



**Organization For Livelihood Enhancement Services**  
"putting people first"

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# WORKSHOP REPORT

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## **Opening up Environmentally Sustainable, Climate-Resilient Livelihood Opportunities for Artisanal Fishing Communities in Ghana**



**NOVEMBER 30 – DECEMBER 1, 2020**

**Organised by:**  
**ENVIRONMENTAL JUSTICE FOUNDATION**

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**ORGANISATION FOR LIVELIHOOD ENHANCEMENT SERVICES (OLIVES)**

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# 1. Introduction

## 1.1 Background to the Workshop

Ghana's marine fish stock has declined steeply in recent years. This unfortunate situation has resulted in increased levels of poverty and has exacerbated the already existing income inequalities among artisanal fisherfolks. Limited alternative or supplementary livelihood options, and lack of adequate opportunities for livelihood diversification are seen as major factors underlying the vulnerability of fishing communities to the steep decline. Thus, diversifying livelihoods or providing adequate opportunities for alternative or supplementary livelihoods for fishing communities is seen as an effective option for salvaging fishers from the adverse economic effects of dwindling fish stock. The effectiveness of this option is premised on the fact that some fishers are already engaged in some forms of non-fisheries livelihood activities; these activities have the prospects of supplementing rather than replacing artisanal fishing; and these alternative livelihood activities are cost-effective, less capital intensive, and economically viable.

The Environmental Justice Foundation (EJF) is implementing a sustainable fisheries project in Ghana entitled Far Dwuma Nkodo (Securing Sustainable Fisheries) with funding from the European Union (the FDN Project). The project aims to ensure greater environmental sustainability and social equity in Ghana's fisheries sector through a reduction of illegal fishing and strengthened capacity to support legal, sustainable and co-managed fisheries. The project has three core areas as follows:

1. Monitoring of illegal, unreported and unregulated (IUU) fishing.
2. Empowering small-scale fisheries actors to participate in governance.
3. Promoting alternative (non-fisheries) livelihoods.

As part of project activities under the third core area, the project is exploring alternative or supplementary livelihood opportunities for small-scale fishing communities within the project area to enable fisherfolks to adapt to future caps on fishing effort and to improve resilience in the face of fisheries declines, climate crises and other external shocks. As such, the project partners carried out a Scoping Assessment<sup>1</sup> of fisher perspectives on non-fisheries livelihood opportunities in Ghana's Central Region, the project area. The assessment was intended to inform the development of more detailed recommendations for a sustainable livelihood programme that:

- Enhances or diversifies the non-fisheries livelihood opportunities open to fishing households.
- Reduces dependence on fishing and vulnerability of fishers in the face of fisheries declines and implementation of management measures (such as closed seasons and capacity reduction).
- In the longer term, leads to a reduction in fishing effort and contributes to the recovery of fish populations.

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<sup>1</sup> EJF and Hen Mpoano (2020). *Scoping assessment of sustainable livelihood opportunities in the artisanal fishing communities of the Central Region of Ghana*. <https://ejfoundation.org/reports/scoping-assessment-of-sustainable-livelihood-opportunities-in-the-artisanal-fishing-communities-of-the-central-region-of-ghana>

The Scoping Assessment found that farming in all its forms was most preferable to fishers as an alternative or supplementary livelihood. This includes crop farming, and poultry, pig and other livestock rearing. Many fishers were found to be engaged in farming on a small-scale basis and were confident that an expansion to larger scale crop farming and more intensive livestock rearing could serve them well as an alternative livelihood. Farming was found to be particularly desirable as it demanded limited or no initial skills and land was readily available and accessible in many of the communities.

To build on the findings of the Scoping Assessment, a workshop was organised by the Environmental Justice Foundation (EJF), coordinator of the FDN project, on “Opening up Environmentally Sustainable, Climate-resilient Livelihood Opportunities for Artisanal Fishing Communities in Ghana.” The workshop focused on examining previous and ongoing livelihood projects implemented both within and outside of fishing communities in Ghana, with a focus on smallholder agriculture, with a view to exchanging experiences, lessons learned and best practices to inform the design of future livelihood programmes for fishing communities. This workshop was facilitated by the Organisation for Livelihoods Enhancement Services (OLIVES).

## **1.2 Purpose of the Workshop**

The aim of the workshop was to understand the elements of a successful livelihood project, better understand the specific circumstances, preferences and needs of fishing communities, and avoid the pitfalls and challenges that have resulted in the failure of previous initiatives. It focused primarily on smallholder crop farming and livestock rearing as the preferred livelihood options emerging from the above-mentioned Scoping Assessment that offer the greatest potential for replication.

## **1.3 Objectives of the Workshop**

The specific objectives of the workshop were to:

- Present the findings of the FDN Scoping Assessment and highlight the specific challenges, needs, concerns and aspirations of fishing communities when it comes to alternative and supplementary livelihoods.
- Share experiences between projects working to improve livelihoods through smallholder agriculture, including lessons learned and best practices, and discuss the potential to replicate approaches in coastal fishing communities.
- Improve the understanding of fisheries sector stakeholders of potential opportunities to enhance and diversify the livelihoods of fisher-folks through sustainable agricultural projects and the key considerations for successful programme design.
- Inform the development of future collaborative funding proposals aimed at adapting/replicating approaches with a proven track record of success to fisher-folks wishing to diversify their incomes through sustainable agricultural production.
- Ensure a coherent approach to livelihood diversification and improvement projects in the fisheries sector focusing on smallholder agriculture.

## **2. Participation**

The workshop was held on 30<sup>th</sup> November and 1<sup>st</sup> December, 2020 at the Mensvic Grand Hotel in Accra. It was well-attended by fishers and experts across a wide spectrum of institutions including governmental and non-governmental organisations and the academia.

The non-fishers were from projects engaged in innovative and sustainable approaches to improving rural livelihoods through support for crop farming and livestock rearing.

The first day recorded thirty-three (33) participants, whereas the second day recorded thirty-two (32) participants, including staff of EJF. Below is a table giving details of participation in the workshop.

**Table 1: Details of Participants at the Workshop**

<b>Organisation</b>	<b>Type of Institution</b>	<b>Number of Participants</b>
Ministry of Agriculture – Komenda Edina Eguafo Abirem District (KEEA)	Government	1
Alternative Livelihood Committee, Ministry of Fisheries and Aquaculture Development (MOFAD)	Government	3
Centre for Coastal Management, University of Cape Coast (CCM-UCC)	Academic	1
University of Energy and Natural Resources (UENR)	Academic	1
Department of Agricultural Economics and Extension – University of Cape Coast	Academic	1
Department of Marine and Fisheries Sciences – University of Ghana	Academic	1
Adidome Farm Institute	Training Institute	1
Private Consultant – Sustainability, Livelihoods and External Relations Expert	Private	1
Soil Solutions	Private	1
Fisher-Farmers	Private	3
Central and Western Region Fishmongers Improvement Association (CEWEFIA)	CSO	1
Ghana National Canoe Fishermen Council	CSO	3
National Fisheries Association of Ghana	CSO	1
Ghana Federation of Disability Organisations	CSO	1
Development Action Association (DAA)	NGO	1
TechnoServe	NGO	1
ACDI/VOCA – Ghana Poultry Project	NGO	1
Opportunities Industrialisation Centres International (OICI)	NGO	1
International Development Enterprises (iDE)	NGO	1
Western Regional Coastal Foundation (WRCF)	NGO	1
Organisation for Livelihood Enhancement Services (OLIVES)	NGO	5
Environmental Justice Foundation (EJF)	NGO	3

A copy of the attendance sheet is provided in Annex 2. The majority of these participants presented experiences, best practices, lessons learned, and impacts of projects they have implemented. They were also offered the opportunity to hear from a diverse range of approaches and to discuss the potential for replication in coastal fishing communities. Participants were very active throughout the sessions of the workshop as they took turns to ask questions and to comment on the various presentations. They also participated actively

during the group work and contributed to group discussions that culminated in the identification of appropriate alternative livelihood interventions for fishing communities.

The first day of the workshop started with a prayer and the introduction of the participants in the workshop. Following this, the Fisheries Programme Manager of EJJF welcomed all participants and made a brief presentation on the workshop, briefing participants on its background and objectives. Below are pictures of some of the participants contributing to discussions at the workshop.



Fig. 1. Participants contributing to discussion at the Workshop.

### **3. Presentations by institutions on past and ongoing livelihood projects or studies**

Various presentations were made by participating institutions on previous or ongoing livelihood interventions both within and outside of the artisanal fisheries sub-sector. Each of the presentations are summarised below.

#### **3.1 Findings of the Environmental Justice Foundation (EJJF) Scoping Assessment**

This presentation centred on the findings of the Scoping Assessment referred to in the background of this report. The presentation briefly touched on the background to and rationale for the study, the objectives of the Scoping Assessment, the methodology used, and the findings of the study. The objectives of the assessment were: to assess both successful and failed interventions in the region and, to the extent relevant, elsewhere in the country; to assess potential economic ventures available to fishers and fishmongers in the Central Region (according to the following parameters: requirements and entry costs; projected economic benefits and marketing opportunities; challenges); and to gather fisher perspectives on potential sources of financial or other support available for the selected interventions.

The Assessment made several observations on the successes, failures, and challenges of various livelihood interventions implemented in fishing communities by several actors. The fishers admitted that the current fish stock has dwindled and will thus need supplementary incomes to sustain themselves and their households. They were interested in pursuing a large spectrum of preferred alternative livelihood options when given the opportunity with the two most-preferred options being farming in all its forms (crop farming and livestock rearing) and trading. Crop farming came out as the preferred livelihood option in over half of the engagements. Crops suggested by fisherfolks during the Scoping Assessment included

cashew, coconut, pineapple, sugar cane, maize, oil palm, vegetables, and cocoa. A number of respondents who had interest in crop farming already had the technical knowledge for farming as well as available lands. However, the assessment identified a number of challenges to the uptake or expansion of crop farming within coastal communities. These included a lack of capital, inability to access markets, invasion of pests and diseases, and erratic rainfall. Poultry and fish farming, as well as other livestock rearing, were mentioned in over 40% of the total engagements. Of the livestock rearing options, pig farming emerged as the most preferable and economically rewarding according to fishers. Most fishers indicated that they had some experience in rearing pigs on a small scale using the extensive method. However, expanding pig rearing to a larger, more intensive scale would require more inputs such as land, sheds, feed, and capital.

Close to one-half of the participating fishers in the Scoping Assessment indicated their willingness to rechannel their start-up capital into other livelihood ventures. However, the majority who did not want to channel their capital into other livelihood sources indicated that they were only willing if such ventures would give them short-term returns like fishing does. They were also unwilling to finance any alternative or supplementary livelihood ventures solely from their own resources and thus suggested external support from governmental and non-governmental organisations for the uptake of alternative/supplementary livelihood ventures.

### **3.2 Overview of the work of the alternative livelihoods committee – Fisheries Commission**

A presentation was made by the Chairman of the Alternative Livelihood Committee of the Ministry of Fisheries and Aquaculture Development (MOFAD) on the alternative livelihood activities of the Committee. The activities presented formed part of the West Africa Regional Fisheries Programme (WARFP). The committee developed their livelihood activities from a comprehensive document that served as the blueprint. Three main livelihood activities that were developed include plastic pelletising, salt iodisation, and business improvement for fishmongers. Fishermen were introduced to the collection of plastic materials from the sea as a way of sanitizing the environment and obtaining income from the sale of these materials to be processed by plastic pelletiser machines. This part of the project was started in the Western, Central and Greater Accra Regions. The salt iodisation was also started in the Volta and Greater Accra regions to provide supplementary income sources for fishermen. However, these activities came to a halt due to the delay in the manufacturing of the plastic pelletiser and salt iodisation machines. The manufacturing of these machines was completed towards the end of the project and this limited their utility. Also, the funding for fish processors to improve their businesses could not be rolled out due to budgetary constraints.

### **3.3 Support for smallholder farmers: government policies, projects and initiatives – Ministry of Food and Agriculture, KEEA**

Though there are four traditional areas in the Komenda Edina Eguafó Abirem (KEEA) district, only two of these engage in artisanal fishing – the Edina and Komenda Traditional Areas. The District Assembly has leveraged on government flagship projects such as Planting for Food and Jobs, Rearing for Food and Jobs, and Planting for Export and Rural Development to support fisherfolks who are into farming. Initially, some of these fisherfolks were planting pineapples with the traditional method resulting in low yield and post-harvest losses. The Department of Agriculture has supported these farmers to adopt scientific



methods in cultivating pineapples, watermelon, vegetables and other crops. Farmers are supplied with seed and fertilizer and provided extension, marketing, e-fertilizer and monitoring services. Due to the outbreak of the African Swine Flu which halted piggery activities of the department, the department has resorted to the supply of cockerels to fisherfolks who are interested in poultry. The Department has also been sensitizing farmers on best agricultural practices. Some of the challenges still faced by fishers who are into farming include erratic rainfall pattern, high cost of farming, inadequate machinery, low use of fertilizer, and misapplication of and high use of other agrochemicals. Based on the above, farmers are in need of irrigation systems, financial support, and education on the use of agrochemicals.



Fig. 2. Speakers from various institutions at the Workshop.

### 3.4 Overview of market-based initiatives and approaches and ENI livelihood restoration programme – TechnoServe

TechnoServe is the service provider for ENI in the Sanzule area. The ENI, through Technoserve, is implementing its Livelihood Restoration Program in areas affected by its oil and gas production activities. The main objective of the programme is to support project-affected persons (PAPs) to improve or restore their livelihoods to, at least, pre-project levels. Fishing communities have been supported in livestock production, continuous cropping, aquaculture, value addition, service provision, and technical and vocational skills. Specific activities under livestock production include poultry, sheep and piggery. Under continuous cropping, affected households were supported to venture into crop farming including mixed cropping. It was, however, observed that not many project beneficiaries showed interest in crop farming. Of the 344 project supported options, only 2% involved crop farming and these yielded minimal revenue. Of the project activities, poultry has proven to be the most



profitable, followed by carpentry, aquaculture, cold store operation and piggery. There has been a high adoption of some of the project activities including aquaculture and piggery. The scale of piggery production had been small-scale and intensive farming. Aquaculture ventures have been focused on tilapia and catfish production. It is worth noting that the project interventions were fully funded by ENI.

The programme has also made Sanzule a market hub within the Nzema area. Further, these livelihood interventions have brought about the springing up of ancillary activities such as egg trading, ice block making, livestock feed store, kenkey making and so on. Some of the challenges of the programme include failure of some project beneficiaries to operationalize starter packs (start-up support/equipment), sale of starter packs by some project beneficiaries, and failure to repair supplied equipment that have broken down.

### **3.5 Korsung Community-farm model in Northern region – iDE**

The International Development Enterprises (iDE) has been working in the Northern Region for nearly a decade and has identified the following as the major challenges faced by smallholder farmers: lack of market information and market access; lack of technical expertise; lack of financing; and lack of security. The iDE leveraged on its agriculture model to launch the Korsung Commercial in 2016 as an enterprise approach to address the identified agricultural needs in Northern Ghana. In the absence of a strong market to facilitate market growth, iDE Ghana became a market actor itself, establishing linkages to key public and private partners to facilitate smallholder farmers' entrance into the formal economy thereby creating lasting market infrastructure for the poor. The iDE conducts all of its activities through the following key steps:

- Human centred rapid market analysis to understand the market.
- Use of blended capital through the funding of start-up capital and overheads, and the funding of inputs and working capital by private partners.
- Community-based serviced plots through which land is made available to farmers near a water source.
- Practical agronomic training and input distribution.
- Profit sharing and post-harvest services.
- Saving and growth in which farmers invest parts of their profits into a Village Savings and Loan Association; and
- Reviewing, adapting and improving of process.

It is important to note that iDE is piloting a partnership with Stanbest (a Ghanaian social enterprise institution) to lay and maintain drip irrigation providing irrigated serviced plots at community level to farmers in Northern Ghana to enable year-round farming.

### **3.6 Smallholder horticulture: experiences from fishing communities in the Volta Region – the Adidome Farm Institute**

The Adidome Farm Institute of the Ministry of Food and Agriculture (MOFA) is located in the Central Tongu District and is one of the eight training institutions under the Human Resource Development and Management Directorate of MOFA. It is a Vocational Agricultural Institute established in 1964 with the core business of training the youth,

practicing and prospective farmers in modern agriculture. It offers a One Year Certificate in General Agriculture, short courses, and Competency Based Training (CBT) Programmes. Whereas the one-year course is for those who want to venture into agriculture, the short courses are designed to serve workers and farmers who have some specific requirement for managing their own agribusiness enterprise or for employment. Further, the CBT programmes offer learners the opportunity to acquire specific skills that are relevant to their employment/carrier or agribusiness needs.

Some of the animal production courses taught in the Institute include livestock production, poultry production, bee keeping, fish farming, and snail farming. Crop production courses also include vegetable production, arable crop production, mushroom production, floriculture, fruits and tree crop production, farm mechanization and maintenance, and soil and water management. Other related courses include farm management, home management, basic communication skills in agriculture, and entrepreneurship development. According to the Institute, fisherfolks can be trained to go into vegetable production, poultry production, mushroom production, and livestock production. These paid trainings are offered to individuals who want to diversify their livelihood ventures.

### **3.7 The EU – Weija-Gbawe Local Economic Development Project – OLIVES**

The Organisation for Livelihood Enhancement Services is partnering the Weija Gbawe Municipal Assembly in the Greater Accra Region of Ghana to implement a local economic development project in the Weija Gbawe Municipality. This project is largely funded by the European Union (70%) with the remainder being provided by the Weija Gbawe Municipal Assembly as Counterpart Funding. The project spans from January 2019 to December 2021. It has four thematic areas including a vibrant piggery value chain, SME Development, Revenue Mobilisation, and Social Accountability. The piggery value chain and SME development are those that are directly related to livelihoods. Under the piggery value chain, the project is providing direct employment to 80 pig farmers, 80 pork vendors, and 40 workers in piggery infrastructure. The project has built a pig breeding centre for the supply of high-yielding piglets to farmers, a feed mill for the supply of quality pig feeds, and a modern slaughterhouse for pigs only. The project also seeks to train pig farmers in modern animal husbandry practices, and to train pork vendors in food hygiene and health and safety practices. The project has trained 150 SMEs in various business management modules. A revolving fund (a fund established by a project for beneficiaries to continually access loans at relatively lower interest rates to finance their livelihood ventures) is to be set up for pig farmers, pork vendors and SMEs to provide easy access to credit facilities to enable beneficiaries expand their businesses. A memorandum of understanding (MoU) will be signed with a financial institution which will manage the fund. OLIVES has managed a similar project in the Bibiani-Anhwiaso-Bekwai Municipality in the Western North Region of Ghana, and this has been successful and sustainable after project closure.



Fig. 3. Speakers from various institutions sharing experiences from implemented livelihood projects

### 3.8 Microfinance/microcredit opportunities for fisher/farmers – OICI Microcredit

The Fisherman's Anchor Project is a micro-credit scheme funded by Tullow Ghana and being implemented by the Opportunities Industrialisation Centres International (OICI) to provide needed financial support to existing and new businesses, and fishing enterprises to boost economic activities in all seven coastal districts of the Western Region. The project aims at providing access to micro-credit for 750 beneficiaries for business creation, expansion and sustainability by December, 2022. It is also to provide access to Business Development Services for business improvement and growth; and to promote Association/Group Development and strengthening to create a cohesive business community. The project targets all coastal communities affected by Tullow's oil production activities. Its primary beneficiaries are those engaged in rural enterprises, fishing and farming activities, graduates who would want to create enterprises and youth who have graduated from artisanal apprenticeship including carpentry, masonry, mechanic, etc.

The key activities of the project include multi-stakeholder meeting; community engagement meetings for awareness creation; baseline study and beneficiary registration; formation and strengthening of Business Group/Affinity Group; assessment and selection of groups/individuals for credit; beneficiary training; preparation of projected income and cash flow statements; loan approval and disbursement; and loan monitoring and recoveries. Currently, the project has been able to disburse loans totalling GHS567,000.00 to 298 beneficiaries. These include 11 canoe owners (all males) and 287 fish processors (all females). As at the end of October 2020, there has not been any delinquent loans with loan recovery performance being 105%. This project has boosted the performance of many

businesses in the coastal communities. Eight new businesses have also been established as a result of the micro-credit provided by Tullow through OICI.

### **3.9 Preliminary findings of soil assessments and recommendations from fishing communities – Soil Solutions**

Soil Solutions helps farmers to know the properties of their soils to enable them to plant suitable crops. The organisation has been working with farmers across the country and has done some works with farmers in coastal communities in the Central Region through EJF/the FDN project. It provides a tool for soil testing for farmers to analyse their soils to determine the type of crops to plant, and the types of fertilizers to apply. The company has developed a testing kit called the Asaasepa Kit that is used to test for various properties of soils including pH and levels of nitrogen, phosphorus and potassium. The company trains farmers on the use of the kit so they can use it themselves. When the test result is produced by the kit, farmers then go to the Asaasepa App developed by Soil Solutions to click on the corresponding colour to display the various properties of the tested soil including for example the pH level, the type of crop to plant, and the best agronomic practices for the crop. If the farmer already has a crop in mind, maybe due to market availability, but the soil is not suitable, Soil Solutions advises the farmer on how to manage the crop to ensure increased productivity and production. A farmer in the Gomoa area has indicated the tremendous benefit the app has been to him. He planted vegetables (pepper and okro) and cassava on the same land. However, the vegetables were burnt while the cassava survived. Unknown to him, the land was not suitable for these types of vegetables. He only came to know this through the use of the Asaasepa kit. He would have avoided such loss of capital had he used the Asaasepa kit earlier.

### **3.10 Alternative livelihoods for fishers: Policy Brief – Dr. Berchie Asiedu, UENR**

Fisheries around the world are in crisis. The fishery resources in Ghana are under pressure due to high demands for fishery products, poverty, population growth and lack of alternative livelihood options. Thus, this academic study sought to examine alternative livelihood options (ALOs) in small-scale fisheries in Ghana in order to reduce pressure on fishery resources and enhance sustainable management of fish stocks. The study was carried out in Kpong, Small London, Elmina, and Ahwiam. The study found that most fishers have been fishing for over 15 years on a weekly basis. Most fishers are in their middle age and have at least 3 children with a household size of, at least, 6 and a higher number of financial dependents. Literacy was also found to be low among marine fishers, especially in Ahwiam and Elmina.

Some fishers were also engaged in alternative livelihoods including crop farming, livestock rearing, aquaculture, trading, salt mining and others. All the participating freshwater fishers in the study indicated their interests in alternative livelihood activities such as eco-tourism, aquaculture, fish processing, vegetable farming, and livestock rearing. Also, the majority of marine fishers indicated their willingness to engage in these activities. For many of these activities, fishers indicated that they have some levels of skills required to undertake them. The majority of fishers were willing to switch from fishing to alternative livelihood activities. All marine fishers interviewed in Ahwiam, for instance, were willing to switch. Also, almost all fishers were willing to learn skills required for engaging in alternative livelihood activities. However, artisanal fishers were more willing to stop fishing all together than freshwater fishers.

### **3.11 Livelihood diversification through agriculture: the WRCF approach – WRCF**

The Western Region Coastal Foundation (WRCF) is implementing various livelihood diversification interventions in the coastal areas of the Western Region. One of the key thematic areas is sustainable livelihood design and implementation. The WRCF uses community dialogue and data gathering in six coastal districts. So far, 298 communities have been reached by the Foundation. The NGO has been implementing climate-smart vegetable production activities in these coastal districts. A baseline survey in the coastal communities revealed that about 95% of farmers have some prior experience in vegetable farming but only 10.2% have ever had formal training in vegetable farming. These are smallholders with an average farm size of 0.5 acre depending solely on rainfall. The WRCF has been supporting farmers in soil fertility improvement, increased productivity, and income improvement. Farmers have been supported to reduce soil moisture through mulching, use organic manure and pesticides, recycling water from ponds, and composting. They are also supported to plant nitrogen fixing trees. For increased productivity, farmers are supported to use high yield and climate resilient seeds, irrigation techniques, and proper agronomic practices. Adoption of proper agronomic practices led to a 40% increase in yield.

### **3.12 Growing Economic Opportunities for Sustainable Development (GEOP) – Christian Aid**

This project was funded by the European Union (EU) and implemented by Christian Aid in collaboration with several other institutions in the Western and Greater Accra Regions. The specific objective of the project is to foster strong civil society and local authority partnerships to promote local job creation, revenue mobilisation and expansion of economic activities in an environmentally sustainable manner in the Ellembelle District, Western Region, and in Ayawaso East Municipality and Ablekuma South sub-metro of the Accra Metropolitan Assembly, in the Greater Accra Region, by the end of 2019. The project had three result areas. One of these was to create alternative livelihoods for young people and women in agro-economy areas. Some of the approaches used in the delivery of project activities include institution-based training (using training institutions in the community), facilitator-led trainings, master craft person apprenticeship, facilitating value chain development (Cassava and aquaculture value chains), high level institutional engagement, market linkages through trade fairs, and ownership through stakeholder involvement.

Through these approaches, the project has chalked many successes. It has trained 65 young women in market-led vocational skills to diversify businesses (including bridal makeup, pastry, fruit juice preparation); 360 young women's groups have been trained on leadership, financial literacy and taxation; 40 traditional authorities and policy makers have been trained on land tenure security; 5 aquaculture ponds have been set up in Awiebo and Anokye in the Western Region for catfish production and management; 50 young men and women have been trained in catfish management and practices; and one cassava processing centre has been established in Aluakpoke (Ellembelle) for farmers to process their fresh cassava into high quality finished products for commercial purposes. A board was set up to ensure sustainable management of the cassava mill and the aquaculture ponds.

### **3.13 Experiences from fisher-farmers – various fishermen**

Following the presentations, fishers who have switched to farming were given the opportunities to share their experiences, especially the reason for the switch.



Fig. 4. A fisherman sharing his experience

Meet Mr Nkekeshie Doe, a fisher-farmer from Anloga in the Volta Region. He realised that proceeds from the fishing industry were not encouraging so after seeing a friend, he learnt that farming is more lucrative than artisanal fishing. He then started investing in farming and realised that it is more profitable to be in the farming business. He stated that nobody forced him to venture into farming; it was the economic circumstances surrounding farming. He learnt farming from his father as a child and this has proven valuable in his switch from artisanal fishing to crop farming. He is currently farming okra, shallots and tomato and has 0.25 acre under

intensive vegetable cultivation on a leased area of land. He is able to pay for the lease and still make profit from farming to take care of a household of eight.

Mr Seth Kedey is also a fisher-farmer from Keta in the Volta Region. He was not making sufficient proceeds from artisanal fishing. His wife has been farming alongside her fish processing business so he decided to join his wife on the farm and gradually learnt how to farm. His wife encouraged him to enter into farming. The land on which he is currently farming belongs to his wife's family and has 0.25 acre under intensive vegetable cultivation - shallots, okra and pepper.



Fig. 5. A fisherman sharing his experience

Mr. James Acquach is a fisherman in Gomoa Abrekum in the Central Region who has switched to farming. He said he used to share the proceeds from fishing with his crew



Fig. 6. A fisherman sharing his experience

members leaving a small amount for his upkeep. Due to this, he decided to switch to crop farming and started with maize farming. However, maize farming was not economically viable due to marketing problems. After a soil test with the Soil Solutions' test kit, he realised that the land was suitable for tomatoes, okra, and watermelon. Based on this advice, he entered into the production of tomatoes, in particular, as well as okra and watermelon. He has since realised that the cultivation of these products is more lucrative. The only setbacks are the low prices offered by



buyers, and the invasion of farmlands by Fulani herdsmen with their cattle herds. His example has inspired other fishermen in his village who have now ventured into farming. He learnt how to farm from his mother, whose main livelihood activity had been farming. He has 12.5 acres under cultivation: 8 acres of tomatoes, 2 acres of okra and 2.5 acres of watermelons.

Nana Kweku Awotwe is the chief fisherman of Brenu Akyinum in the Komenda Edina Eguafo Abirem district of the Central Region. Initially, he was not into fishing but decided to enter into fishing after refusing to go to school. He had been fishing for a very long time without any economic breakthrough. He therefore decided to engage in crop farming since there is a vast area of family land available. He has been farming for a while and has realised that farming (pineapple and watermelon) is lucrative. He is looking for support from donors to improve his farming business. He has 3 acres under cultivation - pineapple and watermelon.



Fig. 7. A fisherman sharing his experience

Meet, also, Mr. Joseph Amissah, a fisher-farmer from Brenu Akyinum in the Central Region. He was formerly a boat owner whose crew members used to sell harvested fish in different



Fig. 8. A fisherman sharing his experience

communities such as Komenda and Moree without his knowledge. After finding out, he realised continuing to be in the fishing business would dwindle his economic resources. He therefore decided to venture into pineapple and watermelon farming. He said that now the fishing business is not as it used to be in the olden days where they had large fish catches. “Typical catches today in relation to crew members are critically low. There is a huge problem in the fishery industry today and something must be done about it”. He has access

to 50 acres of land and 5 acres of it is under pineapple cultivation.

### 3.14 Output of discussions on presentations

The presentation sessions were interspersed with questions and deliberation sessions to stimulate discussions on alternative livelihood options and help chart the way forward for artisanal fishers in Ghana. Some of the key conclusions from the discussion sessions include the following:

### *Livelihood interventions*

- The findings of the Scoping Assessment of EJJ is a true reflection of the issues on the ground.
- Livelihood option issues should be well presented to fishermen to avoid misunderstanding and misconceptions.
- Alternative livelihood interventions cannot be implemented wholesale since what might work in the Volta Region, for example, may not work in the Greater Accra Region.
- Service provision (e.g., transport, waste collection, hairdressing, masonry, etc.) can also be considered as alternative livelihood options especially for the youth.
- Diversifying livelihoods for fisherfolks should target the youth. Currently, the majority of the youth have moved from fishing into vegetable production due to increase in population and climate variability. They are now producing carrot, pepper, tomatoes, cabbage, shallot, lettuce and okra.
- Socio-economic analysis of fisherfolks at the household level is needed to better inform the development and implementation of alternative livelihood options.

### *Management and sustainability*

- Sustainability of livelihood projects is key. As long as there is project support, beneficiaries will adopt recommended practices. However, this usually stops when the project ends. A typical example was a project in Saltpond and Elmina where fishers went back to the use of small mesh sizes after the project ended.
- Fishermen do not chicken out of livelihood projects. It is all about management. Fishermen must not be left on their own to move forward after the duration of projects.
- Sustaining livelihood interventions beyond project life becomes difficult owing to discontinued funding and other support.
- Project management should be taken seriously, and a risk matrix properly developed so as to ensure sustainability after project duration.
- There must be a steering committee made up of only fishermen to manage supplementary livelihood activities.
- Implementers of livelihood interventions for fisherfolks should leverage on existing livelihood projects.
- A position paper must be written to the Ministry of Fisheries and Aquaculture Development concerning application of the Fisheries Development Fund to directly benefit fisher folks.

### *Attitude of fishers and power dynamics*

- Fishermen are now responsible and willing to change. Though they were somehow conservative, current circumstances have pushed them to change. The only barrier is how they are involved by regulators and funders in projects. Fishermen need to be involved right from the planning stage to the implementation stage to ensure buy-in.
- Alternative livelihood projects must consider power dynamics within fishing communities. Chief fishermen do not represent the interests of crew members and

must not be used as such. The use of boat owners and *konkohemaas* will prove to be invaluable in ensuring buy-in from crew members.

#### *Institutional collaboration*

- Farmers need to involve the offices of the Ministry of Food and Agriculture in their respective districts for improved agronomic practices.

#### *Peer influence and experience sharing*

- The Volta Region is far ahead of the other regions in the uptake of alternative livelihood ventures and can share experiences with other regions in this regard.
- Chief fishermen who have taken up alternative livelihood activities need to rope other fishermen into crop farming as they (chief fishermen) have much influence.
- For the TechnoServe projects, most of the females in poultry, piggery, fish processing, maize processing and cassava processing were more successful than the males.

#### *Marketing, skills and training*

- Livelihood projects should look at the marketing of produce from introduced enterprises, and training of beneficiaries to take advantage of the opportunities they offer. For instance, the Edina Salt project by the Fisheries Commission was taken over by higher income businessmen who could package the salt for export at the expense of the low income fisherfolks who were the target beneficiaries.
- We should start incorporating indigenous skills in our development programmes.
- Fishermen must be trained in financial management.

#### *Other considerations*

- Soil analysis is very important in crop farming as an alternative livelihood option.
- Fisherfolks in the Greater Accra Region, especially those in Accra, do not have land and can look at off-farm alternative livelihood activities.
- Livelihood options must enhance biodiversity and conserve the ecosystem, e.g., beekeeping, snail rearing and woodlot.

### **3.15 Key lessons and best practices from previous and ongoing livelihood interventions**

Some key lessons learnt and best practices from the implementation of livelihood projects in Ghana, especially in coastal communities, are:

- Adequate sensitization of beneficiaries should be ensured to clear all misconceptions.
- The target of alternative livelihood projects should be the younger generations. When these young ones are trained, their minds can be kept off traditional fishing.
- Aquaculture can be a viable alternative livelihood option for fisherfolks as they will still feel they are fishermen.
- Alternative livelihood projects should be sustainable.
- Projects must ensure market availability for beneficiaries.
- Regular refresher trainings must be organised for beneficiaries.

- Projects should have documentary evidence (including pictures, videos and signatures) of intervention support delivered to beneficiaries to serve as a database to inform future development interventions.
- Completion of a risk matrix for each livelihood option with beneficiaries is key.
- Projects must engage the traditional authorities.
- Instituting a reward and sanction mechanism (e.g., recognising beneficiaries in good standing and naming and shaming those who deliberately misapply project support) will promote adoption.
- Gender mainstreaming is key to successful projects.
- Liaising with multiple stakeholder organisations will ensure success while institutional collaboration ensures better project delivery and sustainability.
- Vegetable production is a profitable venture which when introduced will be very lucrative for fishers.
- The more farmers adopt agronomic practices, the more they increase their yield and hence increase profit.
- Ready markets exist for farm produce (vegetables, pineapples, etc.) in the fishing communities and their environs.
- Easy access to credit enhances the performance of livelihood ventures of smallholders. The setting up of a revolving fund (a fund established by a project for beneficiaries to continually access as loans at relatively lower interest rates to finance their livelihood ventures) as part of livelihood projects for smallholders has proven to be a better option for ensuring access to affordable credit facilities by smallholders.
- The use of financial institutions as fund managers ensures sustainability of financial grants to smallholders. Experience from the Bibiani-Anwhiaso-Bekwai Municipality shows that once the bank takes over the disbursement and recovery of funds from smallholders, loan recovery becomes more successful. Recovery would have been difficult had funds been managed by the Assembly or the NGO as beneficiaries would have regarded the loans as free grants from the government or donors.
- The use of the group guarantee system (a guarantee mechanism by which a group of borrowers undertake to be liable, jointly or severally, to a loan of anyone of them) helps in business success and loan recovery since the group leader has to accept each prospective beneficiary as credit worthy before accepting him/her into the group.
- Beneficiaries must contribute something to the project to ensure ownership. In the case of the OICI Microcredit, the beneficiaries pay a small amount as insurance.
- Microcredit must not be forced on beneficiaries. They should be made aware of it and then allowed to decide to opt for the microcredit.
- The provision of counterpart funding by local development partners (e.g., metropolitan, municipal and district assemblies (MMDAs)) promotes commitment and ownership of projects beyond the project life.
- Public-Private Partnership (involving private investors and government in establishing a project and/or providing services to the populace – usually long term in nature) in managing project infrastructure and equipment is key to ensuring sustainability of projects beyond project duration. This is the model OLIVES is currently employing in the EU-Weija Gbawe project.

- It is paramount for fishers who would want to venture into crop farming as an alternative or supplementary livelihood to know the properties of the soil to avoid loss of start-up capital which will eventually demotivate them in their livelihood diversification.
- The entire socio-economic background of fishers should be established and taken into consideration for project intervention design. Failure to do so has been the bane of the majority of alternative livelihood projects.
- Irrespective of interventions, some fishers would not like to switch from fishing to alternative livelihoods.
- Alternative livelihoods should be community/area specific.
- Joint CSO planning of development interventions with local government officials increases trust and stimulates interest and support.
- Access to start-ups for beneficiaries after project trainings is very crucial for job creation.
- Baselines are crucial for the design of skill-based projects and ensures sustainability because they help meet the skill-demands of the youth and the job market.
- Technical trainings through mandated technical institutions receive the acceptance of target trainees.
- Innovative ways can be established for backyard vegetable farming such as using boxes (wood), lorry tyres, plastic containers, and sacks.
- Access to land is a barrier to crop farming in some coastal communities e.g., some parts of Volta Region.
- Cost of production hinders the majority of fisherfolks from venturing into vegetable production. Example costs for electricity supply for irrigation, poultry droppings, and labour are high.
- Low level of entrepreneurial mindset militates against the promotion of entrepreneurship in the fishing communities. This has resulted in the overdependence on the fishing industry for their livelihoods. There is also low level of managerial skills to successfully operate businesses to ensure growth and sustainability.
- Access to capital in fishing communities to enable fishers to acquire technology to increase productivity and ensure business growth is a constraint.

## **4. Discussion of livelihood interventions for fishing households**

There were presentations and discussions of alternative livelihood interventions for fishing households in coastal communities.

### **4.1 Presentation of discussion questions – OLIVES**

OLIVES, the facilitating organisation for the workshop, presented discussion questions that formed the basis for discussions and presentations on the way forward for the livelihoods of fisherfolks. The questions from the discussion paper were categorised into general and specific questions.

### **4.2 Group discussions**

After the presentation of the discussion questions, workshop participants were divided into three groups of seven to eight members to discuss the questions further thereby teasing out alternative livelihood options guided by the lessons from previous projects, and the

discussions at the workshop. The groups used brainstorming, deliberations and discussions to complete their assigned tasks. Below are pictures from the group activities.



Fig. 9. Participants during group discussions and presentations.

### 4.3 Outcomes from group discussions

After more than an hour of brainstorming and discussions, the groups were ready to present their findings. A synthesis of the results from these discussions together with the key points in the discussion paper is given under each discussion question below.

#### 4.3.1 General questions

##### ***1. What are the key issues to be considered in developing livelihood programmes that aim to support/promote smallholder farming in fishing communities?***

The following key issues must be considered in developing livelihood programmes for smallholder fisherfolks in fishing communities:

- Involvement of all stakeholders in all stages of livelihood programmes, from conception to sustainability is critical.
- Profiling of beneficiaries and commodity value-chain actors must be done to inform project design.
- Sensitization of communities and stakeholders to secure their buy-in is key for project success
- Short-term interventions – interventions with short-term returns should be of priority, e.g., piggery, vegetables, poultry, mushroom, etc.
- Interventions should be tailor-made according to household needs and available local resources.



- Land availability including land tenure systems and soil type must be validated for a successful farm-based intervention.
- Access to market and value chain development is key for successful livelihood ventures.
- Water availability for year-round crop farming must be established.
- Access to inputs and technical support must be readily available.
- Interest of the smallholder farmers must be considered in livelihood options.

## ***2. What are the lessons learned and best practices from previous interventions***

- Continuous stakeholder engagement and participation right from design to execution is key to project success.
- Mentoring and coaching is paramount
- Provision of starter packs/inputs/equipment (e.g., improved breeds, improved seeds, tools, agrochemicals, etc.) to smallholders facilitates adoption
- Consideration of beneficiary interests ensures buy-in
- Increased coordination between Metropolitan, Municipal and District Assemblies (MMDAs) and projects promotes sustainability beyond project duration
- Proper sustainability of the project must be a priority.
- Ownership of the project by beneficiaries must be fostered
- Cost benefit analysis of proposed livelihood interventions is necessary to enable beneficiaries to make the most viable economic decisions
- Soil analysis is indispensable for crop farming.
- Donor intervention is critical to the success of livelihood interventions.
- Any technology introduced should be user-friendly and locally adaptable.

## ***3. What are the opportunities in terms of the use of technology in smallholder farming?***

A number of technologies are already available to farmers. Farmers, therefore, could have access to:

- Improved seeds, breeds and feeds.
- Greenhouse technology.
- Use of mobile apps for information on best husbandry practices, market access, early warning system, rainfall patterns.
- Soil testing kits (nutrient content test application) like the Asaasepa kit.
- Hydroponics techniques.
- Simple solar irrigations systems/small-scale irrigation systems.
- Mechanized farming including the use of the manual planter for multipurpose function (seeds and fertilizers).

## ***4. What types of livelihood activities offer the greatest potential in the coastal regions?***

Generally, activities that will offer greatest potential should have the following characteristics:

- Livelihoods that are not capital intensive.
- Livelihoods with ready market for produce.
- Livelihoods that offer quick returns.
- Livelihoods that are built on existing activities currently in practice by the people.
- Proximity to neighbourhood – activities that are not too far from their residence

Thus, livelihood activities that offer the greatest potential in coastal regions include

- Vegetable farming, livestock, non-traditional farming (e.g., mushroom production, beekeeping, snail rearing).
- Value addition (e.g., cassava processing, oil processing), bakery.
- Traditional craft – bead making, crafting and painting
- Salt mining
- Woodlot establishment

***5. How can interventions be effectively targeted to ensure the inclusion of vulnerable and marginalized groups, while ensuring gender equity (including fishers, fishmongers and fish processors)?***

- Properly designed baseline study and needs assessments must be carried out
- Understanding of community traditional systems (e.g., socially constructed roles of males and females in the fishery value chain)
- Supervision, monitoring and evaluation
- Engagement of intended beneficiaries at every stage of livelihood intervention.
- Classification of beneficial groups and dealing with them differently.
- Empowerment through training to enable them be part of the project.
- SWOT Analysis
- Design of interventions that provide a safety net for vulnerable groups and ensure gender equity.

***6. How can fisheries and non-fisheries NGOs, public institutions and academia effectively cooperate in the design and implementation of livelihood programmes for fisher-folks?***

- Networking and relationships with service providers (non-fishery service providers) and other stakeholders should be facilitated at the commencement of each development intervention.
- A Steering Committee that creates a common platform for key industry stakeholders to dialogue should be set up.
- There should be demand-driven research and dissemination.
- Project verified results should be incorporated in MMDA development plans.
- Concerted efforts to organize training, conferences and write project concepts and proposals together and implements projects should be a key focus.
- Understanding the roles and functions of each actor.

#### **4.3.2 Specific questions**

***1. What are the opportunities and challenges within fishing communities for implementation of smallholder crop farming, including with regard to water and land availability, access to markets and finance, and pests/disease and ensuring sustainability?***

Opportunities:

- Crop farming activities already exist at a small-scale level in coastal communities. Thus, many fishers already have knowledge and experience in farming.
- There exist arable lands in the coastal communities.
- Some markets exist for farm produce within and outside of communities.

- Agro-inputs supply sources are available.
- There exist agricultural extension services.
- Climatic conditions in the coastal communities support crop farming.
- There exist small-scale irrigation systems (e.g., sprinkler and spray irrigation), especially in the Volta Region, which could be adopted by farmers.

#### Challenges:

- Over-reliance on rain fed agriculture makes crop production seasonal resulting in gluts in peak seasons and scarcity in lean seasons.
- Much of the water sources in coastal communities have high salinity levels.
- Many fishers are migrants who do not own arable lands, or enough space in their backyards for cropping.
- Post-harvest management and marketing at subsistence level could be managed. However, producing at commercial levels might pose a challenge due to bumper harvest.
- Introduction of non-fishing enterprises to fishers may exist as a supplementary enterprise. Substituting fishing with non-fishing enterprises like crop farming to fishers is not achievable in the short-term.
- Short-term livelihood projects are mostly not sustainable beyond the project lifecycle owing to the break in project support (e.g., financial and technical support).
- Challenges to land in coastal communities also include high cost of farmland, complicated land tenure systems, and rapid urbanisation leading to land scarcity.
- Inadequate agricultural extension services in some areas.
- Soil infertility.
- Risk of flooding in coastal areas.
- Price fluctuations.

#### ***2. What types of crops and livestock would be appropriate for smallholder farming activities in fishing communities?***

- Food crops, vegetables and fruits: chili pepper, okra, garden eggs, cherry tomatoes, pineapple, shallots, watermelon, cassava, tiger-nuts, groundnuts.
- Tree/cash crops: woodlot (coastal communities in the Central Region), coconut, sugar cane, oil palm, para rubber, cocoa.
- Livestock: piggery, poultry (in cages).
- Aquaculture (e.g., catfish, tilapia)
- Non-traditional farming activities: beekeeping.

#### ***3. What are the opportunities and prospects for the establishment of farmer cooperatives in coastal communities?***

- The fisher-folks work in “companies” which share common features with cooperatives. These can be easily formalised into cooperative unions. The crew concept has a high potential of being adopted as a model for fisher-farmer cooperatives.

#### ***4. How can sustainable/conservation agricultural practices be employed to improve resilience and maintain productivity over time in smallholder farms (e.g. crop rotation, inter-cropping/companion planting, mulching, no-till, etc.)?***

- The project should be planned and designed to incorporate sustainable/conservation agricultural practices having in mind climate-SMART practices.
- There should be effective capacity-building of farmers for good farming practices.
- The commodities in the package should have varying life cycles.
- Commodities in the package should be compatible and have attractive market returns.
- Regular and timely technical support should be provided.
- New technologies that ensure all year planting should be employed
- Livelihood interventions should rely on extension service providers
- Aquaculture integrated farming (aquaculture plus poultry, piggery or vegetables) should be adopted.

***5 What are the prospects for the adoption of organic agriculture in coastal communities?***

- Organic farm produce is of higher value on the market.
- There is emergent market for organic farm produce in the Ghanaian urban space.

***6. What are the opportunities and barriers to the deployment of innovative, climate-SMART technologies, in particular, the use of solar pumps and small-scale drip irrigation systems in coastal communities?***

**Opportunities:**

- Sunlight is available all-year round for use by solar-powered systems.
- There is underground water that can be pumped by solar pumps for small scale drip irrigation systems in coastal communities.
- The youth in coastal communities in the Volta Region lay irrigation pipes connected to hand dug wells by themselves, which shows that some fishers have initial skills for small scale irrigation systems.

**Barriers:**

- Group management of such systems is a potential barrier.
- Climate-SMART interventions require technical skills with detailed attention e.g., Dome Greenhouse vegetable farming.
- Inadequate skill in the use of technology in coastal communities.
- Relatively high cost of technology acquisition
- Resistance to change among some fisherfolks
- Inadequate sources of funding

***7. What are the options for facilitating access to capital/microfinance for smallholders?***

- Tapping into government flagship programmes (e.g., Planting for Food and Jobs, Rearing for Food and Jobs, etc.)
- The use of micro-credit schemes
- Self-financing through the Village Savings and Loan Associations (VSLAs) and smallholder cooperatives.
- Fisheries Development Fund
- Donor funding (including project revolving funds).

## **8. What are the options for facilitating access to inputs and extension services for smallholders?**

- Linkage of farmers to service providers (input suppliers and extension officers).
- Services of these providers (inputs and technical) should be incorporated into the project planning, design, implementation and monitoring processes.
- Tapping into government-initiated programmes (e.g., Planting for Food and Jobs, Rearing for Food and Export).
- Liaising with manufacturers and input dealers.
- Use of input-credit schemes.
- Involving the services of inputs providers such as Yara, Chemico (both producers of agrochemicals), MOFA, etc. in project design and execution.
- Use of government agricultural extension agents.

## **5. Recommendations**

Based on the Scoping Assessment, the Discussion Paper, and conclusions from the workshop, OLIVES makes the following recommendations regarding alternative livelihoods for artisanal fishers in the coastal regions of Ghana, especially the Central Region.

### **5.1 Livelihood interventions**

#### **▪ *Potential alternative/supplementary livelihood interventions***

The workshop revealed that circumstances beyond the control of artisanal fishers have made the majority of them willing to engage in at least some supplementary livelihood activities. Many alternative or supplementary livelihood options exist for fishermen, as revealed by the EJF Scoping Assessment and corroborated by the workshop. However, only those livelihood options that are lucrative enough can elicit acceptability and adoption by fishers. The livelihood options that have higher potential for providing supplementary or alternative incomes to fishing communities include crop farming, livestock rearing, aquaculture, value addition (e.g., cassava processing, coconut oil production), non-traditional farming activities, and possibly, on-farm employment through an industrialised farming model.

For crop farming, crops that have the highest potential of adoption and economic viability include vegetables such as chili pepper, okra, garden eggs, cherry tomatoes and shallots; and fruit crops such as pineapple, watermelon and tiger-nut. These crops are short-cycled commodities that can meet fishers' desire for short-term benefits from economic activities. Fishers, especially those in the Western Region where land and climatic conditions are favourable, can also venture into the cultivation of woodlots, cocoanut, para rubber, sugarcane and oil palm as long-term alternative livelihood activities. Vegetable production for fishers should be vigorously pursued in the Volta Region since many of the fisherfolks are actively taking this up in the region. Fishers can employ organic farming techniques in crop farming. Though organic products have high value in the market, they are in relatively low demand in the local market and concerted efforts would need to be applied by project actors to create markets for these.

With regards to livestock production, farmers should venture into poultry and piggery. Though the outbreak of diseases such as bird flu and the African Swine Flu may threaten these ventures respectively, it is believed that with the right management and technology, these ventures will prove effective in reducing fishers' dependence on the sea as the main

source of livelihood. Aquaculture is a venture that is more likely to succeed as an alternative livelihood ventures for fishers. As was pointed out in the workshop discussions, this may be more acceptable to fishers as they will feel as still being in the fishing business. Also, previous interventions by the WRCF and TechnoServe have provided enough evidence that aquaculture is a very lucrative business for fishing communities. It also leverages on the already existing fishing value chain in coastal communities and is thus less likely to make many value-chain actors redundant. Another livelihood alternative option that can be funded for fishers is value addition. Cassava processing, oil palm processing, and coconut processing can be lucrative for fishers. The raw materials for these ventures abound in most of the coastal communities in Ghana. Non-traditional farming activities such as mushroom production and snail rearing can also be pursued by fishers. It is believed that when farmers are supported to carefully transition into these ventures as either supplementary or alternative livelihoods, dependence on the already scarce fishing stock will be markedly reduced.

- ***Context-specific application of alternative livelihood interventions***

There was a general consensus at the workshop that livelihood interventions cannot be implemented wholesale across all coastal communities. Activities must be context specific. They should leverage on the opportunities and potentials already existing in the coastal communities. For instance, EJJ should consider the issue of land scarcity in the Greater Accra Region and promote options that are less dependent on land such as innovative ways of farming using boxes, sacks, etc., and intensive poultry production. In the Volta Region, however, there are ample opportunities and markets for vegetable production, and this should be the main target of any alternative livelihood intervention. Fishing communities in the Western Region have access to land, with conducive climatic conditions for many of the crops listed here. Opportunities exist for cash crop farming such as para rubber, oil palm, coconut and cocoa, besides vegetable and livestock production. Those in the Central Region can be supported in vegetable production, fruit production such as pineapples, watermelon, and tiger nuts, aside from livestock production.

- ***Alternative livelihood activities to target the youth***

The youth offer a very good potential for breaking the chain of dependence on the sea. The workshop revealed that the younger generation is the engine of change in fishing communities. Therefore, many of the alternative livelihood interventions should target them, and change their mindset, thereby altering the entrenched position of fisherfolks with regards to fishing. Already, many of the youths in the Volta Region have moved from fishing into farming, and this demonstrates the possibility of adoption of farming by the youth in coastal communities in other regions. Findings of studies presented at the workshop show that the majority of fishers (around 84%) are above 35 years of age and are outside the youth age-cohort. Many of the youth in coastal communities are already in search of alternative livelihood options and targeting them will ensure more acceptability and success. Further, the favourable age characteristics also mean that project implementers will spend less time and effort trying to change the mindset of beneficiaries when the youth, many of which are disillusioned by the dwindling prospects of artisanal fishing, are targeted. This means reduced cost of project implementation, and less possibility of dropouts, and failure.



- ***Other considerations in livelihood interventions***

The socio-economic backgrounds of fishers should inform the design and implementation of the various alternative livelihood options recommended. Interventions should be sensitive to income groups and power dynamics in coastal communities. Beneficiaries should be disaggregated, and group specific interventions administered. For instance, boat owners should be treated differently from crew members, and chief fishermen should be separated from ordinary fishermen. This will safeguard success across the board and prevent power capture which may militate against success at the grassroots. Interventions should also consider facilitating access to land for those who do not have land. Communal farming spaces could be created with a collaboration between traditional authorities in coastal communities to provide farming spaces for these farmers. Also, project implementers should undertake a detailed risk assessment for each livelihood activity with potential beneficiaries to enable them to make well-informed decisions regarding the choice of livelihood intervention. Further, the workshop revealed that many alternative livelihood interventions have failed in coastal communities due to the failure to adequately and appropriately present issues and concepts to fishers. Therefore, provision of information to potential beneficiaries should be a topmost priority. Projects should ensure adequate sensitization of beneficiaries through diverse means including durbars, radio programmes, information centres, mobile phones, and posters to clear misconceptions. This will ensure buy-in and promote sustainability beyond project duration.

## **5.2 Capacity building**

It was established in the EJF Scoping Assessment and at the workshop that fishers have some initial skills in farming. However, these skills are rudimentary and will need to be modernised in order to enhance production and productivity. For this reason, adequate capacity building should be one of the principal activities of any programme to promote alternative livelihood activities in coastal communities. There are agricultural training institutions in the coastal areas such as the Adidome Farm Institute in the Volta Region, the Asuansi Farm Institute in the Central Region and many others which should be involved in training fishers in modern methods of farming. Through these capacity building activities, fishers will be able to acquire lifetime farming skills. Not only will the use of these training institutions ensure the acquisition of skills but also, the workshop revealed that, technical trainings through mandated technical institutions have higher levels of acceptability among target beneficiaries.

Further, the workshop revealed that fisherfolks have low levels of entrepreneurial mindset and managerial skills. Capacity building workshops should aim to change the mindset of fishers and encourage them to think in more entrepreneurial terms. Business management trainings should also be an intrinsic part of capacity building activities, transforming farming for subsistence into farming as a business among coastal communities. These trainings should not be a one-off activity. The design of interventions should include refresher trainings for fisher-farmers. It was demonstrated in the workshop that such refresher trainings facilitate adoption and enhance success.

## **5.3 Financing**

The major hindrance to the uptake of alternative livelihoods in coastal communities is lack of funding. For those who venture into alternative livelihoods with their own limited funds, the cost of production dwindles the possibility of expansion. Therefore, the most critical area for

any intervention should be the provision of financial support, and the facilitation of access to finance for beneficiaries. For fishers, providing immediate access to start-up capital is indispensable. Various starter packs should be given to fishers whether in crop farming, livestock production, aquaculture or non-traditional farming. These starter packs should be in the form of input support as well as support for setting up including land acquisition and preparation. Interventions should also tap into government projects such as Planting for Food and Jobs, Rearing for Food and Jobs, and other government-led initiatives for additional input support.

It was the consensus of participants at the workshop that easy access to affordable credit enhances the performance of livelihood ventures of smallholders. For this reason, a grant from donors could be used to set-up a revolving fund for fisher-farmers which would provide affordable credit facilities to farmers to provide the necessary capital for continuous access to higher yielding inputs, year-round production, and expansion of alternative livelihood ventures. As was demonstrated in the presentation of OLIVES at the workshop, the revolving fund should involve a credible financial institution as the fund manager which will disburse and recover loans to beneficiaries in coastal communities. These loans could be made available to fishermen at interest of around 15% per annum. The financial institution could keep 10% as its management fee and plough the 5% back into the fund to ensure sustainability. Currently, fishmongers access loans from rural banks and micro-finance institutions with interests of at least 60% per annum. Thus, establishing a revolving fund to provide affordable credit facilities is more likely to be acceptable to coastal communities.

Other avenues of financing should also be explored. For instance, projects can leverage existing Village Savings and Loan Association (VSLA) scheme to provide additional credit facilities for beneficiaries. The crew system among fishers could be formalised into cooperatives which could adopt the VSLA system to provide financial support to members. Other microcredit schemes that use the group guarantee system could be explored. Groups could be linked to credible financial institutions to access supplementary credit facilities. Routine financial and credit management trainings will be required to equip beneficiaries with the requisite knowledge and skills in managing both credit and proceeds.

#### **5.4 Marketing**

Projects must ensure market availability for beneficiaries. Currently, there are ready markets for the crops recommended for livelihood interventions. However, interventions in these areas would mean increase in supply leading to surpluses in the market. Already, one of the major challenges of the fisher-farmers in the Gomoa area in the Central Region is the marketing of produce and low prices. Therefore, projects to promote the uptake of these livelihood options should include the linking of these fisher-farmers to buyers from within and outside of coastal communities. Cooperatives should be supported to be a hub for marketing and pricing information for farmers as well as centres for the collective marketing of produce. In the medium to long-term, donors could collaborate with the government to establish processing factories that will buy excess produce for processing.

#### **5.5 Institutional collaboration**

Many institutions are working to ensure the welfare of artisanal fishers in Ghana. There must be active collaboration between institutions to ensure a coordinated and holistic approach to the issue of alternative livelihood for fishers. Governmental institutions, non-governmental

institutions, academic and developmental institutions, and traditional and religious institutions must collaborate, form a steering committee, organise workshops, share ideas, and jointly design and implement alternative livelihood projects in coastal communities. Such collaborations have proven to be effective in the delivery of development interventions in many coastal communities as was demonstrated in the various presentations at the workshop. Institutional collaborations also foster trust and buy-in from project beneficiaries.

## **5.6 Use of technology**

The use of technology in crop farming increases productivity and production. Thus, fishers should be supported to acquire yield-improving technology such as soil testing kits, and climate-smart irrigation technology. The soil testing kit by Soil Solutions is a good tool to start with. This will help farmers to be well-informed about the nature of their soil and thus avoid loss of capital or low yields. Further, the use of drip irrigation systems with solar-powered pumps will ensure year-round production. Other apps that use simple dashboards to educate farmers on crops and animals, climatic conditions, and good agronomic and animal husbandry practices could be used by fishers. These will help improve yield and make crop farming and livestock production lucrative ventures with the highest possibility of attracting even the most entrenched fisherman. However, fishers cannot obtain these technologies without donor support. It is therefore recommended that planned interventions consider covering the cost of these smallholder technologies for potential beneficiaries.

## **5.7 Sustainability**

Project sustainability must be a key area of attention right from project conception through to implementation. One area of ensuring sustainability will be through counterpart funding. Projects must not completely fund all activities. Beneficiary fishers should be made to contribute between 5% and 10% of the seed capital to ensure ownership of project. It is believed that without such counterpart funding by beneficiaries, they will not be motivated to continue with farms beyond the project duration. Further, conscious efforts should be made to link farmers to the Ministry of Food and Agriculture (MOFA) departments in their respective districts to enable them to continue to receive technical support and encouragement beyond projects. The involvement of agricultural extension agents, and veterinary agents in MOFA departments in the design and implementation of projects will engender ownership among these agents who will continue to support beneficiaries after project duration. The establishment of strong, independent, and self-sustaining cooperatives among beneficiaries will also promote sustainability as these cooperatives will continue to support members financially, and collectively support each other in accessing credit, and marketing of produce.

# **6. Conclusions**

Many key lessons were learnt from the presentations at the workshop. Most of the previous or ongoing livelihood projects presented were designed for and implemented in coastal communities, especially the Western Region. Several conclusions were reached from the discussions of findings at the workshop. This report has documented these lessons and conclusions. An updated version of responses to the key discussion questions has also been presented. This is a synthesis of the content of the discussion paper with responses from the multi-stakeholder workshop. In all, there was a general consensus that fishers are now willing to change but will only embrace alternative livelihood options that offer comparable returns to fishing. For this reason, it is recommended that any alternative livelihood interventions in

the Central Region should consider short-cycle options such as vegetable production, aquaculture, poultry and piggery. Other medium to long-term interventions, especially in the Western Region can be cash crop farming. Access to financial support should be of topmost priority in any proposed interventions. Other key areas to be considered are capacity building, institutional collaboration, and sustainability. It is believed that with these, fishermen will improve their living conditions and depend less on the sea.

## 7. ANNEX 1. Workshop Agenda

### Opening up environmentally sustainable, climate-resilient livelihood opportunities for artisanal fishing communities in Ghana

#### Roundtable meeting to share experiences and chart a way forward

**Day 1: 30 November, 08.30-17.30**

<b>Time</b>	<b>Session</b>	<b>Who</b>
08.30-09.00	Arrival and registration	
09.00-09.05	Prayer	
09.05-09.15	Aims and objectives of meeting	EJF
09.15-09.35	<b>Presentation:</b> Findings of scoping assessment	EJF
09.35-09.55	<b>Presentation:</b> Overview of the work of the alternative livelihoods committee	FC
09.55-10.15	<b>Presentation:</b> Support for smallholder farmers: government policies, projects and initiatives	MOFA
<b>Session 1: Livelihood programmes (1)</b>		
10.15-10.35	<b>Presentation:</b> Overview of market-based initiatives and approaches	TechnoServe
10.35-10.55	Discussion and questions	All
<b>10.55-11.10</b>	<b>Break</b>	<b>All</b>
11.10-11.30	<b>Presentation:</b> Lessons learnt from projects with smallholder farmers and application in the fisheries context	SNV
11.30-11.55	<b>Presentation:</b> ENI livelihood restoration programme	ENI rep
11.55-12.20	<b>Presentation:</b> Growing Economic Opportunities for Sustainable Development (GEOP) – funded by the European Union	Christian Aid
12.20-12.45	<b>Presentation:</b> Korsung community-farm model in Northern Ghana	iDE
12.45-13.30	Discussion and questions	All
<b>13.30-14.30</b>	<b>Lunch</b>	<b>All</b>
<b>Session 2: Livelihood Programmes (2)</b>		
14.30-15.00	<b>Presentation:</b> Smallholder horticulture: experience from fishing communities in the Volta Region	Adidome Farm Institute
15.00-15.20	<b>Presentation:</b> Strengthening an agricultural value chain in the Bibiani-Anhwiaso-Bekwai Municipal Assembly (BABMA)	OLIVES
15.20-15.40	<b>Presentation:</b> Microfinance/microcredit opportunities for fisher/farmers	OICI Microcredit
15.40-16.00	<b>Presentation:</b> Preliminary findings of soil assessments and recommendations from fishing communities	Soil Solutions
16.00-16.15	Experiences from fisher-farmers	Fisher/Farmers
16.15-17.00	Discussion and questions	All
17.00-17.15	<b>Summary of the day's proceedings</b>	Facilitator (OLIVES)

**Day 2: 1 December 2020, 08.30-14.15**

<b>Time</b>	<b>Session</b>	<b>Who</b>
08.30-09.00	Arrival and registration	
09.00-09.05	Prayer	
09.05-09.20	Recap on the key discussion points from previous day	Facilitator (OLIVES)
09.20-09.40	<b>Presentation:</b> Alternative livelihoods for fishers: Policy brief	Dr. Berchie Asiedu UENR
09.40-10.30	<b>Presentation:</b> Discussion paper	OLIVES
10.30-11.00	Questions and Answers on the Discussion Paper	All
<b>11.00-11.15</b>	<b>Break</b>	<b>All</b>
11.15-12.15	Identification of Livelihood Interventions based on smallholder farming for fishing households (Using Discussion paper as a guide)	Group work
12.15-13.15	Presentation of group work/findings	Group Reps
13.15-13.45	Summary	Facilitator (OLIVES)
13.45-14.00	Next steps	EJF
14.00-14.10	Closing remarks	FC/MOFA
14.10	Closing prayer	
<b>14.15</b>	<b>Lunch, Closing courtesies and Departure</b>	<b>All</b>



