

Appendix 6. Field notes from PU Bangkok

6.1. Interviews with fish and water mimosa farmers – Albert Salamanca

Questions	Farmer A	Farmer B	Farmer C
Place	Bangphue Samut Prakarn		Amphur Muang
Main farming activity	Fish polyculture	<p>Water Mimosa (<i>Neptunia oleracea</i> Lour.) farming</p> <p>Notes: - Water mimosa perennial, aquatic herb which either grows prostrate near the water's edge or floats by forming spongy aerenchyma around the stems. - Local name: Pak-krached</p> <p>http://www.ildis.org/LegumeWeb/6.00/taxa/82.shtml</p> <p>Nakamura Y., Murakami A., Ohigashi H., Koshimizu K. 1996. Identification of pheophorbide a and its related compounds as possible anti-tumor promoters in the leaves of <i>Neptunia oleracea</i>. <i>Bioscience Biotechnology and Biochemistry</i>. 60: 6, 1028-1030</p>	Fish polyculture
Species cultured	Climbing Perch (<i>Anabas</i> sp) Nile Tilapia (<i>Oreochromis niloticus niloticus</i>) Rohu (<i>Labeo rohita</i>) Chinese Carp Bighead Carp (<i>Aristichthys nobilis</i>) Mirgal (<i>Cirrhinus cirrhosus</i>) Silver Carp		Snakeskin gourami (<i>Trichogaster pectoralis</i>)

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Some fish farming methods	Wild seed for Anabas and Clarias are used and fed with waste food		Draining of the ponds is done based on the colour of the pond water.
Feed			Grasses are cut to feed the fish when the fish are still growing up. Fish feed on their own when they're big enough. Wet food from canteens around the area is fed to fish 1 month before harvest to increase weight
Years in this activity	20 years in fish polyculture	7-8 years	40 years
History of the land	Formerly a wetland area; topsoil was sold to factory	Previously ricefields but due to rat infestations, they converted the land to water mimosa	The land where the pond is located was formerly a marine swamp about 50 years ago, according to P Edwards. Rice was originally produced in this area after canals were built as part of a government program for intensive rice production. But rice yield was poor due to high salinity in the soil.
Size		60 rai	18 rai of polyculture pond
Ownership of land	Land is rented from a landlord at 1500 baht/rai	Renting the land annually	
Rent of land, if renting		60,000 baht/year for the whole farm	Has been renting for 40 years
Distribution	Middleman comes to buy the fish and sold in Pak Nam Market		
Harvesting frequency	Once every 9 months		Once/yr
Total fish yield	35 tons		100 box (5,000 kl)/yr
Value			175,000 baht/yr at 35/kl
Other related PUAFPS activity	Farming water mimosa on a 5 ha plot of land		
Problems			Water quality, possibly due to pollution which kills fish

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6.2. Morning Glory *Ipomoea aquatica* Farming – Albert Salamanca

Questions	Farmer A	Farmer B (Nuralchawee Sridorm, 06-0256608)
The interviewee	She a youngish looking woman wearing a gold bracelet and drives a motorbike. She seems to be not a poor farmer.	She seems to be not a poor farmer as she has a truck for transporting goods and another pick up truck.
Sex	Female	Female
Age		40 years old
When started? Length	3-4 yrs ago	Farming MG since 27/28 years ago when she was 12-13 years old.
History of MG farming	It's been practice since 15 years ago.	She started farming MG on an area of around 7 rai. Now it covers an area of 30 rai.
How did she learn MG farming?	Other farmers	Started farming MG on her own without help from her parents as she saw its economic potential. At that time, she transport her produce to the market by boat as there were no roads then. The road only came only 8 years ago.
Comparison with rice	MG is better than rice	Rice price is low and income is supplemented by MG farming. Rice and MG farming are done on separate areas as they have different water needs.
Labour needs	Uses contract labour when there is a need.	Uses contract labour when there is a need. Family labour is also used especially during the harvesting such as the 4 children she has.
Changes in technology adoption	Some farmers gave up farming due to lack of labour.	
Total land area farmed	30 rai	
?? Rice	25 rai	4.5 rai
?? Morning glory	5 rai	12 rai
Rotation of rice and MG farming		The plots of land planted with rice and MG are rotated regularly. MG plots are rotated with rice every 2 years. Rice plots are rotated with MG every year. Rotation is made to ensure that nutrients uptake is efficient.
Ownership of land	Most farmers in this district (?) owned the land	MG lands are rented from a landlord at 2000

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		baht/rai/yr.
How the pond was dug out?	Top soil was sold for construction.	
Production	200-600 bags per week	70 bags/day from the whole farm; production is regular
How harvest progressed?	On the 1 st month, 20-30 bags are harvested followed by 100-600 bags until the 4 th month.	
Frequency of harvest	2x/week	
Pests encountered	worms	
When is replanting done?	Replanting is done when production drops to 100 bags/week.	
Amount of fertilizer applied	3 bags/week/5 rai	
Since when the farmer started applying fertilizer?		Started using fertilizer and pesticide since the beginning to ensure regular harvest.
Fertilizer applied	1 st stage: 16-20-0 then change to 46-0-0 mix with super phosphate	Sprays a fertilizer 30-10-10. This is produced by Giffarme. Fertilizer for rice production is also used. Magnesium nitrate $Mg(NO_3)_2 \cdot 6H_2O$ for good appearance and shape, which is preferred by consumers.
Purpose of the fertiliser		Used for improving growth.
Frequency of fertiliser application	1 st stage: 16-20-0 for 2 weeks; then change to 46-0-0 mix with super phosphate	
Use of pesticides		Spraying of pesticides is done every week especially during the last 3-4 years where there has been an observed increase in pests. Fungicide are also used to kill fungus which kills the roots.
Frequency of pesticide application		Pesticides are applied 5-6 days before harvest.
Observation on yield during the last years and reason		Poor growth in the last 3-4 years due to climatic/weather factors.
Percentage rice farmers	Most farmers are rice farmers	
Household off-farm work	Nearly all households in the district have off-farm work in factories and government agencies	
Number of farmers involved in MG	Only 3 farmers here are involved in farming morning glory	

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production in the village	due to labor constraint. MG needs a lot of manual weeding. Herbicides cannot be used as it also kills MG.	
Other farming activities	Farmers in this district also have orchards.	Tried farming lotus but gave when the price went bad. Also tried water mimosa but it is more labour intensive although the price is 100 baht/bag.
Other species of MG	The red stem MG is not farmed but grows naturally. They don't like to farm as there is no demand from consumers. Consumers don't like this variety as it has a thick stem.	The red stem MG is grown naturally in canals and dikes, but most on ricefields.
Price	15 baht/bag at source; 20 baht at Talard Thai	When she started farming MG, the price was 7 baht/bag. Now, 30 bath/bag delivered straight to the market instead of a middleman.
Who determines the price?	The buyer	
Does price fluctuate?	Fix price for the year.	Prices is good in November, December and January
Production costs per bag		5 baht (1 baht packing materials; 4 bath labour to pack)
Prospect		The prospect in the next 5 years is that the MG farming will decline due to more housing estate developments. If urbanisation expands, they will just sell the land they had for a good price and by another land elsewhere.
Best time to visit her		Afternoon is the best time to come. She's in the market in the morning and evening is spent in the field.