



ASSESSING FARM SUSTAINABILITY IN SOUTH EAST ASIA


What is Sustainability Assessment?


ALiSEA self-developed method assesses the sustainability of agricultural production at the farm's level. Information on the economic, social and environmental situation is collected to form a spider web representing the three dimensions of sustainability.

The spider web helps in visualizing the sustainability level reached by each farm in ALiSEA network and to identify potential improvements. The use of this assessment tool reflects an ambition to invest time and capacities into a network of sustainable farms set as outstanding example of success in the transition towards agroecology and ready to be change makers.



TA THI NGUYEN FARM VIETNAM

 Seasonally tropical (rainy season: May to November)

 ~ 1700 mm/year

 Avg max: 30°C - Avg min: 17°C



AGROECOLOGICAL SUSTAINABILITY

Key Figures

Land size: 0.17ha

UAL: 0.17ha

Location: Vien Village, Tan Duc, Phu Binh District, Thai Nguyen

Ta Thi Nguyen moved to her parents in law's land after getting married. Raised in a farm she continued her farming activities and decided to join the SRI-GPM project conducted by ICC to learn something new.

She grows two rice crops per year with SRI practices on 0.06ha and grows potatoes in winter. On the 0.1ha left she grows two rice crops per year and vegetables such as sweet potatoes, bell peppers and maize in winter.

After adopting SRI-GPM practices she noticed a decrease in pests even though she uses less pesticides and the yields increased by 20%.

She was able to sell her production to a higher price than the market and could also improve her farming practices thanks to trainings conducted by ICC.

The System of Rice Intensification, known as SRI, is an agro-ecological approach for increasing rice productivity by changing the management of plants, soil, water and nutrients. In Vietnam, SRI has been applied by about 2 millions of farmers on nearly haft of million hectares and about 5,000 farmers are applying GPM (The Growing Winter Potato by Minimum Tillage Method) (Dũng, 2016).

The ICC in collaboration with Thai Nguyen University and with ALiSEA financial support, conducted a project in Thai Nguyen province aiming at building an integrated SRI-GPM model.



"I joined the project because I was keen on learning something new. With SRI, I have better yields while reducing chemicals use. It is better for my health and the environment."

The project has been introduced to group of farmers and an on-farm study approach with principles of Farmer's Field School (FFS) has been applied. The project has tested an approach method of "Public-Private Partnership" or "linkage of 4 partners: farmers-technician/scientists-business-public managers" in technological transfer, agroecology transition as well as sustainable rural development in uncertain social and climate changes in Vietnam.

In the framework of this project, farmers like Ta Thi are encouraged to modify their practices, using less seeds and progressively stopping using chemicals in the rice paddies. Ta Thi is able to save a significant amount each year as she needs only 300 grams of seeds for 360m² compared to 2 to 3kg before. The introduction of a rotation with potatoes was beneficial to the rice as Ta Thi noticed a pest decrease. She reduced the use of chemicals in her paddies even though she is still using some pesticides to get rid of specific insects. To boost the soil fertility, Ta Thi has to buy chicken manure or mineral fertilizer (N-P-K) as she does not rear livestock. Another issue is the access to water during the dry season. The district opens the dam when the rice season starts but during winter the yields are very low due to water scarcity.

Ta Thi demonstrates efforts to change her farming practices and has planned to apply the SRI approach on all her rice paddies. However, she faces some challenges such as water scarcity and does not benefit from much autonomy as all the farm inputs must be bought. Thus, favorable conditions for mid-long term production could still be improved as shown on the spider web.

SOCIAL SUSTAINABILITY

Ta Thi is satisfied to have joined the SRI-GPM project and tries to promote the model in her village and encourage other farmers to join the group and learn about SRI practices. She was able to attend 3 trainings about sowing, weeding and harvesting

and benefits from Pr.Phu advices who is always willing to help the farmers improving their technicity.

ECONOMIC SUSTAINABILITY

A big challenge for agriculture in general and sustainable agriculture in particular is to provide sufficient income for farmers to stay in their land. Therefore, it is important to assess economic sustainability of a farm as, amongst other indicators, the economic returns from agriculture should at least equal the income that could be obtained from off-farm activities.

The farmers involved in the SRI-GPM project observed an average increase of 20% in rice yields. Moreover, they can sell their rice at a higher price than the market. Usually a premium of 1200 dong per kg is applied. A partnership with a private seed company was negotiated by Pr Phu which enables the farmers to sell their whole production ensuring them a stable and better income. 70% of the production is bought and 30% is kept for household consumption. The farmers can also purchase the rice variety they need from this same company at a good price.

A partnership was also established with a private company for the potatoes. The company would provide inputs, check the quality of the final product and purchase the potatoes directly from the farmers. The partnership lasted for one potato season in 2017.

The costs of production have also diminished as chemicals are no longer being used or in a reduced quantity, thus reducing the dependency towards global market.

Ta Thi land is owned by her family in law which is an extra security when one social concern can be the security to retain the landholdings. However, with a limited land, representing less than 1ha, and limited labor the income generation remains insufficient for a family of 5 members.

Moreover, Ta Thi is concerned about the years to come as finding a market to sell her rice is challenging. Indeed, the partnership with the private seed company might not be renewed.

