




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.

SOUMBOUN FARM LAOS

 Seasonally tropical (rainy season: April to October)

 ~ 1600 mm/year

 Avg max: 27°C - Avg min: 21°C

Key Figures

Land size: 4.2ha

UAL: 3.2ha

Location: Phonegnam village, Phonehong district, Vientiane province

Soumboun's farm is a family farm where his grandparents used to practice natural farming. A fierce competition amongst farmers in the area pushed the next generation, Soumboun's parents, to adopt chemicals. After graduating in agriculture with a major in livestock and working in Panyanivej farm for two years, Soumboun decided to go back to his family farm in 2017.

This small-scale integrated organic farm of 3.2 ha is distributed between 3 ha of rice fields, 1 ha of forest where 7 cattle graze all year long and 0.2 ha dedicated to vegetables and fruit trees. Soumboun rears chickens, ducks and frogs in his house backyard, for sale and for household consumption.

Soumboun is happy to take care of his family while farming on his land as well as sharing his knowledge with farmers from his community.



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 Soumboun's farm, a large diversity of vegetables grows next to fruit trees. Depending on the season, mustard, eggplants, chilli peppers, morning glory, beans, salad, celery, spinach and many local herbs can be found.



"I am proud to be a young organic farmer and to work on my own land. I promote agroecology by producing my own compost and bio-extract to improve soil's fertility. As a result, I have healthy organic vegetables for my family to consume"

To boost the soil fertility, Soumboun uses various agroecological methods such as composting (pig and cow dung mixed with black rice husk), efficient microorganisms (fermented vegetables leftovers and herbs from the forest) and rotation. He also enriches the soil with river silts and applies some of the technics learnt in Panyanivej farm such as using tobacco leaves decoction to repulse pests. A self-built watering system with sprinklers enables an efficient use of the water from the river while preventing crops from water shortage during the dry season.

Thanks to his background in agriculture and livestock, Soumboun can take care of his livestock by his own and make sure his cows are duly vaccinated and healthy. He maintains a close linkage between crops and animals, and cycles of nutrients, water and wastes are quite close just like in a natural ecosystem. In overall, he pays a specific attention to natural resources and animal health, which is reflected on the spider web.

Soumboun demonstrated efforts to maintaining soil fertility, preserving water and has a good autonomy through self-building and repairing his farm equipment's, which creates favorable conditions for mid-long term production.

SOCIAL SUSTAINABILITY

Soumboun is happy to have returned to his family land and reconnected with his grandparent's traditional ways of cultivating. His background, knowledge and experience benefit to the success of his farm and he is proud to preserve biodiversity, maintain soil fertility while providing good and healthy food to his family and his customers.

He is keen on expanding his knowledge and had the chance to attend two trainings in 2017, one in Chang Mai, Thailand, organized by Green Community Development Association about organic farming and seed savings and another one on Participatory Guarantee Systems organized by Green Net.

He is very active in his community and welcomes local farmers to come and learn about compost and other agroecological practices. He has repeatedly hosted groups of students, professionals and agricultural staff from the government on his farm.

The good score on components of the spider web such as local development and ethics and human growth is a reflection of Soumboun 's farm social sustainability.

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.

Soumboun's main source of income, estimated at 6 million kips per year, consists of income from livestock, especially chickens and frogs. He can also sell cows if he needs liquidity. Rice is a good source of income too and accounts for 30%, or 3 million kips, of his income. He sells his rice to traders but has made the choice to sell his vegetables, which account for 12% of his income or 1 million kips, directly to his customers who can pick them up at the farm.

His farm is a self-sufficient farm, producing what it needs for household consumption, reducing the dependency towards global market. He mainly relies on resources within the agroecosystem and uses local resources available on the farm, thus minimizing variable costs. His main production costs are animal food and labor costs to harvest the rice, thus the farm has a rather good global efficiency.

Soumboun owns his land which is an extra security when one social concern can be the security to retain the landholdings. The farm is recent but the first encouraging results certainly demonstrate the capacity of the farm to become successful over the years.

