

Choosing the right farm design brings high benefits to farmers

Mr. Mean Ban, 48 and his wife Ms. Mul Sokhoeun, 45, both have 2 children to feed. They live in Srah Raing village, Srah Raing commune, Mongkul Borei district, Banteay Meanchey province. They owned a plot of village land (size: 60m x40 m) on which they built a house, reared around 10 chicken and grew some vegetables and some fruit trees for household consumption and sold some excessive produce for income. They were able to make from 10,000 Riel to 15,000 Riel per month. They did not own any paddy field but they hired 1 ha of rice land to cultivate rice for supporting the need of their family.

They are hardworking farmers and willing to learn and share experiences with other peer farmers. In 2017, Mr. Mean Ban was selected to join the project “Promoting Agro-ecological related Skills Among Local Community and Key Actors” supported by GRET/ALiSEA. He then participated in trainings on agroecological related farming techniques including permaculture/ farm design, insect and pest management, liquid composting skills, automatic water hand-pumping technique, re-using old tires (recycling) as containers for growing food, fish rearing and short term rice production. Besides the training courses, he received production inputs from Ockenden and GRET/ALiSEA for investing in expanding his family fish pond, elevating gardening & living area to above the flood lines, integrating crops and animals production activities and new eel rearing activity as well.

Mr. Mean Ban said that “the first thing I put into practice was redesign of my plot of land (60m x40 m) according to Permaculture principles and effective land use to create an eco-logical farming system.” He and his wife allocated the land into five main areas and undertake agricultural activities on respective areas:

- 1) housing and animal rearing area (28m x12m), his family rears 30 chicken, 10 ducks, 1 mother pig with 5 piglets and 3 cows. He built an eel farming site (4mx5m) in this area and is now planning to put the breeding eels soon. He collects animal manure on daily basis and uses the material for making compost.
- 2) a vegetable garden (5mx5m); he plants long bean, chili, water spinach (Kang Kong), luffa gourds, cucumber, papaya and herbs.
- 3) a family water pond (25mx20m) and he raises 4,000 fish (red Carps)
- 4) an orchard/perennial cash crops (33mx 25 m) on which he plants banana, orange, grapefruit (kind of citrus), mango, corn, Santol (Sandoricumkoetjape) and so on
- 5). On the rest available spaces along the boundaries, he planted trees/fruit trees, creating living fences.

During a recent meeting with Ockenden Project team, Mr. Mean Ban said that “As you see, I grow different kinds of chemical free vegetables, fruit trees and undertake organic animal rearing. I only use solid compost/ manure and liquid compost in crop production and feed the pigs, poultry and fish using mainly vegetables I grow around my house mixed with rice bran and leftover kitchen food. I will also rear eels soon. Besides supplying the produce for household consumption, my family now makes a regular income up to around \$150 per month, increasing 6 times higher than the monthly income before. Life is far busier than before! But my family really gets satisfactory and fruitful results in return. I do not keep my success and my practical knowledge and

skills secret. I have shared particularly fish rearing skills, vegetable production techniques and even some fresh vegetables and fish with at least 30 peer farmers in my community recently.”

Permaculture, crop diversity and organic farming skills are a suitable livelihood solution for a small land holding farmer like Mr. Mean Ban’s family. The methods provide several advantages, economically (saving production inputs/costs), socially (sharing skills and available resources with other peer farmers, and environmentally (crop diversity without chemicals does not harm human’s health). He grows different kinds of vegetables, enabling him to get higher and regular income from the business. He can harvest weekly and sell vegetables at a higher price than conventional products. More importantly, the methods have enabled his family to turn their small plot of land into the most productive asset.



“I’ve found out the best way forward in doing my family farming business”

Mr. Vun Ream, 61, and his wife, Mr. Nut Chanrath, are living in Chong Kouk village, Ta Lom Commune, Mongkul Borei district, Banteay Meanchey province. They have two children to feed. The Vun Ream family has around 2 ha of village land and 3 ha of paddy field. Before participating in the project, he reared around 30 chickens, around 20 pigs and 5 cows. His family met failure/losses in animal rearing due to some sorts of animal diseases and a high death rate, and high production costs. He cultivated rice on 3 ha, was able to keep enough rice for family consumption and made income of \$1,500 from the rice production per year. His family grew some vegetables and fruit trees for household consumption and sold some excessive produce for income. They were able to make around \$40 per month from vegetable and fruit tree production.

When Ockenden team first met with him in 2017, Mr. Vun Ream said “I really need skills and some complementary support to make my land more productive! Being a farmer, I always work hard and commit to learn new techniques to improve my family’s living conditions”. Mr. Vun Ream was then selected to join the project “Promoting Agro-ecological related Skills Among Local Community and Key Actors” supported by GRET/ALiSEA. He received training courses on agro-ecological related farming techniques such as permaculture/farm design, indigenous micro-organism (IMO) production, insect and pest management, composting skills, automatic water hand-pumping technique, re-using old tires (recycling) as containers for growing food, fish rearing and short term rice production.

Besides the training courses, he received production inputs of \$300 from Ockenden/ GRET/ ALiSEA for developing his farm by having pond digging, investing in mixed crop production activities (for seeds, seedlings and agricultural materials/ tools).

Following the receipt of the trainings in agro-ecological related farming techniques and production inputs from GRET/ALiSEA, he focused mainly on redesign of his village land (2 ha) into an integrated and diversified farm to get a high productivity. He and his wife allocated the land into five different land use lots/areas which included:

- 1-Residential area (25mx25m) on which his home is located. His family rears 60 chickens, 25 ducks, 10 pigs and 5 cows.
- 2- Home garden (7mx7m) with diversified vegetables: long bean, pakchoy, kangkong, luffa, pumpkin, chili, lemon grass...
- 3- Family pond (40mx30m) in which his family rears up to 30,000 fish (Carps and Barbonymus gonionotus/Trey Chhpin)
- 4-Orchard/perennial cash crops (100mx100m) on which he plants organ, banana, mango and corn.
- 5- Along the boundaries of the land, he plants trees/fruit trees to create living fences. He is well-known for redesign of his village land based on Permaculture and agro-ecological principles.

Taking stock of agro-ecological concept and practices, Mr. Vun Ream has really used his land in a productive and sustainable way with diversified organic vegetable and fruit tree production integrated with fish, poultry and pigs. He makes compost in farming and uses surplus vegetables to feed the animals. Mr. Vun Ream said “I am more than happy because through this system for

just over one year's period, my family's livelihoods have significantly changed. I harvest many kinds of produces— fish, vegetables and fruits. My family makes a regular monthly income of around \$250. Some months, we even make up to over \$500 per month. We struggled a long way and now we've found out the best way forwards in doing the farming business.”

Mr. Vun Ream has share fish, vegetable seeds, seedlings (banana) and basic relevant practical skills with 4 peer farmers. According to his experience, there has been no major pest infestation in his farm. He simply grows repellent plants and uses homemade pesticides to chase insects away. He has a plan to put agroecological practices (IPM) in rice production.



Mr. Vun Ream feeding his fishes.

Life is really changing and my family finally managed to get sustainable livelihoods

Ms. Pich Sean, 55, lives with her husband in Kouk Balaing Village, Kouk Balaing Commune, Mongkul Borei District, Banteay Meanchey province.

Her family was unemployed, landless and survived on day-to-day labours. Ms. Pich Sean and her husband had spent several years working as day-to-day workers in Phnom Penh. They then had migrated illegally into Thailand where they spent four years selling labours for available works they got and making some money. In 2008, as they both were becoming old and could not get legal work permits in Thailand, then they decided to return to Cambodia, bought a piece of land (size: 105mx15m) next to the land of their sister in Kouk Banlaing village. They have settled on the land so far and started building their lives from almost nothing.

Ms. Pich Sean said that “I have joined the project supported by GRET/ALiSEA in 2017, after I attended a meeting run by Ockenden team to promote the project in my village. Since then, I have participated in several trainings on Permaculture and related organic-farming skills supported by the project. I have had the chance, as other peer farmers, to visit and learn from successful farmers in other districts and in Thailand. I have gained lot of experiences, skills, and confidence in putting them into real practices. More importantly, I received \$300 from the project for family pond digging (25mx20m), and another \$100 for making a water pump, and also received some seedlings and seeds. I now rear fish (red Carps) in the pond; plant mixed vegetables—eggplant, long bean, winter melon, cucumber, luffa, pumpkin, papaya, sesbania and herbs in a garden (10mx10m); I also plant cash crops- cassava, banana, sugar cane, mango and custard apple on a plot of my land (size:40mx15m).

I produce organic fertilizer and pesticides for my farm. The skills I have gained enable me and inspire my family to do multiple farming activities to increase production with a low cost in my farm. I set up a pump to improve irrigation from the pond for my garden. I now have 30 ducks and 15 chickens and several hundreds of fish in the pond. People like to buy organic products and I get fair prices.

Besides daily consumption, my family earns an average income of around \$80 per month from my farm. We became quite self-sufficient with several working opportunities. I now have good farming skills and have access to water all year-round. My family stopped migrating to foreign countries or other provinces but instead stays to help me turning our land to become more productive. I'd like to thank the project and our generous donor for all the support and opportunities they gave us.”



Mr. Pich Siem and newly start of rice straw bale gardening.

