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# SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)

## Report on Pilot support of Healthy Fish Certification Program in the Volta Region



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THE  
UNIVERSITY  
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OF OCEANOGRAPHY



**SNV** SMART  
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**Cover photo:** A beneficiary demonstrating handwashing to auditors during auditing (Credit: SNV)

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## **Acronyms**

FMP	Sustainable Fisheries Management Project
SNV	Netherlands Development Organization
USAID	United States Agency for International Development

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## **EXECUTIVE SUMMARY**

In order to rollout the Class 1 Recognition Scheme, the SFMP post-harvest component engaged selected fish processors to support them in the pilot phase of the certification scheme. This pilot phase is to enable the team to identify the challenges associated with the scheme and also to determine the feasibility of rolling out the whole scheme on a national level. The support given to the selected processors were in two forms; either they renovate their kitchen and have the Ahotor oven constructed for them by the project, or they purchase the Ahotor oven on their own and have their kitchen renovated by the project. A total of 47 fish processors asked for their kitchen to be inspected and if possible be supported for the pilot phase of the scheme. Based on the preparedness of the candidates and the level of work needed to be carried out to qualify for the scheme, 13 processors' kitchen were supported in upgrading their kitchen to the standard. These beneficiaries have been audited by the certification committee for the scheme, and the committee would be meeting on the 28<sup>th</sup> of September, 2018 to review the auditing reports. After the review, the beneficiaries would be awarded the Class 1 Recognition.



## **SECTION 1: BACKGROUND**

Fish processing is the main economic activity for women living in and around the coastal and lake areas of Ghana. Preservation methods include salting, frying and freezing, but smoking is the most prevalent form: practically all species of fish available in the country can be smoked. It is estimated that 75% of the domestic marine and freshwater catch is smoked and sold in markets across the country and beyond.

Poor product quality and unhygienic handling practices are a major concern in the local fish processing industry. Microbiological contamination can occur at multiple points through the value-chain, through the processing, storage and sales of fish in poorly kept and unhygienic surroundings. The current smoking and drying techniques available have limitations that deserve greater attention in order to significantly improve small-scale fishers' livelihoods and respond effectively to product safety challenges. One of such contaminants is the Polycyclic Aromatic Hydrocarbons (PAH), which is introduced onto the fish during the smoking.

The research indicated that fish smoked with the traditional Chorkor oven contain PAH levels 7-10 times higher than the EU standard (BaP2; PAH 12).

Microbiological and chemical profile tests conducted on smoked fish indicated that most fish sold on the market are not wholesome as they are infested with high levels of bacteria, coliforms, E coli and mold. The presence of e-coli, implied some level of fecal contamination through unhygienic fish handling during processing or storage.

The SFMP project in response to these issues has developed the Class 1 Recognition Scheme to ensure that smoked fish is processed under hygienic conditions devoid of chemical and microbial contaminants. The purpose of the scheme is to promote the production and trade of healthy fish on the Ghanaian market through the use of clean cooking technology and the adoption of strict environmental and hygienic standards, to reduce contamination.

13 smoked fish processors in the Volta Region were selected to participate in the pilot phase of the Class 1 Recognition Scheme. They were supported with in-kind grant to improve their existing processing facilities to meet the standards of the scheme. The in-kind support is in two-fold; (1) the provision of the clean fish smoker technology- Ahotor oven (2) renovating of the existing processing facility /sheds.

### **1.1 Objectives**

The objectives of rolling out the Class 1 Recognition scheme in the Volta Region are:

- To support fish processors in the Volta Region to upgrade their processing units to ensure the production of quality fish.
- To pilot the Class 1 Certification Scheme in the Volta region.

## 1.2 Expected outcome

The expected outcome of this pilot is to sensitize fish processors on the need to adopt cleaning smoking technology and adhere to strict hygienic and environmental standards to ensure the production and trade of quality fish on the Ghanaian market.

## SECTION 2: SUPPORTING THE PROCESSORS

Over a period of three (3) months, the SNV Post-Harvest Team supported the 13 selected fish processors in the Volta Region to upgrade their processing units. The support was in two sections, some processors were supported with the improved technology while others who already had the oven were supported to upgrade their [kitchen\[DOI\]](#).

### 1.1 Selecting beneficiaries for the pilot and support

The selected beneficiaries were drawn from communities in the Keta, Ketu and South Dayi Districts of the Volta region. They were trained on hygienic handling and processing of fish and introduced to the qualifying guidelines to enroll on the Class 1 Recognition scheme. After the training, 47 Processors expressed their interest to enroll on to the scheme. The team then visited their existing processing units/sheds and gave recommendations on what improvements were required to meet the standards of the scheme.



**Figure 1: Participants demonstrating handwashing during the training on hygienic fish handling**

A second inspection was carried out to ascertain if the corrective actions per the recommendations given at the initial assessment stage had been taken. 13 out of the 47 processors had made some efforts, indicating their preparedness to enroll on the scheme.

## 2.2 Support given to selected processors

As indicated earlier, the n-kind support offered by SFMP is in two-fold; (1) the provision of the clean fish smoker technology- Ahotor oven or renovation of their existing processing facility /sheds. 10 of the selected processors upgraded their processing units themselves and had ahotor ovens constructed for the by SFMP. 1 processor upgraded her facility and the projected retrofitted her chorkor into an ahotor oven while 2 beneficiaries who already had ahotor ovens had their processing sheds upgraded.



**Figure 2: A beneficiary received the Ahotor oven after renovating her kitchen**

The beneficiaries were also provided with veronica buckets, a set of hand washing materials, and ice boxes. The veronica bucket and hand washing materials were to ensure that the processors practice personal hygiene during processing, and the ice boxes are to keep fish iced and fresh before processing.



**Figure 3: A beneficiary who received a set of veronica bucket and ice box as support**

### **2.3 Auditing of beneficiaries**

The 13 selected beneficiaries had their processing sheds audited by the team in August, 2018. The processors, as part of the audit, were asked to demonstrate the techniques of proper handwashing and hygienic fish handling.

TWO (2) of the inspected processing sheds needed very minor improvements and therefore can be awarded the Class 1 Certificate, 9 of them require some further improvements and a follow up audit and the last 2 of the kitchens need to be relocate completely. During the auditing, it was observed that 2 of the processors had active health certificates from the District Health Directorate while the remaining 11 had expired health certificates or none at all. The community liaisons are assisting the processors to renew or acquire new health certificates.



**Figure 4: Auditors inspecting a kitchen during the audit exercise**

### **SECTION 3: CONCLUSIONS**

The SNV post-harvest team has put the right modalities in place and has successfully gone through all the processes needed for the award of the class 1 certificate to the deserving smoked fish processors. The fish processors were impressed with the changes made to their kitchen and they have accepted the responsibility to maintain the current standards.