

Project: Responsible Fisheries Business Chain on Lake Victoria

Project Processing No.: 16.0126.9-102.00

Agreement No.: 81246624

Name of the Recipient: Federation of Fisheries Organisations Uganda (FFOU)

Reporting period: 1st September 2019 to 31st November 2022

1. Description of the project financed by the financial contribution

Federation of Fisheries Organisations Uganda currently has eighty-five (85) member associations comprising of fishing Associations, Aquaponics Associations, and Co-operative Societies which brings together most of the Community Fisheries Businesses. The membership of all these-Business entities indicates the basis of FFOU's existence as a member-based organization. FFOU in partnership with the GIZ-RFBCP implemented Abavubi Fisher Mobile Application (AFMA) project. The project aimed at Improving Fisheries Business management on Lake Victoria among fishing communities in Uganda. Under the project, FFOU targeted acquiring a total of 750 downloads and active users to improve their businesses.

A combination of the business skills and information technology through the App for extended marketing and proper record management is expected to foster business growth in the fisheries subsector. FFOU will carry out Business Development Services (BDS) among fishing communities in the Districts of Kampala, Mukono, Masaka, Mpigi, Kalungu, Kyotera and Kalangala. The project targets small and medium enterprises (SMEs) who will be equipped through trainings with knowledge and skills that are anticipated to enhance their business growth for more income, more fish and employment opportunities. The project was implemented for a period fourteen (14) months with a target of reaching out to 750 trainees (576 men and 173 women).

Business Development Services is a mindset change project which was designed to help shift the fisheries business management paradigm from rudimental ways to appropriate standards that suite the current market demands for both local and international markets. The standards lay across the array of fish production and harvest to consumption level.



Project Objectives

The major aim of the project is to contribute to Sustainable Fisheries Management for improved Food Security and income in Uganda.

The specific objectives:

- To improve business development and co-management within the fishing communities.
- To finalize the development of the Business Management App (Abavubi).
- To roll out the use of the Abavubi App to all fisher folk around Lake Victoria.
- To train 750 (174 women and 576 men) engaged in small and medium enterprises along the Fish value chain with business knowledge and skills.

2. Project measures implemented with the financial contribution

The following activities have been successfully implemented;

2.1 Recruitment of the project staff

2.1.1 Recruitment of the IT support staff

(25th-June-2018), Prior project conception the Federation consultants/developers to develop the app to its current level. However, it was required for the Federation to recruit a team consisting of an IT specialist (ITS) and 2 IT support staff (ITSS). The IT team were to gradually takeover from the initial developers. The major tasks of the ITS are to head the project IT Team, give technical guidance to the support staff, monitor, manage the server room and all IT equipment whereas the ITSS are to support App development, testing and rollout, respond to the concerns raised by the App target users and any other tasks assigned. The recruitment process was done in collaboration with the developers i.e. HAMsoft. Potential candidates were assessed to enable recruitment of the most viable and technical staff. Three IT support staff were recruited and confirmed on the 01st-August-2019. Among the recruitments were, IT specialist (male); Mr. Najja Nasiif and two IT support staff one male; Mr. Hamudan Ssekizivu and one female; Miss Nakijjo Elizabeth.

2.1.2 Recruitment of BDS trainers

In August 2021, FFOU initiated the process of recuitment for BDS trainers where a call for applications was made in New vision on the 25th of August 2021, additional advert information (Terms of Reference) was availed on FFOU website; www.ffou.org . under careers. With over 570 applications recieved, this was followed by shortlisting exercise following the selection criteria and evaluation tools developed. This was conducted by a joint team of FFOU, the PMU team leader



and Technical Advisor and Junior Program Officer, RFBCP ON 13TH AND 14TH September, 2021. After shortlisting, a total number of thirty (30) applicants under went oral interviews for two days on the 22nd and 23rd September, 2021 by the joint team. Out of the 30 applicants,10 (5 males and 5 females) were selected to attend the Training of Trainers (TOT) workshop as per **table 1**.

List of cand	idates sel	lected for	TOT	training
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	Successful Candidates								
No.	Males	Gender	No.	Females	Gender				
1	Baliruno Ivan	Male	6	Namakula Jesca	Female				
2	Byaruhanga Milton	Male	7	Kako Hellen	Female				
3	Mukiibi Samuel	Male	8	Mukisa Martha	Female				
4	Dhikusoka Moses Bugwata	Male	9	Nakayenga Shamim	Female				
5	Kamayi Baylon	Male	10	Nalubega Margret	Female				

2.1.2.1 Training of Trainers (TOT) Training Workshop

RFBCP and Project Management Unit (PMU) - Bimuka organized a two weeks training workshop for the selected trainers from both AFALU and FFOU. This was carried out at Nile Hotel Jinja from 17th -30th October, 2021. The training aimed at preparing and mentoring the trainers by taking them through the BDS content to be delivered to the target trainees in the fishing communities and the adult instructional approaches to aid the content delivery to trainees. The training was conducted by the Project Management Unit, Argent Development Consult-ADC, and the Implementing Partner Organizations-IPOs-(AFALU and FFOU). Each group was represented by a maximum of two people hence, a total number of about 34 participants including a representative from RFBCP. A total number of 22 trainees with a 50% representation of males and females; out of which 10 (5 males and 5 females) were from FFOU and 12 (6 males and 6 females) from AFALU.

The theoretical and practical sessions aided by the trainer's manual covered key BDS thematic areas of; **Enterprise Training** (Entrepreneurship skilling, Business Skilling, and Marketing and soft skills), **Financial Literacy & Management** (Financial management Training, Financial Literacy, Linkages to financial Institutions, Costing and Pricing), **Fish Handling & Fish preservation, Reinforcing groups, Regulatory compliance, SSF Guidelines**

Selection of FFOU's final 7 trainers was based on key criteria **annexed 6**, where marks were allocated per candidate and a final evaluation was carried out on the 28th October 2021 to choose the most potential trainers. The selection and evaluation was carried out by BDS Project officer and PMU team. The criteria considered the following aspects;

- 1. Presentation, Ability to express him/herself (Articulation & Audibility)
- 2. Active participation in group work
- 3. Expression of perspective on training of adults (listening & innovativeness)
- 4. An understanding of the project objectives and the expected roles
- 5. Organization (Concentration, neatness, responsibility & Time keeping)
- 6. Flexibility on Location



7. Performance in the practical sessions

List of 7 final selected BDS trainers (4 Males and 3 Females)

N0	Name	Gender
1	Mr.Mukiibi Samuel	Male
2	Mr.Dhikusooka B Moses	Male
3	Mr.Baliruno Ivan	Male
4	Mr.Byaruhanga Milton	Male
5	Mr.Mukisa Martha	Female
6	Mrs.Kako Hellen	Female
7	Mrs.Namakula Jesca	Female

2.1.2.2 Trainers contraction

On the 17th of November 2021, 7 trainers were successfully oriented on the BDS project and contracted with assigned district of operation. The contracted candidates include;

N0	Name	Gender	District of allocation
1	Mr.Mukiibi Samuel	Male	Mpigi
2	Mr.Dhikusooka B Moses	Male	Kalangala
3	Mr.Baliruno Ivan	Male	Kampala
4	Mr.Byaruhanga Milton	Male	Kyotera
5	Mr.Mukisa Martha	Female	Kalungu
6	Mrs.Kako Hellen	Female	Mukono
7	Mrs.Namakula Jesca	Female	Masaka

2.2 Procurement of project equipment, tools and resources

2.2.1 Acquisition of Abavubi app project equipment, tools and resources.

The following items and resources were procured for the setup of a fully functional IT workstation and call centre.

Particular/Item	Qty	Purpose
Laptops, i3 HP Probook	3	To be used by the IT staff in implementation of field activities
Printer with Scanning and	1	To be used in producing office and field work reports, training
Photocopying		materials and any related IEC materials
Projector	1	To be used in field works for wider views and display during IEC activities
Office desks & chairs	3	To be used in the IT call centre
Big office cabinet	2	For storage of office documents and equipment
4G LTE Router, DWR-921	1	To provide wireless connectivity for devices
patch cables-cat6	100	To help in creating a wired connection computers and devices
PVC Cable Trunk	56	To establish pathways for network and electric cables
RJ45-clipper	1	To be used for creating and fixing network cables
Light switches	2	To be used to control office lighting
Legrand Synergy Data Outlet RJ45	3	
Double Cat 6 - UTP		To establish connection points of devices to the network
RJ45 connectors	1	To be attached to cable ends while connecting devices
Power sockets	4	To be used for power supply in the workstation and call centre



Other services procured					
Unlimited Internet service (3mbps for	To ensure full time internet connectivity within the App,				
18 month) in Nov. 2019	dashboard and the cloud server				
Data storage equipment and call	Data servers were procured for backing up of Abavub app				
management system (Avaya PBX).	data				
Network installation and Securing a					
Virtual private server (VPS) as the	This was to enable FFOU IT team migrate the App data from				
private cloud storage for the App Data.	the developers' servers to FFOU private server				
Virtual Private Server (VPS) in Nov-					
2019	For online storage of Abavubi Application Data				
A secure socket layer (SSL)					
(https://abavubi.com)	To enable secure connection to the internet				
A domain name registration					
(www.abavubi.com) purchased from	To enable a permanent connection of the app to the Cloud				
GoDaddy	Server Storage				
Windows server data 2016	Soft ware package for running project equipment				

Other extra items procured included; Private branch exchange (PBX) as a telephone switching enterprise, HP blade server, 42U server Rack, patch Panels, Smart Tv, Air conditioner (AC) and other minor networking equipment. The PBX is a call management device as a telephone switching system, server is the storage device which will be used for backup of call service data, and history, 42U server rack is for mounting networking equipment, Smart Tv for displaying of information and data on the server, AC for the conditioning of the workstation, while patch panels are to be used in connectivity of the devices

2.2.2 Setup of IT workstation

The workstation was setup to ensure that the project team gets a well, proper and favourable office of operation and execution of project activities. This involved light construction work, fitting and configuring the procured equipment and resources. The fitting and configuration was done to ensure all hardware equipment are well connected and software installed for use and operation. Having supplied most of the networking equipment, **Intel** computers Ltd was contracted to setup the IT workstation (3*3) metres. The station was established to create an appropriate working environment for the IT team.

2.2.3 Procurement of Business Development Services Tools and Equipment

In preparation for the actualization of the trainings, key BDS items were procured and distributed across the 7 BDS training districts.

The procureed items included **1) Trainers work office stationery**; 400 reams of paper, 35 Folder files (Clear bags), 14 Box Files, 7 Stapling machine and punching machine, 30 markers (boxes), 760 Notebooks, 28 Stapling pin boxes, **2) Trainer tools / equipment**; 7 Trainers phones, 7 rain jackets, 9 umbrellas, 800 masks, 50 sanitizer bottles, 7 gumboat pairs, **3) Trainee requirements/**



stationery; 14 White board markers (box), 7 Flip chart stands/ soft board (White board), 100 Pens (boxes).

2.2.4 Acquisition of logistical facilitation (bikes), laptops, printers, T-shirts, and BDS Manuals

FFOU in Dec 2021 and May 2022 received 7 motor bikes (HERO brand) from GIZ-RFBCP all intended to support trainers in their district logistics during BDS delivery and follow-up trainings. 7 Leneovo think pads Laptops and 7 HP Laser Jet printers were aquired from GIZ to support trainers office work. In Feb 2022, a total of 740 T-shirts were recieved, 14 Trainers manuals and 740 trainees manuals.

2.3 App development

The following modules were developed in the app;

2.3.1 Personal accounting module

This is a personal ledger that helps fishers record their incomes from fish sales and capture their expenses. It gives an overview of income visa-vi expenditure over given periods. The module will help fishers to track the growth of their business (through collection of business data). The module was designed to directly record transaction data from the mobile money account which will include; daily business incomes and expenditures by the App user. Items including the income type, date, amount receipt/invoice number were added into the personal accountant. Developed in the App was the financial statements, PDF, and Excel. This was finalized in July 2020.

2.3.2 Re-module and remodification of the Application Architectural flow

The re-modification of the App architectural flow was as a result of evaluation of the user friendliness and interface systems of the App by the project team, randomly 10 selected users among visitors at the Federation headquarters plus 6 additional Federation staff. The sampled users downloaded the App, registered on and assessed the user interface system per module of the recently developed. The activity was carried in Quarter two from 15th December 2019 to 15th January 2020.

During the evaluation process, major concern areas that needed change and or re-modification were identified by the sampled population. The major concerns recorded included; -

The difficult login process of the App; the process required a lot of login credentials i.e.
personal names and contact plus email verification by the user. Considering the target
users of the App (fishers), the login process was not simple and precise thus would affect
the adaptivity and user friendliness of the App. Some user registrations processes on the
App failed to complete.



- Slow processing speed of the Application and uncoordinated flow within the App modules
- The App was not compatible with some android devices for example android version 4.4.2 kernel version 3.4.67.
- The images, graphics and colours displayed in the App that did not communicate the purpose of the App

The remodelling process was carried out due to major difficulties reported in the use of the recently developed App by the HAMSOFT. The App was realised to have a poor user interface and not favouring the target group who are less educated and considered incapable of acutely adapting to new and more sophisticated technologies i.e. the Abavubi business management tool. The App remodel was basically intended to create a tool with a simpler user interface and ease to understand and interpret.

The initial App was also not compatible with some android versions which would limit the downloading and if downloaded, the functionality of the app on some devices was failed.

Therefore, redevelopment of the App was required considering four major pillars of development as follows; -

- App Speed
- Coordinated Functionality
- User friendliness
- Simplicity

A new consultancy firm; Spoton East Africa LTD was contracted on the 20th-January 2020 to carry on the remodel of the App. During the App remodel, the consultant was to design and implement the remaining modules in the application following right procedures as per the funding agreement with clear terms and conditions of service.

The changes done within the App included;

i. Redesign of the App splash page & Login page.

These were restructured to reduce on the time taken and signup information required from a new user before accessing the app features.

- A Splash page refers to the first page when the App is opened that displays introductory
 information about the App such as company logo, name, and shows the loading process
 status of the App.
- Login page; for entry of User signup/login credentials to access App features. The login page allows a user to gain access to an application by entering their username and password.

ii. The architectural flow of the App

The general architectural flow of the App was redesigned & restructured following planned designs by the Federation in coordination with the developers/consultants. The designing and planning of the App architectural flow commenced on the 20th to 31st of January 2020. The plans for the



marketplace, In-app help mechanism, safety, weather and navigation, Fisheries inputs module/accessories, and lastly the discussion forum modules were first developed.

The actual implementation of the plans started on the 1st Febraury 2020. This involved;

- i. A fish marketplace; for the display of all commodities/services on the mobile App. When a fisher/seller opts to show their catch on the marketplace, app users/buyers can easily view the available potential fish supplies in the market. The user interface/interactivity of the marketplace was modified with an easy and versatile set of functionalities. The sale function will handle the posting of the catch, fish type, method used, setting prices, fish size/quantities, images of available fish or fish products and seller contact details. Following was addition of a wish list and order management platform function for inputting an order to cart thus enabling buyers create a list of commodities they intend to purchase i.e. lays out the commodities, quantity, unit price, subtotals and also automatically generates an order number in the system. The order function provides a buyer with options to view the orders being made, interact with supplier, approve or cancel & proceed to payment for the required delivery. The icon for delivery details was added to enable determination of delivery options i.e. the self-pick/delivery at address, and payment method. The pending function of the module is designing the connectivity for online mobile money processing for any approved transaction. This will be complete after the design and implementation of the mobile money processing module scheduled for quarter 3.
- ii. Navigation & safety module; the module will help fishers in the travel on the lake. The fishers will be able to locate various travel routes while on the lake. This involved Planning User Interfaces (UIs) for Navigation, and Google navigation Application Programming Interfaces (APIs) integration to facilitate use of coordinate geometry positioning system. Google Navigation APIs were implemented to enable Navigation on Lake and Locating Fishers on the Lake. Navigation will also be used by potential sellers or buyers in search for location of potential fish markets and suppliers. However, more testing is being done to determine the most suitable API with more accuracy. In addition to the module is the panic button which considers all possible risks interfaced by fishers on the lake for example water accidents, mechanical/engine failure, fuel shortage and pirate attack.

The button when clicked by a user will send an alert to the dashboard at FFOU offices.

- **iii. In-app help mechanism**; In-app help allows the help desk IT Team to remotely exist on fisher's devices, the module consists of frequently asked questions and answers, common troubleshooting guidelines, usage manuals and a direct chat mechanism with physical help desk personnel at the Federation offices.
- iv. Fisheries inputs module; for the display & marketing purposes of other fisheries inputs by any stakeholder in the industry for example fishing gears, fish feed, and fish seed.



2.3.3 Completing the Support system & dashboard

Completing the support system & dashboard involved two major activities the included;

- Dashboard software planning of interface, analytics, and design of the software
- Setup of USSD/quick codes, offline options and other modification.

2.3.3.1 Dashboard software planning/interface & analytics, & design of the software

A data dashboard will be used as an information management tool that visually tracks, analyses, and displays key performance indicators (KPIs), key data points to enable monitoring of the App performance. The dashboard organises, provides a graphical user interface, feedback, and statistics thus presenting information easy to read and interpret. The dashboard also provides enhancement to the functionality of the App. The dashboard software planning and development was carried out from Dec-2019 to Feb-2020. This was implemented by the NANO Tech Ltd consultants in coordination with FFOU IT team.

The Abavubi schema was developed consisting of an Entity Relations Diagram (ERD) for the dashboard, App and USSD. A schema refers to a relational database design that breaks a database down into three different categories according to its use and structure. The Abavubi schema consists of over 50 tables to manage the GETPOST processes of the system.

The Dashboard Design Architecture was developed where all dashboard sections such as Dashboard Interface, Associations menus, Transaction menus, Weather forecast menus, Support Menus and Configurations menus were designed. The dashboard was designed & developed using the Agile and Lean methods.

Agile software development refers to a group of software development methodologies based on iterative development. Iterative development is a way of breaking down software development of large component into small chunks. This involves a cycle of; - planning, designing, development, testing, and evaluation of every additional feature added into the dashboard. Lean software development is a concept that emphasizes optimizing efficiency and minimizing waste in development of the software.

The dashboard User Interface (UI) was designed with a quick and easy functionality. The dashboard was designed to fetch and automatically compute data inputs made via the APP and USSD activity processing. The dashboard storage and the app storage were configured to share a single database thus enabling areal time feedback. This involved hosting Application programming Interfaces (APIs) for the dashboard on the same digital ocean account



(https://dashboard.abavubi.com). The following tables were added to suit communication i.e. customers, suppliers, payment methods, ledger votes, refund reasons, catch, market entry, cart, orders, negotiations, ledger, stock card, payments, refund, emergency contacts, emergency response, navigation, weather history, and user settings. From the Dashboard, the administrators can access more details about particular information and data collected through USSD or APP transactions/processes/activities (i.e. Application data, trends, summaries etc.).

A phase 1 test for the functionality was carried out on the 27th-Jan-2020 for the test feed using a USSD-led input, User roles and permissions to system access, and Real-time Analytics which were recorded successful.

The dashboard is anticipated to be complete in the third quarter after the integration, testing and error correction with all App modules.

2.3.4 Unstructured Supplementary Service Data (USSD)/Quick codes setup

USSD refers to a communication protocol used to process transactions/activities by sending data from devices that don't have internet capacity. The application required a version that supports the use of USSD codes and allows the transmission of data by use of SMS apart from Android phone users.

The process started on 4th-January-2020 by planning and designing a prototype model diagram for USSD setup. The prototype model refers to a software development model. This provided an overall functionality of the system to guide and understand the requirements of the desired system. The diagram describes how the user can do activity processing from the start to the end. The USSD function is based on the platform subscribed for on the 24th-January-2020 with AFRIKASTALKING USSD services account (A/C) to enable FFOU host USSD communication on the sandbox space. The USSD/quick codes and necessary keywords were developed within three weeks by FFOU IT team which were thereafter interfaced with the dashboard on 27th-January-2020 thus enabling whatever is done on USSD processing to be viewed on the dashboard. The shared USSD Application programming interface (API) was fully designed and is accessible by dailing *284*2020#. A successful sample and test using the free trial period (1month) of the USSD service on the newly opened A/C was recorded on the 27th-January-2020. A swot analysis on FFOU projects like Abavubi was carried out and following was technical guidance on how best to improve the project performance and implementation.

2.3.5 Modification of App features

The modifications were implemented by the development consultant; Spoton Ltd under supervision by FFOU IT team



Mobile money payment provided by Beyonic services was integrated to the App with Beyonic services in April 2020 to provide mobile money, a digital payment services for the Abavubi fisher. The app provides both Airtel and MTN mobile money payments services. Additionally, the app provides an in-built e-wallet account number which is automatically generated upon creation of a new account within the Application. The Wallet account number is a systems unique identifier of the App user. Whenever the app user sells fish, money is either transferred to the mobile money or e-wallet account of a different App user.

Intergration of the Weather forecast module with the Application. Tests with google and darksky Application Programming Interface (APIs) were carried out to ascertain the most reliable API. Darksky API was determined to provide more accurate and reliable predictions. The API was also profound to perform better in both android and IPhone Operating Systems by Apple Incorporation. The module development started in March 2020 and was completed in July 2020.

Finalization of the Unstructured Supplementary Services Data (USSD) codes functionality.

The USSD Codes/quick codes development for offline phones that don't support internet usage commenced in January 2020 and finalized in July 2020. The USSD codes were designed following the guidance of Abavubi App flow of transaction processes. USSD quick codes for offline users were generated to ease communication with offline mobile network operators. This can be accessed by dialing *284*48# on any mobile network.

2.3.6 Integration of the dashboard with all platforms; mobile money, USSD, & App.

The application programming interfaces (APIs) were successfully tested and deployed to ensure that all functionalities are fully operational. The Toll free line 0800220633 service was also setup and finalized in July 2020 to enable App users have free call services for any inquiries with FFOU support centre.

2.4 Consumer Acceptance Test (CATS)

The Consumer Acceptance Tests (CATs) were conducted after completion of the Application development and support system.

The objectives of CATs included: -

- To enable users, download and interact with the Abavubi App software
- To identify bugs in Abavubi Fisher Mobile App
- To determine the App user experience and interface
- To ascertain more user stories, feedback and recommendations

Preparatory meetings for the consumer acceptance test were organized in June 2020 at Katosi, Kasenyi, and Kasaali B fish landing site in Buvuma Island. The visits were aimed at identifying participants and organizing the groups for the training. During the visits, Key fisheries personel like



fisheries officers/inspectors, landing site management committees and chairpersons at landing sites were introduced to the App software. The different sites covered various geographical scopes of testing i.e. Kasenyi represented the urban setting, Katosi peri-urban and Buvuma for rural business settings.

The CATS with respect to user needs, requirements and business processes were required to determine whether the software system satisfies the acceptance criteria of the target user needs. The activity was carriedout for feedback collection that would guide the finalization of the App (debugging of initial developments) under which omissions, errors and updates would be corrected and implemented within the App. The acceptance tests were successfully carried out at the respective landing sites; Katosi fish landing site from the 2nd to 4th of July, 30th Aug to 1st Sept 2020 at Kasenyi Fish Landing Site and Kasaali B fish landing Site (Buvuma Island). The activity was implemented by both the Developer team and FFOU staff. A total of 67 participants (53 Males and 14 Females) were trained during the Consumer Acceptance Tests. 17 participants (13 males and 4 Females) were trained at katosi Fish Landing Site, 21 (20 males and 1 female) participants trained at Kasenyi, and 29 participants (20 males and 9 females) at Buvuma; Kasaali B. The composition of trainees was 79.1% and 28.9% for Males and females respectively. The categories of people met included; FFOU Association leaders, mukene processors, boat owners, fish suppliers and processors, fish traders, fish by-products, fishing gear suppliers, and engine and spare parts dealers. The trainings were conducted as both theoretical and practical to enhance user interface with the App for better feedback. The theoretical sessions involved a PowerPoint presentation on the App. Further was a practical session where participants were guided on the download and use of the software. On the second day of training, interactions with the fishing communities were carried-out for more feedback collection for participants who didn't attend the trainings.

All participants from Katosi and Kasenyi Successfully downloaded and interfaced with the App except Kasaali B and 2 participants from Kasenyi that interfaced with only the USSD function. The App technical findings that required integration, modification and improvement included; an automatic expiry of 12hrs on the fresh fish products posted at the market place for quality assurance to consumers, renaming App features for simpler interpretation by fisher groups for example trader to fisher, increasing categories of processed products within the App, including appropriate fish and products measurement units (grams, kilograms and tonnes), and developing a loading functionality to avoid double data entry. Recommended was an app functionality for a simplified change of user rights and automatic systems notification to App users on new fish/products posted. It was discovered that the App can be used as a data entry tool for fisheries catch data by the fisheries offices at the Landing sites.



The trainees participated in developing recommendations that would help improve on the App adoption and usage. It was proposed for more field visits as followup trainings to the trained personel which would help on mastering the App user knowledege and skills. There is need to improve the USSD function and regular update for better efficiency in catering for all transaction for participants without smart phones. An Application strategy is at both International and Nationl levels is required. This will involve; App user tutorial for the seller and buyers, online adverts using youtube and linking the App to well established marketing platforms like Amazon and DHL. The Application should also be linked to transport companies like safe boda and Jumia foods and a marketing strategy whilst improving on fish delivery sytems. FFOU through capacity building should encourage fishing communities to digitalize their previous data which would help on developing the pool of skills and knowlede on the App Use. Lastly is the Need for a detailed user manual for the Application in transilated versions.

2.5 Finalization Of Application Development

Additional information collected from the CATS was used for modifications that needed improvement and App Systems Updates. The feedback was used to upgrade the Application to conform with the needs of the targeted group. Attached is a status report for the completion of the development and modifications. The Finalization of the App was carried out from the 4th of July to the 31st of August 2020. The Activity was implemented co-currently with the CATs which involved Planning modifications, Design of software modification, Implementation of the software modifications, updating and validating the App, and completion of the App and dashboard functionality.

2.6 IT Administrators (ITAs) Training

ITA pieces of training were successfully carried out in the Central and Eastern part of L.Victoria in September and December 2020 respectively. The trainings were intended to build the capacity of ITAs who would aid the roll-out of the App in their respective member associations. ITAs (trainers of trainers) were identified from FFOU member associations. 35 trainees among various fisheries business chain categories of fish processors, suppliers, fish maw processors, and traders were expected in the training.

Central region ITA trainings was carried out for two weeks from the 3rd to 16th September 2020. Trainings were held at the various landing sites; Katosi, Kasenyi, Buvuma, Demo, and Malembo. For associations not existent at landing sites, trainings were held with the following association; Historical Fishers and Traders Bakasangwawo Association Uganda (HFTBAU), Kampala Fishers and Fish Mongers Cooperative Society (KAFIMICOS), Uganda Fish Mow Traders Association



(UFMTA) and Busega Association Of Women Small Scale Fish Traders And Processing (BAWSSFTP). A total of 37 participants (24 males and 13 females) were trained.

In the Eastern part of the lake, training was held at Bugoto, Fish landing site in Mayuge district on the 17th to 18th of December-2020. The training included a theoretical and practical session aided with the dissemination of a short systems user manual. The participants with android phones were able to download Abavubi app onto their phones for practical trainings, participants with non-android phones tested the app using USSD codes

In Eastern region, a total of 45 personel were trained as trainers (TOTS). The 2-day training was attended by a total of 49 participants (39 males and 10 females). The app was successfully downloaded and tested while the participants with no smart phones tested the USSD functionality. Key findings included the gender inequality in businesses due to lack of business records, need to link the app to incentives like financing systems and personal accountant being most vital for most of the fisherfolk.

Western IT administrators (ITA) training was successfully carried out in March 2021. The training was intended to build the capacity of ITAs to support the roll-out of the App in their respective associations and train members on the use and importance of the App in their daily businesses. ITAs (trainers of trainers) were identified from FFOU member associations. 35 trainees (34 males :1 female) among various fisheries business chain categories of barriers, fishers, fish suppliers, artisanal fish processors, fish traders, fish mongers, boat builders and owners got together to acquire skills and knowledge on the app. The training was held at Kasensero fish landing in Kyotera district. The training included a theoretical and practical session aided by a user manual. The participants with android phones downloaded Abavubi app onto their phones for practical, the training included participants with android and non-android phones using USSD codes. All participants successfully downloaded the App as a practical session whilst those with feature phones tested using the USSD codes, and greatly expressed interest in learning the app. They key findings and outcomes included; Luganda being the preferred language, positive reception of the app, and need for business skilling to relate with app knowledge.

2.7 Rollout of the app and capacity building of FFOU member associations and market members

Rollout of the App was carriedout as a capacity building strategy for FFOU member associations and GIZ partners All trainings was carriedout in the areas of operation. The trainings were carried out for a period of one day. The trainings on Abavubi Fisher App were segmented into two: theoretical and practical where, a PowerPoint presentation was made with intricate explanations (English and Luganda) and a practical session. A total of 488 participants (321 males and 167 females) were trained during the capacity building activities.



Table shows associations and number of people trained per association

NO	Association	Date of training	Number of Participants trained		
			Males	Female	
1	Nangoma fishing Association at Mpunge	30th Jan 2021	19	2	
2	Katosi Women Development Trust (KWDT)	4th Feb 2021	15	4	
3	Kiyindi Women Associations (KWA)	8th Feb 2021	13	14	
4	Bukanama/Katosi Women of Hope	25th of Feb 2021	8	5	
5	Kampala Fishers and Fish Mongers Co-operative Society Limited (KAFIMICOS)	17th.March.2021	15	5	
6	Nyendo Twegate Market Fishers Association	13 th .April .2021	24	8	
7	Masaka Dimo Landing Site Women Fishing Group	14 th .Apirl. 2021	20	7	
8	Masaka Women Fishing Community Development association				
9	Historical Fishers And Traders Bakasangwawo Association Uganda (HFTBAU)	6 th .May. 2021	16	4	
10	Masese Cage Culture Cooperatives	7 th .May. 2021	27	5	
11	Bwaise Market training	6 th .May. 2021	21		
12	Mulungu market training	7 th .May. 2021	10	5	
13	Kasubi and Kawempe associations' market training	10 th .May. 2021	4	8	
14	Busega Market training	11 th .May. 2021	13		
15	Ntinda, Bukoto, Wandegeya, Kisasi and Mulago associations' markets Training	14 th .May. 2021	11	5	
16	Ggaba, Kibuye, and Ndeba market associations' training	15 th .May. 2021	13	1	
17	Kalerwe market training	17 th .May. 2021	8	0	
18	Katwe, Nakasero, Kyaliwajala and Nabugabo training	18 th .May. 2021	6	1	
19	Katabi Market-Entebbe training	3 rd August 2021	14	8	
20	Kigungu fish market training	6 th August 2021	12	10	
21	Kayunga fish market training	10 th August 2021	15	17	
22	Busega Bakidawo market training	12 th August 2021	30	22	
23	Seguku and Namasuba markets training	19 th .May. 2021	3	6	
	Total males and females		321	167	
	Total		4	188	

Table shows that a total of 488 participants (321 males and 167 females) were reached out to during the trainings. The trainings have increased on the app awareness thus an increase in number downloads to 930 by June 2021. Reported was a positive and receptive uptake of the App with participants expressing need for regular coaching visits.



Follow-Up / Coaching trainings

The follow-up trainings were intended to provide extra training, evaluate, assess the trainees and make recaps of previous trainings. A total of 51 Follow-ups (3 per group) were carried-out for the 20 groups each training taking half a day.

Number of trainees reached out to during follow-ups / coaching trainings

NO	Association		Follow-up Visit 1 No of trainees		Follow-up Visit 2 No of trainees		Follow-up Visit 3 No of trainees	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Males	Females	Males	Females	Males	Females	
1	Kampala Fishers and Fish Mongers Co-operative Society Limited (KAFIMICOS)	10	4	8	9	11	2	
2	Nyendo Twegate Market Fishers Association	17	6	11	9	8	2	
3	Masaka Dimo Landing Site Women Fishing Group	12	5	11	2	7	5	
4	Masaka Women Fishing Community Development association	25	0	16	1	1	12	
5	Historical Fishers And Traders Bakasangwawo Association Uganda (HFTBAU)	10	5	9	6	10	4	
6	Masese Cage Culture Cooperatives	15	2	10	5	12	5	
7	Mulungu market	8	2	5	3	4	4	
8	Bwaise Market	17	0	15	0	18	0	
9	Busega Market	13	0	12	0	13	0	
10	Kasubi and Kawempe associations' market	4	5	2	7	4	7	
11	Ntinda, Bukoto, Wandegeya, Kisasi and Mulago markets associations	10	4	10	5	8	5	
12	Ggaba, Kibuye, and Ndeba market associations	10	1	9	1	10	1	
13	Kalerwe market	8	0	8	0	8	0	
14	Katwe, Nakasero, Kyaliwajala and Nabugabo	6	1	5	0	5	1	
15	Seguku and Namasuba markets	3	4	2	6	3	6	
16	Katabi Market-Entebbe training	7	1					
17	Kigungu fish market training	5	6					
18	Kiyindi Women Association (KWA)	5	3	5	3			
19	Kayunga fish market training	8						
20	Busega Bakidawo market training	11	14					
	Total No.gender disaggregated	204	63	138	57	122	54	
	Total No. per followup visit		267		195	1	76	
	Total reach out in coaching				638			

Table shows that 638 participants (464 males and 174 females) were reached out to during follow-ups.



Key outcomes of the training included a very receptive attitude towards the app among fisher groups who successfully downloaded and interacted with the app and its USSD function. The app was reported crucial for small scale businesses, record keeping and also debt management among the trainees. However, the groups trained are facing a number of challenges that include financial illiteracy, in adequate capital hence the need for their linkage to financial institutions.

2.8 Abavubi Fisher Mobile Application Marketing

Abavubi Fisher Mobile App marketing gap was realized during implementation. After the various training phases, app marketing for extensive reach out to the general public was deemed important. Increased awareness on the App would lead to a rise in app downloads, adoption and usage. Key marketing objectives included; 1) To increase on the app downloads by 75% in three months, 2) To increase number of registrants and active users on Abavubi fisher mobile app, 3) To carry out market research on the up take of the application. The marketing was implemented for 3 month (May to August 2021) except social media marketing that was expected to run for 12 month upon contract renewal. The activities were carried out within areas around L.Victoria including but not limited to Landing sites, and key markets. Activities with unrestricted media awareness like social media, and radio talk show adverts did not have specific target areas however looked at entire population on the social media fraternity. Key activities included, marketing content development and production, radio advertisement, promotional material production and branding, outdoor marketing, social media marketing. Achievements included; A total of 5279 likes was achieved through social media reach out thus a rise of 555 app downloads for Abavubi fisher mobile application which was 59.68% of the general increase in downloads (65% rise), a boost in number of downloads was achieved by 65% within the period of May to July 2021, approximately 1123 people were informed through billboards, 100% reach out through radio and Tv adverts was achieved where a total of 2500 people were reached (1403-Central, 393-Eastern, and 705-Western regions of L.Victoria). Central region constituted 56.1%, Eastern region constituted 15.7% while western region constituted 28.2% of the total target and a total of 1535 downloads was recorded by end of July 2021, which is a 65% rise as per the 930 downloads reported in June 2021. Key challenges included; unstable internet and national restrictions on population access to social media and Covid-19 pandemic curfew. Key recommendations included a need for; a delivery system for fish, high quality level product assurance on app products, regular app updates suiting market needs and more public relations engagements.

2.9 Abavubi training for trainers



Due to the need for continued Abavubi fisher app dissemination, the trainers were introduced to the app which will be used as a practical business management tool by the trainers during financial literacy, marketing skills and any other relevant topic. The training was carried out by FFOU program officer and IT support staff on the 29th of October 2021 for FFOU and AFALU trainers and on the 25th Aaugust 2021 for KWDT trainers..

The capacity building was held at Ci-Sand hotel in Jinja District. The activity was intended to introduce abavubi app to the trainers who would use it as a business management tool for trainees in the forth coming BDS trainings.

2.9 Introduction of the BDS project to the target district administrators

A joint team comprising of RFBC, and FFOU visited target districts of operation; Mukono, Kampala, Kalangala, Kyotera, Masaka and Kalungu. The purpose of the meeting was to introduce Business Development Service (BDS) project to the key implementation offices namely District Fisheries officers (DFOs) and Chief Administrative officers (CAOs). In some districts where CAOs were not available, production and marketing district officers were visited (Kampala and Kalungu). This took place between 10th and13th August, 2021.

The meetings provided the opportunity to the visiting team especially the IPOs to better establish the target number and names of Landing sites and /or Islands in each district. This in return helped to guide FFOU on where to target for trainees selection. In addition, it was realised that water transport is very complex and requires special planning for the trainers that will be connecting to the Islands to conduct the trainings. Local leadership involvement was identifies as key in implementation of the project targeting offices of DFOs, FOs, Landing site leadership as well as association leaders for greater access and support by the community.

2.10 Manual Development in collaboration with ADC

2.10.1 Orientation and IPO/ADC Introductory meeting

RFBCP organized an inception meeting to discuss the development of the BDS training Manual .The 2 IPOs were introduced to the partners. This was to enable the parties know each other seeing as the content was to be formulated in collaboration with ADC. The meeting took place on 9th September, 2021. Online meetings through phone calls were held with ADC. This was to enable ADC better understand FFOU, where they have membership, the different activities especially trainings FFOU has ever conducted with their members as well as understanding the picture of small and medium enterprises as per their operation.

2.10.2 Argent Development Consult (ADC) Field visit and manual content development



A field visit was made on 16th September, 2021 to Bwaise market and Ggaba Landing site with the manual developers for practical experience of who the SMEs are and how they operate. This was relevant in the manual development process as key information including photography to enrich the manual content. Presentation of the draft manual was organized by RFBCP and attended by ADC, FFOU, AFALU and PMU. The online meeting was conducted on 12th October, 2021 and its purpose was to have a general discussion on the document with inputs from the different stakeholders for an agreed position on content for its finalization.

2.11 Technical Advisory Meetings (TAG)

Four Technical Advisory Group committee meeting was held on Oct 2021, Feb 2022, July 2022, Oct 2022 in Jinja at Mansion Hotel. The meeting is held quarterly to review and discuss the progress of the project. This involved a thorough discussion and understanding the progress of the project among the three implementing partners; FFOU, AFALU, and KWDT in presence of the PMU and GIZ. Further is synchrony of submissions and development of appropriate control and project risk mitigation measures. The meeting is held at a quarterly basis to review and discuss the project progress. **Key outcomes included**; Presentation on GIZ Proposed M&E framework, IPO progress, milestones and challenges shared forexample trainings intervention by army in some areas. **Best practices recommended included**; Close monitoring of numbers to establish dropout rates per month, Communication by the PMU before going to the field to the IPO, Invitation by all IPOs by the PMU to the coordination meetings with BDS Trainers, Well documentation of changes in trainees' businesses, communities going forward, establishing M&E tool to be developed by the PMU.

2.12 BDS Trainers orientation and staff planning meeting.

An orientation workshop was held at FFOU headquarters from in Feb 2022 intiating the trainers to the BDS activities. Participants included; FFOU project staff, PMU and BDS trainers. Key points of discussion included; Brief reviews of TOT/Field work (highs and lows), Activity planning, Session/Lesson planning and delivery, action planning, Writing case/human studies and success stories, project documentation and Reporting methods. Key outputs included; field experience shared, introduction of trainers to FFOU online payment system that was to be used in the project, Trainers introduction to planning formula 5Ws + 1H, i.e. Why (objectives), What (Activities), Who (Place/Venue) responsible), Where (Person When (Time/duration) How (results/methodology/strategies), session plan development, and trainers taught on the project training days distribution and allocation.

2.13 GIZ Monitoring and Evaluation tool finalization and testing activity for BDS.



FFOU trainers participated in the monitoring and evaluation tool development for baseline survey activity by GIZ-FRBCP across BDS implementation districts for impact evaluation. This involved the tool development (Open Data Kit), pre-testing and M&E team travel to IPO respective districts. The activity was done in Feb 2022.

2.14 GIZ Operational planning meeting

FFOU-participated in the 3 GIZ-RFBCP operational planning meetings held at Mada Hotel, in Jinja for 3 consective years 2020, 2021 and 2022. The meetings involved GIZ partners where all IPOs shared progress of the respective projects and establishment of synergies for joint operations. Key recommendation and uprising sectoral issues and potential solutions were all discussed in the forum. Among the participants include; GIZ, DiFR, LVFO, FFOU, KWDT, UFFPEA, AFALU, SFI, and LAKIMO.

2.15 GIZ Regional conference –Global Programme Sustainable Fisheries and Aqaucultures

FFOU in Feb 2022 participated in an online conference at Speke Resort Hotel Munyonyo which had GIZ-RFBCP IPOs and GIZ multi country implementing organizations. Key themes discussed included; Sustainability strategy of Global Programme for Sustinable Fisheries and Aquaculture (GP fish), Climate friendly fish processing solutions, Organizational Development of producer organizations, Solar cooling systems along the Fish value chain, Hygiene and quality, organizing and effective workshop and Project knowledge management.

2.16 Steering committee meetings (SCM)

Steering committee meetings were held in Dec 2021, May 2022, Nov 2022, and Dec 2022, where key participants included; BDS-RFBCP project officer, GIZ M&E Officer, IPO top administrators; ED-KWDT, CEO-AFALU, ED-FFOU, PMU team leader, and PMU administrative officer. The meeting is held at a quarterly basis to review and discuss the project progress. **Key outcomes included**; Presentation on GIZ Proposed M&E framework, IPO progress, milestones and challenges shared for example trainings intervention by army in some areas. **Best practices recommended included**; Close monitoring of numbers to establish dropout rates per month, communication by the PMU before monitoring IPOs in the field, invitation by all IPOs by the PMU to the coordination meetings with BDS trainers, well documented changes in trainees' businesses, establishment of an M&E tool to be developed by the PMU.

2.17 GIZ Monitoring visit to FFOU

GIZ-RFBCP conducted a monitoring visit in May-2022. The visit had focus areas that included; audit report feedback discussion, asset check and functionality assessment, technical back stopping, and



technical check on the beyonic payment system for Abavubi. Partcipants included; FFOU-project staff, President, GIZ finance and administration team, GIZ-IT consultant and GIZ project focal person Mrs. Rebecca Ahabwe. Outcomes of the meeting included; review of audit report, discussion of audit recommendation and probable strategies of adoption and internal financial control reaalignment, and recommendations on how to align accountabilities generated from the abavubi-beyonic payment system.

2.18 Digital literacy training

GIZ-RFBCP organized a digital literacy training at Nile Hotel in Jinja on the 24.05.2022. The training was to train GIZ partners on basic IT skills required in project implementation. This entailed; document sharing, data privacy and security, operational Hard ware security and data management and storage. The training helped boost partner's ICT skills for better operation of GIZ projects. 4 participants (2males and 2 females) attended the training for 1 day.

2.19 Lake Kyoga BDS Think tank

GIZ-RFBCP organized a Business Development Services (BDS) trainings Think tank meeting for LakeKyoga in May 2022 at the Pearl on the Nile Hotel-Jinja. Participants included; DFOS of Kalangala, Amolatar, Nakasongola and Buyende, IPOs – L.Victora (FFOU, KWDT and AFALU), GIZ-RFBCP, GIZ-PRUDEV and LAKIMO. The meeting enabled knowledge exchange and sharing of various opinions on how trainings of fish value chain businesses on L.Kyoga can be implemented. Key outputs included the development of; implementation strategies and key action plans were collected solicited as key to the success of BDS intervention at L. Kyoga.

2.20 Abavubi Fisher Mobile App (AFMA) capacity building Trainings.

Capacity building was carried out to empower member associations with skills and knowledge on the use and applicability of Abavubi fisher mobile app. The trainings were carried out for half a day involving a theoretical and practical session were carried out co-currently.

A total of 767 participants (476 males: 260 females) were introduced/trained on the App in 2022 from Feb to Sept 2022 with a total of 32 training visits carried out. The trained groups included; Women Economic Empowerment group (WEEB-28 females and 2 maless) from Bugiri, and 31 BDS group at the various Districts of Implementation. 3 follow-ups were organized for each trained group making a total of 96 trainings. The follow-ups were focused on three key app components; personal accountant, market place, and mobile money payment & weather forecast whilst relating to the initially trained BDS modules of financial management, soft skills and business planning. A total of 96 trainings were carried out across all districts.



Key outcomes included; increased app awareness with over 80% participants turn over, positive and receptive uptake. Through the capacity building trainings, a total of 1,855 fisher folk (560 females and 1,295 males) have received training on Abavubi Fisher Mobile Application though still ongoing. The App currently has 421 active users (196 females and 228 males) with over 31,523 downloads as of November 2022.

2.21 Recruitment of BDS Trainees

To reach to the trainees, posters and application forms were designed. The posters were designed in English, Luganda and Swahili to target fishers who could understand any of those languages. The application forms were to enable potential trainees apply and also help in gathering basic information about the applicants that would guide in the selection for each cohort to be trained. This was done in the month of August, 2021 in consultation with RFBCP and Project Management Union (PMU). However, between 8th and 10th November 2021, FFOU team led by the President met with the District Fisheries officers to distribute BDS application forms at 7 District Fisheries Offices and landing site chairpersons at BDS target landing sites. This also involved submitting to the DFOS the expected trainer's names per district with updates on the status of the project. The 7 DFOs and the landing site committee members met at individual level pledged their support of the project and also agreed to distribute the posters to the respective landing sites. A total of 1000 copies was distributed by the team across the 7 districts.

Trainers were tasked to regulary monitor and visit potential trainees at various landing sites and markets in their respective districts. This involved daily collection of application forms, evaluation and assessment of the applications at a scores based criteria out of 100 marks by the trainers in their respective districts. Out of the 1000 copies circulated, 835 applications were collected for assessment and evaluation. 757 final trainees (525 males and 232 females) were selected as successfull trainees by Decmber 2021. The application forms were distributed and collected from the landing sites as follows; 1) Kampala (Ggaba, Bwaise, Busega-roundabout, Busega-Kiggwanya, Nakasero market, Mulungu, Owino, and Wandegeya), 2) Mpigi (Senyi-kamengo, Nakaziba, Buvumbo, Makungu, Bukina, Golo, Ssenyondo, Buzami, Katebo and Luwuki), 3) Mukono (Gobero, Bangabule, Mpata, Mugangu, Bukule, Kiyanja, Kitebe, Katosi, Kibanga), 4) Kalungu (Bulingo, Kamuwunga, Lukaya New Market, Kyamulibwa), 5) Kyotera (Misambwa Island, Kasensero, Kyabasimba, Kabanyaga, Balama), 6) Masaka (Lambu, Namirembe, Kaziru, Kakyanga, Malembo, Dimo, Makonzi, Kisuku, Bbale) and, 7) Kalangala (Bbanga, Lutobooka, Kasekulo, Mwena and Kyagalanyi).

List of final BDS training grounds/groups per district determined basing on application



returns

NO	Mpigi	Kalangala	Kampala	Kyotera	Kalungu	Masaka	Mukono
1	Katebo	Bbanga	Busega	Kasambya	Lwera	Ddimo	Mugangu
			Market			Landing site	
2	Ssenyondo	Lutobooka	Bwaise	Kyabasimba	Kamuwunga	Lambu	Kibanga
	A &		Market			Landing site	
	Buzaami					Group A1	
3	Ssenyondo	Kasekulo	Ggaba	Kabanyaga-	Bulingo-	Lambu	Katosi
	В		Landing	Lukunyu	Kalangala	Landing site	
			site			Group A2	
4	Makungu	Mwena	Mulungu	Kasensero	Lukaya-Bajja	Lambu	Mpata and
			Landing	Α		Landing site	Banga Bule
			site			Group B	
5		Kyagalanyi	Owino	Kasensero			
			Market	В			

Note; Every landing site/market represents a training class across the 7 districts

Number of BDS trainees per landing site / Training ground

	SUMMARY FOR SEVEN DISTRICTS							
	GE	ENDER	MALES	FEMALES				
	NU	MBERS	499	262				
	TOTAL BDS TRAINE	SS FOR ALL DISTRICTS	-	761				
	DISTRIC	CT BREAK DOWN PER TRA	INING SITE	LANDING SI	TE			
NO	DISTRICT	TRAINING SITE	MALES	FEMALES	TOTAL PER TRAINING SITE			
1	MASAKA	Lambu A1	9	18	27			
		Lambu A2	14	10	24			
		Lambu B	23	2	25			
		Ddimo	16	17	33			
	Gender TOTAL		62	47				
	TOTAL MASAKA TRAINEES		,	109				
2	KYOTERA	Kabanyaga	13	6	19			
		Kyabasimba	19	5	24			
		Kasambya	7	6	13			
		Kasensero B	15	7	22			
		Kasensero A	15	7	22			
	Gender TOTAL		69	31				
	TOTAL KYOTERA TRAINEES		,	100				
3	KALANGALA	Banga	9	6	15			



		Kyagulanyi	15	5	20
		Kasekulo	16	9	25
		Mwena	15	4	19
		Lutoboka	15	16	31
	Gender Total		70	40	
Т	OTAL KALANGALA TRAINEES		,	110	
4	MPIGI	Senyondo A and Buzaami	19	9	28
		Makungu and Bukiina	24	6	30
		Senyondo .B	16	13	29
		Katebo	15	8	23
	Gender Total		74	36	
TO	TAL MPIGI TRAINEES		•	110	
5	MUKONO	Kibanga	18	7	25
		Mugangu	31	10	41
		KATOSI	10	10	20
		Banga Buule	16	5	21
	Gender Total		75	32	
	TOTAL MUKONO TRAINEES		,	107	
6	KAMPALA	Bwaise	21	3	24
		Mulungu	12	10	22
		Ggaba	14	11	25
		Busega	13	6	19
		Owino	21	4	25
	Gender Total		81	34	
	TOTAL KAMPALA TRAINEES		,	115	
7	KALUNGU	Lwera	15	11	26
		Lukaya	12	16	28
		Kamuwunga	19	9	28
		Bulingo	22	6	28
	Gender Total		68	42	
	TOTAL KALUNGU TRAINEES		,	110	

2.22 BDS Field monitoring and Coordination Visit

The activity was carried out to establish the status of BDS activities and determine key challenges faced by trainers in four districts of Masaka, Kyotera, Kalungu and Mukono. The activity was carried out between 20TH – 22ND DECEMBER, 2021. A total of 517 applications forms were reported to have been received within the 4 districts by the end of the visit, comprising 182 applications from Masaka, 153 from Kyotera, 105 applications from Kalungu, and 77 applications from Mukono. Key



challenges noted by the trainers included; Distant distances of Landing sites thus high transport costs, unsafe and insecure roads in forested areas, project bais by some trainers who believe the project initiatives in their communities always associate with taxation, Fishers fear to disclose information about themselves and their businesses, Fear for training content especially fish preservation and hygiene contradicting with the DFOs teaching, and high expectations by the fisher folk. Key adopted way forwards include; continuous sensitization on project purpose, quick acquisition of transport facilities, identification of training grounds and potential office areas, and January was proposed for the start of trainings.

2.23 BDS Content delivery

Business Developement service trainings commenced in Mid-January 2022, where all district trainers started implementing the Entreprenuership to November 2022.

Table shaows modules covered, status, gender disaggregated attendance and total participants

NO	Module	STATUS	COMMENTS	Participants		Total Participants per module
				Males	Females	
1	Enterprise Training					
1.1	Entrepreneurship skilling	Completed	Covered across all districts	490	206	696
1.2	Business Skilling	Completed	Covered across all districts	545	258	803
1.3	Marketing and soft skills	Completed	Covered across all districts	480	300	780
2	Financial Literacy & Management					
2.1	Financial management Training	Completed	Covered across all districts	499	262	761
2.2	Financial Literacy	Completed	Covered across all districts	498	208	706
2.3	Linkages to financial Institutions	Completed	Covered across all districts	478	219	697
2.4	Costing & Pricing	Completed	Covered across all districts	495	210	705
3	Fish Handling & Fish preservation	Completed	Covered across all districts	463	266	729
4	VGSSSF Guidelines	Completed	Covered across all districts	405	254	444
5	Reinforcing / group strengthening	Completed	Covered across all districts	145	90	235
6	Regulatory compliance	Completed	Covered across all districts	495	210	705
7	Linkages to financial institutions	Completed	Covered across all districts	496	222	718

Monthly attendance by BDS Trainees

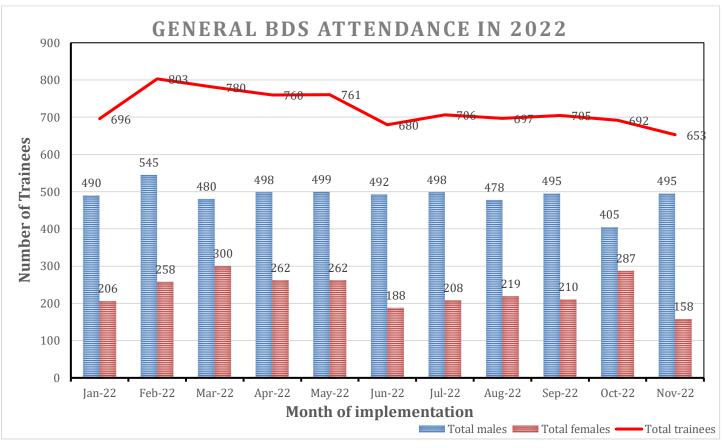


Table Shows status of all BDS modules and number of participants reached

Key achievements/output/Outcomes

- 75% mindset change among fisher folk-Determined during the BDS business plan development
- Trainees capacity built with equiped skills and knowledge thus improved fish quality assurance and standards
- 23 equity centres established in BDS districts of Mpigi, Mukono, Kyotera and Kalangala for money transaction and linkage of fishing communities to banking systems; The equity centres lie under the MOU between FFOU and Equity bank where funds were sloted to boost fishing cmmunty businesses
- Saving culture improving and improved book record keeping by 52%.
- Over 256 bank accounts opened among fishing communities for the fisher folk.
- Registered 40% improved compliance with legal frame work among FFOU BDS trainees through business formalization and registration

Lessons learnt

Projects should be designed with holistic approaches to enable entry of social incentives



- Project sustainability strategies should be adopted at early stages of the project in the implementation communities.
- Project planning should considered external factors like price fluctuations e.g fuel to avoid budget stressing.
- Adoption of 15 min sessions of reading and writing before and after the BDS trainings helped improve reading and writing skills among the trainees.
- Groups have been proven as evidence to the success among the fishing communities. The BDS grouped strategy has enabled ample delivery and systematic engagement of the fishing communities in regards to building sustainable cities and communities in resource management while promoting decent work and economic growth for quality assurance.
- DIT certification is key to adding value to BDS delivery and will promote consistent interest
 among fishing communities thus enhance paradgim shift from non skilled to semi skilled labor
 force in fisheries sector. The strategy is also important in improving governmet recognition of
 fishing communities as key priority areas.
- BDS to be linked to various incentive services like micro financing

2.24 Participation in the GIZ Sustainability and Exit strategy workshop

GIZ IPOS were invited for a sustainability workshop on the 3rd and 4th of Nov. 2022 at Mada Hotel – Jinja Nile Resort. Partners were expected to make a presentation on their sustainability strategies answering the following questions

Name of Product /	Which institution can take	Current status of	Activities till end of
Approach / Intervention	over?	ownership/capacity /	project duration to
Approach / intervention	Why?	funding	ensure sustainability

Lessons learnt- what worked and what did not work, and the capacity required to ensure the sustainability of the achieved interventions

N O	Name of Product / Approach / Intervention	Reason	Which institution can take over? Why?	Current status of ownership/c apacity / funding
1	Business Skills Development			
		Continued group knowledge sharing	FFOU, for BDS continuity and	
1.1	Continued grouped meetups at training centres	Proper use of grouped acquired equipment	appropraite monitoring of project outcomes and outputs	GIZ



		For continued reference by Fisher		
1.2	Establishment of business clinic centers	communities To maintain communication with the trainees for any upcoming development To provide BDS related training to new fish labor force	FFOU	Under establishment
1.3	Documentation of success stories with other partners	For future lobbying For continued reference in future	IPOs, GIZ and PMU	
1.4	Continued coaching/mentorship by BDS Trainers for approximately 6 month	To maintain knwledge uptake by the trainees To provide recess sessions for the trainees and onsite visits for practical applicability of the previous sessions	FFOU	
		363310113		
1.5	Giving trainees Nationally recognized DIT certificate	For use in any upcoming opportunities due to the attached value as compared to a basic training certificate	DIT, IPO	
		To promote empowerment of fisheries labor force from non-skilled to semi skilled state	FFOU	
1.6	Graduation of the trainees	As part of the exit strategy and increased visibility of the project	GIZ, DIT, IPO	
1.7	Linking BDS trainees to FFOU Vocational Institute			
1.7	FFOU BDS Department	To coordinate the BDS operational Clinics and established training centres	FFOU	MOU signed with Ministry of education and sports to Use locally existing schools in fishing communities as BDS training centers, FFOU to retain
1.7	FFOLL anal aid	To provide level sid 0.1		
.2	FFOU Legal aid Department	To provide legal aid & knowledge to Fisher communities on the Fishery	FFOU	
		To reduce ignorance about fisheries law among fishing communities		



1.7	FFOU SACCO	To provide business incentives through small and large scale financing	FFOU	
		To promote saving culture and group strengthening		
1.8	FFOU Membership	To provide grouped financing for FFOU BDS continuity	FFOU	
2	Abavubi Fisher Mobile Application			
2.1	Linking the App to various services	To increase on services delivered by the Abavubi App	FFOU	
2.2	Establishment delivery system	To increase fish delivery for purchases made on the App (Motor bikes delivery)	GIZ, FFOU	
		To increase visibility of the App	FFOU	FFOU
2.3	Continued lobbying	To acquire more resources that support sustainability of the App	FFOU	

2.25 Meeting with FPU

FFOU in Nov 2022 held a meeting with FPU at FFOU offices in Bweyogerere. The meeting was intended to introduce VGSSF guidelines to FPU and how they have been taught to the BDS trainees. This is to help all bodies stream line self responsibility among fishing communities. A total of 5 participants attended the meeting (3 males : 2 females).

2.26 Meeting with National Women's Council

FFOU in Nov 2022 held a meeting with NWC at NWC head offices in Ntinda. The meeting was intended to introduce BDS to NWC with interests on gender mainstreaming in the fisheries sector. The meeting led to out comes of integrating FFOU women capacity building in government aligned activities/programs. The participants incilude Director – NWC, President FFOU, ED-FFOU, Operation Wealth Creation Coordinator, and FFOU-BDS project Officer. A total of 5 participants attended the meeting (3 males : 2 females).

3. Objective(s) of the financial contribution

- 3.1 Upon completion of planning
- To improve on business traceability in fishing communities through Abavubi app for more profitability.
- To roll out the use of the Abavubi App to all fisher folk around all great Lakes of Uganda.
- To empower more fisher folks in business development skills and knowledge



- To promote inductrialization of fisheries businesses through DIT certification of trained fisherfolk
- 3.2 Modifications during the implementation

No major modifications were made in the project

3.3 Assessment of the extent to which the objective(s) was achieved

All planned objectives were achieved successfully though more emphasis should be made on better preparations to avoid high workloads next to project closure

4. Total costs and financing (broken down by measures and objectives)

See annex 1

5. Problems during the implementation

Key challenges faced

- Registered 12% drop out of trainees.
- The intervention was at selected landing sites per district leaving a gap at other sites in the district.
- High illiteracy where some trainees could barely read and write thus affecting the acute uptake of Abavubi application and BDS delivery.
- There is existence of lack of social accountability which is key for the success of the projects among fisher folks.
- Under budgeting for key aspects like project fuel which made logistics alittle difficult during BDS implementation.
- Interference of project activities by local authorities and government officials due to conficy
 of interest.
- Gender Based Violence being key hinderance to success of community / grass root projects.

Other challenges (trainee based) include;

- Uncertainty of what happens after BDS..
- Financial capital still a challenge among various fishig communities.
- High expectations by the trainees.



6. Analysis and assessment of the project financed by the financial contribution¹

The project was successfully implemented as planned in the proposal. The Business Development Services delivery was key to boosting the uptake of Abavubi. This therefore indicated that there was a big gap in knowledge and skills on proper business management in the fishing communities. BDS provided a paradigm shift in unlocking new opportunities and potential areas of improvement for tte growth of the fishing rural communities. Linkage to other feeder projects like Directorate of industrial training certificcation will be key to promoting of industrialization of marketable business skills like preservation, processing, business planning and basic financial literacy. The component modules are key to achieving more incomes, jobs and political empowerment through adult education. The modules of financial linkages have oponed up better access to more and better financial services in fishing communities.

The project however left more demand for the services as over 560 applications were received in need of the BDS trainings. Having worked on only selected sites in the various districts, there is existence of approximately 4 more landing sites per district that need more intervention.

The success of the project is also attributed to the well mentored trainers that were in position to effectively deliver the trainings thus a better strategy on implementation.

Abavubi application project through improvements like traceability will contribute to profit more users and increasingly be adopted within the fishing communities and sector at large. This will inolve improved ability of fish value chain players on tracing movement of their fish, quality assuarance monitoring and improved transportation thus improved profit margin.

7. Conclusions for future financial contributions (where planned)

In conclusion, there is great potential in the existing projects of BDS and Abavubi and there is need for harnessing more outreach to communities where the trainings or projects didnot reach. This is key to creating collective shift in the entire sector rather than dispersed shifts.

- There is need for more empowerement of the fishing communities with skills and knowledge
 in BDS since it is growing industry and the continued employment of more youth who still need
 the knowledgeand employable skills.
- Linkage to continuity programs of the projects.
- Need for scaling up traceability on the fishing businesses for better profit, quality assurance and standardization thus more income.

¹ With regard to recipients, methods, inputs and outputs and contributions to overarching objectives