Access to improved seeds for increased resilience and competitiveness (Improved “clean” or certified stem multiplication led by SHFs)
Psaltry International and 2SCALE entered into a partnership focused on improving cassava productivity in Oyo state, Nigeria from 2012-2018. Together, the partnership sought to introduce this replicable practice of improving access to clean and certified stems for planting. The practice was first introduced in the 2013 farming season in the first phase when farmers yield, and root quality (uniformity and starch content) was poor. The overall ambition of the practice is to support farmers in the target cluster have access to quality planting materials to meet the demand of the champion, mitigate against pest and disease and to improve cassava productivity at farm level.

Psaltry required cassava roots with more than 20% starch content and high flour content. The cassava varieties present in the ABC areas before this practice was introduced were all landraces with high maturity period of about 14-18 months, low starch content and fibrous containing low flour with very low productivity potential at 15-20 tons per Hectare. Planting material sourced from these varieties were also susceptible to or contaminated by common cassava diseases caused by viruses, nematodes, and bacteria.
2. Replicable practice

This practice is addressing constraints in terms of access to clean cassava stems for planting at farm level. The practice involved empowering selected lead farmers with knowledge on good agronomic practices and setting them up with clean foundation stems to enter stem production business. The start-up foundation (with co-investment from Psaltry and 2SCALE) stems were sourced from the International Institute of Tropical Agriculture (IITA). These set of farmers became the stem multipliers who produced the stems used by farmers at farm level transitioning farmers from use of land races to the use of improved and clean stems (disease resistant) such as TME 419, 0581, 512 and TMS varieties. These varieties are disease resistant, have high productivity at farm level and have high starch and flour content. This stem multiplication became a business and source of additional income for these farmers who produce and sell clean cassava stem to the members of their cooperatives. This practice is now being replicated in the cassava PPP with Promise point in Ekiti state.

In summary, this practice is addressing constraints in terms of:

- **Ownership**: The farmers became in control of the source of their planting materials meeting the demand of the champion Psaltry.
- **Risks**: The stem contamination issues related to diseases was mitigated, ensuring farmers spent less on cost of production in terms of purchase of pesticides because these improved varieties are disease resistant. The champion became confident of the quality of roots supplied by the farmers in terms of starch and flour content.
- **Rewards**: The use of clean planting materials improved the productivity of farmers at farm level to about 100%. At the same time to received better prices for their produce due to quality improvement. The lead farmers who became set multipliers earned more from stem business and from selling roots at maturity. Psaltry now found to buy stems that have better quality and shorter maturity period.
3. Preconditions for replication

The following conditions are necessary for this replicable practice to succeed:

1. Availability of high quality and trusted planting materials in commercial quantities is a prerequisite for this practice to succeed. IITA has cassava as one of its mandate crops and occasionally the organization releases new and improved cassava varieties for farmers use. Leveraging on this kind of network ensures that the partnership could support the first set of farmers to access the foundation seeds which was renewed after two planting seasons through the linkage with IITA. This accelerated the availability of the clean planting materials in the agribusiness cluster areas and the improvement of the supply chain.

2. Providing additional income generating opportunities for target beneficiaries at the ABCs through the stem multiplication business guarantees the success of this practice. Access to quality stem is a major challenge in most cassava producing clusters across the region. Land races are still common. To promote the use of more clean stems, farmers must see the business beyond just planting to improve their productivity. As more farmers use improved stems, this provides business opportunities motivating more stem multipliers to emerge, especially youth.

3. There must be high demand for quality and clean stems which commands better prices. This ensures the market demand for this planting material is guaranteed and the investment to promote these practices makes business sense. As the champion demands for quality raw material this pulls demand for quality and clean stems by the farmers from the stem multipliers, thus ensuring the sustainability of the practice.

4. Results Achieved

The following results were achieved after this practice was introduced:

- 1. The farmer’s average productivity increased by up to 100% from about 10 tons to 20 tons per hectare. This of course is not limited to the access to stems but in combination with adoption of other improved practices.

- 2. About 10 MSMEs emerged from the stem multipliers who added other input services to their stem multiplication business opening small agro-dealership shops where they sell other inputs.

- 3. About 3,500 SHFs had access to and started using improved cassava stems produced in the agribusiness clusters by their cooperative members.

Want to know more?

To know more about this practice, please reach out to Otitoju Oluwatoyin Modupe, motitoju@2scale.org 2SCALE Cassava Partnership Facilitator in Nigeria.