Arecanut chain – adding value with lower environment impact

S³idf

Arecanut (or Betel nut) plays an important and popular part in Asian culture, especially in India. Arecanut is a widely grown cash crop in the malnad belt (hill belt) of Karnataka. A significant portion of Shimoga and its immediate neighboring districts is an agrarian economy belonging to this hill belt. Arecanut is among the most important crops (along with coconut and paddy) of most farmers in these regions. A significant number of these farmers are small farmers with small land holding between 1 to 5 acres. The post harvest processing consists of deshelling the arecanut, boiling of the arecanut followed by drying (typically sun drying) of the boiled arecanuts. This results in significant value addition to the arecanut. However, on the farmer's part, it requires, upfront investment for the process.

Value addition in Areca chain

Typically, the boiling is carried out in traditional stoves with biomass (normally dried arecanut shell) as fuel. Farmers normally store dried arecanut shells to be used the subsequent year as fuel and this requires considerable investment in terms of storage space and labor to dry the shells. The boiling process is a batch process and the traditional stoves typically have around 70 kg capacity (though some stoves custom-designed for larger or smaller capacities do exist), and are relatively heavy in fuel consumption.

An 'efficient' solution

TIDE (Technology and Informatics Design Endeavor), an NGO based in Bangalore had developed an improved arecanut boiling stove, and trained entrepreneurs to manufacture, install and commission the same. This stove provides a 30%-40% reduction in fuel usage and a 30% reduction in batch processing time, thus resulting in improved productivity and fuel economy for the farmers. It is significantly energy efficient in comparison to the traditional stove.

Small Scale Sustainable Infrastructure Development Fund (S³idf) employs its Social Merchant Bank approach in South India by building a portfolio of pro-poor, pro-environment, financially viable small-scale infrastructure and related productive-use investments and enterprises. S³IDF is supporting a stream of financially self-sustaining micro-enterprises that can supply infrastructure services to poor people in ways that tap into existing sources of small-scale finance. By ensuring the creation of such locally owned small/micro-enterprises run by poor/ marginalized/ disabled people, women, NGOs, SHGs etc., S³IDF helps start fundable business ventures in poor communities that benefit the poor both as consumers and owners/operators. S³IDF's goal is not only to solve the infrastructure problem but to do so in a way that leads to healthier and more self-reliant communities.

"These stoves are more efficient, so we require less amount of arecanut shells" says Shekarappa of Bhadravati Taluk.

Among the entrepreneurs trained by TIDE is Mr S D Nataraj owner of informal enterprise Sahyadri Advanced Technologies (SAT) operating from Shimoga town, the district headquarters of Shimoga. SAT installed and commissioned these stoves. By taking up the manufacturing in-house, SAT could achieve higher margins, more timely delivery and better control over the stove quality. The key hurdles for SAT to begin manufacturing, however, were lack of adequate working capital, no strong relationship with the local financial institution and a market that needed a mechanism to pay for the installation of the stoves over multiple (typically three to four) installments.

S³IDF makes it possible

In 2006, based on an analysis of SAT's sales plans and financial needs, S³IDF designed an enterprise support transaction through which SAT's immediate financial needs would be satisfied and SAT would gain access to an ongoing line of credit from a local formal financial institution. As a first step towards a relationship with a formal financial institution, the local branch of Syndicate bank was convinced to open an account for SAT. A working capital of Rs. 1,50,000 (~USD 3800) was created. More than a year later, SAT is well into the business of installing the new-improved areca stoves. Till date, SAT has installed almost a hundred such stoves, each costing around Rs. 5000.

Nataraj faces problems with the repayments for these stoves, such as lack of advance payments, tracking and collecting in installments, and the huge distances to be covered to collect these repayments.

But Nataraj continues his business, knowing that his customers are trustworthy and hoping to expand into other products.

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