Sadia Program for Sustainable Swine Production (3S Program): Bringing Sustainability to the Supply Chain

Prepared by • Cláudio Boechat, Nísia Werneck & Leticia Miraglia (Brazil)

Sector • Food
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Summary

Sadia’s Program for Sustainable Swine Production (3S program) was designed to assist more than 3,500 swine producers in reducing greenhouse gas emissions from their farm operations. Developed and managed by the Sadia Sustainability Institute, the 3S Program seeks to institute sustainability into the company’s supply chain. The emission reductions qualify for the Kyoto Protocol’s Clean Development Mechanism (CDM) programme, under which Sadia Institute sells the carbon credits. The emission reduction technology provides supplementary revenue and improved working conditions for Sadia’s swine producers (the farmers), while reducing the environmental impact associated with swine production.

Positive Outcomes for the Poor

Although the 3S Program does not have a direct impact on the poorest of the poor, it works preventively on reducing extreme poverty. It also contributes to the sustainable development of the swine production sector in Brazil and presents alternative business models that in the future can be replicated in poorer areas of the country. The 3S Program’s positive outcomes for the poor include the following:

- The Program prevents extreme poverty in rural areas by increasing the income of swine producers with the use of biodigesters.
- With the 3S Program, swine producers could benefit from a better work and living environment, a new source of energy and organic biofertilizers produced in their own facilities.
- Prevent extreme poverty in big cities by improving the quality of life in rural areas, including the health and safety of the swine producers. Thereby, reducing the rural exodus to big cities of unskilled workers (outside agriculture) that could increase unemployment rates and poverty statistics in urban areas.
- There is a decreased impact on the natural environment, especially decreased contamination of water and soil, indirectly and positively affecting the livelihoods for the surrounding rural community.

Key Barriers

- **Technological Challenge:** biodigester and instrumentation. Brazil lacked the expertise in the sector and the company had to find high-quality and affordable suppliers to make the idea of the 3S Program possible.
- **Cultural Challenge:** awareness raising with farmers. Sadia Institute had to find a way to reach swine producers and convince them to change their way of producing pork.
- **Financial Challenge:** The swine producers did not have the funds to invest in technology for the 3S Program, and it would be very difficult for the small producers to get a credit line.
• **Institutional Challenge:** Each small swine producer alone would not be able to sequester enough carbon to sell in external markets. Only by joining a number of small producers could the 3S Program be possible.

### Key Innovations

- Sadia Institute found a good biodigester manufacturer and is funding research for the development of improved instrumentation to efficiently measure carbon sequestration.
- Sadia used the legitimacy and already-established relationships of its field technicians to promote the 3S Program to its swine producers. The suppliers trusted the technicians and, as a result, were receptive to the idea.
- The Institute developed a financing arrangement for purchase of the biodigesters, available to the farmers through the Program, and repaid through the sales of carbon credits.
- Sadia created an Institute to unify the swine producers and build enough carbon credits to create a CDM project; the Institute was also responsible for managing the Program.

### Opportunities and Challenges for Scaling Up

- The 3S Program tested the Clean Development Mechanism and built capacity for managing these projects: how to write a Project Design Document, how the carbon credit market operates, etc. Where there was no expertise previously, there is some available now.
- Sadia Institute plans to extend the Program within its supply chain, including those suppliers that are not swine producers (for example, poultry and beef). The Program will be adapted when necessary.
- Sadia Institute plans to develop a “Sustainable Site Platform” in which it will give training for new agricultural possibilities to be produced by its suppliers to diversify and increase their income. The platform aims to educate the producers on financial and management issues, creating entrepreneurs better prepared for the market.
- It is still a challenge to include the small producers. It becomes even more challenging because the market for carbon credits is still new and needs a well-structured financial strategy to fully allow producers of all sizes to participate in it.