




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.

PANYANIVEJ FARM LAOS

 Seasonally tropical (rainy season: April to October)

 ~ 1600 mm/year

 Avg max: 27°C - Avg min: 21°C



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.

In Panyanivej Farm, a high diversity of vegetables grows along with fruit trees. The focus is on local vegetables but also on rare vegetables or fruits that are not heavily represented or commercialized, mulberry or peanut for instance.

Key Figures

Land size: 8ha

UAL: 7ha

Location: Samket Village, Sikhottabong District, Vientiane capital

Panyanivej farm was founded in 2008 by PADETC (a non-profit Lao organization) to promote and showcase sustainable agriculture using appropriate technologies.

In 2014, Panyanivej became an independent social enterprise, owned by Somchit and her husband, Nont, that aims at promoting organic farming to the largest public possible, be it students, professionals or tourists. The farm offers a choice of services such as outdoor classroom, farm visit for tourists and hosts interns.

This organic farm of 8 ha is mainly made of rice field: 5 ha are dedicated to rice and 2 ha are dedicated to a large range of vegetables and fruit trees. On the remaining area are the farm premises: a plant nursery, a dark room dedicated to mushrooms and two traditional lao structures, a house and a granary, built using traditional methods that are no longer practiced in Laos.



"I would like to turn Panyanivej farm into a learning center where young people can grow to appreciate the value of agriculture and the wisdom of local farming knowledge"



Historically, Panyanivej Farm was growing rice in a traditional way, integrating fish together with rice. This is no longer the case but different varieties of rice are still grown such as white, brown and sticky rice. Depending on the season, spinach, morning glory, lettuce, long beans, chilli pepper, eggplants, pak choy, banana, papaya, mulberry and local herbs can be found. To boost the soil fertility, Viluth Sivongsah, who runs the production, uses various agroecological methods such as composting (cow dung mixed with rice husk) and rotation. As there is no livestock on the farm, the cow dung is collected from farms nearby.

An efficient watering system was designed by Nont and water is taken from the fish pond, which prevents crops from water shortage during the dry season while drawing the necessary amount of water only. The farm is very good at preserving biodiversity and natural resources and the conditions are met for successful mid-long term production.

SOCIAL SUSTAINABILITY

Panyanivej plays an essential role in the local development as its main mission is to educate youth, professionals and even tourists about organic agriculture, agroecological practices, traditional lifestyle and local farming practices. The farm partners with many schools in Vientiane and hosts group of students for open classrooms. Somchit dedicates a part of her time to set up pop-up stores at school's gates to display farm's products and educate parents about healthy food.

The farm has facilities to host professionals for training and students for internships. Students from technical college of agriculture come regularly to do internships at the farm where they are encouraged to lead their own experiments, learn about sustainable agriculture and get involved in the daily farming activities. The farm also offers farm visit for tourists where they can harvest and cook vegetables and learn about Lao farming techniques.

Panyanivej farm strong social impact can also be demonstrated through the creation of three jobs over the last 5 years. The three young professionals with a background in agriculture are provided with good wages and working conditions.

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.

Panyanivej farm sells its products through different channels and has efficiently managed to secure many customers with which it has a long-term relationship. It provides rice, vegetables and fruits to private schools in Vientiane that value organic food and to local restaurants. The farm also sells its production through vegetable baskets that are delivered on a weekly basis.

This efficient selling strategy brings a good income estimated at 57 million kips per year. However, high labor and administrative costs weight on the farm's profitability. For the time being, investments for the farm's development are only made possible thanks to donation or personal funds. However, innovative food distribution techniques such as pop-up store at school gates or vegetable baskets should reach more and more customers attracted by sustainably and locally produced food and allow Panyanivej farm to increase its income and profitability.

Moreover, Somchit owns the land which is a good condition for the farm continuity. Besides, the farm is not too vulnerable to the market thanks to its diversified selling strategy.

Good income coupled with such favorable conditions, certainly gives the farm a chance to become more and more successful over the years.

