CASE STUDY

Africa Illovo Sugar: Developing climate resilience through collaboration

Background Information

Sugarcane production is an important activity and a major employer in the African agriculture, with an estimated six million people deriving their livelihood from the sugar industry. Given these contributions, any factor affecting the industry has an impact on the overall economy. With a relatively low adaptive capacity and poor forecasting systems and mitigation strategies, sugarcane farming is anticipated to be significantly impacted by climate change, just like other agricultural sectors, especially in developing countries.

Smallholder out-grower farmers—which is how we call contracted farmers—of sugarcane across Southern Africa are among those extremely vulnerable to climate change impacts, such as droughts and floods. The frequency and intensity of extreme weather events also increases, leading to an even more critical vulnerability. Additionally, the cultivation of sugar cane entails its risks of negative environmental impacts, including damage to land quality and biodiversity through overuse of fertilizers and pesticides and increases the pressure on potentially scarce water resources.

Climate change is not the only challenge the farmers are facing; access to electricity and irrigation as well as social and business issues have to be tackled additionally. The latter include poor governance and management capacity, as well as unsteady sugar prices due to currency fluctuations, inflation and changing interest rates on loans. In general, there is not only a lack of knowledge about environmental impact of climate change, but also about sugar cane business developments.

In the sugar sector particularly, large corporates such as Illovo Sugar, Africa's largest sugar producer, have recognized the business risk that smallholder farmers face when they have low capacity to withstand climate shocks. To improve the climate resilience of sugar cane growers, taking their climate-related risks into account, a partnership between the Climate Resilience Infrastructure Development Facility (CRIDF)[1] and Illovo Sugar was developed.

1 For more info, see: http://cridf.net/ and https://www.pegasys.co.za/resilience/

Approach, Delivery, & Challenges

With Illovo's support to smallholder farmers and its work in many communities with high poverty levels, inadequate access to water or electricity services, and high vulnerability, it is possible to improve the farmer's livelihood. The company offers extensive training to the farmers, which enables them to develop their agronomic skills and helps them to professionalize their farm management practices. Illovo also supports them with the day-to-day management, checking soil samples and training on sustainable farming techniques including pest control and land preparation (Corporate Citizenship, 2017). Certain smallholders also meet environmental requirements through their membership of initiatives such as Fairtrade and EU funding schemes.

A trans-boundary tool to assess climate vulnerability was developed based on the principle of "shared risks are shared benefits". This climate vulnerability assessment and response tool was developed throughout numerous activities that engaged a broad range of stakeholders. Questionnaire forms were provided for the activity lead to collect information during meetings with engineers and local community members. They were needed to obtain complementary qualitative information on climate related aspects and its effects in the area to understand resilience characteristics. Furthermore, site visits were conducted to evaluate the weather and climate related problems in the respective area, i.e. predictability of rainfall, drought, flooding, groundwater reductions, vegetation loss, and so on. With the gained information, climate risk and resilience benefits matrices can be filled. The aim of this tool is to identify potential risk levels in terms of droughts, floods, financial, human capacities, or cultural challenges, and support identification of appropriate response strategies. The application of this approach will enhance communities' resilience.

The project was piloted with two communities[2] and resulted in the identification of several opportunities for interventions to be supported through a future project called CRIDF Phase 2 (RMI Out grower Development, n.d.). Constant iteration amongst stakeholders has continued to ensure value throughout the process. It is used to evaluate the risks of out-growers in terms of external climate-related risks. Also, it has helped opportunities to invest in smallholder adaptive capacity become clear.

During the project evaluation, some socio-economic risks were identified including: low level of awareness of climate change impacts amongst small holders and to a lesser extent to other commercial growers; water shortages and inefficient or inappropriate irrigation systems; upstream deforestation causing high siltation levels in rivers; river-level fluctuation caused by hydroelectricity plants; and growing population in cane growing areas due to associated employment and income generating opportunities, resulting in competition for the land and water.

The tool has been further developed through sharing it with farmers and Illovo officers for further evaluations and feedback. The use of such tool has already spread to six countries in different African sub regions: Malawi, Mozambique, Swaziland, South Africa, Tanzania, Zambia, while collaboration with projects and initiatives in further regions being pursued. Such effort in implementing this one tool to other areas are counted as scaling out. However, the issue of scaling deep, or impacting cultural norms and rules, still meet barriers. Such approach can only succeed when the solution is embedded in the regional cultures and harmonised with the local social relationships.

Benefits, Lessons Learned, and Outcomes

Contributions to Sustainable Development Goals

Through a collaborative approach, smallholder farmers are equipped with a knowledge that enables them to build resilience. The transboundary tool helps to rise awareness about the risks and possible impacts of climate change on the farmers. The case study approach and activities are therefore also linked with the Sustainable Development Goals (SDG).

2 For more info, see: RMI Outgrower Development http://www.rmioutgrowerdevelopment.com/uploads/2/6/1/0/26102706/rmi_profile.pdf

Increasing the productivity of the farmers translates into higher incomes that support decent jobs (SDG8), which subsequently strengthens the fight against poverty (SDG1) as it emphasizes on reducing the climate risks and vulnerabilities. It will also create social and environmental value, take action to combat climate change and its impacts (SDG13) by strengthening the smallholders' adaptive capacity. Through the initiative and collaboration, not only Illovo's future supply of sugar cane is secured (SDG 2), but with the support, the farmers livelihoods are improved, which makes it a possible way to tackle social inequality in Africa (SDG10).

Lessons learnt and key takes

This case shows how the resilience of sugar cane out-growers can be improved through collaboration among relevant stakeholders. With the help of the trans-boundary tool in providing a sounder information of the smallholders, it facilitates in investing in adaptive capacity. Lessons learnt from the Illovo sugar cane initiative could be transferred to the entire sugar industry in developing countries to improve the understanding of the risks and vulnerabilities faced by out-growers. Similarly, the experience in the sugar-growing sector could be used to see how to apply and adapt these models and tools to other sectors or crops. As a result, by raising awareness of the importance of climate resilient development, the initiatives could inform and lead to changes in the policy and regulatory environment. Such efforts are counted as scaling up.

Information

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