SUPPORTING FARMERS IN THE TRANSITION TOWARDS AGROECOLOGY

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.

KYAW MYO THU FARM
MYANMAR

Seasonally tropical (rainy season: May to October)

~ 1490 mm/year

Avg max: 24°C - Avg min: 16°C

Key Figures

Land size: 1.6ha

UAL: 1.6ha

Location: Paya Gyi Shae village, Thapyin Pin Village track

Kyaw Myo Thu started working on his family farm in 2002. His interest towards organic farming started in 2007 but he started applying agro ecological practices in 2012. After he had the opportunity to attend a training at Future Organic Farms, a training center located in Nyaung Shwe. He faced many challenges as these practices were new to his family and he found them costlier and time consuming. However, he kept on trying and has now drastically reduced the amount of mineral fertilizer and pesticides used in his fields.

His small-scale organic farm of 1.6 ha is mainly made of rice paddies. 0.6 ha is dedicated to sugar cane, 1 ha for rice and vegetables such as tomatoes are grown on a small plot in the courtyard.

AGROECOLOGICAL SUSTAINABILITY

Organic agriculture can help preserving biodiversity and soil fertility while reducing pollution, eutrophication and greenhouse gas emissions (Pimentel et al., 2005; Mäder et al., 2002).

Agroecological practices are very important in organic agriculture to ensure stable ecosystems and preserve biodiversity.

Kyaw Myo Thu attended a training about organic farming at Future Organic Farms which gave him the opportunity to extend his knowledge about agro ecological practices such as compost and bio pesticide making.

"I"

Following this training, he introduced many changes in his farming practices. First of all, he drastically reduced the use of chemicals while increasing the output of organic compost. He learnt how to prepare compost out of chicken manure, rice husk and vegetables waste but also out of water hyacinth, a raw material which can easily be found in nearby ponds or in Inle Lake.

The rice is grown without pesticides but he still enriches his soil with mineral fertilizer mixed with compost. He also still uses a small amount of pesticides to grow tomatoes. To make his compost and bio pesticides, he uses only local resources or ingredients that can be easily found in local markets and for a low cost. To boost the soil fertility, Kyaw Myo Thu uses other agro ecological methods such as rotation: after he harvests the rice he would grow onions and then groundnuts. He applies rice straw compost on his onions. The location of his farm allows him to have water for irrigation all year long.

Kyaw Myo Thu demonstrated efforts to apply agro ecological practices on his plots, however he still lacks knowledge on how to manage pests and he still depends on external sources for manure and seeds, especially hybrid rice seeds.

SOCIAL SUSTAINABILITY

After finishing his training Kyaw Myo Thu could share his knowledge with neighboring young farmers especially on compost making. He is also involved in Kalyana Mitta Development Foundation and as an alumnus he is socially engaged for social transformation. He is a promoter of organic agriculture in his area and try to engage other young farmers to operate the switch from conventional agriculture to more sustainable farming practices. Thanks to his involvement in KMF, Kyaw Myo Thu benefits from a large network and can seek information and advices from other farmers.

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.

Kyaw Myo Thu sells the rice produced to a broker, which then export it to China, and he sells his vegetables to retailer shops in the city. The income generated by the farming activities is estimated at around 1.6 million kyats. The family suffered from a fierce competition on the onion market coming from China which led to such a decrease on the onion price that Kyaw Myo Thu preferred to keep them rather to sale them, which had an impact on the farm's income.
Therefore, half of the income of the household comes from off farm activities when Kyaw Myo Thu and another family member provide paying services as machine drivers. His activities with NGO as data collector also provide him with an income.

The farm financial sustainability is not yet reached but costs of production have decreased as Kyaw Myo Thu mainly relies on resources within the agroecosystem and uses local resources available on the farm, thus minimizing variable costs. His main costs of production are for manure and pesticides for the tomatoes. If the farm goes fully organic, he might be able to save on costs of production and enable the farm to reach a better autonomy.

Kyaw Myo Thu and his family own the land which is a security when one social concern can be the security to retain the landholdings. This certainly gives the farm a good chance to survive over the years despite a rather low income generation and high market vulnerability. Indeed, the income generation is dependent on the market and the price middle men would provide to buy the products from the farm.