# AREFARMERS' VARIETIES READY FOR 7 RECOGNITION



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## SMALL-SCALE FARMERS ARE PLAYING A CRUCIAL ROLE IN BIODIVERSITY CONSERVATION AND MANAGEMENT

### INTRODUCTION

The registration of farmers' varieties in national and regional seed catalogues as seed regulation objects has sparked heated debate at the local, national, and international levels in recent years. Farmers have made significant contributions to the development, management, and conservation of a diverse range of crop varieties, but national seed regulations typically focus only on crop varieties produced by the formal seed system. Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) recognises farmers' contributions to the conservation and development of plant genetic resources and states that national governments are responsible for protecting farmers' rights in accordance with their needs and priorities.

The majority of farmers in Africa obtain seed through informal channels such as farm-saved seed, seed exchanges, and local markets. Depending on the crop and country, these channels contribute approximately 80-100% of seed supply. Despite the importance of these systems, governments rarely support them, with little or no recognition in seed policies, and there is little support for farmers' varieties reproduction, adaptation, commercialization, and use. This has a negative impact on agriculture productivity and farmer income, particularly for small-scale farmers who rely on growing local (farmer) varieties because it restricts their access to high-quality seed of these varieties.

Diversity is a crucial aspect of food security; however, small-scale farmers who protect biodiversity are marginalized. Their efforts are still not recognized by various actors like governments, researchers, academia, and policymakers, to name a few. Because of the increasing environmental changes, breeders and researchers have been compelled to develop varieties that are appropriate for the current environment, and primary PGR are always obtained from small-scale farmers. Farmers' varieties, despite not being recognized, are still used to produce new varieties at the expense of small-scale farmers' conservation efforts. Farmers' varieties are less popular because they are not recognized, even though the majority of them meet the basic criteria for recognition.

In this write-up, we showcase some of the contributions of small-scale farmers in Amuria and

Soroti districts towards biodiversity conservation. As several campaigns on Farmer variety recognition penetrate global discussions, ESAFF Uganda, together with Oxfam in Uganda, PELUM Uganda and NARO PGRC with support from SeedNL have embarked on a journey to collect stories to justify the need for the recognition of farmers' varieties. For the past five years, these have been working closely with small-scale farmers across the districts of Nebbi, Adjumani, Omoro, Apac, Amuria and Soroti, through the Sowing Diversity equals Harvesting Security (SD=HS) where farmers have been involved in farmer-led research and came up with crop varieties that best suit their preferences, especially in ensuring food and nutrition security.





### IT HAS BEEN A LONG JOURNEY OF 146 YEARS OF CONSERVING AND MAINTAINING EGOROMOIT IN OUKOT VILLAGE - AMURIA DISTRICT

For 146 years, small-scale farmers in Oukot village, Akeriu sub county in Amuria district have conserved Egoromoit, a local groundnut variety that originated from Ethiopia and was first introduced in the community by a tobacco business man called Egwaju Sepek in 1877.

I am 84 years old but I found this variety in the community being managed purely by small-scale farmers. Egoromoit is one variety whose traits have never changed, its ability to tolerate diseases stands out for me. Noted Odudo Gereseme a resident of Oukot village.

While engaging small-scale farmers in Oukot Village about the distinguishing characteristics of Egoromoit. Atim Janet, the chairperson of Orungo Community Seed Bank in Amuria district, recalled memories of the variety from 60 years ago. To begin with, Egoromoit has a pleasant flavour and is simple to shell and pound. Several farmers also noted that Egoromoit has a high oil content, sharp pointed seeds, is resistant to all groundnut diseases, is drought tolerant, its pods shrink when dried, and the variety can only be harvested by digging due to its widespread in the field. Egoromoit is one of many varieties that stand out. We've seen seed varieties come and go in this community due to environmental changes, but Egoromoit has withstood them all. Janet added.

Through the Farmer Field School(FFS) methodology, farmers were able to conduct Participatory Plant Breeding(PPB) where they were able to analyze the strengths and weaknesses of Egoromoit. Because of the importance of the variety, these decided to conduct Participatory Variety Enhancement(PVE) to restore some of the lost traits in the variety among which included poor yield. For the past 5 years, Otubet FFS has been able to improve some traits of the variety which is now high yielding and gives between 70 - 100 pods. The FFS underwent a selection criterion before and after planting. While in the field, these conducted positive selection by tagging particular plants that exhibited their desired traits and for the past five years, these were able to come up with the best seeds for Egoromoit.

In the earlier days, Egoromoit had several cultural significances in the community, including being

passed on as wedding gifts when a girl child gets married. These farmers believed that because of the variety's distinct features, it will provide food security for the household where the daughter is being married off to. This is one of the ways through which the variety spread to other communities.

Ayupo Faibe from Olusai Aloet FFS also shared her experience with the variety. Egoromoit was used in childbirth ceremonies; when a woman gave birth, she was kept in the house for three days before the rest of the community saw her. Because new mothers only ate soft foods, a special sauce made from Egoromoit was prepared and served to the new mother while the rest of the visitors sang praises for the mother's bravery. The visitors would be served after she finished her meal. Faibe noted, with a big smile on her face, that it was the best meal anyone could ever have back in the day.

While sharing the variety descriptors, small-scale farmers highlighted that Egoromoit has broad dark green leaves, seeds are tan in color, has Long pods with 2-3 seeds per pod and has medium sized seeds. Prior to PVE, the variety had low pod filling, seed contamination making it susceptible to diseases, and an uneven maturity period. Farmers were able to increase its yield potential from 70 to 100 pods per plant, ensure seed size uniformity, and reduce the maturity period from 120 to 115 days as a result of farmer-led research. Small-scale farmers take pride in the variety's various improvements and hope to have full ownership in the future. We may not have the modern technologies to prove our variety but with the traditional knowledge, we are able to distinguish Egoromoit from other varieties. Ekocu Francis from Olusai Aloet FFS noted

After the various improvements on the Egoromoit, farmers in Otubet FFS and Olusai Aloet FFS have realized high demand of the crop variety by members of the community. However, these are challenged with the fact that they can only make sales through local markets that often times offer lower prices, further to that is the certification processes that seem complex for the small-scale farmers to comprehend. These are always left wondering if there will ever come a time where they are able to earn a descent benefit and their efforts recognized by the state.



### FARMER VARIETIES ARE PASSED ON FROM ONE GENERATION TO ANOTHER

There is a growing appreciation of crop varieties managed by local farmers, also referred to as farmers' varieties. Farmer varieties are often appreciated for their attractive characteristics for both producers and consumers, such as adaptability to harsh environmental conditions and high nutritional values. The Seed system adapted by small scale farmers date back to the origin of agriculture and over the years, where every farmer had a strategy to select, multiply and use seed for the next season. In addition, the remaining seed is sold or exchanged for other seed from neighboring farms. it is therefore important to recognize small scale farmers as breeders, seed multipliers, quality controllers and seed suppliers. The farmers seed systems contribute to about 80% of the seeds to the farming communities in Uganda with farmer variety being passed from generation to generation. With growing interests and efforts among different stakeholders to push for the recognition and registration of the farmer varieties there is need to obtain a detailed understanding of the farmer varieties in terms origin and the unique attributes.

Elders passed the information about these precious varieties from generation to generation as a way of preserving promoting culture and heritage among the community.

Mr. Odudo Geresem highlighted that the best gift a parent can Passover to his or her children is the traditional seeds and all the relevant information concerning that seed and its attributes. he also added I am 84 years now but we have varieties which have been in this community for over 100 years and we are blessed our parents and elders were able to pass the critical and special information about those varieties to us and now we can talk about them and pass over the same information to our children. Geresem recalls of Egoromoit groundnut variety that was used by his parents to feed the household, he is still using the same variety for his children and grandchildren.

In order to register the farmer variety into the national variety catalogue information on the origin, ownership, attributes, descriptors and uses of these varieties must be made available and it's the responsibility of farmers to prove ownership of the varieties they claim and consider to be their own. Unlike the small-scale farmers limited understanding of the variety genetics, the breeders are always equipped with plant genetic information and this is where the informal seed systems get challenged.

Farmer varieties are taking the Centre point in ensuring seed access to the small-scale farmers. In the context of climate change, small-scale farmers in Adjumani, Apac, Amuria, omoro, Soroti and Nebbi have been working towards the conservation of farmer varieties that have proven to be resilient. These have undertaken selection processes to ensure uniformity of the varieties in order to stand a chance for recognition by the government and other stakeholders. Various improvements have been made on varieties like Obino. Egoromoit, Araka, among others all which articulately address farmers needs in terms of food and nutrition security. Farmers have registered tremendous results through efforts they have invested in ensuring that the improve their local variety in terms of uniformity, purity, yield, drought, pest and disease tolerance among other essential traits. This has been spiced up by farmers investing their material time to document their work as well as the background information of their varieties regarding the origin, ownership, social and cultural attributes among other unique features of these precious diverse varieties. As a result, these varieties have gained popularity in specific communities which has ignited a business mind amongst the farmers. These are however face challenges along the supply chain since their varieties are not recognized at the national level. Besides that, these farmers continue to exchange these PGR at local level.

Mzee Etoku Wilbert of MAFA farmer field school in Ajonai village ogolai sub county Amuria districts stated that through the trainings we received from ESAFF Uganda we have been able understand and appreciate our seed challenges, how to improve, produce and maintain our local seed varieties. All this prompted us to develop interest of understanding the detailed background of our local variety in order for us to provide proof to those who do not believe that farmers own for example Obino, Egoromoit, and Eretu, for groundnuts and Emikidit, Emusugut, Etirigigait for maize to mention a few.

Small scale farmers are calling for increased campaigns towards recognition and legalization of farmer varieties in to the mainstream national seed systems since they have continuously showed resilience to most of the threats to crops both abiotic and biotic through their consistency in performance compared to the new technologies which are unreliable because most of them short term positive results and degenerate drastically hence frustrating farmers.



### ARAKA, THE PRECIOUS GEM IN ABILPIIN VILLAGE, SOROTI DISTRICT

Araka is a local bean variety that was first introduced in the community by Adebu a famous cotton business man over 80 years back. The exact origin of the variety is not known by the community members. However, these have carried with the conservation and preservation of the variety. The variety was named Araka because of its fast traits in terms of growth and cooking. The variety always goes a head of the rest that's why we call it Araka meaning fast. Ajalo Stella

In Teso sub-region, parents and relatives pass on seeds to the daughter getting married as start up in her new home. Araka is among the few varieties that are passed on especially in Ogwolo community as it is believed that because of its fast traits, it would ensure food security and limit on the time the daughter would spend preparing a meal for her husband and this would minimize cases of domestic violence in the home.

While interacting with members of Ogwolo FFS in Abilpiin village, Katine sub county, these shared that most of the seed challenges in the community is access to good quality seeds. As farmers, we face challenges in differentiating between the original seeds and the counterfeited seeds, they are all packaged the same. As a result, we always lose out on yield upon harvest. This is a big scare for household food security. Aseu David noted. In most farming communities, small-scale farmers are faced with limitations in accessing good quality seed. Since the seeds are accessed through the local markets, there is a lot of seed contamination that also affects farmers' yield.

Counterfeit seeds have spread across the country and this results to losses for small-scale farmers who invest a lot and do not realize their yield. Additionally, most of the seeds on the market require extra inputs like fertilizers and pesticides and as a result, farmers are exploited escalating poverty levels in the communities. For decades, small-scale farmers have managed their seeds subjecting them to the right selection procedures, storage and management practices in the field. We have interacted with Araka for a long period, we understand its traits and have also mastered the right season to plant it, Aseu David added.

Due to the various environmental changes, some traits of the variety had started detororiating and this was a big scare to the community. When Participatory Plant breeding was introduced in the community, the farmers decided to enhance Araka in the bid to restore some of the lost traits as well as make new improvements. Agwolo FFS wanted to ensure uniformity of the seed size and colour as well as reduce on the maturity period. These studied the variety for 6 seasons and were able to screen for their desired seed.

These also shared variety descriptors such as four seeds per pod, curved seeds with a black stripe, and a mottle red colour. Araka has gained popularity in the community due to its drought, pest, and disease tolerance, high yielding, early maturity, good taste, cooks quickly, and produces thick sauce. However, members of Ogwolo FFS are still in the process of multiplication. Ariokot Christine exclaimed, "As women, we take pride in the fact that we don't need any ingredients when preparing Araka because it makes thick soup effortlessly."

As a farmer field school, these intend to conduct seed multiplication at FFS and household level to generate income and improve their livelihood. The goal is for us to register our seed and increase access to good quality seed especially for the small-scale farmers. The challenge is we still do not know the necessary processes needed for registration and certification. Farmers in Ogwolo mixed FFs highlighted the knowledge gap as a major hindrance in the registration of their varieties.





### IN AJONAI VILLAGE, A MARRIAGE DELIVERED A RESILIENT SEED - OBINO

Obino is a local groundnut variety in Ajonai village, Ogolai sub county, Amuria district. The variety was introduced into the community about 80 years ago by a lady called Abino. Abino was initially from Otuboi community but upon her marriage into Ajonai village, she came along with a groundnut variety whose name was not known but community members named the variety Obino.

Obino stands out above all other groundnut varieties in the Ajonai community. The variety is known for its high oil content, good taste, and ability to produce thick sauce; it is easy to shell and pound; it is smooth and bright red in color; it has medium sized seeds that are nearly the same size; it has a large pod; and it is drought tolerant, high yielding, early maturing, and pest and disease resistant.

After the introduction of numerous varieties in the community, Obino declined in its performance and was at the verge of disappearing completely. As a FFS, we were able to recollect the previous performance of this variety hence the decision to improve its deteriorated traits. Ocen Michael noted. Through continuous selection, the FFS was able to reduce on the maturity period from 120 days to 97 days, improved yield from 50 to 80 pods per plant. These were also able to screen seeds to ensure uniformity where they considered the same period for flowering, same seed size and same plant vigor. Through positive and negative selection, the FFS was able to screen for pest and disease tolerance. It has been a learning process for the members of MAFA FFS.

According to MAFA FFS members, the variety's branches range from 15 to 20, and the plants are of the same vigor, making it interesting to watch its growth and development. Kokas, a 7-year-old, has always gone to the demonstration field to just look at the plants. He shied away, remarking on how beautiful the plants were. Obino has dark green leaves and an erect growth habit, with 1-2 seeds per pod. Kokas was among the first people to notice the smallest changes in the field on several occasions, and he always reported them to his mother, who hosted the demonstration field. He just enjoyed monitoring the field, the mother exclaimed.





### CONCLUSION

One of the challenges farmers still face is traceability of the varieties within their communities. This is mainly because seeds are always passed to daughter as they get married, used as send off for visitors and also shared during events such as cultural or national events and in such cases, information concerning these varieties is disoriented. Many farmers who receive the seeds are not in position to gather enough data for the varieties availed to them. In most of the communities we engaged, small-scale farmers claim that the different varieties have existed for over 80 years back and in most cases, the people who introduced these varieties to the communities passed several years back. Small-scale farmers worry about their varieties not being recognized simply because they cannot trace the exact origin yet they have managed the varieties for over 80 years. Members of MAFA FFS shared their concerns that if the variety is recognized by the state, then there is assurance for traceability especially on the currently available information. Farmers' varieties are more resilient and offer a diversity which contributes to food and nutrition security as well as primary source of numerous information for future developments and improvements.

### **About ESAFF Uganda**

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### **Our Vision**

Empowered self-reliant small-scale farmers.



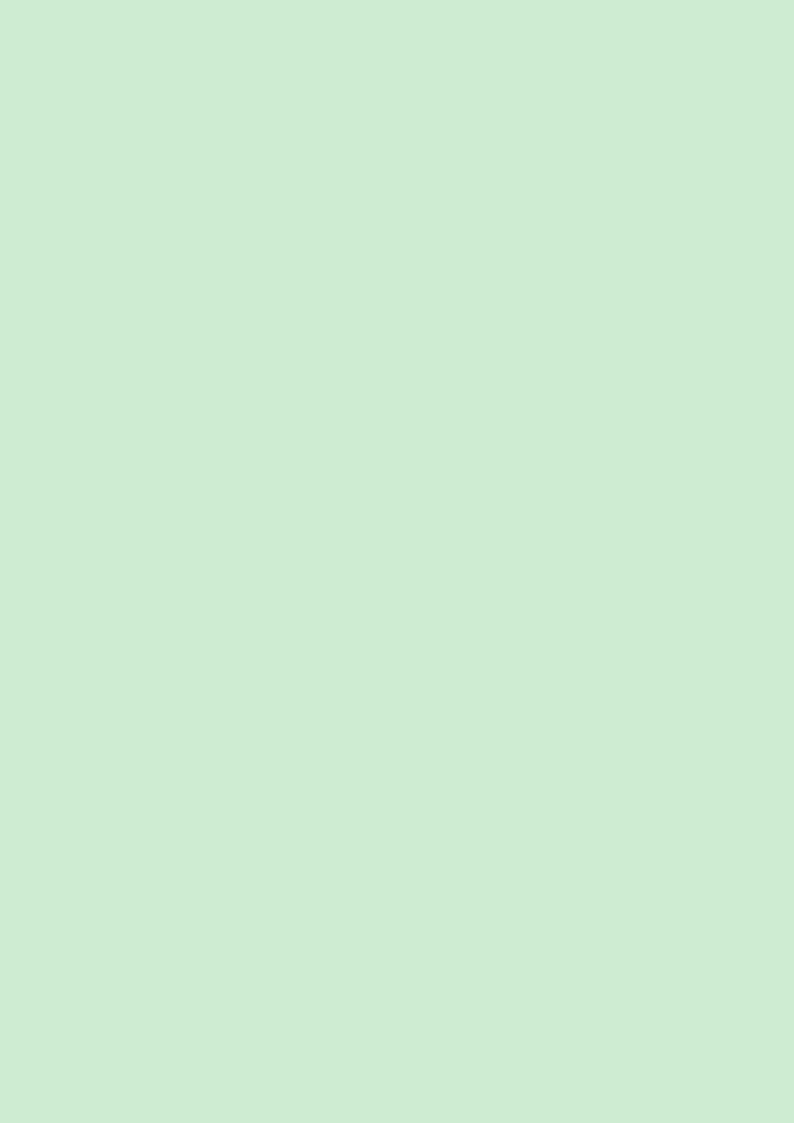
### **Our Mission**

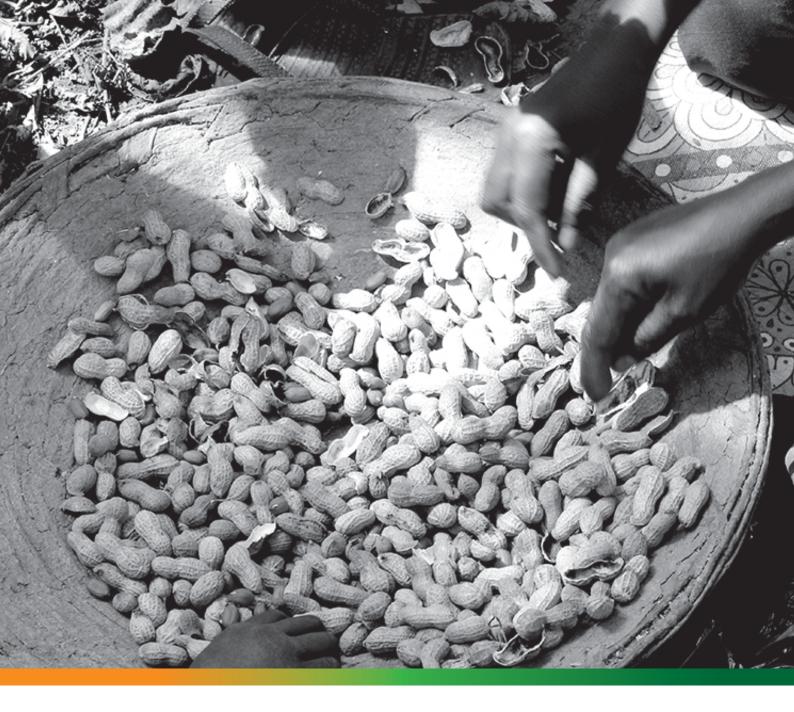
To nurture the participation of small-scale farmers in sustainable development processes, for self-reliance through advocacy, capacity building and institutional development.



### **Our Strategic Goal**

A strong small-scale farmer-led advocacy movement actively contributing to improved livelihoods, food sovereignty and favourable agriculture policies.







**Eastern and Southern Africa Small Scale Farmers' Forum** 

**ESAFF - UGANDA** 

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