Access to improved seeds for increased resilience and competitiveness
1. Pioneer partnership

The passion to increase productivity and marketability of beans in south Gondar area is inspired by Ras-Gayint farmers’ cooperative union. Ras-Gayint union is a farmers cooperative union located in Nefas Mewcha town of south Gondar zone, Ethiopia. The union brought an inclusive business idea of availing Shiro from beans with high mineral content to the 2SCALE partnership portfolio in 2019. The unions focus business is trading of beans and now aims to diversify its market to domestic Shiro market. This is mainly availing bean based Shiro from bio-fortified varieties of beans. During D&D of the PPP, Melkassa Agricultural research centre confirmed the availability of bio-fortified varieties of Awash mitin and Tafach of which both are rich in Iron and Zinc.

Usually, Shiro is produced from different pulses: field peas, chickpeas, faba beans, and grass peas. Due to less development investment in the pulse sector, production of the afore-mentioned pulses is declining, and their price are becoming unaffordable especially for low-income consumer group. Unlike other pulses, common bean production is relatively increasing, but it is not common to process Shiro from common beans. Food and Nutrition Society of Ethiopia confirmed beans can equally make Shiro like that of other pulses with some minor processing requirement. Common beans are relatively cheap as compared to other Shiro making pulses. Beyond reaching low-income consumers with affordable Shiro from bean, the availability of bio-fortified bean varieties helps to enhance the nutrient content of Shiro from bean. However, common does not have seed system where farmers do not have access to improved varieties of beans. Under the partnership, community-based seed multiplication is introduced and encouraging results were recorded.
2. Replicable practice

Availing nutritious Shiro from beans at an affordable price triggered introduction of bio-fortified varities of improved bean seeds. But improved bean seeds are only available in agricultural research centres where smallholder bean farmers do not have access in any way. To enhance improved bean seed access, Guna union has shown interest in multiplying beans seeds through community-based seed multiplication and availing improved bean seeds in 2020. Guna union is a specialized seed multiplication and marketing union located in Debre Tabor town of South Gondar Zone. Luckily enough both the business champion and the seed multiplication union share the same operational area, South Gondar Zone. Guna union in collaboration with Ras-Gayint union, Melkassa Agricultural research centre and 2SCALE have introduced 10 quintals of improved bean seeds (high yielding, early maturing, and resistant to diseases) to 44 smallholder farmers (three of whom are female) on an adjacent land of 10 hectares. To broaden the knowledge and skill base and sustain the intervention, bean agronomics training with special focus on seed multiplication is provided to bureau of agriculture subject matter specialists (SMS) and the union agronomists. This training contributed to the effective multiplication of all the 10 quintals of seed meeting the certification standard. As a result, Guna has collected 85 quintals of certified improved seeds of beans that is available for the 2021 production season.

To summarize, this practice is addressing constraints in terms of:

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<tr>
<th>Access to nutritious food</th>
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<td><strong>Availability:</strong> Access to improved seeds of bio-fortified beans fosters the availability of nutritious Shiro.</td>
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<td><strong>Affordability:</strong> Compared to other pulses that are currently used to produce Shiro, beans provide relatively cheaper option. With strong promotional consumer behavioural change campaigns, bio-fortified bean based Shiro provides an affordable choice. In the feasibility study conducted for this business: Shiro is currently ETB 80 per kg while that from beans can be ETB 45 per kg.</td>
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<td><strong>Appropriateness:</strong> Shiro from bean of bio-fortified varieties provide micro-nutrients of iron and Zinc in addition to other nutrients that pulses provide.</td>
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<td><strong>Acceptability:</strong> Behavioural change campaigns will play pivotal role in the acceptability, and the initial testing shows promising consumer feedback. Besides, additional nutrient content can be a strong selling point for bean based Shiro.</td>
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<th>Inclusion</th>
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<td><strong>Ownership:</strong> Smallholders own the business and the seed business facility.</td>
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<td><strong>Rewards:</strong> Smallholder farmers have an additional benefit while multiplying seeds in terms of 15% plus the market price to encourage them for the additional care taken while multiplying seeds.</td>
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3. Preconditions for replication

The following preconditions need to be taken care off for the replication of this practice:

**Tap into existing institutions to coordinate, co-invest, and co-develop**
Identify locally available entities that can pick-up the business opportunity and include it in its business portfolio. I Guna Union is a seed multiplying union of other cereals located in the same administrative zone of the business champion. Once approached, Guna showed interest to co-developing and co-investing and to sustain inclusive business that serves the needs of the vulnerable groups and smallholder farmers.

**Profile existing knowledge, resources, and initiatives in terms of demand and supply sides of an inclusive business idea**
While Ras-Gayint aspiring to start Shiro from beans, Melkassa further added the availability of bio-fortified varieties of bean that can create additional selling point for Shiro from beans. Naturally improve the nutrient content of a product using bio-fortified improved bean seed varieties. Further, the research centre expressed its collaboration with the union in terms of extending knowledge, skill, technology-improved seeds, threshing equipment.

**Use most acceptable resource person in the area to easily influence the change process**
Utilizing the rich knowledge, skill, experience, and acceptance the resource person in the agronomics capacity building encouraged the subject matter specialist to discharge their responsibility and helped in terms of effectively and efficiently conduct the seed multiplication business. Guna has managed to get the complete support of the BoA in terms of mobilizing farmers for seed multiplication, apply all the advised agronomic practices and collect all the harvest qualifying for certified seed. Multiplying seeds as per the agronomic advises of seed multiplication is the basis for quality control for certification.
4. Results Achieved

The results achieved from this practice include:

- 44 smallholder farmers (3 are female) engaged in improved seed multiplication on 10 hectares of adjacent land. Hence, these 44 SHF got trained and experienced on bean seed multiplication.
- All the 10 hectares has been accepted and qualified as improved bean seed.
- From the 10 hectares, 8.5 tons of certified improved bean seed is aggregated by Guna Union and is available for 2021 production season. This indicated 85 hectares of land can be covered with improved seeds of beans in 2021/2022 production season. This will contribute to the eco-efficient production universal impact indicator of 2SCALE program.

Want to know more?

- For further information on this practice, please reach out to Yemisrach Getachew, Partnership Facilitator, (yaseffa@2scale.org) Ethiopia.
2SCALE Replication Brief | Ethiopia

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