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# SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)

## Market Development and Financing Strategies for the Ahotor Oven



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**Cover photo:** Comparing old and new stove technology (Credit: Doris Owusu)

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## **ACRONYMS**

AAG	Artisans Association of Ghana
CRC	Coastal Resources Center at URI
CSIR	Council for Scientific and industrial research
GDP	Gross Domestic Product
FAO	Food and Agriculture Organization
FC	Fisheries Commission
FI	Financial Institution
FTT	Thiaroye Processing Technique
GSA	Ghana Standards Authority
MASLOC	Microfinance and Small Loans Center
MOFAD	Ministry of Fisheries and Aquaculture Development
MOH	Ministry of Health
NAFPTA	National Fish Processors and Traders Association
PAH	Polycyclic Aromatic Hydrocarbons
SFMP	Sustainable Fisheries Management Project
URI	University of Rhode Island
WARFP	West Africa Regional Fisheries Project

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## **EXECUTIVE SUMMARY**

The fisheries sector remains a major contributor to the Ghanaian economy, generating over US \$1 billion in revenue annually and employing about 10% of the country's population. Yet scientific evidence gathered over the years indicates a decline in fish stock due to overfishing, weak enforcement, and non-compliance with Ghana's fisheries management measures. Under the USAID/Ghana Sustainable Fisheries Management Project (SFMP), the University of Rhode Island (URI) and its implementing partners have been working to complement the Government of Ghana's efforts to improve fisheries management and to make improvements in the fish post-harvest value chain, which is crucial to the livelihoods of an estimated 33,000 women fish processors.

To achieve this objective, SFMP, led by SNV, has worked closely with the Ministry of Fisheries and Aquaculture Development (MOFAD), the Fisheries Commission (FC), Ghana Standards Authority (GSA), Food Research Institute (FRI), and other stakeholders to develop the improved Ahotor oven. This oven improves upon traditional methods of smoking fish, which have been found to raise health and environmental concerns for both the fish smoker and consumer. For instance, the continuous exposure to smoke triggers asthma and causes cancer in some cases while the smoked fish also contain PAH levels that are well above those recommended for human health, with the widely used Chorkor oven producing PAH levels 7-10 times above the EU standard.

Despite the benefits presented by the Ahotor oven, its uptake among fish processors has been marginal. The objective of the Market Development and Financing Strategies, is to lay out the factors that are impeding the adoption of the oven – including constrained enabling environment, weak supply chain, and a lack of consumer awareness – and outline strategies to address them, including effective financing methods.

## **INTRODUCTION**

According to the Fisheries Management Plan of Ghana (2015-2019), the fishery resources of Ghana have long been a major revenue contributor to the Ghanaian economy. The sector generates over US \$1 billion in revenue each year, accounting for at least 4.5% of Ghana's Gross Domestic Product (GDP). The sector also provides livelihood for an estimated 10% of the population, representing 2.5 million people, as well as 60% of the animal protein consumed in Ghana.

Scientific evidence shows a gradual decrease in the Country's fish stocks over time, due to overfishing, weak enforcement and noncompliance with Ghana's fishery management measures. Thus, in October 2014, USAID/Ghana awarded the Coastal Resources Center (CRC) at the University of Rhode Island (URI) a cooperative agreement to implement the USAID/Ghana Sustainable Fisheries Management Project (SFMP) to complement the Government of Ghana's efforts to improve fisheries management and strengthen governance that would have positive impacts on fisheries resources and the people that depend on marine ecosystem goods and services.

As part of this work, SFMP led by SNV has been working closely with the Ministry of Fisheries and Aquaculture Development (MOFAD), the Fisheries Commission (FC), Ghana Standards Authority (GSA), Food Research Institute (FRI), and other stakeholders, to make improvements in the fish post-harvest value chain, which is crucial to numerous women fish processors who employ traditional methods to preserve and process fish for consumption and storage. These include smoking, drying, salting, frying and fermenting.

A baseline survey carried out by SFMP indicated that the use of these traditional methods by the fishmongers to process, preserve and store fish is one of the reasons accounting for high post-harvest losses and low profit margins among traders. Additionally, there are health concerns associated with traditional smoking methods, such that continuous exposure to smoke triggers asthma and causes cancer in some cases. The smoked fish also contain PAH levels that are well above those recommended for human health, with the widely used Chorkor oven some 7-10 times the EU standard.

The World Health Organization estimates that about 1.6 million people die prematurely each year due to smoke inhalation. Inhaling carbon monoxide (CO) is dangerous, especially for pregnant women, the elderly, and people with heart or respiratory disease. Particulate Matter (PM) is probably the single most important health-related risk from inhaling smoke from wood (McCarty et al., 2010).

The Ahotor oven is a recent innovation from SNV and other partners. It is a more efficient and improved working tool for fisher folk with many other benefits beyond improving health; it saves time, reduces smoke inhalation and increases comfort for fish processors, contributes to a cleaner environment, and ensures a more sustainable use of a diminished energy resource (fuel wood).

## **MARKET DEVELOPMENT STRATEGY – AHOTOR OVEN**

### **Marketing Goal**

The main post-harvest objective of the partners implementing the SFMP project, per the Year 4 Work Plan, is for 4,324 people (a majority women) to benefit from improved livelihoods, access to micro-credit, and adoption of more efficient and profitable ovens, adding value to fish products. A central component of that life of project goal is to increase the uptake of

Ahotor ovens to minimize the hazards that processors of smoked fish are exposed to and to improve their livelihoods, while ensuring that the smoked fish is safe for human consumption. This strategy proposes to facilitate the construction of 250 ovens between April 1 and September 30, 2018, the end of Year 4 of the SFMP project, and 400 by the end of 2018. This represents over one oven constructed every day, an ambitious increase over the number of ovens constructed to date, but an achievable target if the actions within this strategy are effectively carried out.

## **Market Research**

In recognition of the health and environmental hazards caused by the use of traditional mud /barrel ovens, the Chorkor oven was developed and introduced in 1969 by the Food and Agriculture Organization of the United Nations (FAO) and the Food Research Institute of the Council of Scientific and Industrial Research (CSIR) (FAO, 1997). Thereafter, an improved version known as the Morrison oven was designed.

The Morrison oven was originally promoted by SNV to achieve its goals of combating deforestation, enhancing the viability of agro-processing businesses in Ghana and improving the working environment for women entrepreneurs through the introduction of energy efficient and clean cooking technologies. However, following testing in 2015, it became clear that the PaH levels of fish smoked on the Morrison oven did not meet permitted health standards for human consumption. SNV then undertook further research and designed an oven that is fuel efficient, generates less smoke and heat, and produces safer PAH levels: The Ahotor oven. Since then, several efforts have been made to encourage the fish processors to adopt and use this new technology, but the uptake has been marginal.

Listed below are the key milestones that have been completed to date:

- SFMP has completed R&D (August 2017) for an oven that is healthier and 32% more fuel efficient, and is similar in design to the Chorkor for user ease;
- SFMP has profiled 33,000 fish processors and set a goal of targeting 16,000 of them to use the Ahotor oven by the end of the project;
- SFMP has facilitated construction of 113 Ahotor ovens for use in 30 communities by over 300 processors;
- The Ahotor is a much cheaper technology compared to other industrial cook ovens on the market;
- Cooking time on the Ahotor oven is comparable to the existing widely used Chorkor oven;
- Processors using the Ahotor acknowledge that Ahotor-smoked fish is better looking and healthier for consumption;
- There is reduced smoke and heat during processing, which greatly improves comfort for the fish processors, who can spend up to 10 hours per day smoking fish on the oven.
- Ahotor-smoked fish have reduced PAH deposit levels (PAH 53 as compared to PAH 84 with the Chorkor oven); SFMP offers a 30% discount for first 200 early adopters;
- SFMP provides training to processors on the use and maintenance of the oven;
- SFMP has trained 11 companies (employing 75 artisans so far) to construct Ahotor oven; and
- SFMP has collaborated with three committed Financial Institutions (FIs) in the Central region offering various financing options including the retrofitting old, traditional ovens.



However, despite these successes, uptake of the Ahotor oven has been slow, for reasons elaborated below. Specifically, a brief field visit to two regions in the project's intervention zones revealed three key thematic areas that present market development challenges: demand, supply chain, and the enabling environment.

## **Key Issues Identified**

### ***Enabling Environment***

- All fish processors have been encouraged to join an umbrella body called the National Fish Processors and Traders Association (NAFPTA) under the West Africa Regional Fisheries Project (WARFP). The aim of forming NAFPTA is to create a formidable advocacy platform for fish processors and traders to engage with stakeholders;
- The Ministry of Fisheries and Aquaculture Development and Fisheries Commission (MOFAD/FC) have adopted the Ahotor oven and have outlined a policy for 250/300 ovens to be given to members of NAFPTA for free under the WARFP by June 2018;
- SFMP has established contracts with three FIs in the central region to finance the construction of the ovens on the payment of 20% of loan amount as cash collateral by the client, at 3% interest rate per month, payable over 6-12 months.
- Most processors are not already saving and do not have relationships with financial institutions (FIs) (although they may have an initial account in GN Bank in anticipation of government support);
- Most of the women are not keeping records and lack business skills;
- There are working capital constraints (some women often take fish on credit), and there is a lack of understanding about the working capital financial packages offered by banks; and
- The frequency of migration for fisherfolk poses a problem, as banks view these populations as riskier investments.
- Low fish stocks being landed

### ***Demand for the Ahotor Oven***

- Processors perceive the cost of the Ahotor oven – GHS 825 for single unit and GHS 1,610 for a double unit (without trays) – to be high compared to the Chorkor, which costs GHS 400 to construct. This issue is exacerbated by the fact that many of the processors have heard of free distribution of ovens from MOFAD/FC under WARFP, and are waiting for those free ovens to materialize;
- Processors have the notion that the Chorkor oven smokes stacked trays of fish faster than the Ahotor. Following this initial feedback, SNV made design adjustments and the Ahotor now cooks at a comparable speed to the Chorkor; however, processors may not be aware of this improvement;
- Processors have some difficulty in accessing land in Moree to construct the Ahotor oven, which is a more permanent structure than the Chorkor, which can be easily disassembled;
- Currently there is no market premium offered by the market/consumers on Ahotor oven smoked fish, so there is no demand-based incentive for the women to invest in the oven;
- Consumers are not aware of the health benefits of Ahotor smoked fish; and
- Land ownership has been a crucial barrier for processors to access the Ahotor in the Jamestown and greater Accra Region.

## **Supply Chain**

- Some of the ovens constructed so far have been of poor quality (crooked walls, cracks, incorrect dimensions, delays in getting all the parts);
- High quality burnt bricks used to construct the combustion chamber can only be sourced in Adidome in the Volta Region at GHS 1.80 each, thus presenting a challenge in accessing a critical construction material;
- There are currently only two artisans based in Tema and Cape Coast who fabricates the fat collector – a major component of the oven –
- Oven construction companies complain of low profit margins; and
- Poor customer adoption has impeded the growth of the oven construction companies.

## **Profile of Potential Market and Ahotor Oven**

There are currently over 33,000 women along the coastal areas and fresh water bodies who smoke fish daily for sale to numerous market centres in Ghana and beyond. The majority of these women have engaged in this occupation for decades. A baseline survey undertaken by SNV indicates that there were over 120,000 ovens counted along the coast and fresh water bodies used by fish processors to smoke fish. The average age of these women is 34 years and majority of them have been in this occupation for at least 10 years, passed on from mother to daughter. The survey also revealed that 58% of the processors had never been to school, 21% had attained middle /JSS while primary and Senior High School education also constituted 20% and 1% respectively.

Based on a five-year average (2010-2014), it is clear that about 60% of landings are realized during the bumper season (July-September), coinciding with the spawning period of sardinella and anchovies. The income levels of these women is mainly dependent on the availability of fish for smoking, and is therefore seasonal. A segmentation study undertaken by SNV in September 2017, indicated that only 36% of the fish processors are engaged in some other economic activities outside of the fishery sector.

The major challenge of the fish smoker/processor, like all other informal enterprises, is the difficulty in accessing finance as working capital from formal FIs. Even when they have banks accounts, fish processors save very little and do not keep proper records of their businesses. The women usually borrow from friends/ family or purchase fish on credit from the fishermen or fish mothers, smoke and pay back after they have sold the smoked fish. The seasonality of their activity impedes their ability to reinvest their profits in their business as they are compelled to spend profits on household expenses during the lean season.

Due to the homogeneity of their enterprises, the women tend to form groups or associations as a platform to boost their bargaining power to champion for change on issues that affect their livelihoods. All the 33,000 women fish processors profiled belong to one group or the other. 14,000 of them belong to the National Association of Fish Processors and Traders Associations.

## **Ahotor Oven: The Product**

Developed by a team of local and international consultants with guidance from SNV, CSIR-Food Research Institute and the Fisheries Commission, and with testing support from the Ghana Standards Authority and the CSIR-Institute of Industrial Research, the Ahotor is user friendly, 32% more fuel wood efficient, produces high quality smoked fish, and emits far less and cleaner smoke. Moreover, the PAH level of the Ahotor oven is 59 µg/kg compared to the

predominant Chorkor oven at 298 µg/kg, thus making the Ahotor a better and improved version.

Fieldwork and the SNV segmentation study reveals that, when choosing a particular oven, the fish processor will consider the following, in order of preference:

- The capacity of the oven;
- Smoke emissions and comfort for the user;
- Type of technology;
- Cost of the oven;
- Durability of the oven;
- Fuel consumption; and
- Mobility of oven

These considerations, specific to the Ahotor, are described below, with more information on how SFMP will address any concerns or shortcomings detailed in the section on “Marketing Strategies.”

**Oven Capacity:** Due to the seasonality of the fish landings and inadequate cold chain facilities in the communities, processing of fish is very important for livelihoods and storage, and the capacity and type of oven is very important to the women. Fresh fish will decompose easily if not smoked or frozen after landing. To reduce post-harvest losses and maximize returns, the processor will have to smoke as much as possible on her own oven within the allowable time frame. This means that artisans engaged will have to agree with the buyer on the type of unit required (single or double), and also ensure that all ovens are constructed to the desired specification (one that fits existing trays).

**Smoke Emissions:** This is a big advantage of the Ahotor, and should be marketed as part of the promotional strategy. In short, the Ahotor emits substantially less smoke and heat, greatly improving comfort and other health outcomes for the fish processors. Some women even noted anecdotally that they could wear nice clothes while processing while no woman with a Chorkor oven could do that.

**Oven Technology:** The Ahotor oven was designed to be familiar and similar to the Chorkor in terms of processes and materials used, so the technology is not anticipated to be a challenge. Marketing campaigns should also emphasize the comparable cook time for smoked fish, as compared to the Chorkor oven.

**Oven Cost:** Pricing is key to the acquisition and profitability of any product in both the short and the long term. Currently a double unit without the trays costs GHS 1,610 and a single unit costs GHS 825 with SNV offering a 30% discount for the first 200 early adopters. Customers also do have the option of having their current ovens retrofitted into an Ahotor at a much cheaper cost (up to GHS 1,225 for double unit and GHS 610 for a single unit), which also means that they can use their existing trays. They also have the option of sourcing and purchasing their own materials or having any one of the 75 trained artisans construct it for them. Depending on what is required, this can bring the price down to only the cost of the fat collector, the combustion chamber and labor, which is around GHS 550 for a single unit oven and GHS1100 for a double unit oven.

It is hoped that the costs of materials, such as the red bricks required for constructing the combustion chamber and the fat collector, will remain stable or even decrease, as more artisans are trained to construct those components, so that the price of the oven will become more affordable and competitive.

**Oven Durability:** In addition to retraining artisans, a quality assurance team (made up of community facilitators and Technical officers of the FC) will be set up to supervise all construction before full payment is made. This will ensure that all ovens constructed are up to the specified standard and under a three-month warranty.

**Fuel Consumption:** The Ahotor oven is 32% more fuel efficient than the Chorkor. This is a significant advantage of the Ahotor, and should be marketed as part of the promotional strategy.

**Oven Mobility:** This is a weakness of the Ahotor relative to the Chorkor in that the Ahotor cannot be disassembled and relocated easily. However, the benefits with respect to reduced fuel costs, improved comfort/user experience, and improved health, especially if coupled with a strong market demand, are expected to outweigh this drawback.

### ***Profile of Competition***

Until the end of the 1960s, the ovens most used for smoking fish in Ghana were cylindrical or rectangular and made of mud and metal. Over time, these were deemed to be inefficient in terms of fuel usage, and they also produced poor quality smoked fish as well as some associated health hazards to the fish smokers.





This necessitated research into cleaner and more efficient ovens, resulting in the development of the Chorkor oven, in 1969 by the Food and Agriculture Organization of the United Nations (FAO) and the Food Research Institute of the Council of Scientific and Industrial Research (CSIR) in Ghana (FAO, 1997). The smoking and drying techniques of the Chorkor oven had limitations that required improvement in order to significantly improve small-scale fishers' livelihoods and respond effectively to product safety and other challenges—especially linked to controlling contamination by polycyclic aromatic hydrocarbons (PAH), a public health hazard.

Decades later, another improved oven, the Morrison oven, was designed as an improved version and piloted at New Takoradi in the Western Region with the support of Daasgift Quality Foundation and CHF International, in 2008. The Morrison oven is 37% more fuel wood efficient than the Chorkor oven, and produces less smoke, but more needed to be done to make it better and cleaner.

In September 2016, an improved fish smoking oven, the Ahotor oven, was developed by a team of local and international consultants with guidance from SNV, CSIR-Food Research Institute and the Fisheries Commission, with testing support from the Ghana Standards Authority and the CSIR-Institute of Industrial Research. The Ahotor oven is similar in design to the Chorkor but 32% more fuel efficient, emits less smoke and it is cleaner compared to either the Chorkor or Morrison ovens. FAO has also devised a cleaner version of the Chorkor called FTT (Thiaroye Processing Technique). The FTT has an ember furnace, a fat collection tray, an indirect generator system and a hot air distributor. According to the FAO, the FTT-Thiaroye has the particular merit of overcoming the challenge linked to the polycyclic aromatic hydrocarbons (PAHs) given its feature which mainstreams the relevant code of practice of the Codex Alimentarius (CAC/RCP 68-2009). It further curbs the fuel consumption while reducing the exposure of the fish processor to the smoke and heat.

PAH are carcinogenic, fat soluble, nonvolatile and extremely persistent, and develop especially during the incomplete combustion (burning) of organic materials, such as wood. Globally, PAH levels in food are monitored by regulatory agencies with a combination of four compounds (PAH4) being of specific interest: Benz[a]anthracene, chrysene, benzo[b]fluorantene and benzo[a]pyrene. Under EU food standards, the level of PAH in

smoked food products should not exceed 12 µg/kg and for benzo[a]pyrene (BaP) 2 µ/kg. Recent SFMP analyses have shown that smoked fish on the market contains PAH levels that are well above those recommended for human health (by the EU). Fish smoked on the Chorkor and other traditional ovens have PAH levels about 25 times higher than the EU standard, depending on the indicator used. Yet the Chorkor oven is still the first choice oven for the fish processors. The table below shows the various types of fish smoking ovens currently in use, their market share, the value it offers to the customers their strengths and weaknesses.

<p><b>The Barrel Traditional oven</b></p>  <p><b>BaP 15, PAH4 72</b></p>	<p><b>The Chorkor Oven</b></p>  <p><b>BaP 22, PAH4 84</b></p>
<p><b>The Morrison Oven</b></p>  <p><b>BaP 30, PAH4 110</b></p>	<p><b>The FAO Thiaroye Technology (FTT)</b></p>  <p><b>Below EU limits of BaP 2, PAH 12</b></p>

**Figure 1 Ovens Currently in Use**

Source: Oven Technology Analysis by SNV, 2016

**Table 1 Profile of the Competition**

Competitor	Established date	Market share (%)	Strengths	Weaknesses
Chorkor Oven	~50 years	Est. 97 %	<ul style="list-style-type: none"> <li>• Easy to use</li> <li>• Easy and cheaper to construct</li> <li>• Smokes large quantities of fish faster than any other traditional oven</li> <li>• It is common and familiar</li> </ul>	<ul style="list-style-type: none"> <li>• It produces large amounts of smoke</li> <li>• Fish smoked have PAH levels 7 times the EU limit.</li> <li>• It is not fuel efficient, compared to any other traditional ovens in use</li> </ul>
Morrison	~10 years	1.9%	<ul style="list-style-type: none"> <li>• 37% more fuel efficient than Chorkor oven</li> <li>• Produces less smoke</li> </ul>	<ul style="list-style-type: none"> <li>• PAH levels are 9 times higher than the EU limit</li> <li>• Tray arrangement difficult due to top chimney</li> </ul>
FTT (Thiaroye Processing Technique)	~ 4 years	0.01%	<ul style="list-style-type: none"> <li>• Promoted by FAO</li> <li>• 33% more Fuel efficient than the Chorkor (different varieties of vegetable materials can also be burned, instead of just wood or coal)</li> <li>• PAH below EU levels</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult and expensive to construct (GHS 5,600)</li> <li>• Unfamiliar materials and processes</li> <li>• It is large and requires more space</li> <li>• It requires more care and maintenance</li> </ul>

## MARKETING STRATEGIES

According to the Global Alliance for Clean Cook Ovens, consumer knowledge, attitudes and behavior are major barriers to the uptake of any improved cooking solution. The overall goal of SFMP marketing strategy is, therefore, to create enhanced public awareness of the benefits of the Ahotor oven through a comprehensive marketing campaign that will result in increased purchase and adoption of the Ahotor oven by fish processors. This strategy proposes to undertake activities that will facilitate the construction of 250 ovens by September 2018, targeting the fish smokers in the SFMP Project’s intervention zones. Importantly, this

strategy must be viewed alongside the Financing Strategy (see below), which will explore and promote options to extend financing to women fish processors and oven producers.

### **Foster an Enabling Environment**

An enabling environment refers to interrelated conditions – such as legal, organizational, fiscal, informational, political, and cultural – that impact the effectiveness of development efforts. For the Ahotor oven to be accepted by the women as the oven of choice, the above conditions will have to be met. This will be a long-term process, but there are also short-term activities with which SFMP can assist, including:

#### ***Engage national stakeholders in the fish industry***

To effectively increase uptake of the Ahotor oven among the fish processors, it will be necessary to engage and partner with national stakeholders to disseminate the evidence base of the benefits of the Ahotor oven. Endorsements from the research institutions such as FRI of CSRI, who were engaged in the development of the oven, and the Standards Board Authority will go a long way to increase the awareness of both the processor and the consumer on the health and environmental hazards of the Chorkor ovens and the benefits presented by the new technology, the Ahotor.

SFMP will also make efforts to strengthen and deepen its partnerships with MOFAD/FC in promoting the use of the Ahotor. The MOFAD and the FC have been major partners in the research and development of the Ahotor oven because of the benefits of its usage to both the processor and the consumer. The two agencies, with support from the World Bank under the WARFP, are currently making arrangements to construct between 250 to 300 of these ovens for NAFPTA members. Though this may present a short term market distortion, as most of these processors would rather wait to access the free ovens, it will also increase the processors' familiarity with the oven and may reduce the barriers to trial/uptake by those who will not be beneficiaries of the WARFP initiative.

The sector minister, at a meeting in February 2018, also affirmed her personal commitment to champion the use of Ahotor as the preferred oven for smoking fish in Ghana, and agreed to work with SFMP more closely in future promotion of the Ahotor oven.

#### ***Identify and link fish smokers to end market aggregators to off take their produce***

Fish smoked in Ghana is currently sold in numerous market centres, predominantly locally and regionally but also in Europe and USA in few instances. To encourage more women to purchase and use the Ahotor, end market aggregators such as high end shops frequented by the country's growing middle class (e.g., ShopRite and Max Mart) will be identified to source their smoked fish stocks from women who are using the Ahotor. Other aggregators, such as restaurants, hoteliers and smoked fish exporters, will also be identified so they can off take produce from the Ahotor oven users. This strategy is aimed at enticing the women who are yet to acquire the oven to do so in order to access more formal markets and to boost their business confidence.

In the long run, these high end markets may require large volumes of smoked fish and will, thus, be encouraged to pre-finance the construction of ovens to secure their supply chain for existing clients as well as to build new clientele.

#### ***Identify and collaborate with three new FIs to finance beneficiaries'/oven companies***

Finance is important to the growth of any enterprise. Currently, three FIs in the Central Region have signed MoUs with SFMP to finance the construction of Ahotor oven. SFMP

offers a 30% buy down on the total cost of the oven and the bank finances the other 70% on credit at an interest rate of 3% per month, following the payment of a 20% cash collateral by the customer. Other FIs located along the projects zones (including Ahantaman Rural Bank in the Western Region and Anlo Rural Bank in the Volta Region) will be identified and encouraged to partner with the project in order to expand the number of partner financial institutions. All FIs will be encouraged to be present at awareness creation events and campaigns so they will have a firsthand understanding of the potential client and what the project is trying to achieve, to enable them to develop appropriate products and strategies.

### ***Train women in business skills***

Developing good business skills is essential for the growth of any enterprise. Acquiring an Ahotor is an investment made by the fish processors that is likely to have an effect on their cash flow, and they should be prepared to handle that. CEWEFIA currently runs business skills training programs for its members on topics as:

- Entrepreneurship;
- Marketing;
- Financial Management;
- Records Keeping; and
- Hygienic Fish Handling

This training will be expanded to other communities to build the capacities of the women on records keeping and making better business decisions to beat the competition and make profits.

### ***Set up Micro Savings Groups (VSLAs)***

Women are sometimes hesitant to take loans and in some instances have limited financial knowledge. Additionally, the volatility in the incomes of the fish smokers sometimes makes it difficult for them to have a meaningful relationship with an FI. They should therefore be supported to have other financing options. Group savings play a critical role in bringing financial services to rural/peri urban communities that have limited access to formal financial services.

### **Demand Generation**

The success of the Ahotor oven as a cleaner alternative to smoking fish cannot be realized without effective demand from fish processors and consumers. Raising awareness of the processor on the benefits (comfort/user experience, health and environmental) of using the oven and enlightening the smoked fish consumer on the health benefits of Ahotor smoked fish are critical to driving demand.

### ***Improve demand aggregation processes***

The offices of all the SFMP implementing partners, oven companies, community facilitators and zonal fisheries officers will be used as referral point for demand aggregation and post-construction issues. This will ensure that processors will have multiple outlets in their community to request a purchase or seek redress where necessary.

Every company's success at creating effective demand depends on the quality of the sales people it hires. It is therefore important for SFMP to specify the responsibilities and tasks required of the demand aggregators (community liaisons/advocates/zonal fishery officers), as well as their educational qualifications, training, and experience to enable them to:



- Understand the processors (customers)
- Understand the SFMP's objectives, the product (Ahotor oven) and the technologies involved
- Understand the roles played by the various implementing partners on SFMP
- Know how to plan their schedules to meet the beneficiaries and accessing the necessary resources from SFMP to do so
- Know how to communicate the value of investing in the ovens to the customers

These demand aggregators will have to be adequately resourced and compensated to undertake their responsibilities. They are currently being given an allowance for the support they provide to SFMP implementing partners to undertake their activities in the communities, but do so only on a part-time basis. To make them commit to market the Ahotor oven they should be also being paid/compensated at least 5% of each oven they aggregate for construction. This compensation should be built into the labour cost of constructing the oven to be paid to the demand aggregator by the artisan after construction.

### ***Launch a consumer awareness campaign***

It is not enough to have a good product. To improve uptake and generate sales, the benefits (particularly on health) of using the Ahotor oven will have to be continuously and consistently communicated to the fish processors. A double pronged national promotional and awareness campaign will be launched in April 2018. This will aim at enlightening and informing consumers on the health hazard of fish smoked with the Chorkor oven and the need to demand healthier fish smoked on the Ahotor, while also educating processors on the benefits of adopting the Ahotor oven for improved comfort and user experience, improved personal health, and costs savings on fuel efficiency. The campaign, championed by national fisheries stakeholders, will adopt evidence based communications tools/platforms that seek to change behaviours and contribute to a sustained and inclusive effort to increase demand. There will be discussions and infomercials on all community Radio & TV platforms and processors who have used the Ahotor oven and can convincingly convey its benefits will be selected as 'Ahotor champions' to tell the Ahotor oven 'story' in all the project zones.

The SFMP's communications team, in close collaboration with the FRI and Department OF Public Health, and potentially an additional consultant, will create the marketing communications strategies and campaigns designed to leverage the unique properties of the Ahotor oven over all other ovens currently in use. These efforts will range from personal selling and market demonstrations, public campaigns, social media engagement of consumers, and broadcast advertising. Where feasible and desirable, the SFMP will work closely with other partners to be identified to maximize market outreach and program results while minimizing financial expenditures. All promotional activities will be geared toward behavioral change and driving audience to the office of an implementing partner, demand aggregator, or directly to an oven construction company.

In the short term, the following promotional strategies will be implemented to highlight the Ahotor's unique product and service offerings:

- **Signage:** highly visible, eye-catching and recognizable signs and logos at the premises of all IPs, FC offices and intervention zones;
- **Flyers:** spelling out the benefits and uniqueness of the oven will be distributed to local businesses within in the zone of influence to create awareness;
- **Word-of mouth advertising:** where testimonials will be taken from early adopters on the benefits of using the oven and clarify any potential concerns;

- **Radio:** discussions on all local radio stations within the SFMP’s intervention zones and in the print media and also on health and cookery shows on TV, e.g. Edziban show on TV3;
- **Direct approach:** by the community facilitators and demand aggregators of the implementing partners and oven manufacturing companies.

### ***Cookery Show on TV***

As one effort to support the delivery of impactful evidence based campaign, SFMP, FC, and MOH/FRI/FDA will host a session on the popular TV 3 show “Edziban.” This long running, award winning show, hosted by a comic, gives its audience a tour around the country to local food joints. Selected food joints will be introduced to processors currently using the Ahotor oven and their smoked fish will be used to cook the dish of the day. The host and the catering staff will then give their feedback to the audience on the differences in taste of fish cooked on the Chorkor and Ahotor. The objective of the show is to present to viewers the clear differences in taste and quality of fish from the two cooking technologies.

### ***Identify Ahotor Oven Champions***

Most people want to see how an oven works before they make a decision to buy. Early adopters will therefore be used as product champions who will testify on the benefits of its use and inspire others to make a switch. One Ahotor oven user from each community will be identified and used as an ‘influencer’ to tell her story at all local fora and her oven will be used for demonstration. The processor’s premises will be branded with Ahotor promotional materials to enable her communicate the right messages to her peers. To compensate the influencer for her time and commitment, this champion will also be supported by the SNV team with technical assistance to sign up to class one certification and recognition scheme.

### **Strengthen the Supply Chain and Decrease Costs of Oven Over Time**

#### ***Retrain the oven companies***

Increasing the adoption of the Ahotor oven requires a sufficient number of artisans on hand to construct the ovens when required, at prices the processors can afford.

SFMP has so far trained 11 oven companies employing 75 artisans. These companies have so far constructed 113 ovens and counting. Some of the ovens have been poorly constructed and in some cases have developed cracks or fat collectors yet to be fabricated. To ensure quality assurance and boost confidence in the use of the ovens, these 75 artisans will be retrained and any challenges they may be facing will be addressed. It is expected that as efforts are made to increase demand for the oven, 100 new artisans across all the projects zones will be trained to meet this new demand in collaboration with the Artisans Association of Ghana.

In addition to training on proper construction, artisans will be provided with technical training to develop their business skills/capacity to enable them devise strategies for scale up and to maximise opportunities.

#### ***Increase production sources for oven components***

Two major components of the Ahotor oven – the red burnt bricks used for the construction of the combustion chamber and the fat collector – can for now only be sourced from a single outlet (the bricks from Adidome in the Volta Region and the fat collector from a fabricator in Tema). Ekem Arts Pottery in Winneba has a brick manufacturing machine that is not in use, due to low/non-existent demand. SFMP will channel all new demand for bricks used to construct the ovens in the Central Region to this company. One new fabricator has been

identified in Cape Coast in the Central region but a sample fabricated recently is yet to be verified. This fabricator will also be given the necessary support to perfect the fabrication of the fat collector.

By encouraging the production of parts for the Ahotor oven from new sources, SFMP will look to decrease the cost of the Ahotor oven by creating competition and increasing supply for key components of the oven.

### ***Link artisans to Financial Institutions***

A key challenge for oven companies (confirmed by two artisans interviewed in Kasoa and Ho) is access to working capital to maintain operations and growth capital to scale their businesses. Most need 'patient' capital as well as business development assistance because the Ahotor is a new technology and users are yet to adopt on a scale large enough for any meaningful margins to be made.

Where necessary, an artisan or an oven construction company will be linked to any of the partner financial institutions to access credit for purchasing bulk materials for construction, and access to other financial services to expand production and improve margins.

### ***Set up a quality assurance team***

Poor quality construction of the oven can make a client withdraw her interest in acquiring an oven and dissuade potential users. In addition to retraining the artisans, a team made up of representatives from the SFMP implementing partners, SNV and the demand aggregators will be trained to certify the construction of each oven before the buyer uses it, and the artisan will provide a warranty for three months.

## **Partnerships**

The success of this strategy is dependent on an ecosystem of institutions whose existing mandates can be harnessed to increase the uptake of the Ahotor oven while ensuring an improvement in the livelihoods of the target beneficiaries. These partners will continuously communicate to influence policy and consumer behaviour and support the IPs of SFMP to expand the use of the Ahotor oven technology.

### ***Ministry of Fisheries and Aquaculture and the Fisheries Commission***

MOFAD & FC will remain a major stakeholder in the implementation of the SFMP. The two Institutions, in collaboration with the Ministry of Health and Gender and Social Protection, will lend their political clout to the awareness creation campaigns on TV and radio.

### ***Ministry of Health (MOH)***

The mandate of the Ministry of Health is to improve the health status of all people living in Ghana by contributing to Government's vision of universal health coverage and a healthy population. According to MOFAD, fish contributes 60% of the animal protein consumed in Ghana. It is therefore the mandate of the MOH to ensure that fished processed and consumed is safe for the population. SFMP will collaborate with the MOH and its agencies such as the Food and Drugs Authority (FDA) and Food Research Institute (FRI), to design and deliver messages on the healthy benefits of smoking fish on Ahotor oven for the smoker and the consumer on various media platforms.

### ***National Fish Processors and Traders Association (NAFPTA), CEWEFIA and DAA***

The project team will continuously engage with the leadership of NAFPTA (which has over 14,000 members), CEWEFIA and DAA to get their support and buy in for the promotion and

adoption of the oven and also to motivate their members to change from using the Chorkor to the Ahotor. The leadership of NAFPTA in collaboration with the community demand aggregators will drive potential users of the oven to the demonstration sites, so that interested buyers will be linked to the artisans.

### ***Microfinance and Small Loans Centre (MASLOC)***

A survey carried out by MOFAD/FC in 2017 showed that most fishermen and fish processors in Ghana migrate seasonally along the shoreline locally and sometimes regionally 'following the fish'. This complicates any financial arrangements from the private sector. As a result, most FIs identified along the project's intervention zones are more interested in the mobilization of client's savings rather than offering credit as working capital or the construction of a new oven where necessary. The lack of residential permanency also makes it difficult for any FI to offer credit to the target group as they perceived as risky population and may 'move on' if they default on any loan advanced.

The Microfinance and Small Loans Centre (MASLOC) is a central government agency that provides micro and small loans for start-ups and small businesses with fast, easy and accessible microcredit to expand their businesses as well as to enhance job and wealth creation. As most fish processors are microenterprises, they fall into this category. The processors through the leadership of NAFPTA will be supported to engage MASLOC to access micro credit as working capital or to finance the construction of the oven. By this arrangement the Association will serve as a guarantee for any credit given.

### ***The Artisans Association of Ghana (AAG)***

*Artisans Association of Ghana (AAG)* is a social enterprise that enables sustainable livelihoods for men, women and youth in the informal sector through skill training, upgrading and job matching in the construction industry. In the medium to long term when demand of the ovens soars, the AAG will augment the efforts of the 75 artisans already trained, by identifying new artisans from the association to be trained on the construction of the ovens, offer peer to peer knowledge sharing and technical training support.

### ***Media (Television & Radio)***

Traditional fish smoking can be expensive, burning 40% more wood than is necessary and costing vulnerable processors money that could have been invested in their business or used for education and nutrition, while contributing to deforestation and climate change. Clean ovens such as the Ahotor save lives of these women, improve their health and that of the smoked fish for the consumer. To complement the signage, flyers and word of mouth promotion, the media can also champion and propagate the benefits of the Ahotor oven countrywide. There are currently 462 radio stations and 75 television stations in Ghana. Every community has access to at least one radio station broadcasting 24 hours a day in their local dialect. Targeted behavioral change messages such as short drama sketches, documericals and radio discussions will be broadcasted on selected platforms in SFMP's constituencies at specific periods (time/day/month) for maximum impact.

### **Conclusion and Next Steps**

The Ahotor is by far one of the cleanest fish smoking technologies in Ghana today, as a lot of knowledge and investment has been placed in its development by key stakeholders in the fish value chain. However, the fish smokers are not fully aware of the benefits with respect to reduced smoke, higher quality product, increased comfort, and lower costs for fuelwood. Moreover, smoked fish consumers are currently not aware of the of the health hazards

presented by using the Chorkor oven and so are not offering a premium price to enable processors to offset the costs of their investment.

This Market Development Strategy lays out three areas for improvement (enabling environment, demand, and supply chain) that will:

- Heighten the awareness and capability of the fish processors to improve their work environment, health, and ultimately livelihoods and income;
- Empower the consumer with the right knowledge to demand a healthier smoked fish;
- Create an ecosystem of partnerships that will ensure a sustained interest and uptake of the technology to improve the lives of over 6,000 households in addition to the consuming public.

### **Next Steps**

The short term activities/immediate next steps to be carried out include:

- Engage MOFAD.FC, Department of Public Health (MOH), and Ghana Alliance for Clean Cook Ovens, on the design of communication materials for promotional campaign;
- Identify and link end markets to processors currently using the Ahotor oven;
- Identify and sign contracts with three new FIs to provide financing support to processors for the construction of SFMP the oven;
- Collaborate with partners CEWEFIA and DAA to train women on business skills;
- Collaborate with SFMP implementing partners to sensitize processors on the formation of VSLAs; and
- Organize a technical and business skills training for oven companies and link them to local demand aggregators (technical fisheries officers and community facilitators) and FIs.
- Encourage new companies to engage in production of key components of the Ahotor oven, to increase competition and production

It is anticipated that each SFMP implementing partner will contribute the required funds for each activity that it is responsible for, as outlined in that excel.

## FINANCING STRATEGY

The market development strategy outlined above is geared toward increasing the purchase and use of the Ahotor oven as the oven of choice for women fish processors while generating a corresponding demand from the consumer. However, willingness and ability to invest in the Ahotor oven is heavily constrained by the processors' limited purchasing power. There is, therefore, a need to assess the current financing channels available to the processors and develop more accessible and innovative mechanisms.

### Current Situation

***Some current challenges and constraints to be addressed in this Financing Strategy include:***

- Processors perceive the cost of the Ahotor oven to be high as the price is always quoted with the cost of trays. A single unit without trays is GHS 825, while the cost of trays ranges from GHS 395 for 10 trays to GHS 1,125 for 30 trays. This makes the price seem especially high, given that the price of the main competitor, the Chorkor, is not discussed with parity or reference to the costs of trays. However, for the most part, fish processors already own the needed trays, which are compatible with the Ahotor oven.
- Processors complain of inadequate working capital. Some are so capital constrained already that they currently buy fish on credit and then pay back after processing and selling;
- While most processors have access to at least one savings platform (mobile money, formal FIs, microfinance, susu – an informal means of collecting and saving money through a savings club or partnership), they do not save consistently;
- Three FIs have signed contracts with SFMP to finance ovens for a total of 150 customers at an interest rate of 3% per annum payable over 6 to 12 months, upon payment of 20% cash collateral. However, the expected number of women have not come forward.

Like all small to medium enterprises in the informal sector in Ghana, fish processors have limited financing channels available to them. There are usually three main channels processors can access to finance their businesses:

- Personal savings (FIs, susu)
- Credit from friends and family
- Credit from Financial Institutions (FIs)

### ***Personal Savings with Financial Institutions and Susu***

Processors currently save either at home, or with an FI or susu company on a daily, weekly or monthly basis. With low fish stocks, high post-harvest losses, and low profit margins, these savings are small, infrequent, and usually used to meet household expenses or used in the business as working capital. A continuous and consistent savings, however small, could be accumulated over time to finance the construction of the Ahotor oven, as long the woman desires to have one. Several women in Dzemeni have already begun this “small small” savings for the Ahotor oven.

Encouraging fish processors to use their own savings with an FI or susu scheme is a good financing platform to use, as the beneficiary pays however much she can afford at any given time and there are no or very low transaction costs. The downside is that it would take a long

time for a fish processor to accumulate any meaningful amount, as only small amounts are committed over time and interest rates offered are usually very low or non-existent. Every demand aggregator and business development training should encourage personal savings, and this could be a good option for processors with no savings history. However, this Strategy also suggests other savings mechanisms to enable processors to more quickly finance the Ahotor.

### ***Credit from Friends and Family***

The fishing communities are generally very tight knit and processors who may be low on cash can borrow from friends and family to meet immediate needs. Processors will sometimes also lift fish on credit from fishermen/fish mothers, and then pay back after processing and selling the fish. Some processors worry that if they invest their working capital in the construction of the oven they will not have funds to purchase fish for smoking. However, as long as processors are honest and deemed credit worthy, they can always purchase fish on credit within the community and pay back while accumulating profits to build working capital.

While this source of funds is available during bumper seasons and does not usually attract any interest or transaction costs, these funds are seasonal for the most part, and not as readily available during lean seasons when there are few fish at the landing sites. Moreover, the loan size is generally very small (usually between GHS 100 – GHS 500), significantly less than the amount that would be needed to finance the oven.

### ***Credit from FIs***

Three FIs have been contracted by SNV to directly finance the construction of the ovens for the processors as a business asset. These FIs and others operate in the project's intervention zones, offering savings and credit products to their customers. They require a customer to save with them for a period of at least three months, and a cash collateral amount of at least 20% of the loan, before they are able to access credit. The nature of the fish smoking business requires that the bank deploy savings mobilization officers in these communities to regularly collect savings from a customer since women have no time to walk into an FI to make deposits when there are lots of fish to process. This, however, comes with high transaction costs to the banks due to the low amounts and variable frequency of contributions, which are highly dependent on the availability of fish for processing. FIs will usually give credit to a customer based on their savings frequency and volume and repayment history, as most do not have a collateral. This arrangement is, however, more suited to customers who receive regular and guaranteed income, which is not the case for most fish processors, who might face penalties for late repayments. It therefore becomes necessary for processors to take up the 30% buy down being offered by SNV before the end of SFMP, while the FIs step up efforts to educate the processors on financial literacy, especially on the need to save continuously and consistently.

### **Proposed Financing Strategies**

These three available financing options are clearly not enough to finance the retrofitting or construction of a new Ahotor oven at GHS 825 for the single unit and GHS 1,610 for the double, irrespective of the health and environmental benefits it presents to both the processor and the consumer.

To complement the above existing financing channels, the following financing platforms are proposed:

### ***Group Micro Savings***

As noted in the Market Development Strategy, group savings play a critical role in bringing financial services to rural/peri urban communities that have limited access to formal financial services. Fish processors belong to a local or regional group within the national umbrella association, NAFPTA, which has over 14,000 registered members. This Financing Strategy proposes that these groupings be leveraged to create savings groups where women find solidarity in each other to save toward financing the oven.

Beneficiaries will be self-clustered into groups of 10-25 persons, sensitized and trained to develop their own constitution to govern the group and given passbooks to keep records of all savings and loans made and a box with three padlocks to keep their money. The sensitization and training can take from one to two days, depending on the number of people and their literacy levels.

This savings platform has proved very popular and useful for populations that have little money to save or to transact business with formal FIs. The groups meet on an agreed day and time to save an agreed amount which is entered into the member's passbook. Members do not have to all save the same amount, nor do they have to save the same amount at each meeting, thereby providing needed flexibility. For any meaningful savings to be realized, the savings cycle runs from 9 to 12 months and within that period, members can borrow up to three times the value of savings they have contributed at an interest rate agreed by the group. After the term ends, accumulated savings and interest will be redistributed back to members, based on the amount each member saved. Women in these micro- savings groups will be encouraged to use their accumulated savings or take out a loan to invest in the acquisition of the Ahotor oven. Share out of accumulated savings will be done in July/August of each year to coincide with the bumper season when funds are needed most.

### ***Credit through MASLOC /Vision Fund***

Group microsavings are usually successful with more rural/peri urban areas where communities are tightly knit and women join groups. For SFMP intervention zones that are more urban, and where people have been exposed to various financing channels, processors who want access to credit will be linked to the Microfinance and Small Loans Center (MASLOC) through their local/community NAFPTA. MASLOC is a central government agency that provides micro and small loans for start-ups and small businesses with fast, easy and accessible microcredit to expand their businesses as well as to enhance job and wealth creation. As most fish processors are microenterprises, they fall into this category and also belong to one association or another.

The processors, through the leadership of NAFPTA, will be supported to engage MASLOC to access micro credit as working capital or to finance the construction of the oven. By this arrangement the Association will serve as a guarantee for any credit given.

To access the MASLOC credit scheme the beneficiaries are expected to form groups/cooperatives, consisting of a minimum of five and a maximum 25 members. An individual within a group can access a minimum of GHS 1000 to maximum of GHS 5000 paid over a period of 12 months.

The Vision Fund is the microfinance subsidiary of World Vision International that provides microloans to people who do not have a measurable credit history, assets to secure the loans,



or access to mainstream financial providers. NAFPTA members in the Tema Fishing harbor communities have accessed credit of up to GHS 2,000 per person payable over six month period through this fund. The management of Vision Fund is pleased with the repayments made so far and is hoping to extend to other members.

These two institutions will be engaged to provide financial access to the processors either to purchase the oven or for working capital. These two institutions have a long history of working with informal enterprises, and therefore have savings and credit products that suit their needs whether as individuals or groups.

### ***Encourage “Layaways”***

A layaway is, by definition, a purchasing method that allows a buyer to put a product on hold by placing a deposit on the item. This arrangement allows the customer to make smaller payments on the product until the purchase price is paid in full rather than paying for the item with credit from an FI and paying interest. For processors who do not have funds (cash/credit) to make outright purchases, a layaway purchasing method might be appropriate for them. They might be able to purchase the cement blocks now, and then finance the fat collector later, for instance. The processor can, through the demand aggregator or the oven artisan, pay for the various components as and when they can afford to, until they have purchased all of the materials required for the construction of the oven.

While this financing method may take the processor a longer period, it does not come with any interest charges and the processor feels a sense of living within their means, and could complement well “small small” personal savings. It also provides the oven artisan with a guarantee and some initial financing.

### ***Financing through End Markets/Off Takers***

The SFMP post-harvest team, led by SNV, is currently training fish processors to adopt its ‘Class one recognition scheme’. This scheme was developed by a multidisciplinary stakeholder committee made up of stakeholders from academia (University of Cape Coast and University of Ghana), government agencies (Fisheries Commission, Food and Drugs Authority) and research centres (Ghana Standards Authority, Food Research Institute) to voluntarily regulate the local smoked fish market in Ghana.

SNV has developed a working document and a checklist for auditing processors who will opt for this certification, and using the Ahotor oven is the primary requisite to joining the scheme. By joining, processors will be supported with a grant and technical assistance from SNV to improve their existing processing facilities so they can appeal to high end markets. In the long term, as these processors become more sophisticated to engage these high end markets, the off takers (buyers of the smoked fish, usually to resell to individual consumers) can finance the construction of these ovens for the processor in exchange for payment with smoked fish over a period. This, however, is a longer term and more expensive option that only a few processors are currently well-placed to pursue.

## **CONCLUSION**

While there is certainly a long way to go in increasing demand for the oven, for which the Market Development Strategy lays out activities, the recent Ahotor promotional tour undertaken by the post-harvest team to some of the project intervention zones in the Volta, Central and Western Region, showed that there are indeed some fish processors interested in purchasing the ovens who cannot do so solely due to financial constraints. These include the seasonality of fishing activities preventing consistent savings, concerns over working capital,

high post-harvest losses due to unhygienic fish handling, inadequate cold chain facilities, and low literacy and business skills. For these processors who are interested but unable to access financing, encouraging personal savings, linking them to group and microsavings options, and encouraging layaways present promising options. It is hoped that by accessing any one or a combination of these financing strategies, smoked fish processors will be able to purchase the Ahotor without depleting their working capital.

### **Next Steps**

To achieve the marketing goal of facilitating the construction of 250 Ahotor ovens by September 2018, financing is not a stand alone; it must be integrated with the market development activities of strengthening the supply chain, creating awareness of the benefits of Ahotor smoked fish, and engaging effectively with all partners in the fish value chain. SFMP and its partners should keep up its efforts of also building the capacity of the women processors by:

- Continuing to train them on hygienic fish handling to minimise post-harvest losses, possibly signing up to the Class One recognition scheme;
- Continuing to encourage the processors to use cold storage;
- Continuing to train them on business skills, including the use of weighing scales to determine the price of fish;

While these efforts will be ongoing, this Strategy recommends immediately working with SFMP implementing partners, including DAA, SNV and CEWEFIA, to begin sensitization and forming of savings groups and training on business skills for both processors and artisans to build their capacity..

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