

IMPACT REPORT

INCREASED POTATO VALUE CHAIN EFFICIENCY IN GREAT LAKES REGION

SUSTAINABLE DEVELOPMENT GOALS PARTNERSHIP FACILITY (SDGP)



**AGRI
TERRA**



RWANDA, JULY 2019 - JUNE 2023



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COLOPHON

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ABOUT AGRITERRA

Agriterra is a purpose-driven organisation, dedicated to strengthening farmer cooperatives in 13 countries in Asia and Africa. Strong farmer cooperatives attribute to five dimensions of societal development. They are key for establishing economic growth, poverty alleviation, food and nutrition security, climate resilience and mitigation, and promoting inclusiveness in societies. Positively impacting farmer cooperatives is at the heart of our identity and is reflected in our legal entity as a Dutch non-profit foundation.

Agriterra provides tailor-made, high-quality, hands-on advice, training and exchange services to farmer cooperatives with maximum impact to support dynamic, economic and sustainably strong and productive rural areas. We draw on a century of cooperative knowledge in the Netherlands shared through our extensive network in the Dutch agri-food sector. These Agripool experts from farmer organisations across the world work with Cooperative Advisors from our country offices, supported by staff teams in the Netherlands. In Rwanda, Agriterra has two offices in Kigali and Musanze.

ABOUT SDGP POTATO PROJECT

The 'Increased potato value chain efficiency in Great Lakes region' project was a 4-year (2019-2023) Sustainable Development Goals Partnership (SDGP) implemented in Rwanda. The project was designed to improve the connection between the seed and ware potato value chains in Rwanda, with as objective to improve the resilience and increase the income of potato farming families.

The project was co-funded by RVO (the Netherlands Enterprise Agency) and implemented by 6 consortium partners lead by Delphy B.V., with other partners being Agriterra, SPF Joint Venture, Hollanda FairFoods Ltd, MoneyPhone B.V. and MINAGRI (Ministry of Agriculture and animal resources in Rwanda).



Rijksdienst voor Ondernemend
Nederland



MINAGRI

VALUE CHAIN CHALLENGES

The seed potato value chain is one of the most complex agricultural value chains that exists, because multiplication stretches over multiple generations and hence agricultural seasons, actors, areas and facilities. The risks of quality deterioration are omnipresent and application of good agricultural practices, multiplication techniques, monitoring, inspection, tracking and tracing, certification, warehousing and sprouting facilities are paramount to ensure quality.

Seed potato multiplication can take up to 5 seasons and especially the early generation seed multiplication requires a coordinated approach with adequate techniques and facilities.

Rwanda had a limited number of multiplication facilities for the early generations (notably the step from invitro plantlets to mini tubers) which hampered the volumes of available quality seeds in the country. A dozen front-runner farmers, gathered under the farmers' organisation SPF Ikigega, had invested in modest-sized hydroponic and aeroponic facilities for minituber production, which were successful but lacked the scale to serve market demand.

On the other hand, seed potato multiplication in open field from the

second generation, pre-basic seeds, to the fourth generation, certified seeds, lacked coordinated effort to track the seeds along the production chain. Consequently, most of the seeds would find their way to local markets where they would be sold for consumption before reaching their full multiplication potential, or they would be used as seeds without certification and traceability.

For the entire potato sector to thrive, farmers need to be sure of the quality of seed potatoes they invest their money in. With the dominance of the informal sector with degenerated seeds, this situation was far from ideal. The SDGP project hence decided to reinforce the farmer-led initiatives of SPF Ikigega, which was founded to stop the seed leak: the phenomenon where good quality seed potatoes leak away from the formal system and do not reach their full multiplication potential.

This phenomenon hurt farmers in two ways: at the time of harvest, they were unable to find buyers for their quality seed potatoes, while at the time of planting there were no more quality seed potatoes available.





Inside the mega-aeroponic facility

SPF invested in warehousing capacity to buy the seed potatoes at harvest time and avail them at planting time and hence became successful in improving the intergenerational “flow” of seed potatoes in the chain. However, the ambitions of SPF went further than that: they also wanted to increase the volumes of early generation seeds by investing in a mega-aeroponic facility, based on the technology that had proven to be successful on small scale at various of its members. Conventional financial service providers were however reluctant to provide the financing for the investment, given the innovative character of the technology that was suggested.

Complementing the challenges on minituber production level, the following stage of the chain had challenges as well. The multiplication of minitubers in the open field is a delicate process and not all farmers have the

capacity or the means to do this up to standard, in a decentralized manner. Additionally, monitoring of these operations was complex and expensive. SPF therefore opted to invest in a daughter company to fully control the multiplication of minitubers in the open field in a centralized manner, under the ownership of thousands of potato farmers. Finding sufficient land in an isolated area to manage disease risks was another challenge the farmer-led business had to find a solution for.

Without the required investments and institutional developments, the majority of Rwandan potato farmers would remain to be convicted to using informal seeds of questionable quality, hampering their resilience, productivity and income.

OUR ROLE

After having designed the project and partnership, inclusive of SPF and MINAGRI, Agriterra's focus was on the cooperative development aspect of the project, because well-organised farmers' organisations are pivotal to addressing the systemic challenges that were hampering the daily operations of thousands of Rwandan potato farmers. Agriterra had a parallel approach:

1. We supported SPF in realising its investment plans and establishing EGSP as new farmer-led business for minituber multiplication
2. We supported 12 affiliated potato-based farmer cooperatives spread over the northern province to skill up and improve the governance and leadership practices.

Business advisory services to SPF and EGSP

The key to solve the problem of the seed leak in the seed potato value chain in Rwanda was to increase the volume of quality seed and improve the flow of these seeds intergenerationally through the value chain. Agriterra reinforced the capacity of SPF as a farmer-led business to offer extension services to its members and develop and realise a business plan

involving the establishment of the largest minituber production facility in East Africa.

The required investment amounted to approximately EUR 500,000, for which a blending financing mechanism was designed whereby public funds from RVO were complemented by external capital from the Belgian impact investment firm Kampani and internal capital from SPF's members. MINAGRI in Rwanda offered to position itself as guarantor, which reduced the risks of the private partners and catalyzed the process. The facility was built in less than two years and the first years of operations have led to an increase of 25% of the total volume of minitubers in Rwanda.

To prevent that the increased volumes of minitubers would leak away from the formal system because of lack of multiplication capacity, fields and actors, SPF set-up a daughter company called Early Generation Seed Potato (EGSP) Ltd. Agriterra supported this company to function as preferred buyer of the minitubers of SPF and other greenhouse owners, to be multiplied in a controlled and isolated environment in Gishwati, on 48 hectares of land that were availed



Gishwati prebasic seed production land



by the Rwanda Agricultural Board (RAB) after a process of lobbying.

Two seasons of multiplication were done successfully, resulting in increased flow of early generation seeds in the value chain. The harvested pre-basic seeds are being availed to SPF in return, for further sprouting and warehousing in a controlled, farmer-owned environment and the certified seed multipliers that together form SPF now have access to quality pre-basic seeds at the starting time of their agricultural season.

Cooperative advisory services to affiliated cooperatives

Where SPF and EGSP focus on the early generation seed potatoes, various smaller sized cooperatives in various districts focus on the multiplication of following generations of seeds. Agriterra selected these cooperatives based on their ambitions and absorption capacity of our services, and we provided them with guidance, tools, and knowledge to upgrade their financial and management systems, supported youth participation initiatives, and accompanied them in their business trajectories during the project period. Additionally, we supported SPF in developing its business plan to attract finance from an international impact investor and we supported the establishment of EGSP, the daughter

company of SPF to catalyze the controlled multiplication of minitubers in the open field.

Selective approach

We sourced from our extensive local network to select and assess cooperatives in the North-Western region of Rwanda. We aimed at understanding the strengths and opportunities for growth, as well as weaknesses and challenges that victimize those particular cooperatives and impend their ability to leverage their resources and deliver services to farmer members.

Business advisory services

We provided business advisory services to the 12 farmer cooperatives through our local staff and global pool of experts (Agripoolers). We developed annual action plans with cooperatives and made financial contribution to activities included.

Training and peer-to-peer exchange

We trained cooperatives on topics related to cooperative governance and management, financial management practices, and youth participation. We endorsed the peer-to-peer approach by deploying local and Dutch experts, we refer to as Agripoolers, to advise and exchange with fellow farmers and cooperative members on specific subjects of expertise.

AGRITERRA INTERVENTIONS IN NUMBERS



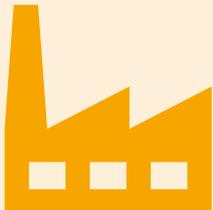
COOPERATIVES SUPPORTED

12



PEOPLE TRAINED

216



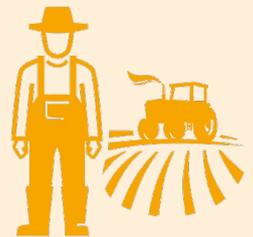
FARMER-LED MINITUBER
PRODUCTION FACILITY
ESTABLISHED

1



INCREASE OF NATIONAL
VOLUMES OF QUALITY
MINITUBERS

25%



FARMERS REACHED

8,798



HECTARES OF LAND AVAILABLE BY
GOVERNMENT FOR FARMER-LED
MINITUBER MULTIPLICATION

48



DUTCH SEED POTATO EXPERTS
(AGRIPOOLERS) DEPLOYED

6



MOBILISED CAPITAL FOR FARMER-LED
INVESTMENTS IN EURO

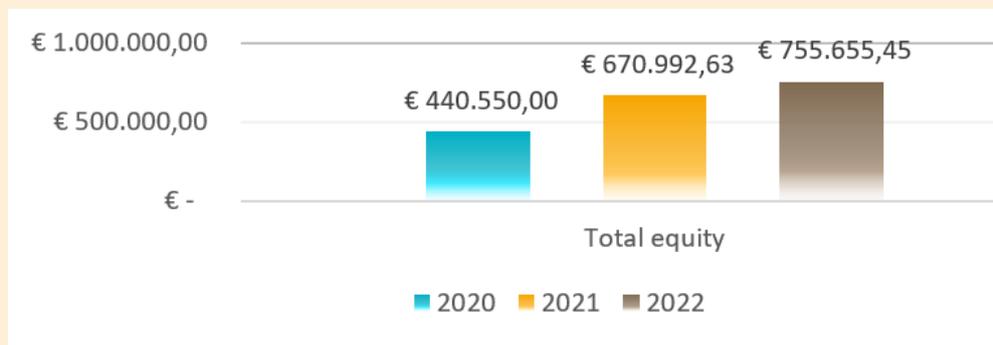
500,000

MEASURING OUR IMPACT

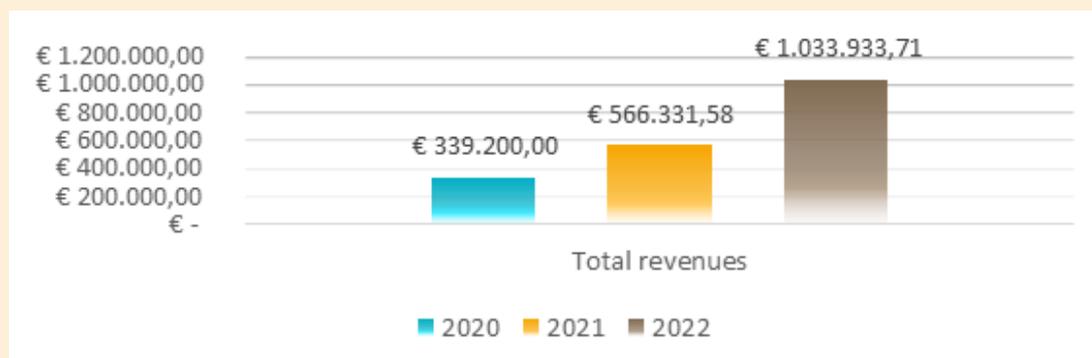
1. INCREASE IN MEMBERSHIP



2. INCREASE IN COOPERATIVE EQUITY



3. INCREASE IN COOPERATIVE REVENUE



4. INCREASE IN SPF EQUITY



5 IMPROVED STRATEGIC VISION AND BUSINESS CASES

6 business plan documents developed farmer cooperatives;
7 strategic plan documents realised.

6 IMPROVED FINANCIAL PRACTICES

11 cooperatives facilitated to access QuickBooks accounting software

6 ACCESS TO FINANCE

EUR 51,282 attributable amount of mobilised loans by 4 cooperatives
EUR 500,000 mobilised capital for investment in minituber production facility

7 INCLUSIVENESS

4 youth councils created in 4 cooperatives



OUR OUTCOMES

Promoting efficient leadership and service delivery

Our work is rooted in the belief that agriculture cooperation is key for sustainable economic development. We make value chains work for organized farmers. We have strengthened the governance and management activities by equipping the board members and staff with skills and knowledge to better manage their organisations.

Through the My.COOP ‘Managing your Agricultural Cooperative’ module, we strengthened the management capacity of the management team and the governance capacity of the farmers in representative positions in the cooperatives. The training helped the cooperative offering high quality, efficient and effective services to their members. This training has also helped organisations to understand the need and relevance of democratic elections and strategic planning.

Inducing proper financial practices

Through the financial management training we delivered, we helped cooperatives to improve their knowledge in managing their financial

resources, adopt adequate accounting procedures, and increase transparency in financial reporting system. Consequently, cooperatives have developed the strategic and business plans, and produced continuous financial audits. Additionally, we co-financed procurement of accounting software system for 11 cooperatives for efficient reporting system.

Inclusive approaches

Through the youth participation workshop, we stimulated an interactive dialogue among and between cooperatives on the importance of youth involvement in cooperative activities and leadership roles. Involving and empowering young people to make contribution in the potato value chain through their respective organisations is an important step to ensure sustainability. Four cooperatives have created the youth councils as a result of this training, to empower youth members and increase their sense of responsibility and confidence. Our inclusive approach during service delivery (training, peer-to-peer exchange) ensured that participation is represented by both genders and youth.



Youth Workshop

IMPACT STORY 1

SOURCING FROM TRUSTED AND RELIABLE SEED POTATO DISTRIBUTORS IN RWANDA

Diane Nyirahabimana, 50, is a member of KOKUMUJE cooperative and a shareholder in SPF Joint Ventures Ltd. She sources 4 tons of certified seed potatoes from SPF every season to produce potatoes for consumption on 1.5 hectare of own land. Agriterra interventions through SPF favored Diane to progressively increase her income through market-oriented potato farming.

On top of seed potato shortages, Diane was for long inconvenienced by the questionable quality of available local seed potatoes varieties, and the adverse effects were high. She was the victim of low productivity, recurring potato diseases, low ware potato prices, low income, and inability to utilize her land at maximum capacity.

Before 2019, Diane could get no more than 700 kg of seed potatoes despite needing more. Most of those seeds were from informal markets without traceable source. Currently, she is able to obtain around

4,000 kg of good quality seeds every season and her seasonal production has increased from 6 tons per hectare to 19 tons per hectare.

Gaining new good agriculture practices

Diane participated in various training from SDGP potato partners in topics related to seed sorting and grading, pests & diseases management, fertilizer use, and crop rotation. Consequently, Diane has been deriving more income from peas, maize, and pyrethrum rotated with potatoes. She has also managed to



Diane progressively increased her income through market-oriented potato farming



decrease expenditures by efficiently using chemical fertilizers and adopting the use organic manure and compost.

“I started by renting land to produce potatoes, now I own 1.5 hectares”

Increasing income from potato farming

From accessing good quality seeds, skilling up her production techniques, to obtaining better market prices, Diane has been reaping the benefits from the increased volume and quality of her potato production. Her agriculture income gradually increased from 2,520,000 RWF (around EUR 2,000) per annum in 2018 to 17,600,000 RWF (around EUR 14,000) in 2023.

Additionally, she has increased her land ownership from 0.8 hectares to 1.5 hectares by buying 0.7 hectares.

Diane has an ambition to increase further the land size to 5 hectares to scale up the potato farming business and engage into horticulture production.

Improving livelihood of Diane’s family

Diane and her husband also own a local food retail shop. The income from potato farming is complemented by the income from food retail to earn the family livelihood.

Diane is a mother to 3 children and has been able to support their secondary education through the increase of income from potato farming. As she increased income, she gained confidence to approach financial institutions and trust in them. She sourced 5 million Rwandan francs to scale up the farming activities.



IMPACT STORY 2

INDUCING YOUTH PARTICIPATION

Icyerekezo cooperative, one of the 12 cooperatives supported by Agriterra in SDGP Potato project, participated the Youth Participation Workshop delivered by Agriterra.

Icyerekezo counts 1,216 members and 387 of them are youth. As a result of the training, Icyerekezo cooperative initiated a Youth Council “Imbaraga z’ Icyerekezo” operating within the cooperative to empower young members and prepare them for future leadership of the cooperative.

The youth council has 30 members (19 males, 11 females) and has been working to improve the socio and economic participation of its members within the

potato value chain. Imbaraga z’ Icyerekezo youth group initiated a local seed potato collection, storage, and distribution business as a means to improve own and members’ financial position.

Agriterra delivered the Youth Participation workshop to cooperatives under SDGP Potato project to increase awareness of youth participation in potato value chain through farmer cooperatives. Icyerekezo cooperative was at the forefront of youth initiatives upon participating in the workshop by creating a youth group operating within the cooperative. Thirty youths were promptly interested to join the group.

Supporting youth business initiatives

The youth group identified the low access of seed potatoes to local farmers as





Youth Workshop

one of the issues affecting ware potato production. Most local farmers were required to travel long distances to access SPF seed potato storage facilities, and the group initiated a seed potato distribution business. The cooperative agronomist identifies certified seed potato multipliers within Icyerekezo and links them to the youth group.

The group rents a seed storage locally to facilitate access for nearby farmers. Through Icyerekezo cooperative, Agriterra provided financial and advisory support to the youth group to initiate the business.

Strengthening the financial position of local youth

The youth group initiated the seed business as a means to have a positive impact on income of its members.

The group started off with 500,000 RWF (EUR 500) capital in 2022, and its equity has raised to 1,200,000 RWF (EUR 1,200) in two years. The group provided one sheep (worth 40,000 RWF) per member as part of the profit generated from the seed business. Currently, the group is able to source and store up to 2 tons of seed potatoes from seed producers.

With the business still in its infancy, the youth group has two main ambitions: attract more youth members (especially those who are not members of Icyerekezo cooperative), and scale up the seed business.



Professional cooperatives and farmer organisations are key for sustainable economic development. It leads to a stable and prosperous agri-sector and economy as a whole. Agriterra strengthens farmer ownership to stimulate strong and vibrant rural areas.