

# 2SCALE

Value Addition for African Indigenous Vegetables(AIVs)



## Gender Cases

2SCALE Consortium



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# 1. Introduction

African indigenous vegetables (AIVs) have been part of the food systems in sub-Saharan Africa for generations. Kenya is a natural habitat for more than 35,000 species of plants, of which about 1,000 can be eaten as green leafy or fruit vegetables that happen to be the mainstay of traditional diets. During the colonial era, adventurers and slavers sailing in Africa introduced exotic plants such as maize, cassava and beans and, later, commercial crops such as sugarcane, cocoa, coffee, and cotton, which began contributing more to livelihoods. Local farmers integrated these crops into their livelihood strategies, at the expense of traditional subsistence crops. AIVs became almost entirely neglected and considered 'poor people's' plants. AIVs were hardly consumed, due to lack of reliable information regarding their nutritive value and limited availability. In addition, AIVs not being a cash crop, many male farmers did not take interest in growing them. This created an opportunity for women in this value chain, since even when men were keen to grow the crop, the post-harvest processing required for seed cultivation often looked tedious for most male farmers. In addition, women's participation in agriculture being often viewed as a household activity and with a strong focus on food security, women took the lead in growing them. and were able to profit from the crops, some independently from their husbands.

## **Sweet 'n' Dried-2SCALE Partnership**

The Sweet 'n' Dried-2SCALE partnership has supported the inclusion of women in the reintroduction and value addition of AIVs which are now forming part of many families' diets as well as becoming a source of income for smallholder farmers in most parts of Kenya. The partnership was established with the objective of reducing existing hunger and malnutrition and improve access to nutritious foods for the BoP consumers. This would be achieved by creating productive and sustainable food systems by strengthening 5000 SHFs among which 60% are women, in the ASALs of Kenya capacity in eco-efficient production, as well as empowering young (female) entrepreneurs in private

sector development, local and regional sourcing, processing, marketing and trade and creating jobs.

## **S'n'D business idea**

African indigenous vegetables are often unavailable during the dry season. The business idea of the S'n'D PPP lies in value addition by drying the AIVs, which will extend the shelf-life to up to 12 months from a mere 7 days, reduce post-harvest losses during the high production season and make the vegetables available throughout the year at relatively stable prices to the BoP consumers. The reduction of post-harvest losses will also guarantee improved incomes to the smallholder farmers. In addition, the year-round processing of the vegetables will ensure permanent jobs. Currently all the jobs are seasonal at the factory which impacts the incomes of the rural women employed.

## **Targeting BoP markets**

Many African indigenous vegetables contain essential nutrients, proteins, vitamins and minerals. They have potential medicinal uses as well creating a link between the agricultural production of African indigenous vegetables and improved community nutrition and health, especially for BoP markets. Thus, the Sweet 'n' Dried-2SCALE partnership also aimed at directly providing year-round affordable and nutritious foods to a targeted 10,000 (BoP) consumers.





Peeling of cassava at the Sweet n Dried Factory

## 2. Gender Based Constraints

### Lack of access to land

It is challenging for most female farmers in Eastern Kenya to cultivate AIVs in large scale due to lack of land as a resource. Land ownership is mainly male dominated, making men the sole decision makers of what crops to cultivate. As a result, if the man does not see the value of AIVs, the women are unable to produce sufficient quantities.

### Lack of access to credit

The production of AIVs has been marred with high price of fertilizers, pest control products, land lease among other matters of production. The lack of access to credit facilities for rural women has barred most women from producing AIVs.

### Lack of access to seeds

There exists a knowledge gap among women on seed multiplication and preservation which consequently, exposes them to inaccessibility and/or expensive purchasing of the seeds during planting season.

### Lack of access to technology

AIVs are highly perishable and require preservation techniques after harvest. They do well in the rainy

season when supply is more often higher than demand. However, this supply is shortly followed by scarcity during the dry seasons. Value addition to preserve AIVs and curb post-harvest losses is therefore, a market requirement that can sustain the farmers during on and off seasons.

### De-commercialization of AIVs by society

It was initially a challenge to convince women farmers that AIVs can be cultivated in large scale for commercial use. However, this perception is gradually changing and more farmers are looking at traditional vegetables as a commercial food product with high nutrition value thus increased demand.

### Unpalatability perception of AIVs by consumers

AIVs are vast in species and therefore, pose the question of knowledge of the edible versus the inedible varieties. The lack of this knowledge has inflicted fear in the potential consumers on the authenticity of AIVs interfering with the available local markets.



Sweet and Dried, Kenya - women peeling of tubers at the company





Sweet and Dried, Kenya - Packaging of Cham Booster



# 3. Intervention Strategies

## Sweet 'n' Dried perspective

### Office set-up and administrative support

Sweet 'n' Dried has benefited much from capacity building from the 2SCALE partnership through improved financial management systems, enhanced working environments and increased organization capacity. Office establishment was facilitated by the partnership so as to enable the company to align itself with the 2SCALE's impact domains of improving access to nutritious and affordable dried individual and composite AIVs to BoP consumers.

### Solar drying technology upgrade

2SCALE supported the technical advancement of the company by upgrading the initial machines through the technical advisory services provided by food scientist. Activities in the processing units like blanching and slicing are presently automated and this has improved on the levels of output, thus enhancing processing quantities per given timelines. The partnership still aims to improve the automation

by bringing on board peelers and chippers to increase the pace of processing of the produce.

### Aggregation structure strengthening

The 2SCALE partnership brought on board a production model that was strengthened into an effective collection point for the business' raw materials. Through structuring the farmers' zones into clusters, the farmer organization improved and this made training on good agronomic practices involved in the African Indigenous Vegetables (AIV) easy and effective.

### Women smallholder farmers' empowerment

#### Training on good agronomic practices

2SCALE facilitated the development and the production of the AIV agronomic practices training manual for trainers, that has since been used for training the African indigenous vegetable farmers and through this process, created a business linkage between the company and the local women farmers.



Sweet and Dried, Kenya - Staff at the office location



Sweet and Dried, Kenya - vegetable greenhouse

### **Access to markets**

Through the strengthening of the Sweet 'n' Dried aggregation system, women have been able to get ready market from mass production of AIVs. The women also benefit from reduced costs like transport through the collection points brought close to the farms thereby maximising on their profitability. Post-harvest losses have also been curbed out for the women smallholder farmers due to the ability of the Sweet 'n' Dried to take all their products.

### **Nutrition enhancement**

African indigenous vegetables have been able to address serious malnutrition problems in Eastern Kenya and are a mainstay in locals' traditional diet. The nutritious enhancement in the local meals has improved with essential nutrients, proteins, vitamins,

and minerals as a result of AIVs consumption. AIVs have potential medicinal uses as well thereby improve the health of the women in Easter Kenya.

# 4. Conclusion and recommendations

The Sweet 'n' Dried-2SCALE partnership has conclusively aimed to achieve the following:

## **Improve women's access to land**

The current Kenyan constitution has created a window for statutory opportunities in the land laws that enable the direct transfer and/or co-owning of land from men to their spouses or from fathers to their daughters. This opportunity would be used to bridge the women land ownership gap, so as to empower them to fully participate in commercial-scale production of AIVs to effectively supply the Sweet 'n' Dried with AIVs.

## **Increase women's access to credit services**

The partnership sought to explore opportunities provided for in financial inclusivity for youth and women savings and loaning associations that can enable them access credit for production and even land leasing. The women's increased access to credit through asset co-ownership with spouses or direct ownership enabling them eligible for credit services through provision of collaterals. Additionally, value-chain financing could be leveraged to increase women's access to credit services.

## **Increased access to market**

Through provision of direct access to the market, Sweet and Dried Enterprise Limited, gives the required remuneration to the farmers, especially women, thus motivating their productivity. Aggregation and solar drying by Sweet 'n' Dried also poses a sustainable solution to the seasonality of production and the related post-harvest losses by farmers.

## **Structuring and capacity building of Women small holder farmers**

Engagement of women right from on-farm level to the aggregators and other suppliers of AIVs as well as employment in Sweet and Dried Company should be fostered. African indigenous vegetables address serious malnutrition problems in Kenya and are a mainstay in traditional diets. They also provide an opportunity for women to engage in profitable farming and business activities thus empowering both women and youth.

## **Increase nutrition education activities**

The Sweet 'n' Dried - 2SCALE partnership should provide the consumers, especially those at the Base of Pyramid (BoP), with nutrition education activities. Follow-up consumption surveys during and after the activities should be done and analysed to determine their impact. This would address the Unpalatability perception of AIVs by consumers.





Mercy with the Cham Booster packaging



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inclusive agribusiness in Africa*



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