

Waste to Wealth by Incubating

Mini Micro Cold Storage Technology Ventures in PPP Mode

Problem Definition:

The post harvest wastage of vegetables, in India, account nearly for \$6 billion annually, cutting in to the earnings of small farmers while wild unexpected price swings, take another toll. Large cold storage facilities are out of reach and unsuitable for the small farmers. Bringing down this wastage by 50%, is possible by incubating micro entrepreneurial storage ventures of youth with new suitably designed mini cold storage plants. As a demonstration, ten farmers markets are chosen, benefiting 2500 - 3000 farmers, saving a wastage of \$ 0.2 to \$ 0.3 million, annually. Replication of this model, would save vegetables worth \$ 2 to 3 billion across India, benefiting 10 million farmers.

Objectives:

Major objectives

1. Reducing the vegetable wastage by 50% and more, for farmers, thus increasing their income
2. Incubating youth as entrepreneurs in micro cold storage business ventures, creating new jobs and
3. Developing a successful business model for faster replication, across the country

Specific Objectives

1. Design and installation of mini cold storage systems using latest technology inputs to meet the requirements of different vegetables temperatures, storage, quantity, usage, cost and hygiene,
2. Training, Mentoring and Business Development of these micro ventures of youth,
3. Study of field variables and fine tuning and
4. Promotion of the model for fast, country-wide, mass replication.

Project Implementation:

It is proposed to design and install new models of mini cold storage plants, to meet the specific needs of vegetable farmers, with different temperature chambers for different varieties of vegetables, their daily storage requirements etc.. These mini cold storage plants shall be operated by young entrepreneurs with incubation support. For this, a group of youth with interest and potential to promote these micro ventures shall be selected, trained and mentored as entrepreneurs in PPP model. A mentor network shall train, provide business development support and escort these micro ventures for at least one year, by monitoring the markets on daily basis. Suitable design changes in technology and business models shall be implemented for better

results. A pre-feasibility study had confirmed this huge potential for waste savings and wealth generation. The project success shall be widely publicized for mass replication across India and elsewhere.

Sustainability:

The entire project is conceived as a business venture driven by the entrepreneurial ambitions of the youth in PPP with shareable revenue generation with potential young entrepreneurs. End of the project, the cold storage systems shall be transferred on book value to the entrepreneurs, on payments. This returns shall seed fund other new venture of a 3- 5 teams of youth for manufacturing this new technology storage systems on mass scale to support mass replication. TREC-STEP shall be in a position to take up this venture for incubation with separate venture capital support after the project period.

This attractive profit ventures shall accelerate mass replication, across the developing countries.

Replicability and Scaling Up:

The sole aim of the project is to create a fast replicable model in wastage reduction in vegetable markets by promoting convincing cases of entrepreneurial micro ventures engaged in market based mini cold storage ventures by youth. The entrepreneurship engine shall not only drive each of these micro ventures to success but also shall spread very fast nationwide and thereby creating a snowballing effect in wastage reduction in vegetables. The actual benefits realized for the farming community, in terms of waste savings and wealth accrual, shall create a great user led farmer advocacy for the project replication. Popular governments shall view this as a great development project for the majority of the population, including the vegetable buyer and shall provide all required support. TREC-STEP, at the end of the project, has planned to incubate, atleast 3 to 5 manufacturing units for fabricating this mini cold storage plants for other regions, from the revenue generated from this project as a seed capital for these next tier ventures.