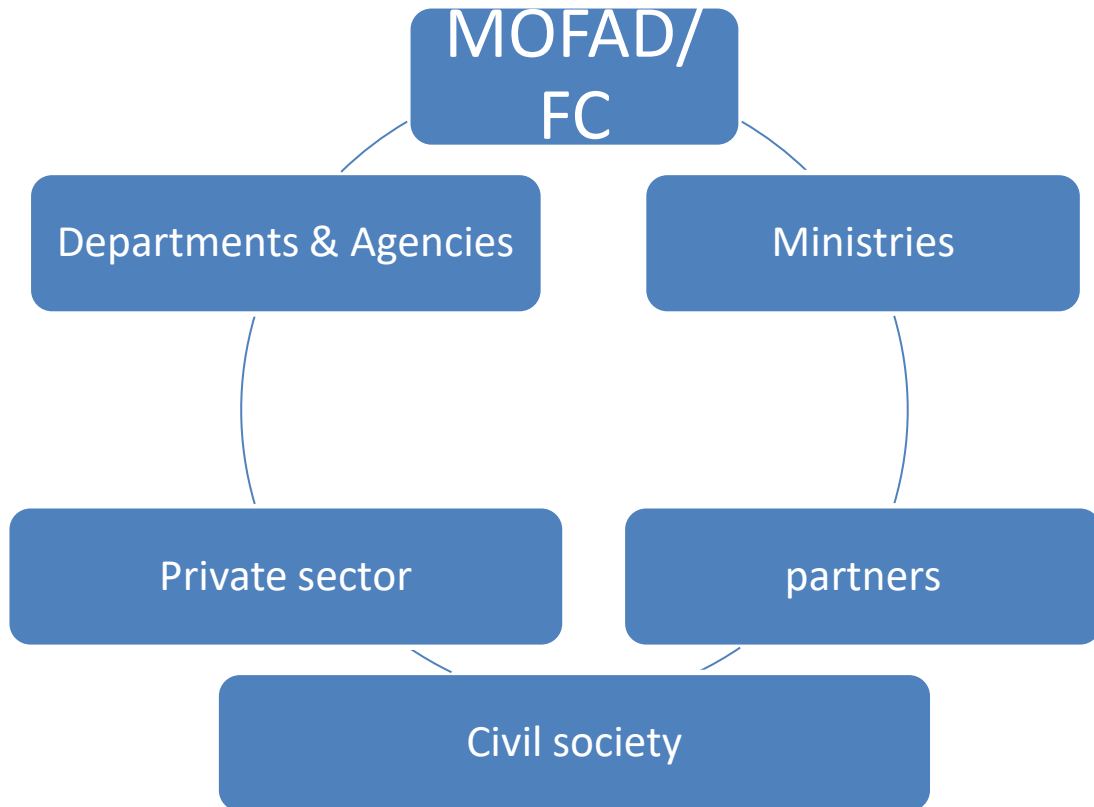


Figure 6. Implementation mechanism for CLaT issues



Figure 7. Mrs. Benedicta Avega delivering a presentation on CLaT issues

2.7 State of processed fish in Ghana

Mr. Hopeson Eli Etsra from SNV delivered a presentation on the state of smoked fish in Ghana.

Fish smoking technologies

He explained that fishing is the major occupation along the coastline and the communities along the freshwater sources. This occupation is mostly masculine, with women concentrating more on fish preservation and marketing.

He stated that the technology for smoking fish has undergone series of evolution from the 1960s up to the current days. The older technologies like the Adjetey Oven, Altona Oven, Chorkor Oven, FRIISMO, Morrison among others have various advantages of low construction costs, large capacity and ease of operation.

Drivers for the development of Ahotor oven

The presenter noted the following as the drivers of development of the Ahotor oven:

1. Scientific evidence of extremely high levels of PAH in smoked fish which could be detrimental to human health ignited the need for improvement.
2. Fish smoking in Ghana is highly dependent on fuel wood as the main source of energy contributing to deforestation. This is as a result of energy inefficient smoking ovens. More fuel wood means extra cost for the processors.
3. The women work under very strenuous conditions (exposure to heat and smoke) which cause a lot of ailments.

What are these PAHs and why are they a concern?

According to the presenter PAHs are carcinogenic, fat soluble, nonvolatile and extremely persistent, and develop especially during the incomplete combustion of organic materials. The formation of PAH is complex and little understood.

Comparing ovens by PAH levels

According to the presenter samples indicate that BaP and PAH4 in smoked fish from the Chorkor oven are 22µg/kg and 84µg/kg respectively. Also, sample analysis for Ahotor oven prototypes recorded 0.6µg/kg and 10.93µg/kg for BaP and PAH4 respectively as shown in the figure below.

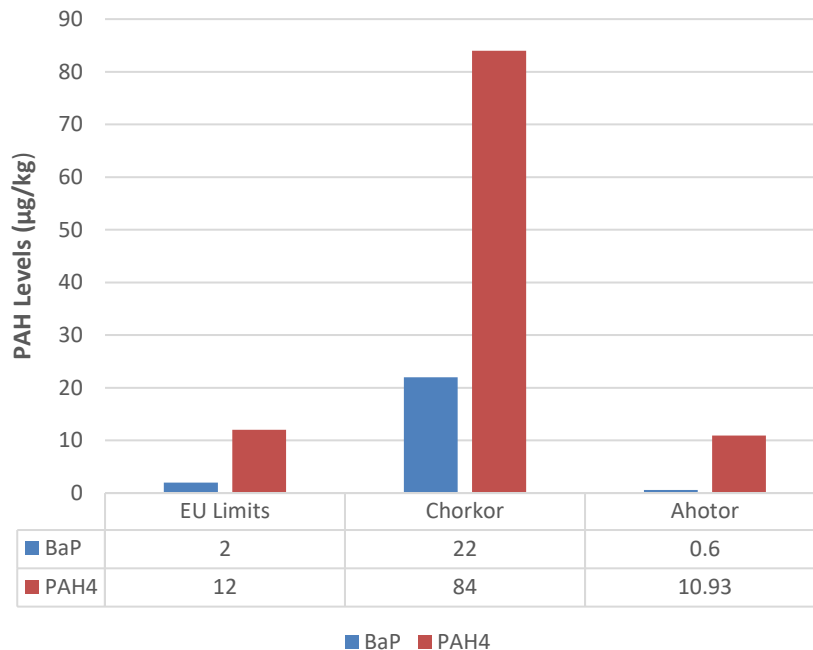


Figure 8. Comparing BaP and PAH4 in smoked fish

The Ahotor oven

The Ahotor oven has unique features. These features are:

- Combustion chamber built with burnt bricks.
- Fish processing trays with hood cover.
- Primary and secondary air inlet.
- Fat collecting tray.
- Metal grate.

Energy efficiency improvements

During the presentation, the presenter said that the Ahotor oven has higher energy efficiency than the Chorkor oven. It is 31.8% more efficient. Averagely processing fish on the Chorkor oven costs GHC 49.00 more than using the Ahotor oven.

Stove users' feedback

The presenter listed the following as some of the feedback from fish processors who use the Ahotor oven:

1. It saves fuel
2. Smoke emission is drastically low
3. The fish outlook is attractive
4. Less burns and accidents
5. The taste of the fish is remarkable
6. Products from Ahotor oven have high market potential
7. It dries the fish better than the Chorkor oven
8. Emits low heat to the immediate environment
9. It is a clean oven



Figure 9. The director of fisheries making a contribution during the discussions on the Ahotor oven

3. CONCLUSIONS

All fisheries zonal officers were trained by the facilitators in all the necessary aspects needed for proper auditing and certification of smoked fish processors. This training will equip the auditors to carry out the audit of the prospective Class 1 kitchens so as to fulfill the objectives of the Class 1 Recognition Scheme.

Participants deliberated effectively with all presenters and made a lot of inputs and cited a number of examples. This showed their understanding of the various themes and expressed their commitment to lead the implementation of the 3 strategies.