

UNDESA recognition for Thottiam Banana Producer Group (TBPG)

A unique Solar powered Post-Harvest ecosystem established using a PPP model is featured as a United Nations Sustainable Development Goals (UNSDG) 'Good Practice' for improving earning capabilities of more than 5000 small farmers

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State-of-the-art Solar Green House Dryer (GHD)

India is amongst the leading agrarian economies in the world. Its horticultural production was approx. **315 million metric tonnes (MMT)** in 2018-19. It is the second largest producer of vegetables and fruits in the world. However, the Ministry of Food Processing & Industries, Government of India (GOI) estimates losses of about **15%** of total production. It states about **12 Million Tonnes** of fruits and **21 Million Tonnes** of vegetables of total approximate value **USD 4.4 Billion** are lost. There is a consensus amongst international agencies, union/state/local governments, private organizations, farmer producer organizations and NGOs that this issue must be addressed at the earliest.

In this context, **making agriculture more productive and remunerative** is the need of the hour. There can be no better time to establish partnerships for improving access to post-harvest technology, market-linkages, finances and trainings to beneficiaries to create 'agro-entrepreneurs', with special efforts taken to increase participation of women. This can support

a consistently rising, inclusive and sustainable growth trajectory for the country. Other key initiatives in this direction include developing commodity-based clusters, promoting innovation, research & development in food security and undertaking capacity building to enhance competitiveness of food processing industry. These measures directly contribute towards the mission of ‘doubling farmers’ income by 2022’ by the Govt. of India and the United Nations Sustainable Development Goals (UNSDGs).

There is need for governments, corporates, NGOs, academia and other relevant stakeholders to work in consortiums to bring about a rapid, inclusive and sustainable transformation for small farmers in alignment with the UNSDGs. By leveraging the collective strength of its constituent partners, such consortiums can add substantial value towards improving the livelihood opportunities for small and marginal farmers by creating a holistic post-harvest ecosystem that empowers them with:

- ***Evaluation and assessment study:*** *To identify the most appropriate locations where the post-harvest food security ecosystems can be impactful for improving the earning capabilities of the small farmers, Covid-19 impacted workers and underserved communities*
- ***Post-harvest technology*** *that is efficient, sustainable and cost-effective to reduce wastage of farm produce by increasing their shelf-life without impacting the nutrient-value of food. Some decentralised solutions can be the use of solar conduction dryers, solar greenhouse dryers & solar cold storages at the farm level*
- ***Market linkage*** *for different commodities with a special focus on exports to realize improved earning capabilities for small and marginal farmers. This market linkage will reduce the middle-men in the value chain and will empower the farmers to sell their produce directly to the global markets*
- ***Skill development and training*** *in best practices for various activities in the agro-value chain like research and development, creation of Farmer Producer Organizations (FPOs), cutting, sorting, grading, packaging, logistics, storage-management etc. The experience and expertise of state agriculture universities/institutes will be leveraged for this activity*
- ***Digitally smart initiatives*** *in English and vernacular languages to empower the small and marginal farmers by providing them single-window access to post-harvest technology, financial assistance, market linkages & product certification like services at their own conveniences.*

Based on such ecosystems, a Public-Private-Partnership (PPP) between a renowned Development Finance Institution and one of the world's leading polymer companies was able to revive a community of more than 5000 farmers in Thottiyam (Tamil Nadu, India). This remarkable success story has been recently recognized by the United Nations Department of Economic and Social Affairs (UNDESA) as an “SDG Good Practice”.

Thottiyam is renowned for its banana farms but lacked ways to process its produce and protect it from the vagaries of climate and inclement market forces. To effectively address the stated challenges, the above PPP project identified such communities and went on to offer simple yet innovative technologies such as farm-based solar greenhouse dryers (GHD) and solar cold storages. This has helped create opportunities for farmers by allowing them to preserve their

produce for a longer time. The Solar Green House Dryer (GHD) became an instant success. More than 1000 units have been installed in Indian Subcontinent, ASEAN and Africa. GHD dries various products including fruits, vegetables, spices, fish etc. in a hygienic manner, allowing the farming communities to open new revenue streams. The Banana fruit is dried in the state-of-the-art Green House solar driers to reduce its water content without loss of any of its nutrients. This process is clean and cost effective. The dried fruit has a good keeping quality, taste and shelf life. This venture is one of the earliest of its kind on a commercial scale. Two years down the line from when the project first started, the farmers were able to significantly increase their revenue, in addition to achieving a positive shelf-life as significant amount of Banana was getting wasted due to the lack of processing and infrastructure. In short, this dried banana now serves as mid-day meals, snacks and more, providing the required nutrition to children, young mothers and diabetic patients. It has unleashed the entrepreneurial attitude of the farmers. These products are available in markets & on leading e-commerce platforms.

Such Public-Private-Partnerships will empower small and marginal farmers to become successful entrepreneurs through well-defined and impactful projects. It will help improve the lives of thousands of people in distress. With active support from all stakeholders, such result-oriented models that can be replicated quickly across geographies.