

### The Lesotho Potato Food System Dialogue Facilitation Report by Lesotho National Farmers Union



### 26th March 2024

The document has been produced through the FAO Lesotho supported project entitled "Emergency Livelihood Support and resilience building among Food Insecure households affected by Floods".



The views expressed in the document do not reflect the official opinion of the FAO.

### 1.0 Background

In an effort to reannounce the position of His Majesty King Letsie III as the nutrition champion and also to respond to the call by the Right Honourable the Prime Minister for Basotho to produce their food and most importantly creating jobs through agriculture. LENAFU decides to take the bull by the horn after realizing that the development of the potato food system in Lesotho as a niche. Therefore, LENAFU organized a multistakeholder dialogue on potatoes under the theme: **Turn Potato into an Employer** on the 26th March 2024. Lesotho has selected potatoes as a Special Agricultural Product (SAPs) under the multinational programme known as the One Country One Priority Product (OCOP) Initiative. Potato was selected as a SAP based on Lesotho competitive advantage that embraces the altitude, good quality soils, and water for the production of this crop. However, evidence on the ground shows that our potato food system is still at an infant stage as it does not effectively support the farmers for their efficient participation in the subsector. According to the Potato Lesotho Association (PLA), a national commodity group for potato producers in the country, they embarked on potato production for business, but they have not realized good returns due to low public-private support. The PLA needs an enabling environment allowing farmers to sustainably increase their potato production and have greater market engagement.

LENAFU being an apex body for farmer's associations in Lesotho, acknowledges that the farmers operate in a complex and dynamic environment as they are part of a larger collection of people including suppliers, traders, transporters, and processors, each of whom has a role to play in the value chain. Thus, the potato value chain like any other agricultural product requires the public private producer partnership (PPPP) for the realization of better results. It was against this notion that LENAFU organized the multistakeholders dialogue on the 26th of March 2024 in Maseru under the theme "turn potato into an employer". In this dialogue, farmers shared the pertinent challenges they faced and accompanying potential within the subsector in the sub-sector. On the other hand, the platform clarified the capacity level of producers and the needs of the private business for the spirited participation in the potato sector. The public sector also identified the policy gaps and other enabling factors for the development of the Lesotho potato sector. The purpose of this multistakeholders dialogue was therefore to bring together relevant stakeholders in the potato value chain in Lesotho to discuss the challenges and opportunities in

the subsector and to map the best possible ways for its development/ improvement. The outcome of the multistakeholders dialogue is articulated below.

### 2.0 Participants in the dialogue

The participants were drawn from different actors within the potato food system sphere and they included research institutions, technical departments in the Ministry of Agriculture, Food Security and Nutrition, Non-Governmental organizations, Development partners, commercial banks, retailers, farmers, technology developers and other relevant stakeholders. The Honorable Minister of Agriculture, Food Security and Nutrition accompanied by the senior officials from the Ministry also participated in this forum. Overall, there was a total of 44 (M23, F21) participants in the dialogue.

### 2.0 Proceedings of the dialogue

2.1 Official opening by the Minister of Agriculture, Food Security, and Nutrition The following statements were noted from the official opening remarks by the Honourable Minister of Agriculture, Food Security and Nutrition.

- It is imperative to have discussions around determining and building the food system we want in Lesotho. Our food system can only be beneficial if the public sector works collaboratively with other industry players. That is, Lesotho requires a strong public private producer partnership (PPPP) in all aspects of food chain.
- The Ministry of Agriculture, Food Security and Nutrition (MAFSN) through the National Input Subsidy Program has, during the 2023/2024 planting season, procured potato seeds from the local seed multipliers. This was the government's organized movement towards the promotion of the local purchasing program.
- Although the government made this crucial support to the potato seed producers, there were challenges encountered in the procurement process which resulted in delayed payments to the farmers. The majority of the farmers in the country perceive farming as a practice not as a business.
   They do not have registered agri related enterprises that would enable them to smoothly trade with the public and private businesses. The delayed

payments to the potato seed producers were fuelled by the fact that these farmers did not have registered businesses to enable them trade with the Ministry.

- The MAFSN is going to implement the farmer profiling program that is meant to bring the following benefits:
  - Improving the targeting of beneficiaries by reducing occurrences of misrepresented statistics of farmers.
  - Ensuring that no farmer is benefiting from multiple-programmes that are either public or private sector supported.
  - Improving farmers' access to inputs, market prices, and demand for agriculture products.
- In this current public financial year (2024/2025), the MAFSN will work hard to ensure that farmers are linked to the markets. There will be meetings with the potential buyers of agricultural commodities and these platforms are meant to discuss and find sustainable solutions for the Lesotho agribusiness development. Linking farmers to markets means they have a steady stream of buyers while reducing food losses. Farmers are always less willing to invest in equipment and activities that can reduce their food losses.
- In remote rural areas, poor road networks deprive farmers from accessing
  the markets promptly and thereby increasing the risk of damage to their
  produce. Extending road infrastructure to the last mile can have a big
  impact on managing food losses. World Bank will implement infrastructure
  programs in Lesotho including the roads.
- Apart from organizing/ developing the policies, the other crucial task of the MAFSN is resource mobilization. The Minister of MAFSN will soon have a meeting with the FAO Director General where amongst their discussions, they will also talk about the Lesotho potato food system development.

2.2 Presentation by	This was the first segment of the dialogue that was meant to inform/educate		
the Department	and update participants on the background of potato seed development in the		
of Agricultural	country including the progress so far.		
Research			
2.3 Panel	The second segment was a panel discussion where representatives from		
discussion	Department of Agricultural Research (DAR), Department of Crops (DoC) and		
	the potato seed multipliers shared their perceptions on Lesotho potato seed		
	sub-sector development. The farmers were allowed the opportunity to echo		
	what they needed to improve their participation in the potato seed production		
	process. On the other hand, the two departments (DAR and DoC) shared their		
	roles in the development and production of potato seeds.		
	The following were the guiding questions/points;  What is a potato seed?		
	Who is a potato seed multiplier in this country?		
	Are there specific standards (guidelines) for potato seed multiplication?		
	Who coordinates the potato seed multiplication program and the potato sector?		
	General challenges and opportunities at the production level.		
2.4 Statements by	This was basically about the opportunities, barriers, and solutions for the		
the Department of	Lesotho potato sector development (post-harvest level)		
Marketing (DOM)			
and Potato Lesotho			
Association (PLA)			
2.5 Key statements	The Department of Crops (DoC) revealed that the seed potato industry in		
and messages from	Lesotho is still at an infant stage as there is no well-established facility for seed		
the deliberations	development in the country. The potato value chain is sustained by different		
(multistakeholders	actors who produce seed potatoes of different generations, starting with the		
dialogue)	importation of high-quality certified seed from South Africa (generation 3) and		
	ending with ware producers.		

Through the support of the Agricultural Productivity Program for Southern Africa (APPSA), DAR has embarked on the potato seed development (tissue culture project) that would eventually result in two levels of seed multiplications (Generation 2 and Generation 3) by seed multipliers (identified lead farmers). These farmers shall be working collaboratively with DAR and DoC in the multiplication program to ensure adherence to seed production standards and protocols until the seed is certified for distribution to other farmers or markets for the production of ware potatoes.

Due to the lack of seed potatoes in the country, this leads to a situation where farmers don't follow seed multiplication protocols but possibly multiply seed potatoes endlessly resulting in deprived quality. Lesotho does not have the capacity to produce potato seeds at the moment and most of the seed is thus imported from South Africa or other regions.

Effective research is needed in all aspects of seed potato production. The seed development (tissue culture) involves a lot of research as most of the work is performed in the laboratory or under a controlled environment. That is, there is a need to have our tissue culture lab/ facility to enable the country to develop potato seeds locally to address the local demand for potato seed.

The South African institutions are the key players in the success of the Lesotho potato value chain. Relative to Lesotho, these players have got capacity for potato breeding/propagation, manufacturing and supply of potato fertilizers. Technical guidelines and manuals are still borrowed from the South African experience and expertise in particular the Agricultural Research Council..

The high demand for potato seed in the country has attracted street vendors to venture into the potato value chain and supplying non-potato seed to the farmers. Since the farmers are not well-capacitated in terms of differentiating the non-potato seed against the certified potato seed, they just buy small size potatoes which in most cases result in poor or low returns. In addition to this, the ware potato producers collect small size potatoes from their produce and replant them as potato seeds. This practice results into replanting of potatoes

in an infinite number which in most cases leads to very low harvest. It was therefore resolved that DAR and other relevant parties should ensure adequate noise (campaigns) to inform and educate the farmers about what the potato seed is. A potato seed is the product that has been produced under the seed production guidelines and certified by the accredited seed certification scheme.

The question about who is the potato seed multiplier in the country was not adequately answered. The DAR and DoC explained that they are working with the potato seed multipliers in different areas such as in Semonkong, Marakabei and other spaces which have been mapped and marked by the MAFSN for their suitable for production of potato seeds. These are the individual farmers and farmer groupings that have applied to the two Departments for technical support in the potato seed multiplication program. However, they are not yet certified as potato seed producers since there is no seed certification scheme in the country. There is a general perception in the country that potato is one of our niche products which could also contribute significantly to the creation of employment. However, without the seed bill in the MAFSN and the seed certification scheme in the country, Lesotho will never realize the substantial benefits of the potato food sector. The benefits of seed certification may include the following;

- Genetic Purity and Identity: Certified seeds ensure that the genetic makeup of a variety remains consistent. This is crucial for maintaining the desired traits and characteristics of a specific crop.
- Quality Assurance: certified seeds meet quality standards, leading to better crop performance.
- 3. **Traceability**: Proper labeling and documentation are important as traceability helps farmers and buyers know the origin, variety, and quality of the seeds they are using.

- 4. Market Access: Certified seeds are widely accepted in the market. They provide a competitive advantage for farmers, as buyers often prefer certified seeds due to their reliability.
- Increased Yields: High-quality seeds lead to better germination rates, healthier plants, and ultimately higher yields. Certified seeds contribute to improved agricultural productivity.
- Disease and Pest Resistance: Certified seeds are carefully monitored for diseases and pests. By using certified seeds, farmers reduce the risk of introducing harmful pathogens into their fields.
- Legal Protection: Seed certification provides legal protection for plant breeders' rights. It ensures that unauthorized reproduction or sale of protected varieties is minimized.

The DAR mentioned that they have drafted a seed bill which was also submitted to the Lesotho Law office for the crafting of relevant laws that would eventually guide the operationalization of that bill. The DAR further declared that, in the bill, there will be a certification process for the seed producers, the guidelines for potato seed production as well as the map delineating areas suitable for potato seed production in Lesotho. In general, it was agreed that Lesotho requires adequate seed production systems backed by certification and seed laws. Breeding rights are non-existent, given our history of low law enforcement.

In terms of coordination amongst the stakeholders involved in potato seed development and multiplication, the two departments (DAR and DoC) pronounced themselves as the main custodians of the program. DAR supervises at the seed development level while they (DAR), again, collaboratively with DoC supervise the seed multiplication process. From the farmer's perspective, the support/ supervision by the two organizations during the potato seed multiplication process is not adequate as the farmers require frequent or continued support and monitoring to enhance their technical and

managerial knowledge and skills needed for the production of potatoes (seed potatoes and ware potatoes). The need for a system with strong linkages between the farmers and with other stakeholders in the potato seed production sphere was also overemphasised. This would help in terms of knowledge management and skill transfer amongst the involved parties in the seed production program.

The planting of potato seeds and harvesting of potato tuber using a draught power was one of the major challenges. According to the farmers, a lot of potato cuts and damages are observed; resulting into reduced yields. Harvesting and post-harvest activities involve a lot of manual operations and as a result, it takes long for the farmers to get their produce ready for the markets. There are no potato harvesters at the family farm level or for hire within the communities. The situation is also felt in other aspects of the potato value chain such as cleaning, sorting & grading, and packaging as there are no modern tools/ technologies to assist farmers in these operations. The farmers lose a lot of their potato produce because they are using traditional ways of harvesting. One other challenge is the appropriate storage facility for the potato seed while the farmers are awaiting delivery to the market or planting season for the ware potatoes.

3.0 About the identified obstacles to the Lesotho potato food system development and the stakeholders' resolutions towards building the Lesotho potato food system we want. Turning our potato food system into an employer.

Challenge	Importance of the bottleneck	Recommendation/ Key
		actions agreed upon
3.1	The farmers' adoption can be influenced by	Capacitate the extension
Inadequate	educating them about improved varieties of	staff within the Ministry of
extension	potatoes, cropping techniques, optimal input use,	Agriculture, Food Security

services
within the
Lesotho
potato food
system
development
sphere.

prices and market conditions, more efficient methods of production management, storage, nutrition, etc. The extension workers must be capable of more than just communicating messages to farmers. They must have the technical ability to spot and possibly diagnose problems and provide necessary advices to the farmers. Effective extension involves adequate and timely access by farmers to relevant advice.

- and Nutrition with relevant skills so that they are able to support the potato producers (seed and ware potato).
- Collect, document and digitally disseminate useful information to the farmers.
   This can be done through the development of case studies, videos, radio programs, social media platforms and TV
- Private sector can invest in extension service support in Lesotho potato food system development.

### 3.2 The lack of machinery

Mechanization is a crucial input for potato crop production as it helps farmers to move on from subsistence farming to market-oriented farming. The lack of machinery in potato production forces producers to rely on manual labour which cannot allow large scale production of potatoes (seed and ware potatoes). The Lesotho potato food system requires sustainable agricultural mechanization with a holistic view on agriculture; looking at sustainability within the technical, environmental and economic contexts. We need to ensure that farming tools are environmentally sound, economically affordable,

- The type and size of machinery made available to farmers is crucial.
   Donations or subsidized machinery from different initiatives in Lesotho should be best suited to our terrain.
- The repair services or replacement parts should be available in the country so that, once broken, they don't end up in graveyards

adaptable to local conditions, and resilient in terms of changing weather patterns and climate.

- full of tractors and equipment that could not be fixed. Thus, an opportunity for private sector investment for the repair and maintenance work.
- Private sector should also try invest in the manufacturing of machinery and tools for potatoes; planters, ridgers, harvesters, grading and cleaning machines.

3.4 The
Lesotho
Research has
not yet
successfully
supported
the potato
food system

Our research has not generated local potato seeds that have been tested and proven to be friendly locally. This compels the Lesotho potato producers to procure potato seeds from outside the country which are sometimes not tested and certified as potato seeds. Certified potato seeds in South Africa are sometimes unaffordable to some farmers in Lesotho and the situation compels them to go for low quality inputs (uncertified seeds or an absolute technology) with low or poor returns.

The major limiting factors to potato productivity in Lesotho include insufficient clean (certified) potato seed tubers, post-harvest losses due to poor handling and storage facilities, poor seed distribution system, and inadequate production technologies.

- While we need research on the generation of local potato seeds, we also need it to come up with possible solutions for the management of post-The harvest losses. recommendations from the World Food Program Analysis Study on postharvest loss management in Lesotho could also assist.
- The DAR, National University of Lesotho innovation hub, the Department of Arts and Technology Services (ATS)

and the other technology developers should come together and decide and develop appropriate tools and infrastructure to mitigate these challenges; poor handling of potato produce, poor storage facilities and lack of value addition activities.

- have a specific program on food processing (food value addition). They can develop some tools/ equipment to support the initiatives around potato processing.
- On the other hand, Lesotho National Development Cooperation (LNDC) made a pledge to pilot a project on potato value chain development. This is going to be a holistic approach that would cover from the seed multiplication level, ware potato production and other aspects of the value chain to the market outlet.

## 3.5 The lack of seed bill in Lesotho

The DAR indicated that they have drafted a seed bill and it is now under the review at the Lesotho Law office. This bill once completed and signed into law, will support Lesotho to, amongst others, build a thriving seed system that will ensure effective distribution network, promote the adoption of improved crop varieties by smallholder farmers and the seed quality certification and assurance.

DAR should expedite the process so that the bill is completed and signed within the earliest possible time.

The Department of Agricultural Research (DAR) will be the prime institution responsible for the administration and implementation of the Lesotho National Seed Policy. The bill will enable DAR to play the lead support role, maintain public-service infrastructural and service support required to maintain efficient seed supply, enhance farmer demand for improved seeds, and create a favourable enabling environment for investment in the seed subsector. DAR will also be tasked with the facilitation of the production and distribution of sufficient quantities of high-quality seed of improved varieties of all relevant crops including potatoes to the farmers.

# 3.6 Licensing and certification

In potato production, seed quality is an important determinant for the quantity and quality of the tuber yield. DAR through the APPSA project is now producing potato minitubers (Generation 1 – G1 seed). This has been done in complimentary with the centralized approach whereby G2 (generation 2) and G3 (generation 3) seed are being produced in Mokhotlong and Semonkong areas. The

DAR should ensure that Lesotho has the seed certification scheme that will guide and certify the potato seeds in the country decentralized seed production and multiplication system is set to follow and it is going to link producers of pre-basic minitubers with farmer-based seed multiplication and dissemination systems. Such a system would have the potential to give large numbers of potato farmers 'access to potato quality seed (Generation 3).

In Lesotho, there is no formal system involving seed certification by the MAFSN. Lesotho does not have tuber seed certification scheme; they borrow from expertise and documents in South Africa.

Since we do not have a formal system that govern our seed quality, Lesotho uses the alternative system; this is where a farmer or cooperatives/ farmer group with technical support and supervision from the DAR and extension workers from DoC produce potato seeds for supply to other farmers (ware potato producers). On the other hand, other farmers use the informal system which is characterized by the absence of quality control mechanisms. Relatively poor-quality seed, derived from farmers 'own fields (farm-saved), and local markets or neighbours is planted for an unspecified number of generations.

#### 3.7 Storage

Storage losses are mainly caused by the processes like sprouting, spread of diseases, changes in the chemical composition and physical properties of the tuber and damage by extreme temperatures. These processes are influenced by storage conditions. In Lesotho, potato is harvested between autumn and winter. Since there are no adequate cold storage

Where possible, the government through the MAFSN and the development partners, should provide the storage facilities to the farmer groupings such as Potato facilities to store the potato produce for longer periods, at harvest time farmers are forced to supply their produce to the markets. At those good times of harvest, quantities of potato produced become higher than the market demand and as a result, large quantities of potatoes are spoiled before they could be disposed in the markets. Due to lack of storage infrastructure, our produce does not sustain the market and once the local potato produce start to disappear from the market, the buying prices start to improve. Thus, the beneficiation in the potato sector is not enjoyed by the Lesotho farmers but the producers in South Africa and from other regions who continuously supply Lesotho with potatoes while there is no supply from the local farmers.

Lesotho Association (PLA) and other farmer associations in specific potato production areas.

Private sector should also take building storage infrastructure for the potatoes as an opportunity for investment and a viable business to invest in.

3.8 Low level of private sector participation in Lesotho potato Food system

- Market access
- Financial access
- OtherSupportservices



The potato food system is characterized by a range of players;

- The micro-level of value chain process actors include input suppliers, farmers (producers), processors, traders (retailers and wholesalers), and consumers.
- The meso-level of the chain includes actors that provide a range of services (e.g. extension,

Within the micro-level of the value chain, the private sector can come in and invest in the multitude of firms. each of which performs a unique function on the chain, e.g. input manufacturing and supply, transporting, processing and packaging, storing, selling, and grading.

Again, the private sector can invest at the Meso level by providing the support services such as information packaging and

research, finance, transport, innovation and communication, etc.).

• The macro-level component of the value chain framework is composed of the enablers, which primarily include institutions such as national and local governments, regulatory bodies among others, providing an enabling environment for effective operations along the value chain

Access to finance was alluded to as one of those key factors to the advancement of Lesotho food potato food system. It enables smallholder farmers to invest in the necessary infrastructure, equipment and cash flow that will help them produce, and purchase, store, process and better market their potato products.

Farmers' perception is that enterprising potato food system in Lesotho cannot be attained without setting clear pathways for the supply of potato food commodity to the markets.

The government should develop the local purchase policy or strategy which may have some clear pronouncements about the supply of locally produced food commodities to the formal markets. The locally produced potatoes are currently relegated out of the formal markets due to soil remains on the products. It is a known fact that Lesotho potato food system is still at an infant stage; there are no potato cleaning facilities that would enable farmers to supply clean (washed) potatoes to the markets.

sharing, research, training and extension service support, financial support through agricultural loan advancements, food aggregation and market campaigns.

Farmers propose for one channel market supply of potatoes so that the Department of Marketing can easily control the import permits and encourage businesses to buy from the local farmers.

# 3.8 Land zoning for seed potato multiplication

Lesotho has established its land suitability map for the production of seed potatoes. In the suitability map, there are areas mapped for potato seed production (multiplication) and they include, Semonkong, Marakabei, Mants'onyane and Mokhotlong. In the absence of the national seed bill which would protect these areas against any alternative uses, farmers will continue to plant different crops in their fields which may eventually contaminate the areas with pathogens leading to negative impacts on the tubbers.

Land zoning is an important factor to consider when determining the development potential of any piece of land. It's a system of rules, regulations, and laws that a central/ a local government puts in place to designate the type of land use for a particular area e.g for potao seed multiplication

DAR should ensure that the national seed bill is completed and signed off. This will also assist in Land zoning for potato seed multiplication and protection of those areas against any unexpected alternative utilization.