CASE STUDIES FACTSHEET

Nº:	
Date of Interview: …August 2016	
Enumerator name: Em Chomreun	

I. GENERAL INFORMATION

Contact detail	Name: Ms. Pan Chinda	Position:	
		Tel	0973 764 557
Location	Chrey Cheung village, Keansangke commune, Sotr Nikum district, Siem Reap province		

Type of Agro-ecology schools	Specify
☑ Agroecology	Home garden, vegetable and rice
☐ Organic agriculture	
☐ IPM	
☐ Agro-forestry	
☐ VAC/Integrated farming system	
☐ System of Rice Intensification	

II. FARM BACKGROUND

	Detail information
Small farmers (family size & Labor)	2 people (Mother, Son) with 1 main labor. Son helps her after school sometimes.
Land ownership	- 30m x 100m rice field with broadcasting technique far away from home - Home garden, 15m x 25m Vegetable plot, there are 4 rice plots around house: 8m x 10m, 5m x 15m, 5m x 8m and 5m x 8m, and there is also a pond (3mx5m) in the middle of garden. These rice plots are grown only in rainy season because there is no enough water in dry season, and water in the pond mainly for vegetable.
Labor information	- Home garden, use family labor. - Hiring hand tractor in case need to plough
Choice of crops and cultivation methods	- There are about 10 varieties of crop grown in rotation and/association or associated in the garden - Most of seeds are bought from stores in market, and some receive from APICI project. - Soil preparation: After she digs soil and dries it for around 7 days, she adds compost or cow dunk 60-70kg in a 20m^2 bed. And, before vegetables are planted, she mulches the vegetable bed with rice straw or tree's leave in order to keep soil moisture, protect some weeds, and improve soil fertility. However, mulching can be put also after crop is grown. Mulching is good in dry season, but in rainy season if there is lots of rain and less sunlight those rice straw or tree's leave may decompose and affect crop's roots. - Growing vegetable on table in last few years ago (Now those table are broken). Soil she mixed for putting on the table is 50% soil and 50% compost or cow dunk. <u>Solid compost</u> - This compost is prepared by using plant residues and some animal dunks. Before, she made compost by putting mostly cow dunk and some plant residues in a compost house, and toke around 6 months long, but now compost is made without compost house, make as pile outside. She collects plant residues (rice straw, grass, leaves, banana trunk…), all dry and fresh. And, put it as layers of about 5-10cm thick and 1-1.5m height, between each layer she puts cow dunk and water it in order to boost decomposition. 3 months after, compost is ready to be used. <u>Liquid compost</u> - Liquid compost is a mixing of Chromolaena odorata, cow or chicken dunk, cow urine and other crop residues, fermenting with water for 2 weeks. To spray, she puts about 250 ml of liquid compost with 20 liters of water. It is sprayed every one or two weeks. <u>Bio-pesticide</u> - She uses multi-plant extraction recipe which is trained by the project to make bio-pesticide. There are 3kg or lemongrass, 1kg of Chromolaena, 100g of chili, and 1-2 liter of cow urine. Then cut these plant as small pieces and fermented in 10 liter of water for 2 weeks. Usage; 1 liter of bio-pesticide solution mix with water about 3 liters and

	100cc of soap. She uses this every one or two weeks.
Year in practice (>2-3 cropping cycles)	She has started vegetable cultivation since 2000, growing on tables. After join APICI project in 2012, she continue growing on tables and have some other beds grow directly on land surface.
Economic benefit	- Less expenditure (no expend on pesticide and chemical fertilizer) - Make compost by using local materials, especially the available sources around house (Cow dunk, cow urine, vegetable residues, trees' leave, rice straw, banana trunk etc.… - Basically, she spends only on seeds, if we keep self-labor and own land cost apart. - Good income.
Peer-farmers adoption	<u>Solid compost and Mulching</u> There are few neighbor farmers come to visit her and her farm, and they are interested in solid compost and mulching. Now there are two farmers adopt the technique, one farmer makes solid compost and mulching, and another one farmer follows only compost technique. As what she mentioned, they appreciate these techniques.
Market outlet	- Sell to local collector as she is a member of Vegetable Producer Group (VPG) - Sell to her sister: Her sister can come to collector her vegetable anytime. - Sell to a collector in Damdek market (old collector before she joins with project) - These collectors come to buy vegetable at her house with a reasonable price, comparing to market price. - When she produces beyond the need of our collector from VPG, she need to call her sister or collector from Damdek market to collect those remaining vegetables.
Things learned from India	Solid compost, Crop association, inter crop, mulching and repellent crop
Applied after India	Solid compost, mulching, crop association Plan to do: inter crop, repellent crop
Messages to share to other farmer	Solid compost that she has learnt from India is very simple and easy to do with available local materials (Rice straw, grass, banana trunk, trees' leave…). And it has good effective for soil improvement. Bio-mass mulching has many benefits for cropping, especially on vegetables. As her experiences, mulching in dry season help to keep soil moisture, so it may help to reduce water needed. One more thing, comparing to vegetable bed without mulching, mulched bed has better soil structure and less weeds. It also keeps vegetable clean because there is less soil reflex on vegetable leave, so it is easy to clean, need less time and water to clean when it is harvested. However, mulching in wet season may cause vegetable easy to be rotten.

III. AE LAND LOCATION AND TRANSECT LANDSCAPE

Hosting exchange visit

Garden's landscape in rainy season

IV. DESCRIPTION OF INITIATIVE (BACKGROUND, REASON FOR STARTING THE INITIATIVE / GETTING INVOLVED, TECHNICAL SUPPORT RECEIVED, ECONOMIC ANALYSIS / PERFORMANCE, LESSON LEARNT, ETC.)

Ms. Pann Chinda has 40 years old of age. She lives in Chrey Cheung village, Keansangke commune, Sotr Nikum district, Siem Reap province. She is a poor family which is recognized by the government. Last few years she grew vegetable only on tables because the plot is always flooded in rainy season. Even though the garden is very near to her house, but she used pesticide to control insects and diseases. And, to improve crop growth she used chemical fertilizer and also cow dunk and cow urine. Anyway, everything gradually changes since she has joined with APICI project in 2012. With APICI project she receives technical support, materials and other agricultural tools (micro-irrigation system, including a family pond). Besides these support, she also joins many training courses and

Chicken and Garden's landscape in rainy season

Compost pile

Compost

Better soil after using compost

exchange visit. Recently, she went to visit Agro-ecological farmers in India with project team. All awareness of bad impact of chemical use in crop cultivation causes her to change her thinking from conventional view to be more in agro-ecological way. The important reasons of this transition are health concern and production costs. Now she mainly uses compost as fertilizer to improve soil quality and crop growth, and voiding any chemical fertilizers. To prevent and control insects and diseases, she applies cultivation methods such as crop rotation, intercropping and crop association. She also uses bio-pesticides which is made by local materials. Once she applies these techniques, soil quality has improved. It changes from sandy soil to a better soil structure with appearance of organic matters. Especially, production cost has reduced notably because she doesn't use any chemical inputs anymore, instead, she uses compost and bio-pesticide which is made by available local materials, normally these materials are free or can find easily around house or in rice field.

V. POTENTIAL ON SCALING UP - DISSEMINATION

She is open-minded, happy to share her experiences to everyone. She is invited by the project to share her good experiences on compost and mulching other farmers inside the project areas. She also has hosted many exchange visits through project's organization

VI. ADDITIONAL INFORMATION AND SUGGESTION