



FISH FOR FOOD SECURITY
IN ZAMBIA PROJECT

SUCCESS STORIES: SUSTAINABLE AQUACULTURE IN LUAPULA AND EASTERN PROVINCES OF ZAMBIA



Ministry of Fisheries
and Livestock

Background:

The GIZ Fish for Food Security in Zambia Project (F4F) is part of the special initiative "Transformation of AgriFood Systems" and part of the Global Programme- Sustainable Fisheries and Aquaculture. It is among 7 country packages implementing projects in the field of sustainable fisheries and aquaculture with a focus on artisanal practices. In Zambia, the F4F project is part of the Agriculture and Food Security (Agrifood) cluster, which comprises 10 projects implemented by GIZ, with the vision to shape a future with thriving livelihoods and food- and nutrition security in rural Zambia.

Funder:

Federal Ministry for Economic Cooperation and Development (BMZ)

**Objective:**

The F4F project aims to improve the availability of fish products and higher income from sustainable artisanal fisheries and aquaculture for food-insecure households in Zambia.

Project Partners:

The project partnered with the Ministry of Fisheries and Livestock (MoFL)



Ministry of Fisheries
and Livestock

**Target Groups:**

Food-insecure households, artisanal fishers, aquaculture farmers, dam management committee members, and value chain actors

Design:

Nzinzi Communications and Agricomm Media



INTRODUCTION

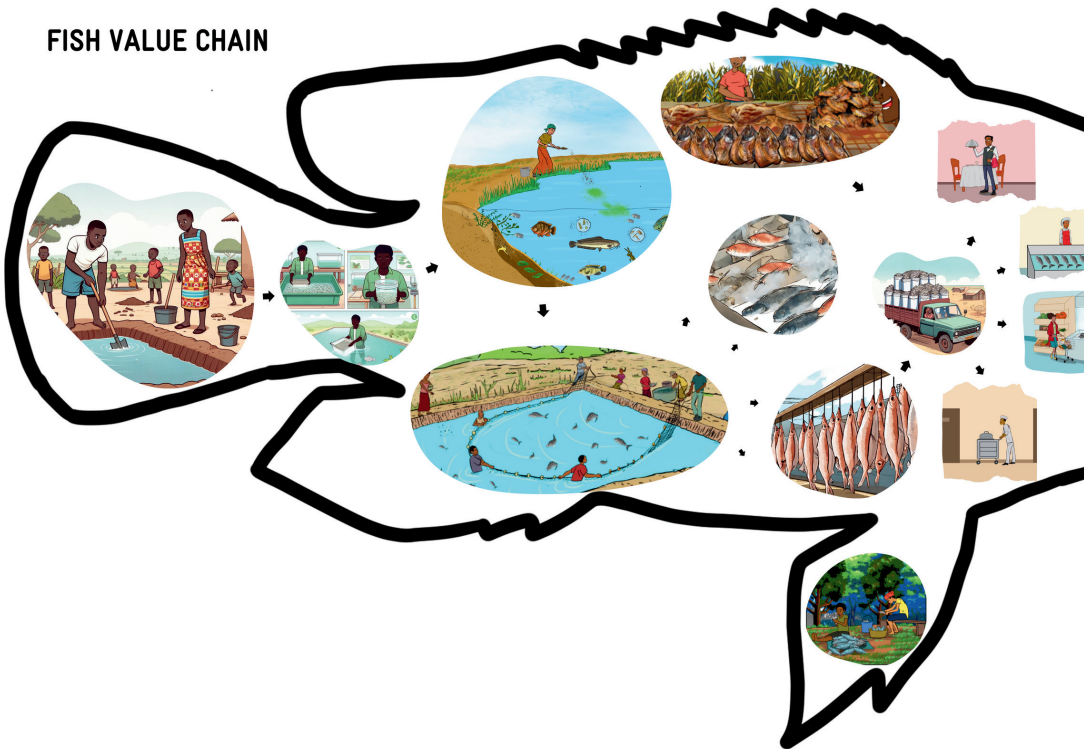
Dive into the inspiring journey of the transformative Adaptation stories brought to life by the GIZ Fish for Food Security Project in Zambia. The stories showcase the impactful and transformative journey of the project highlighting the positive effects of the project on the communities of Luapula province, emphasizing the empowerment of fish farmers through training and technical knowledge.

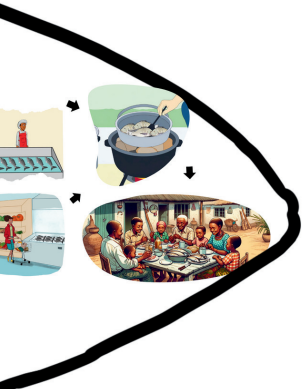
The project's focus on increasing access to fish not only addresses nutritional needs but also contributes to economic resilience and prosperity. Additionally, the emphasis on financial literacy has empowered individuals to make informed decisions and secure their financial future, leading to sustainable wealth creation. The project's commitment to gender equality is evident through the significant increase in women's participation, showcasing a dedication to inclusive development. Through collaborative efforts and dedication, the project has enriched lives and sown the seeds of sustainable change, paving the way for a brighter and more prosperous future for all.



Ministry of Fisheries
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FISH VALUE CHAIN





STAGES OF THE FISH VALUE CHAIN

STAGE 1: POND CONSTRUCTION

- Involves selecting the site and construction of the pond.

STAGE 2: POND PREPARATION

- Includes preparation, liming, filling, and fertilizing.

STAGE 3: POND MANAGEMENT

- Covers water quality and quantity management, as well as fish stock management.

STAGE 4: POND STOCKING

- Involves selecting fingerlings (considering sex, sizes, and species), sourcing, stocking, and acclimatization.

STAGE 5: POND MANAGEMENT

- Involves ongoing fertilization, selecting feeds, feeding, and fish stock management.

STAGE 6: MARKETING

- Encompasses advertising, market research, branding, and sales strategies.

STAGE 7: HARVESTING

- Harvesting can be partial or complete, and the timing, methods, and sorting techniques should align with the harvest goal (restocking or selling).

STAGE 8: TRANSPORTATION

- Includes logistics, cold chain management, and distribution.

STAGE 9: PROCESSING

- Involves cleaning, filleting, preservation, and packaging.

STAGE 10: WASTE MANAGEMENT

- Focuses on utilizing by-products and environmental management.



I have seen many benefits in fish farming; I can provide basic needs for myself and my grandchildren through the income I get from the few kgs of fish I sale.

-MRS THERESA OPOSHI

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Theresa Oposhi, 54, a single mother and small-scale fish farmer in Chitamba village of Mansa district, has been able to improve her rural livelihood through aquaculture. Ms. Oposhi runs eight fishponds on her farm, relying solely on traditional knowledge of growing fish before enrolling in the GIZ Fish for Food Security project training in 2022.

Since then, she has gained technical knowledge that she has implemented, resulting in a notable increase in her fish production. In October 2023, Ms. Oposhi harvested around 20 kilograms of fish, which she sold for income. She used part of the income to buy fertilizers for her maize field and fish feed as supplementary, while the rest was spent on household groceries and 3kilograms of fish for home consumption.

Ms. Oposhi's main takeaways from the training were pond management and feed formulation using locally available food such as maize bran. She plans to expand and reconstruct some of her fishponds following the useful guidelines she learned about pond construction. By doing so, she hopes to increase fish production and serve as a shining example to other members in her community, particularly single mothers like herself, of the benefits of improving rural livelihood through aquaculture.





I have seen the importance of record keeping in management of fish farming, we have even given each of our six ponds a name.

-MR & MRS MANTA

Mr. and Mrs. Manta, aged 25 and 19 respectively, are a young couple residing in Mushota village in the northern region of Kawambwa district, and have found success in aquaculture. Currently managing six ponds of varying sizes, ranging from 15 X 25 meters to 35 X 40 meters, they initially stocked over 9000 mixed-sex tilapia fingerlings in early 2023. The Fish for Food Security project provided training to the couple on sustainable aquaculture practices, including pond design and construction, fish feed formulation, record-keeping, and partial harvesting.

Mr. Manta enthusiastically shared their approach to record-keeping, highlighting how they have named each of their ponds to facilitate accurate pond management. He emphasized the benefits of partial harvesting, wherein a portion of the fish is removed from the ponds for consumption and sale. In a recent instance, they partially harvested 350 kilograms of fish, selling 300 kilograms while retaining 50 kilograms for family consumption. The proceeds from the sales were primarily allocated to purchasing fish feed and household essentials.

The concept of partial harvesting not only provides farmers with a steady cash flow and ensures household food and nutritional security but also allows for better growth of the remaining fish in the ponds by providing them with more space.

Mrs. Manta primarily oversees feeding schedules, pond fertilization, and fish sales, while her husband takes the lead in sourcing fingerlings, pond harvesting, and cleaning. The couple remains optimistic about their fish farming venture and plans to expand their operations by constructing additional ponds.





Goodwin Kasanda, 74, along with his 69-year-old wife and grandchild, reside in Kasanda village of Kawambwa district. The couple owns 26 fishponds, with an average size of 21 X 40 meters. Initially lacking proper management knowledge and not taking aquaculture seriously, Mr. Kasanda underwent training on sustainable aquaculture in 2023. Since then, he has been reconstructing 22 of his fishponds according to recommended construction methods. Currently, only 4 fishponds are stocked with 1300 red breast tilapia fingerlings.

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We harvest small fish for home consumption, small fish contain a lot of nutrients that nourish the body.

-MR. AND MRS. GOODWIN KASANDA

Engaged in farming as their primary livelihood, Mr. and Mrs. Kasanda dedicate at least 4 hours daily to their fish farm. Their mission is to stock all ponds, transferring fingerlings from the four ponds to others. Additionally, they occasionally harvest small fish for home consumption. Among the topics covered in the project, Mr. Kasanda found pond fertilization and fish identification particularly interesting, while his wife was impressed by the topic of making fish feed using locally available food like maize bran.

The Fish for Food Security project trains farmers on sustainably feeding fish using household food materials. Mr. Kasanda plans to upscale his operations by stocking all ponds and harvesting every 2 months for sale to nearby schools, hospitals, and the community. This strategy aims to provide a constant cash flow. By incorporating rural sustainable livelihoods and emphasizing the benefits of consuming small fish, the Kasandas are not only enhancing their own economic prospects but also promoting food security and nutrition within their community.





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We water our vegetables with the
water from the pond and again use
the vegetables as food for fish.

—MR. & MRS. TEPHAN MUSONDA

Mr. Musonda 67, together with his family ventured into fish farming in Munwa village, Mwenze district. By engaging with the community members experienced in fish farming and employing them to construct fishponds. Their collaboration with local experts not only supports the growth of their own farming enterprise but also fosters community engagement and knowledge sharing. This initiative has the potential to enhance food security and economic opportunities for the Musonda family and their community.

Mr. and Mrs. Musonda's dedication to sustainable aquaculture and integrated farming is truly inspiring. By embracing the training provided by the GIZ Fish for Food Security (F4F) and the Food and Nutritional Security Enhance Resilient projects (FANSER), they have not only increased their fish production but also improved their overall food security and livelihoods.

"GIZ provided training on sustainable aquaculture topics to support our fish farming efforts. The training on pond construction, pond ecology, fish identification and weighing, as well as the use of locally available food as fish feed, equips us with essential knowledge and skills for successful fish farming practices". Additionally, the training on building keyhole gardens further enhances their capacity to engage in sustainable agricultural practices, promoting food security and self-sufficiency within the community.

Through the implementation of recommended pond construction techniques and the utilization of locally available resources as fish feed, the Musonda family has seen a significant increase in their fish harvest. Their innovative approach of irrigating their vegetable garden with fertilized pond water and using the vegetables to feed the fish showcases the benefits of integrated farming.

Furthermore, their commitment to fish processing and selling both fresh and processed fish in the local market has not only reduced post-harvest losses but also provided additional income for their household. This demonstrates the importance of value addition in agriculture and the positive impact it can have on small-scale farmers.

Overall, Mr. and Mrs. Musonda's success story highlights the potential of sustainable aquaculture and integrated farming in enhancing food security, promoting economic empowerment, and fostering community resilience. The Musonda family demonstrates a proactive approach to learning and adopting new agricultural practices. Their dedication to maintaining and expanding their fishponds sets a great example for others in their community to follow suit.





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The success of our fish farming business reflects the invaluable support from the Fish for Food security Project and our ongoing commitment to learning and adapting.

-STORY OF MR. DARLINGTON MPUNDU MELU AND MRS MULUMBI PRUDENCE MELU

Mr. Darlington Mpundu Melu 62 and his 43year old wife Mulumbi Prudence's journey in fish farming in Mansa district, Chitamba area, is a testament to the positive impact of the GIZ Fish for Food Security project. Through the project's training and expansion support, the couple has significantly expanded their fish farming operation from two to eleven fishponds. The project has equipped them with essential skills such as fish identification, feeding techniques, and record-keeping, enhancing their knowledge and efficiency in fish farming practices.

The couple's commitment to sustainability and continuity is evident in their plans to anchor the training received and focus on feeding techniques and record-keeping. By incorporating these practices, they aim to ensure the long-term success and productivity of their fish farming business. Additionally, their intention to venture into selling demonstrates their ambition to further grow their enterprise and contribute to the local economy.

To make informed decisions about feeding schedules and overall management of their fishponds, Mr. Melu and Ms. Prudence work together as a team which is crucial for monitoring the growth and health of the fish stock. This practice not only ensures the well-being of the fish but also contributes to the efficiency and profitability of their business.

Overall, the success of Mr. Melu and Mrs. Prudence's fish farming business can be attributed to their dedication, the support of the GIZ F4F project, and their willingness to continuously learn and adapt. Their story exemplifies the potential for sustainable agriculture practices to drive economic growth, food security, and community development in rural areas.





Through the lessons learnt, I have transformed my fish farming ventures into a successful sustainable business.

-MR. PHILIP NSAMA KATANDULA

Mr. Nsama Philip Katandula's dedication to fish farming in Mansa district, Zambia, is truly commendable. Through his involvement in the Fish for Food Security project, he has not only expanded his knowledge and skills in fish farming but also transformed his venture into a successful business. By implementing lessons learned, such as record-keeping and homemade fish feed, Mr. Philip has significantly increased his harvest and expanded his fishponds from five to nine. This growth in production has not only allowed him to generate income for his family but also reinvest in his business by purchasing more fingerlings and improving his infrastructure.

The integration of various farming components, such as aquaculture, vegetable garden, maize field, and sugarcane crops, in Mr. Katandula's farming system in Chitamba village showcases a successful example of diversified and sustainable agriculture. By having a garden near his fish farm and integrating it with his maize field, Mr. Katandula is able to create a symbiotic relationship between different elements of his farming operation. The fish farm provides nutrient-rich water that can be used to irrigate the vegetable garden, promoting healthy plant growth. In turn, the vegetable garden can act as a natural filter for the fishpond, helping to maintain water quality. The maize field and sugarcane crops complement this system by providing additional sources of income and food security for the family.

The project's goal to increase harvest and fish production has clearly had a positive impact on Mr. Philip's success, as evidenced by his increased productivity and profitability. By sharing his knowledge and experience with the local community, Mr. Philip is not only contributing to reducing household food insecurity but also promoting sustainable agricultural practices in the region. His dedication to fish farming serves as a model for others looking to improve food security and economic opportunities through aquaculture.



I have enhanced my fish farming practices, increased my harvest, supported my family and children's education.

-MR. FIDELIS MALEMBWA KWENGE

Fidelis Kwenge's dedication to fish farming in Mabumba village is admirable. Through his participation in the Fish for Food Security project and the management of five fishponds with a significant number of fingerlings, he has demonstrated a commitment to sustainable aquaculture practices. The recent successful partial harvest of 58kilograms of fish, with a portion used for home consumption and the rest sold to the local community, showcases his entrepreneurial spirit and contribution to local food security. The income generated from selling the fish not only supports his family's livelihood but also enables him to prioritize his children's education by paying their school fees.

Through his collaboration with the project, he has not only increased his knowledge and skills in pond design, feed formulation, and fish weight estimation but also significantly improved his fish farming practices. By implementing lessons learned from the GIZ, Fidelis has been able to enhance fish growth, increase his harvest, and generate income to support his family, including paying his children's school fees.

His dedication to record-keeping and continuous learning, as well as his efforts to expand his fish farming business by establishing more ponds and training his wife, exemplify his commitment to sustainable agricultural practices and economic empowerment. Fidelis's experience underscores the positive impact of capacity-building initiatives of the F4F project in empowering small-scale farmers and promoting food security in local communities.





My technical knowledge has been enhanced leading to increased productivity and reduced risks in my fish farming.

-MR. CHRISTOPHER PHIRI



Mr. Christopher Phiri's integrated farming approach in Mansa is truly impressive. His utilization of five fishponds, with strategic management practices such as partial harvesting and fish transfer, showcases his dedication to maximizing productivity and sustainability in his fish farming operations. The ponds vary in size with the biggest being with dimensions of 25 X 58, in two of the largest fishponds, there are approximately 8000 reversed-sex tilapias. During harvest, he yields about 5000kgs of fish.

The integration of flood irrigation from his farrow and cabbage farm demonstrates his innovative use of resources to reduce costs and enhance efficiency. This integrated farming approach not only maximizes land use efficiency but also promotes biodiversity and resilience in the agricultural ecosystem. By diversifying his farming activities and leveraging the synergies between different components, Mr. Phiri is able to create a self-sustaining and productive farming system that benefits both his family and the environment.

His collaboration with the GIZ Fish for Food Security project since 2021 has been instrumental in enhancing his technical knowledge and capacity building. The project's training on pond design and drainage systems has significantly improved the overall management of his fishponds, leading to increased productivity and reduced risks during heavy rainfall.

Mr. Phiri's forward-thinking approach to involving his nephews in fish farming for long-term sustainability is well-meaning. By reinvesting earnings back into the business and strategically planning for the future, he is setting a solid foundation for continued success and growth in his farming enterprise. His dedication to continuous improvement and adaptation to new techniques exemplifies the positive impact of collaboration with agricultural development projects like the F4F.





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When we harvest fish, we sell everything, including fish kept for our personal consumption, this practice helps maintain accurate records of fish production and sales, contributing to effective financial management and sustainability our fish farming operations

-SISTER ANASTASIA & NOVICES

Sister Anastasia, serving as the superior at St. Lucy Novitiate in Mansa, has been leading a thriving fish farming initiative within the novitiate community with assistance from the Fish for Food Security project. This initiative involves 4 nuns including and two novices, who actively engage in fish farming activities. Sister Anastasia initiated this project in 2021 with the goal of expanding her knowledge in fish farming.

Over time, she has shared her expertise with fellow nuns in the community, focusing on pond construction, pond fertilization, and feed formulation, all of which have proven invaluable.

Despite facing challenges such as distance, expenses, and pond management complexities, the project has successfully constructed two ponds measuring 22 by 20 meters each. They have achieved a harvest of at least 250 kilograms of fish, generating around K10,000 in revenue. One of the ponds houses approximately 6000 fingerlings, and the novices actively participate in learning the intricacies of fish farming, ensuring knowledge continuity.

The generated income from fish farming has been utilized to repay their business loan, support the novices with food and essential needs, and enhance their garden produce, thereby reducing living costs. Sister Anastasia expresses gratitude for the F4F project's training and support, which have elevated their fish farming skills, increased profitability, and facilitated long-term sustainability planning for their venture.





“we connected electricity at our home, a testament to the transformative impact of the fish for food security project on our lives.

-MS. ERICA KAUSENI CHISHALA

Erica, a 67-year-old farmer residing in Mabumba village, Mansa district, Luapula province, Zambia, has made significant strides in fish farming with the aid of the Fish for Food Security project. She lives with her four grandchildren and manages three fishponds, sized 5 x 10, 5 x 15, and 10 x 15. Erica partnered with the GIZ project in 2021, initially without any fishponds. Through training and guidance, she established her first fishpond stocked significant number of fingerlings, eventually expanding to all three ponds now stocked with mixed-sex tilapia.

Over time, Erica has harvested approximately 50 kilograms of fish, comprising both large and small ones, while leaving the fingerlings in the ponds for further growth. The proceeds from fish sales enabled her to connect electricity to her household, marking a significant improvement in her living conditions. Through the F4F training, Erica has acquired valuable knowledge on fish care, pond fertilization, feeding techniques, and the nutritional value of small fish.

Erica's journey underscores the transformative impact of the Fish for Food Project, leading to enhanced fish farming skills, increased income, and an improved quality of life. She extends her heartfelt appreciation to the project for its support and envisions continued assistance for fellow farmers in similar endeavours.





Through the income generated from fish sales, we have built a shop that now provides rental income, further securing our family's future through our fish farming business.

-MS. SYLEN MWELWA



Sylen, a 38-year-old fish farmer from Mabumba village in Mansa district, Luapula province, has found success in fish farming with the support of the Fish for Food project. Living with her spouse and three children, Sylen manages three fishponds with an average dimension of 15 X 20 meters. Each pond is stocked with approximately 1000 tilapia fingerlings. Sylen, along with her family, received training from the GIZ F4Fproject and has been working together on the fishponds.

Starting with one pond in 2021 and with no prior knowledge of fish farming, Sylen has since learned about pond construction, feeding, and financial management through record-keeping. Transitioning from personal consumption to selling, they have generated income from fish farming. This income has been used to purchase materials for building a shop, which now provides rental income.

The earnings from the shop are utilized for maintenance and groceries. Sylen appreciates the Fish for Food project for the valuable lessons learned, enabling them to achieve sustainability through fish farming. The project has not only enhanced her farming skills and profits but also improved her overall quality of life. Sylen expresses gratitude for the support received and looks forward to continued capacity building for farmers in similar situations.





Before I sale fish, I ensure that some is left for home consumption, to promote the consumption of fish protein in my house.

—MR. ALFRED SAISHA

Alfred Saisha, a 51-year-old farmer from Mabumba village in Luapula province, Mansa Zambia, has been involved with the Fish for Food project since 2019. Initially having three ponds, with the project's assistance, he now manages seven ponds, with his largest pond measuring 24 X 20 and housing around 1800 fingerlings. Mr. Saisha's initial expectations upon joining the project were to learn simplified methods for fish farming in terms of feeding and maintenance. He found that growing (matuku) and impede fish species was easier, although requiring a longer growth period.

To date, he has harvested around 15kg of fish, generating income used to cover his children's school fees. Through the project, Mr. Saisha has embraced the significance of record-keeping to monitor his earnings and the nutritional value of consuming small fish. He acknowledges the value of entrepreneurship training received at SILC (Savings and Internal Lending Communities). Mr. Saisha expresses gratitude towards the Fish for Food project and GIZ for the valuable lessons and training, which he believes will have a lasting impact on his farming endeavors.



Things have really
changed for us. Every
harvest helps my family
and feeds our community
too.

-MR. MOSES CHOTWE



Mr. Moses Chotwe, a 68-year-old farmer from Mwense in Munwa village, Luapula Province, Zambia, has been actively involved in the Fish for Food project since 2023. His experience with the project has exceeded his expectations, providing valuable lessons that have greatly benefited his fish farming business. Living with his wife, child, and in-laws, Mr. Chotwe has successfully supported his family through his expanding fish farming enterprise. He currently manages eleven fishponds, with the largest being 50 by 50 in size. Through the knowledge acquired from the Fish for Food project, he has effectively maintained the health and growth of the fish in his ponds.

Mr. Chotwe partially harvested 320 kilograms, he distributed eight buckets to community members who assisted him with the fishponds, allocated three buckets for home consumption, and sold the remaining portion to the local community. The income generated from the harvest was utilized to pay for his children's school fees and reinvest in his fish farming business. By implementing practices such as record-keeping and partial harvest, Mr. Chotwe has observed improved fish growth without stunting, leading to overall growth enhancement.

Eager to enhance his knowledge and skills further, Mr. Chotwe recently received training on pond design and looks forward to implementing this new learning in his operations. He expresses gratitude to GIZ for providing valuable training opportunities and hopes for the continuation of such initiatives under the Fish for Food project. Through his dedication and hard work, Mr. Chotwe has not only supported his family but also contributed to enhancing food security within his community.





"I've changed from a lone fisherman into a community builder. Every new pond and record is a step forward for all of us."

-MR NEWTON MUMBA

Mr. Newton Mumba, a 67-year-old farmer from Mwense Munwa village in Luapula province, Zambia, has enhanced his fish farming practices and boosted his income through the Fish for Food project. Initially having only one active pond for home consumption and selling fingerlings to local youths, Mr. Mumba joined a farming cooperative after learning about the project through radio programs.

Through their cooperative group, he gained knowledge on pond construction and record keeping. With this newfound knowledge, Mr. Mumba plans to construct new ponds based on the dimensions he learned and implement record keeping and partial harvest techniques in his fish farming activities. The income generated from selling fingerlings has enabled him to pay his workers and reinvest in his farm. The Fish for Food project has played a pivotal role in helping Mr. Mumba improve his fish farming practices, increase his income, and benefit both himself and his community.





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I only used to keep fish for home consumption, but now, I have learnt how to monetize my fish farming.

-MS. PETRONELLA MUMPANGWE

Petronella, a fish farmer residing in Mansa district, Luapula province, Zambia, has been actively involved in the Fish for Food project for the past two years. Prior to her participation in the project, she used to harvest fish for home consumption. However, since joining the project, she has transitioned to selling fish, thereby earning an income to support herself and her family. Petronella manages five fishponds, with the largest one measuring 30 X 30 and housing 6,500 fingerlings.

Through her collaboration with GIZ-F4F project, Petronella has acquired valuable knowledge in pond ecology, pond pegging, and record-keeping, which have significantly enhanced her fish farming skills. She has also learned how to prepare homemade fish feed, maintain pond cleanliness, and collaborate with fellow fish farming enthusiasts. Petronella expresses gratitude for the support she has received from Fish for Food and hopes for continued assistance to women in fish farming beyond the project's duration.

Petronella intends to implement the practice of partial harvest, a technique she learned from the project, to ensure sustainable fish farming practices. The income generated from selling fish enables Petronella to provide for her family, including her five children, one of whom is in boarding school. She appreciates the educational support provided by the project, which has positively impacted her family's well-being. Petronella is pleased to have been a part of the Fish for Food project, as it has not only improved her fish farming abilities and earnings but also provided educational support for her family through the knowledge gained from training sessions.





The Fish for food project has had a huge impact on our lives as small-scale fish farmers.

-MR. JACKSON NKANDU

Mr. Jackson Nkandu, a 59-year-old fish farmer from Munwa village in Mwense, Luapula Province, Zambia, has been actively involved in the Fish for Food project since 2023. He lives with his wife and five children, who assist him in managing his seven fishponds containing fingerlings. Mr. Nkandu recently harvested fish from his ponds, with a portion used for home consumption, some sold as fingerlings to local fish farmers, and three buckets given as payments to community members who help him on his farm.

One of the key lessons Mr. Nkandu has learned through his experience is the importance of record-keeping, which has enabled him to effectively manage his finances and monitor the fish in his ponds. He also expressed a desire to enhance his pond design skills, recognizing its significance in improving his fish farming operations.

In addition to the Fish for Food project, Mr. Nkandu has benefited from the Food and Nutrition Security, Enhanced Resilience (FANSER) Project in Zambia particularly in learning about keyhole gardening techniques. He acknowledges the valuable training and support provided by GIZ, emphasizing the positive impact these projects have had on the lives of small-scale farmers in Zambia.





Since joining the Nthambo Dam Management Committee in 2021, we've worked tirelessly to improve sustainable fisheries management. Through the GIZ-Fish for Food Security Project, we've enforced regulations, promoted sustainable fishing practices, and enhanced nutrition in our households. Our efforts have significantly benefited not just our families, but the entire community.

The four women from the surrounding villages of Nthambo Dam are playing a crucial role in advancing sustainable fisheries management through their active participation and newly acquired knowledge. As members of the Nthambo Dam Management Committee, they have been instrumental in implementing regulations and practices that have significantly improved the management of the dam and enhanced food security in their communities.


Prior to the establishment of the dam management committee, unregulated access and destructive fishing practices posed a threat to the fish population and food security in the area. However, since joining the committee in 2021, these women have worked tirelessly to enforce rules, clear vegetation, promote the use of sustainable fishing gear, and conduct regular patrols to ensure the proper management of the dam.

Through their involvement in the GIZ-Fish for Food Security Project, these women have gained valuable knowledge on the nutritional value of fish, budgeting at both household and committee levels, and effective utilization of funds generated from the dam for the benefit of the entire community. They have successfully integrated fish consumption into their households, promoting better nutrition practices and contributing to household food security.

Furthermore, the monthly meetings organized by the Dam Management Committee provide a platform for community members to discuss the importance of adhering to regulations, reinforcing sustainable practices, and enhancing the well-being of the entire community. The active participation of these women in managing the dam not only benefits their households but also contributes to the sustainable management of the Nthambo Dam and the overall prosperity of the community.



FISH FOR FOOD SECURITY



Since joining the Committee, has improved nutrition in my household. These efforts have not only benefited my family but have also positively impacted our entire community."

-MS. MATILDAH

Ms. Matildah Mwanza, a 29-year-old resident of Mapindu village in Katete district, is a skilled data collection member within her community and an active member of the Dam Management Committee. Matildah was appointed by the committee to serve as their designated data collector. Effective dam management necessitates a comprehensive understanding of key information such as the current fish stock, fish species, and sizes for optimal management practices.

Ms. Matildah shared that while most fishermen in the community were forthcoming with information about their catches, some initially hesitated until they grasped the purpose behind her data collection efforts. Utilizing the earnings from her data collection services, Matildah invested in acquiring two cows.

Reflecting on her experience, Matildah expressed gratitude for the valuable training provided by the F4F project. She acknowledged that prior to the training, her knowledge regarding the significance of fish and the various fish species was limited. Through her involvement in data collection, Matildah has expanded her understanding of sustainable fisheries and aspires to impart her newfound knowledge to others in the community.





I've gained
valuable financial
literacy and
budgeting skills
from the training.

-MS. JANE

Ms. Jane Tembo, 42, is a member of the Rukuzye Dam Management Committee (DMC) and resides in Chanje village in Chipangali district. She has served as the vice secretary for the Rukuzye Dam catchment since 2019. Ms. Jane reflects on the state of dam management before the implementation of trainings on sustainable fisheries management. Previously, the committee lacked regular meetings, did not conduct patrols around the dams, and allowed fishers to use unsustainable fishing nets that captured even small fish. There were no regulations in place regarding when to catch fish.

Upon receiving training on sustainable management of community fishery resources, significant improvements were made. A proper management system was established, benefiting the communities surrounding the dam. The project provided essential equipment for conducting patrols, such as gum boots, torches, and bicycles. Women from the DMC now conduct dam patrols during the day, while men take over during the night. All 14 villages surrounding the dam have embraced and supported the enforcement of these regulations.

"I have greatly benefited from the training, particularly in financial literacy and budgeting after fish sales. In the past, fish was scarce and expensive, but with improved dam management by the DMC, fish stocks have increased, leading to lower prices and more regular fish meals at home. The revenue generated from selling fish is used for household expenses, school fees, and purchasing farming inputs."



The well-managed dam now supports our fishing, irrigation, and cattle, greatly enhancing our household food security and overall well-being.

—MRS. GRACE BANDA




Grace Banda, a 48-year-old resident of Zala village, began attending trainings in 2023 with the aim of improving household food security and learning about the management of fishery resources. She recalls a time when fishing in the dam was unregulated, leading to overfishing and a lack of fish breeding opportunities. However, through the trainings, the community now understands the importance of implementing fish bans and using proper fishing gear.

Prior to the training, vegetable gardens were situated close to the dam, but now residents have learned to position their gardens at least 50 meters away to prevent contamination of water by chemicals used in gardening which may be harmful to fish. Grace primarily fishes with hooks for home consumption and occasionally sells her catch. She adheres to the management system set by the Dam Management Committee (DMC) by paying K10 when fishing with a hook.

The benefits of the well-managed dam extend beyond fishing, as surrounding communities now utilize the water for vegetable garden irrigation and providing drinking water for cattle. Grace supports her family of nine through the sales of her vegetable garden, showcasing the positive impact of improved dam management on household food security and community well-being.





we've increased fish availability and made it more affordable. Our community now supports sustainable practices, benefiting everyone. However, we must address the misuse of the dam as a road to ensure its longevity and our well-being.

—MRS. ELIZABETH NJOBVU

Elizabeth Njobvu, aged 52 from Kabemba village in Petauke district, plays a crucial role as a committee member of the Dam Management Committee (DMC). Her dedication to the Lusowe dam issue led to her selection for this position. The DMC with support from traditional leaders, effectively manages the dam, ensuring the well-being of the community and promoting sustainable fisheries management.

One of the challenges faced by the community was the increased Illegal, Unreported, and Unregulated (IUU) fishing activities, primarily due to the use of improper fishing gears and non-compliance with the fish ban periods, which typically last for three months. In the past, access to fish was limited, and prices were high. However, after capacity-building sessions on sustainable fisheries management, facilitated by the GIZ-F4F project, there has been a noticeable increase in fish availability within the community, making it more affordable.

The community, including traditional leaders, actively supports the DMC's mandate. Fishers now prioritize selling their catch to community members before selling to outsiders. Despite these positive developments, challenges persist, such as people using the dam as a road, which poses a risk of weakening the dam structure over time. Ms. Elizabeth emphasizes the importance of addressing this issue to ensure the long-term sustainability of the dam and the well-being of the community.





I am now able to provide nutritious food to my family, and this gives me so much joy

-MRS AGNESS NJOVU



Agness Njovu, a 38-year-old woman from Kamwandi village, plays a vital role as a nutritional volunteer in her community. Utilizing hook and line fishing techniques, she has received training from a project that has equipped her to fish in compliance with regulations and seasonal patterns.

The implementation of a nominal fee of k5 for fishers using hooks by the DMC serves as a sustainable dam management strategy, generating revenue for the committee and fostering community ownership through contributions. This initiative has led to an increase in fish stock within the dam, enabling Ms. Agness to catch more fish and provide her family of six with regular access to this nutritious food source.

In instances where fishing is not feasible, Agness procures fish from other fishers who use nets. Furthermore, she sustains a keyhole garden as her primary source of income. This empowerment has not only improved food and nutritional security for Agness and her family but has also reinforced her economic stability through sustainable practices. The integrated approach of sustainable dam management, community involvement, and increased fish availability has yielded tangible benefits for Agness and her community.





The efforts of the Fish for Food Security in Zambia Project have not only brought about positive changes in the communities surrounding the dams in the eastern province but have also paved the way for increased community empowerment through collaboration with the establishment structured community Dam Management Committees (DMCs). These committees have played a crucial role in managing community resources effectively and have proven to be highly impactful.

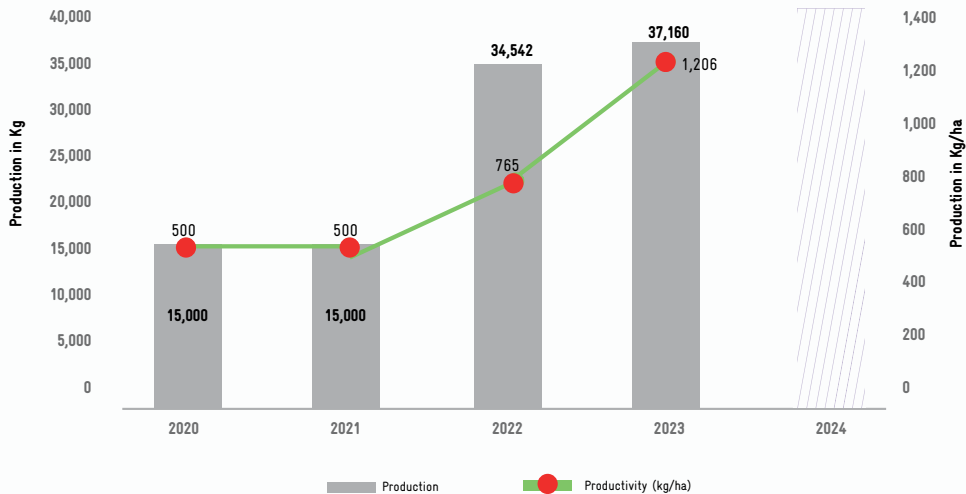
One such success story is the Lusowe dam in Petauke district, where another organization named Total Landcare has stepped in to support the community by installing an irrigation system. This initiative was made possible through collaboration with the DMC, the community, and traditional leaders. The installation includes 40 tons of water tanks and 22 solar panels, each with a capacity of 500 watts. The land around the dam has been divided into 72 plots, each measuring 30X25, which is expected to enhance food and nutrition security in the area and contribute to overall community development.

Similarly, Mapala dam in Chipangali district has also seen significant progress in community development, with the DMC receiving a grant from the Community Development Fund.

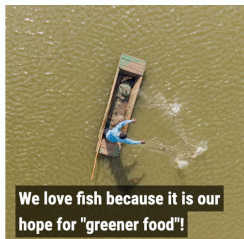
This achievement was made possible due to the restructuring of the dam management committees; their training in sustainable fisheries management and the acquisition of DMC certificate. In harmony with the community, the committee has decided to invest in a hammer mill for the surrounding villages, showcasing the benefits of a well-structured committee that prioritizes community needs.

These positive developments are a testament to the project's impact and the adoption of best practices by other organizations. The structured community committees and increased support from various stakeholders are driving sustainable community development and fostering a sense of empowerment among community members.





More fish > More food > More money



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