



Agroecology and
Safe Food System
Transitions

SCOPING STUDY REPORT

Potential of **Preah Vihear** Province as flagship site for
agroecology and safe food system transitions in
Cambodia

Rada KONG, Sovannaret MAK, Phy PHEART, Sokheng MA,
Peany HOUNG, Chhin PHY

May 2021

Citation

Rada Kong, Sovannaret Mak, Phy Pheart, Sokheng Ma, Peany Houng, Chhin Phy 2021. Potential of Preah Vihear Province as flagship site for agroecology and safe food system transitions in Cambodia. Scoping study report. Agroecology and Safe food System Transitions (ASSET) project. Phnom Penh, Cambodia. 35p.

Copyrights



This document is provided under the terms of creative Commons Licence CC-BYNC-SA 4.0: Attribution-Non commercial Share-alike 4.0 international
<https://creativecommons.org/licenses/by-nc-sa/4.0/deed.en>

Contributing partners



Supported by



This document has been produced with the financial assistance of the French Development Agency (AFD), the European Union (EU) and the French Facility for Global Environment (FFEM). The views expressed herein can in no way be taken to reflect the official opinion of the AFD, EU or FFEM.

CONTENT

1. Introduction.....	1
2. Scoping study process	2
2.1 Scoping study methodology	2
2.2 Scoping study team	2
3. Site brief description	3
3.1 Location	3
3.2 Biophysical characteristics	3
3.3 Population characteristics	5
3.4 Socio-economic data	6
3.5 Main past-recent transformations	7
3.5.1 Crops: increasing area of lowland rice, cassava and cashew nut.....	7
3.5.2 Livestock and aquaculture / fisheries: increasing pig farm and aquaculture.....	11
3.5.3 Machineries: transforming to mechanized farming.....	11
3.5.4 Promoting organic value chains	12
3.5.5 Applying a wildlife-friendly farming approach	15
3.5.6 High technology and quality vegetables production.....	16
3.5.7 Promoting climate smart agriculture	16
3.5.8 Supporting agri-business, market access and quality visibility through agricultural cooperative and union	16
3.5.9 Promoting Conservation Agriculture (CA) / Agroecology (AE) for organic farming (namely for rice)	17
3.6 Agricultural systems	18
3.6.1 Rice systems	18
3.6.2 Upland crop systems	18
3.6.3 Market system actors.....	19
4. Status against selection criteria	20
4.1 Site relevance regarding targeted challenges	20
4.2 Opportunity for change and for impact	22
4.3 On-going innovations and dynamics related to agroecology and safe food systems.....	25
4.4 Opportunity for partnerships	30
4.5 Opportunity for co-funding of field activities.....	30
4.6 Local expertise/champions that can be mobilized to support the transition process.....	31
4.7 Existing data and knowledge.....	31
4.8 Intervention area and number of potential beneficiaries.....	31
4.9 Environmental and social risks	32
5. Conclusions.....	33
5.1 Scoring results	33

5.2	Site average note.....	33
5.3	Global assessment: Advantages and drawbacks for selecting the site as flagship site in Cambodia	34
	References.....	35
	Annexes	36
	Annex 1: List of the main projects and initiatives identified in Preah Vihear province	36
	Annex 2: Accelerating Inclusive Markets for Smallholders (AIMS)	38
	Annex 3: Agriculture Services Programme for Innovation Resilience and Extension (ASPIRE)	40
	Annex 4: Cambodia Agricultural Sector Diversification Project (CASDP).....	41
	Annex 5: Cambodia Horticulture Advancing Income and Nutrition project (Chain-III)	42
	Annex 6: Conservation Agriculture and Sustainable Intensification Consortium (CASIC)	44
	Annex 7: Mekong Inclusive Growth and Innovation Programme (MIGIP).....	45
	Annex 8: Water Resources Management and Agroecological Transition for Cambodia (WAT4CAM)	47
	Annex 9: Micro-franchised Agriculture Services Expanded (MASE 2).....	49
	Annex 10: Metkasekor “opening the market” extension model	50
	Annex 11: List of the stakeholders met and field visits during field mission	53
	Annex 12: Meeting note with provincial department of agriculture, forestry and fisheries.....	54
	Annex 13: Meeting note with provincial department of commerce	55
	Annex 14: Meeting note with provincial department of environment.....	57
	Annex 15: Meeting note with provincial department of health	58
	Annex 16: Meeting note with provincial department of Land Management, Urban Planning and Construction	59
	Annex 17: Meeting note with provincial department of plan	60
	Annex 18: Meeting note with provincial department of water resources and meteorology.....	61
	Annex 19: Meeting note with provincial department of women affair	62
	Annex 20: Meeting note with Chamber of commerce Preah Vihear – Kampong Thom	63
	Annex 21: Meeting note with Cheysen district authorities	64
	Annex 22: Meeting note with Rovieng district authorities	67
	Annex 23: Meeting note with Agronomes et Vétérinaires sans Frontières (AVSF) Cambodia	70
	Annex 24: Meeting note with Sansom Mlup Prey (SMP).....	71
	Annex 25: Meeting note with World Vision Cambodia Chheab District Branch.....	72
	Annex 26: Meeting note with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Cambodia	73
	Annex 27: Meeting note with Preah Vihear Meanchey Union Agriculture Cooperative (PMUAC)..	74
	Annex 28: Putrea Samaki Vatanak Meanchey Agricultural Cooperative, Cheysen district	75
	Annex 29: Meeting note Romdoul Mlu Prey Cheayden Agricultural Cooperative, Chheb district...	76
	Annex 30: Meeting note with Romdoul Samaki Meanchey Ou Mlu Pir Agricultural Cooperative, Chheb district	77

Annex 32: Meeting note with Krabao Prum Tep Agricultural Cooperative, Kulen district	79
Annex 33: Meeting note with Leuk Kampos Satri Agricultural Cooperative, Rovieng district.....	81
Annex 34: Meeting note with Ou Khleung Por Meanchey Agricultural Cooperative, Preah Vihear district.....	82
Annex 35: Restitution note with PDAFF Preah Vihear	84

LIST OF FIGURES

Figure 1. Asset Project Structure.....	1
Figure 2. Pre-selected sites in the four targeted countries.....	1
Figure 3. Location map of Preah Vihear province, Cambodia (visited districts in color)	3
Figure 4: Land use and land cover in Preah Vihear province (FA 2014).....	4
Figure 5. Soil map of Preah Vihear Province	4
Figure 6. Employment status in Preah Vihear	6
Figure 7. Women and Children status in Preah Vihear (2020).....	7
Figure 8. Evolution of rice area in Preah Vihear Province (2010 - 2020)	7
Figure 9. Yield of rainy season rice (2014 - 2020)	8
Figure 10. Changes in annual crops cultivated area in Preah Vihear Uplands (2010 - 2020)	9
Figure 11. Yield of main annual crops in Preah Vihear (2010 - 2020).....	10
Figure 12 Changes of cultivated area (ha) of industry crops 2014-2018	10
Figure 13 Changes in agricultural machineries	12
Figure 14 Evolution of organic rice contract farming from 2015 to 2019 under PMUAC.....	13
Figure 15 Simplified chart of the internal control system and organic certification	13
Figure 16 The BLOCRICE involves actors in the chain custody of organic rice value chain.....	14
Figure 17 Year of creation Agricultural Cooperative creation in Preah Vihear.....	17
Figure 18. Market systems and actors in Preah Vihear Province.....	19
Figure 19. Rice Ecosystem in Preah Vihear province	21
Figure 20. Land suitability for selected crops in Preah Vihear province	22
Figure 21. Main/key stakeholders for ASSET transitions in Preah Vihear Province.....	29

LIST OF TABLES

Table 1. List of experts who participated to field study in Preah Vihear province	2
Table 2. Main socio-economic data in Preah Vihear Province (2016-2019, Provincial Dpt of Planning) 5	
Table 3 Changes of livestock and fisheries 2014-2018	11
Table 4 Rice systems in Preah Vihear in 2020	18
Table 5: Upland annual crop systems in Preah Vihear in 2020.....	19
Table 6: Recap of main innovations and actors involved in Preah Vihear	29
Table 7. Main Environmental and social risks in Preah Vihear	32

1. Introduction

The Agroecology and Safe food System Transitions (ASSET) project is a five-year regional project funded by the *Agence Française de Développement* (AFD), the European Union (EU), and the *Fond Français pour l'Environnement Mondial* (FFEM). The overall objective of the project is to harness the potential of agroecology to transform food and agricultural systems into more sustainable systems, notably safer, more equitable and inclusive, in Southeast Asia (SEA). The project intervenes in four countries (Cambodia, Laos, Myanmar, and Vietnam).

The project is structured in two operational components and six sub-components (Fig. 1).

Flagship sites are pilot administratively managed territories where efforts and resources are concentrated to support and document agroecological and safe food system transitions. They are seen as key instruments of the sub-component 2.1 “Knowledge production and support to innovations”.

ASSET project will support innovations and knowledge production in four flagship sites, one per country. Fourteen potential flagship sites have been pre-identified during project feasibility, with four potential sites in Cambodia and Laos respectively, three potential sites in Myanmar and Vietnam respectively (Fig. 2). The present report describes the potential of Preah Vihear Province as flagship site for agroecology and safe food system transitions in Cambodia.

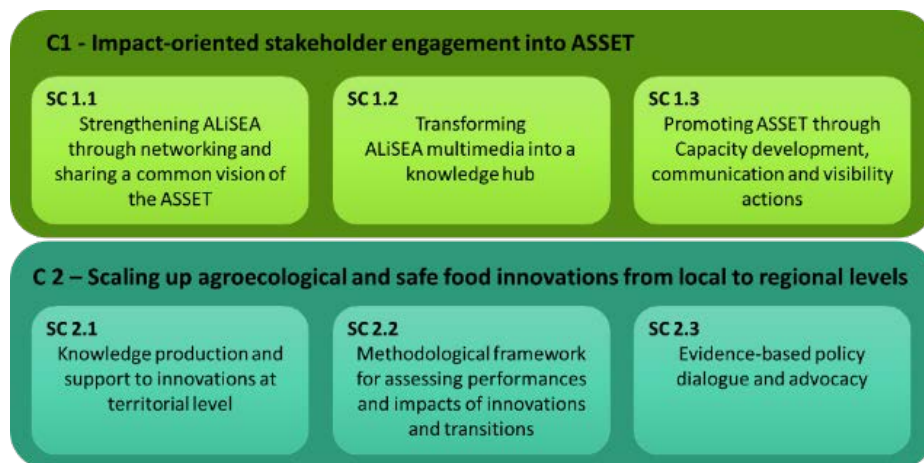


Figure 1. Asset Project Structure

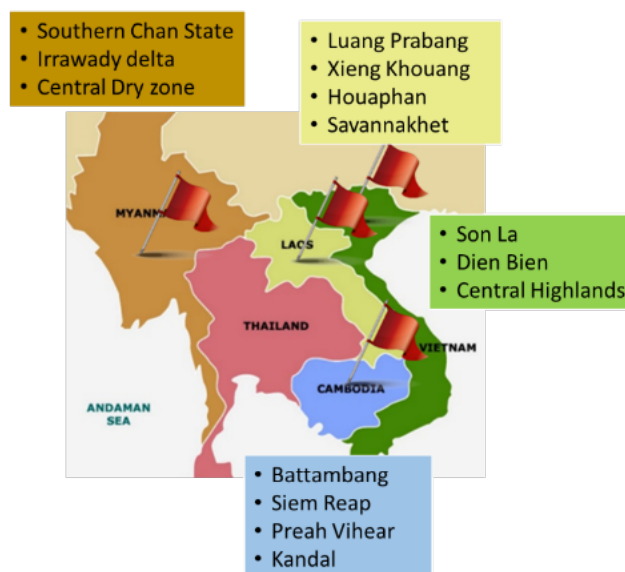


Figure 2. Pre-selected sites in the four targeted countries

2. Scoping study process

2.1 Scoping study methodology

Scoping study in Preah Vihear Province followed a 5-step process:

- **Step 1: Data preliminary collection and field studies preparation (Oct 2020 – Jan 2021)**
 - Preliminary list of projects and actors established using online platforms e.g. ALiSEA online library, CIRAD Open library, ACIAR website, Google and Google scholar etc.
 - Updating the list of projects and actors with the contact person of PDAFF in each province
 - Preliminary list of projects and actors completed during a participatory workshop organized online due to Covid 19 epidemic on 10 December 2020 to map the initiatives and actors related to agroecology and safe food systems in the different pre-identified sites (22 participants)
 - 19 projects and initiatives pre-listed (Annexe 1)
- **Step 2: Field study (1 – 6 February 2021)**
 - Meetings and field visits organized in 4 districts out of 7 districts in Preah Vihear, where most of projects and stakeholders related to agroecology and safe food systems and stakeholders are identified together with the PDAFF delegates. Those four districts include Kuleaen, Chhaeb, Chey Saen, and Rovieng.
 - 24 meetings and 52 local stakeholders met
- **Step 3: Restitution to Preah Vihear Province (25 March 2021)**
 - Scoping studies preliminary results and identified knowledge gaps were presented to the director (Mr. Poeung Tryda) and deputy director (Mr. Srun Borin) of PDAFF Preah Vihear.
- **Step 4: Restitution at the occasion of the Cambodia consultation workshop (7 April 2021)**
 - Scoping studies preliminary results incorporating feed backs and adds-on from Preah Vihear Province officials were presented to the 65 participants of the consultation workshop including national partners, international partners, and invited guests.
- **Step 5: Data analysis and reporting (Nov 2020 – May 2021)**
 - Several loops of data analysis and consolidation incorporating feedbacks from participants of the consultation workshop
 - Final scoring and note attribution to the site

2.2 Scoping study team

There were 6 experts from 6 institutions (Table 1) involved in field study, data analysis and reporting.

Table 1. List of experts who participated to field study in Preah Vihear province

No.	Name	E-mail	Phnom number	Organization	Expertise domain
1	PHEART Phy	pheartphy777@gmail.com	010 711 691	Gret	Agronomist
2	MA Sokheng	masokheng@gmail.com	070 393 737	Louvain Cooperation	Agronomist
3	MAK Sovannaret	sovannaret.mak@swisscontact.org	070 788 490	Swisscontact	Socio-economist
4	KEP Poch	kpoch1973@yahoo.com	012 899 971	DALRM/GDA	Agronomist
5	HOUNG Peany	peanyhoung@itc.edu.kh	017 959 492	ITC	Socio-economist
6	KONG Rada	radakong@yahoo.com	077 909 082	CIRAD/DALRM	Agro-economist

3. Site brief description

3.1 Location

Preah Vihear province is bordered by Oddar Meanchey and Siem Reap to the west, Kampong Thom to the south and Stung Treng to the east. Its northern boundary forms part of Cambodia's international border with Thailand and Laos. Its capital is Preah Vihear (Figure 3).

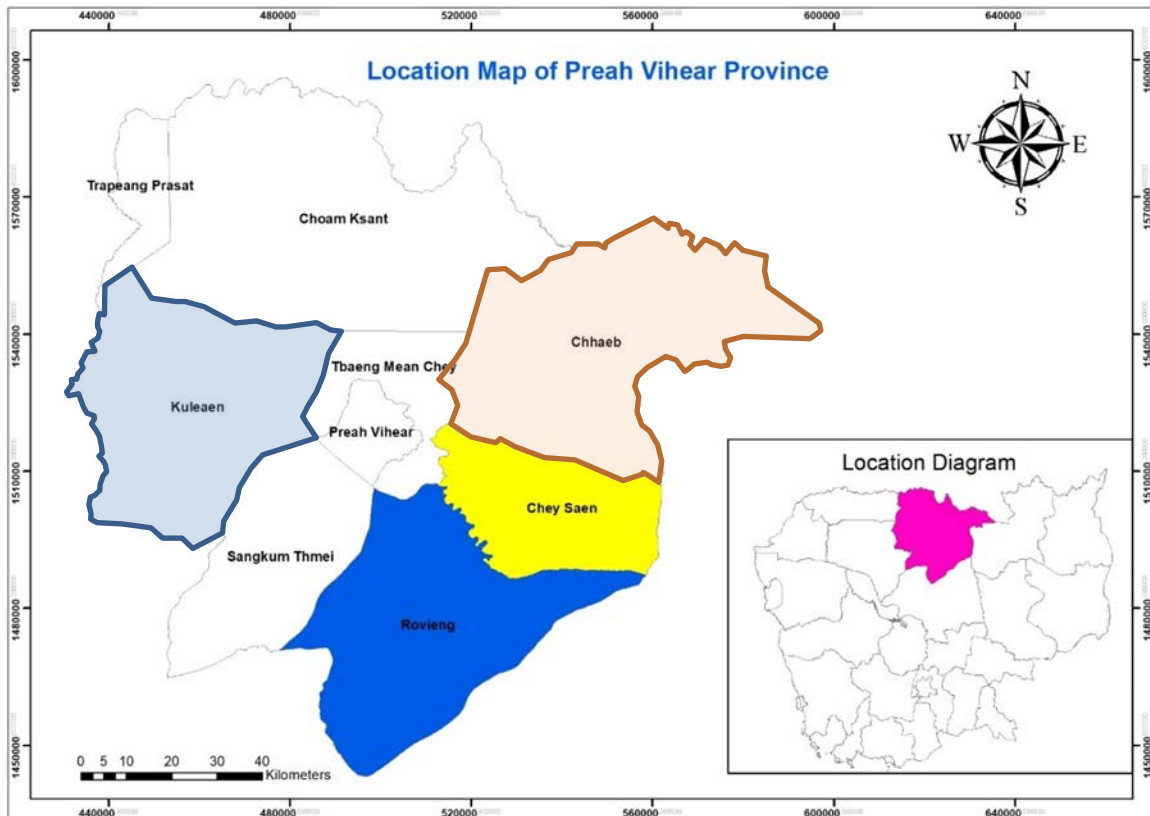


Figure 3. Location map of Preah Vihear province, Cambodia (visited districts in color)

3.2 Biophysical characteristics

Total area: **1,365,500 ha** (170,630ha = 12.5% agricultural land)

Pedo-climatic conditions: dominantly poor soil (Acrisols, 77%) and average rainfall **1550mm**

Forest / protected area: **75%** (63 F. community)

Large area of ELC (#33): **239,847ha** (17.5%)

Agroecosystems:

1. Upland good (red) soil: rubber, pepper, cassava, cashew
2. Upland sloping-poor soil: cashew, cassava, bean, vegetables
3. Rain-fed lowland rice: flat and terrace fields

Cultivated area:

- Lowland: **92,220ha** (54%)
- Upland: **78,410ha** (46%)

Land use and Land cover map in Figure 4. Soil map in Figure 5.

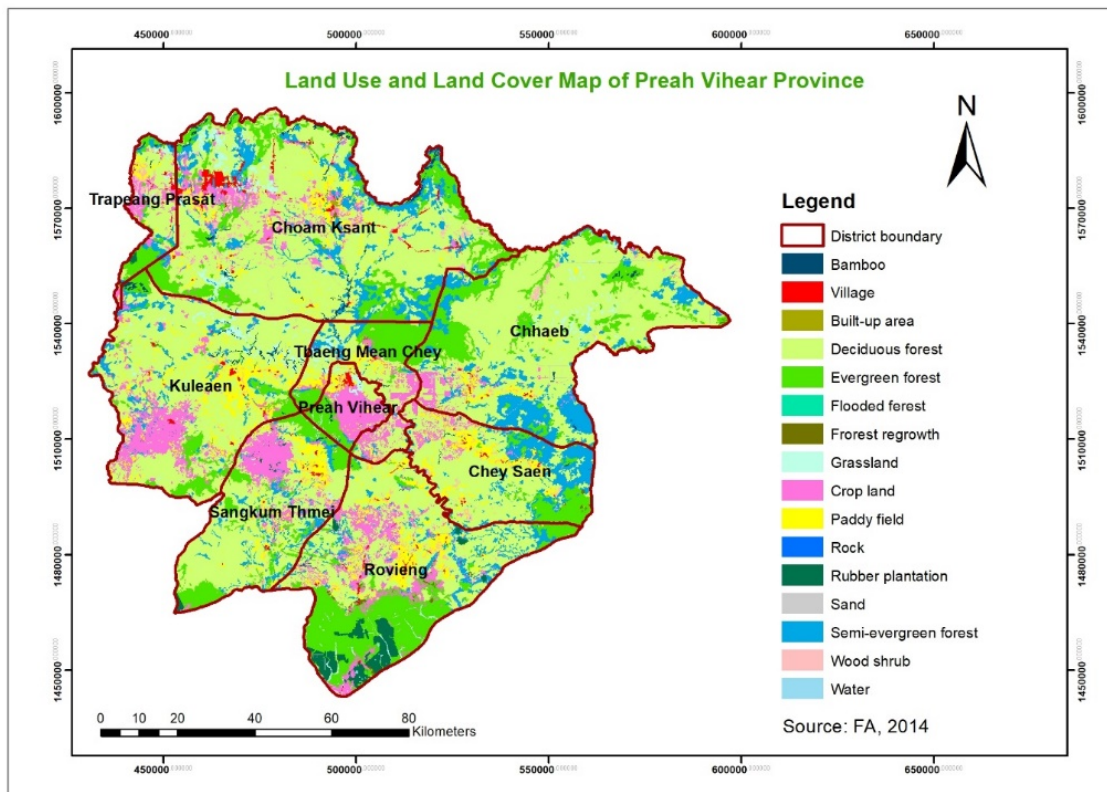


Figure 4: Land use and land cover in Preah Vihear province (FA 2014)

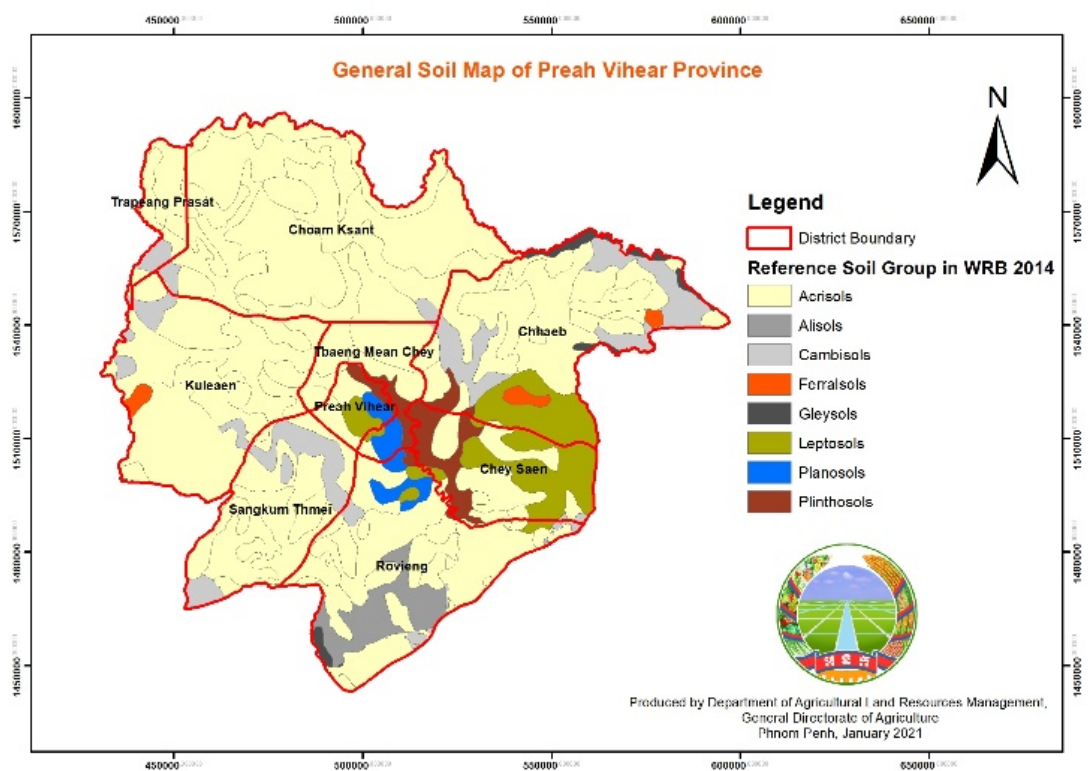


Figure 5. Soil map of Preah Vihear Province

3.3 Population characteristics

Total population: 248,250

- Female population: **126,078**/ Male Population: **122, 172**
- Low population density (remote area)
- Total Household and Average HH size: **60,605 / 4.10**
- Ethnic group(s) (%): **21,427** (8.63%)
- Main Urban Areas: **Preah Vihear City**

Health

- Projected Life Expectancy: **Male 67.3, Female 73.9**
- Household Access to clean water: **83.9%**
- Average Distance to nearest healthcare centre: **10.27 KM**

Table 2. Main socio-economic data in Preah Vihear Province (2016-2019, Provincial Dpt of Planning)

Description	2016	2017	2018	2019
Total population	238,661	247,015	246,403	248,250
Population Growth rate (%)	4.04	3.50	-0.25	0.75
Total male population	119,168	127,320	120,532	122,172
Total Female population	119,493	119,695	125,871	126,078
Total household	54,946	56,289	58,104	60,605
Percentage for Female as Head of the household (%)	13.11	14.15	13.24	12.92
Average Household Headcount	4.34	4.39	4.24	4.10
Total Population Age 0-17	105,247	102,127	103,866	105,382
Percentage of population Age 0-17 (%)	44.10	41.34	42.15	42.45
Total Population Age 18-60	119,505	130,361	127,019	125,624
Percentage of population Age 18-60 (%)	50.07	52.77	51.55	50.60
Total Population Age 61+	13,909	14,527	15,518	17,244
Percentage of population Age 61+ (%)	5.83	5.88	6.30	6.95

3.4 Socio-economic data

- **Main Economic Activities: Employment Status**

According to Socio- economic report by Department of Planning 2020, 95% of the population is employed and the main sector of employment is agriculture (42% of female have their main job in the agriculture sector).

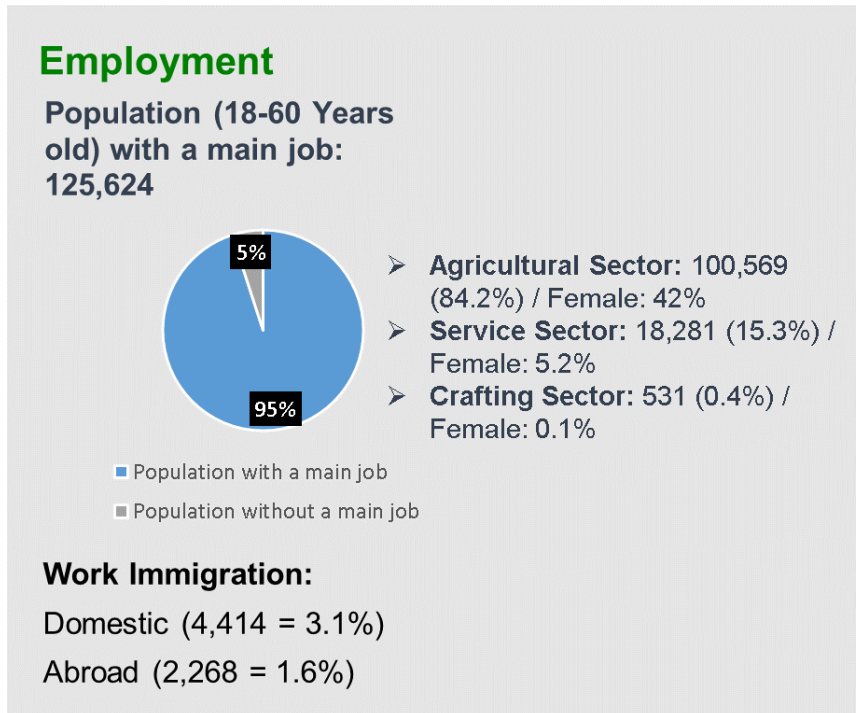


Figure 6. Employment status in Preah Vihear

The overall poverty rate in the province was 24.62% in 2020, a little improvement from previous year which was 25.64%.

- **Main Economic Activities: Agriculture Sector**

As 84.2% of the population engaged in Agriculture Sector, the household income comes from agriculture activities mainly crop with vegetable growing and livestock coming in behind. According to the report in 2019, Province Profile of Preah Vihear prepared by Provincial Department of Planning, average income per capita coming from rice production is 186.9 USD, a decrease from 196.6 USD in 2018. On the other hand, cash crop sees an increase of average income per capita from 148.6 USD in 2018 to 192 USD in 2019. The popular cash crop being Cassava and Soybean, following by Maize. As for Tree crop, the average income per capita is 476.9 USD falling far from its peak in 2018 which is 12,155.2 USD. The main tree crop is Cashew.

For livestock, the average of income per capital stands at 69.1 USD with Chicken and Cattle is the main production. The production has a rather slow raising as no labour to herding livestock and insufficient and cattle feed and the people has the habit of free releasing as way of raising.

- **Women, children and youth**

Female population with a main job (18-60 years old): 49,213= 76.9%

Main features of women and children status in Figure 7.

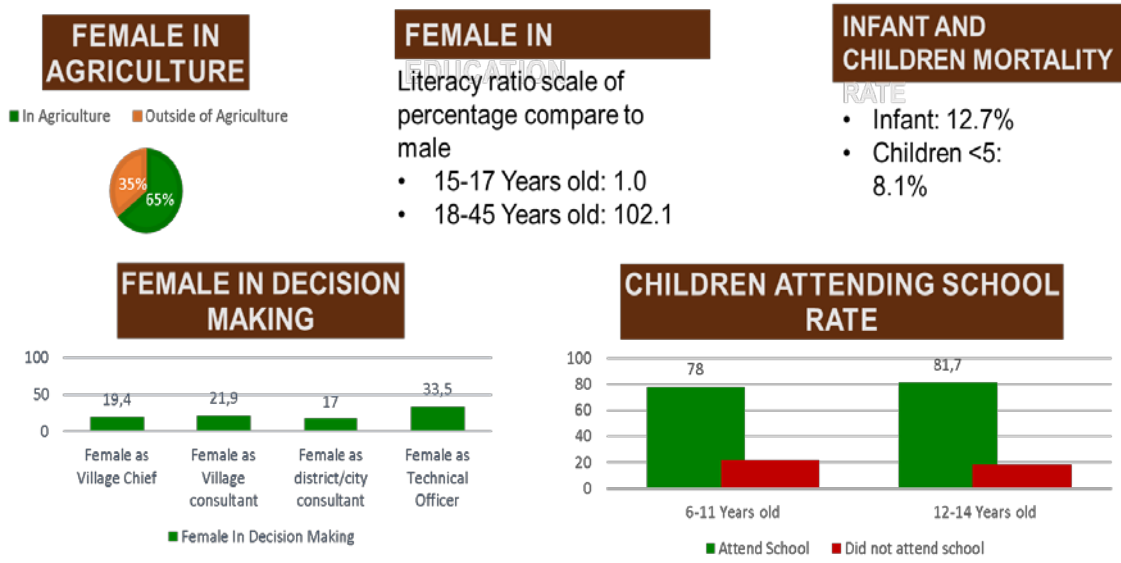


Figure 7. Women and Children status in Preah Vihear (2020)

3.5 Main past-recent transformations

3.5.1 Crops: increasing area of lowland rice, cassava and cashew nut

- Rice

Globally, there are two main rice systems defined in Cambodia, rainy season rice and dry season rice. The rainy season rice is composed of early-cycle rice, medium-cycle rice, late-cycle rice, floating rice, and upland rice. Over the last 10 years, the cultivated area was doubled from 45,000ha in 2010 to 92,500ha in 2020 (figure 8), mainly due to an increase in medium rice cultivation. The increase in the early 2010s was motivated by the announcement of rice policy of the government in 2010 to target the milled rice export of 1 million tons by 2015. Since then, rice has become one of main commodity crops, not only as a food crop.

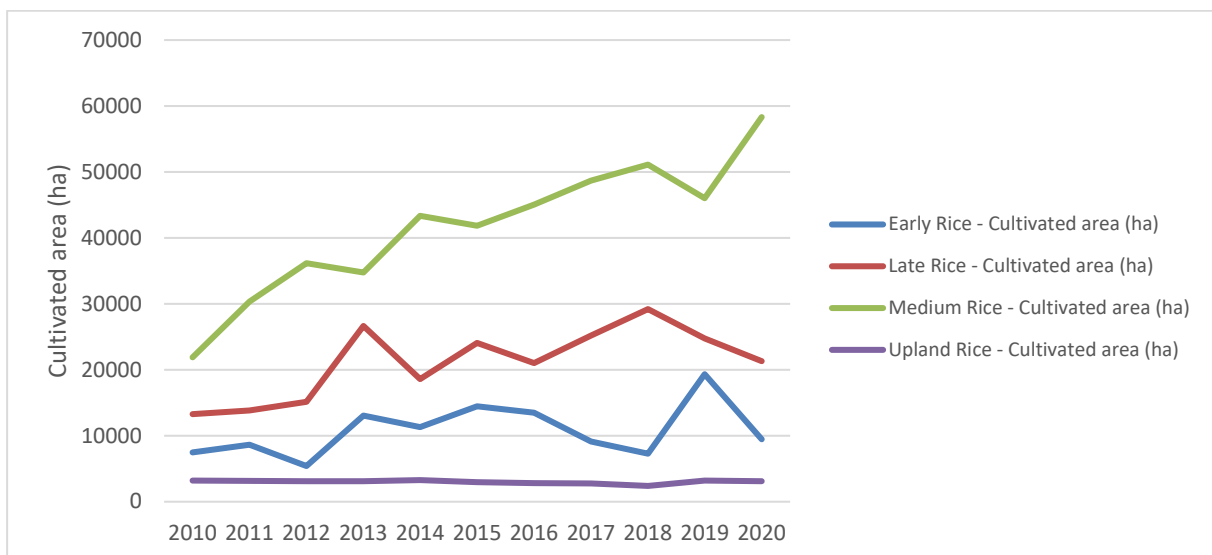


Figure 8. Evolution of rice area in Preah Vihear Province (2010 - 2020)

In Preah Vihear, there is no floating rice system. Medium rice shares about 45-60% of the total area of wet season rice. The increase of rice area recently was for medium rice, which is largely the aromatic fragrant rice variety *Phkar Rumdoul*. *Phkar Rumdoul* variety is one of the approved rice varieties and is

demanded by the rice millers for export target to the US and the Europe market. Surprisingly, the area of upland rice was stable in the last 10 years, about 3,000ha. It is expected that the area was reduced as farmers have shifted the slash and burn fields to permanent cultivation of commodity crops like soybean, cassava, and cashew nut. It may be explained even though the lowland rice area has increased remarkably, some farmers keep growing upland rice to ensure the food security.

Over the last 10 years, the yield of the four systems ranges from 2.5t/ha to 3t/ha depending on the rainfall of the year. Relatively, the yield of late and medium rice was higher than the other two. Noticeably, the yield of the four systems followed same a similar pattern increasing from 2015 and then drop from 2018 which was potentially caused by soil fertility depletion and increasing pests besides the climatic accidents.

The yield of wet season rice is about 2.9t/ha (Figure 9). The drop in 2020 was due to the flood.

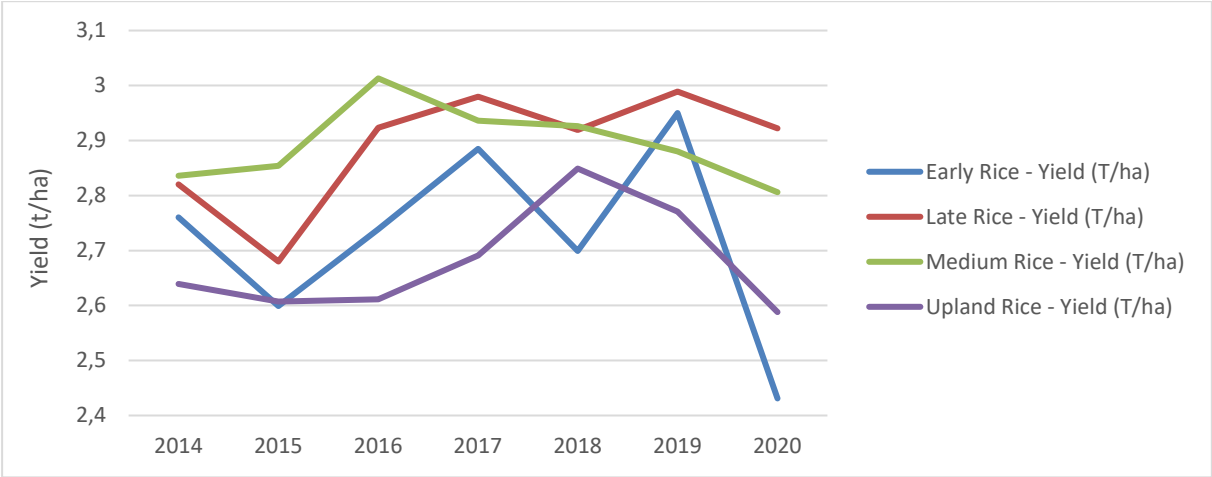


Figure 9. Yield of rainy season rice (2014 - 2020)

In Preah Vihear, the area of dry season is marginal, at maximum 154ha in 2012 and at minimum 12ha in 2020 located in Kulen district. There is no irrigation system under operation. Farmers use water from river / stream, and the water resource is noticeably reduced. The on-going project, WAT4CAM, plan construct about 500ha irrigation system in Rovieng district. Basically, the rice farming in the province is rain-fed, one cycle per year.

The yield of dry season rice was of 3.65t/ha (relatively lower than the national average, 4.4t/ha) in 2012 owing to the fact that the water resource was sufficient. However, after then the yield declined dramatically to only 3t/ha. It seems the water resource turned to be really limited in 2012 and 2013.

- Annual upland crops

In Preah Vihear, the annual upland crops are diversified. The major ones in 2020 include cassava, soybean, mungbean, normal maize, and vegetables (Figure 10). The proportion of pulse crops (soybean, mungbean and peanut) decreased from 55% in 2010 to only 30% in 2020 due to mainly the drop of peanut. Surprisingly, the total area of annual upland crop has not been increased over the last 10 years knowing the general trend of reclaiming forest lands for farmed land. It seems the area of pulse crops was replaced by cassava (50% of total area in 2020), but it was not all the area. Farmers shifted from pulse crops to cassava but also cashew nut (see section of industrial / perennial crops) when the productivity is lower due to the fertility depletion. Noticeably, the area of vegetables jumped to 10% in 2020 thanks to the national programs and project namely AIMs, Aspire, and Chain in particular during the Covid 19 epidemic in Cambodia.

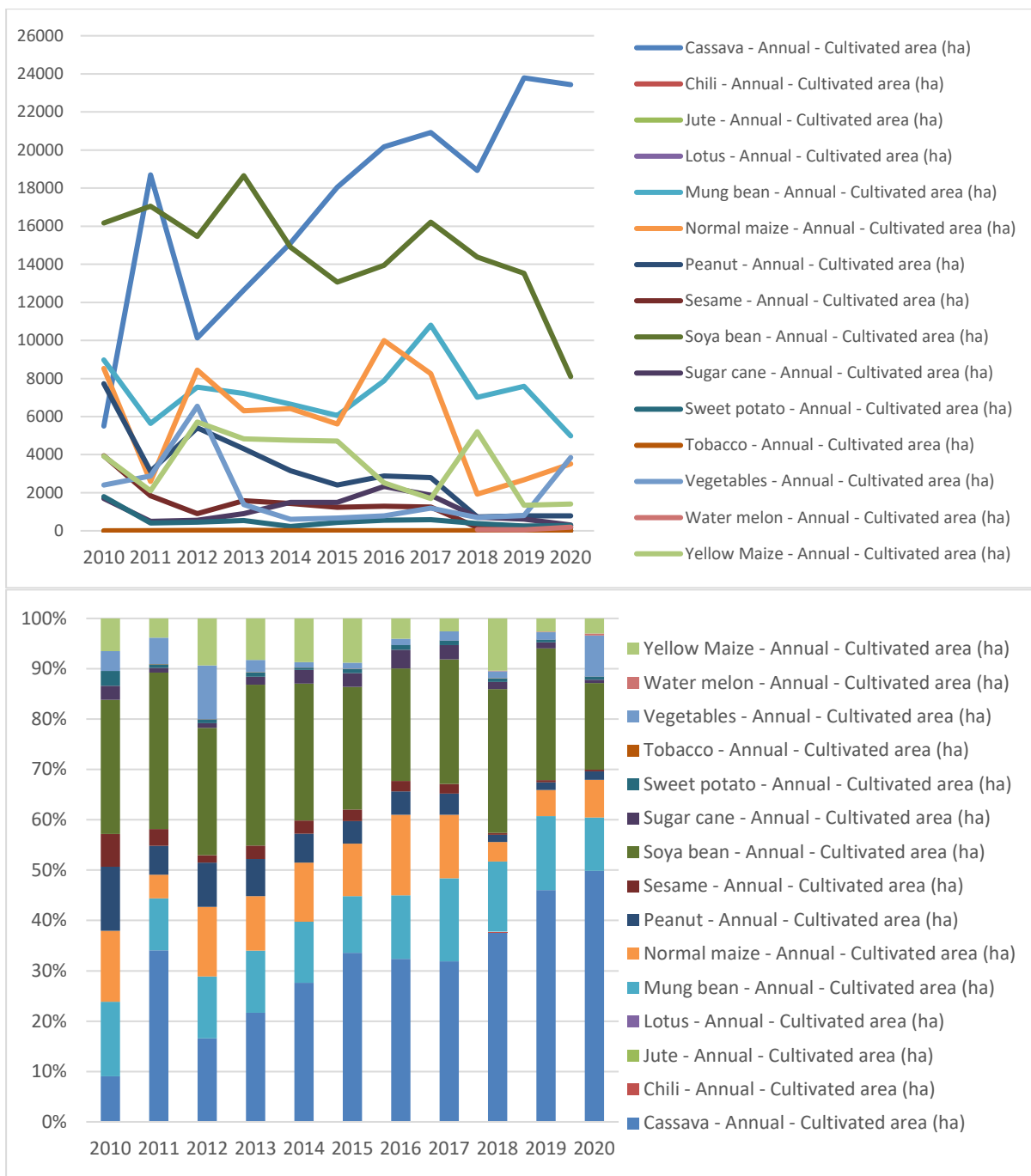


Figure 10. Changes in annual crops cultivated area in Preah Vihear Uplands (2010 - 2020)

The yield of annual upland crops varied from one year to another one except more stable for soybean, normal maize, yellow maize and mungbean. The variation was largely from the climatic accidents, but maybe also from farmer's practice to shift already-degraded fields to cashew and annual upland crops on newly reclaimed lands for its high fertility. Yield of cassava dropped from 15t/ha in 2010 to 11-12t/ha in the following years till 2020, where it surprisingly increased to 20t/ha (Figure 11).

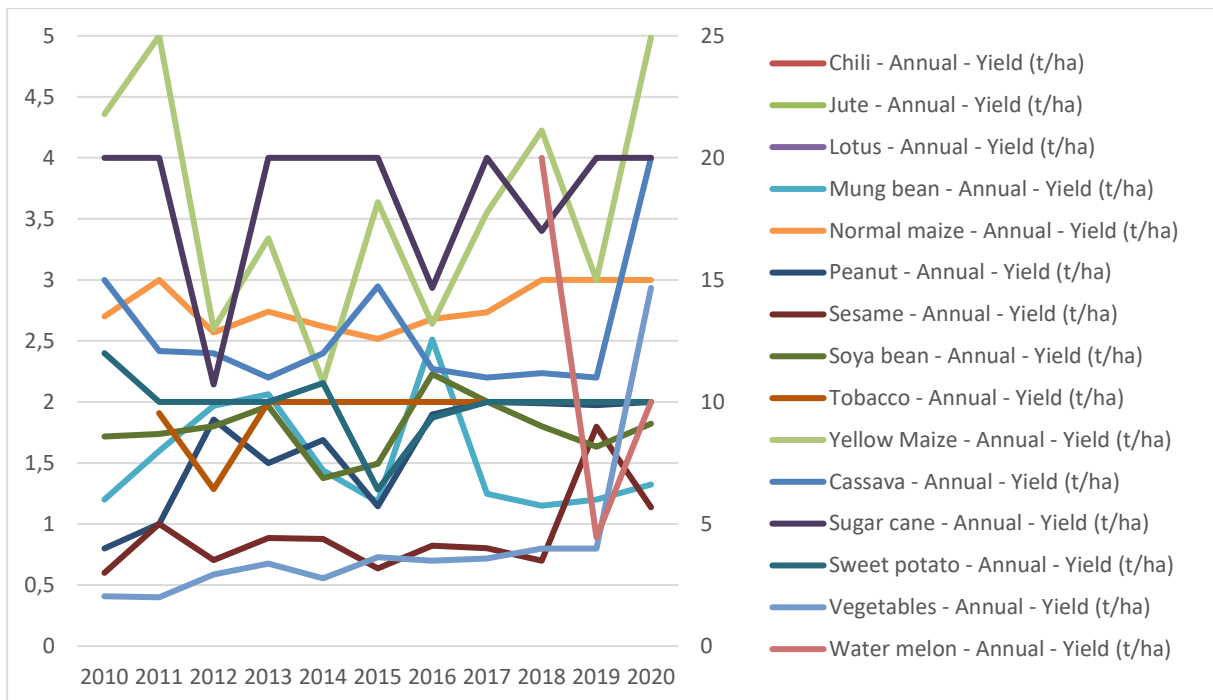


Figure 11. Yield of main annual crops in Preah Vihear (2010 - 2020)

- Industrial / perennial crops

The main industrial crops in Preah Vihear are cashew nut, rubber, banana, and pepper (Figure 12).

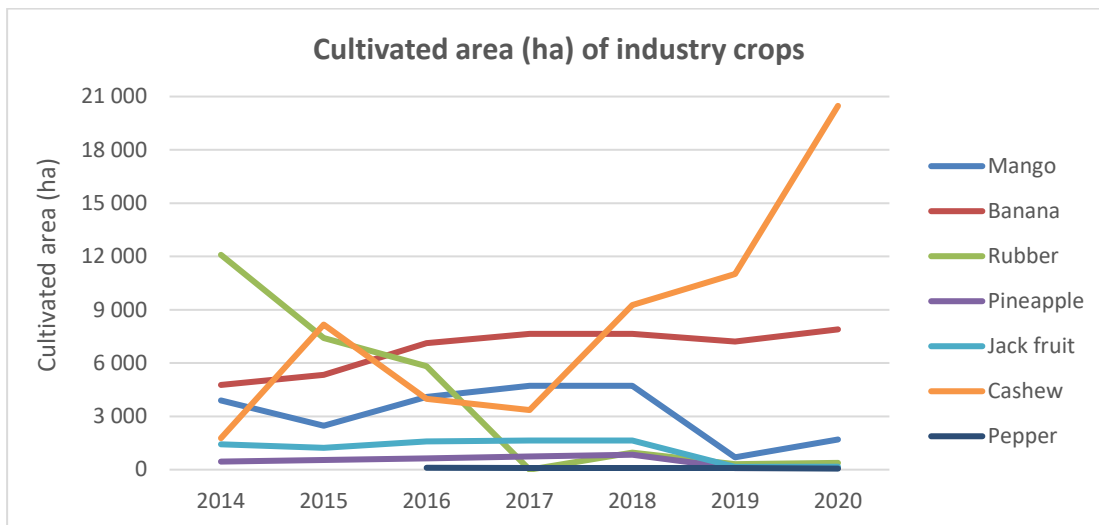


Figure 12 Changes of cultivated area (ha) of industry crops 2014-2018

There is no data at the provincial level in the annual report of MAFF like the rice and annual upland crops. The data shown in Figure 12 from 2014 to 2018 was extracted from the Provincial Agriculture Sector Strategic Development Plan 2019-2023 of Preah Vihear province and from annual report of PDAFF for 2019 and 2020. The data of rubber and mango was not consistent from the two data sources. The area of rubber may combine the smallholder rubber and the company rubber in the first data source. The PDAFF report showed in the last two years smallholder rubber was increased about 300-400ha per year. Total area of smallholder rubber was 3,454ha, of which was under productive 2,746ha with 448 families involved. More reliable data from PDAFF's report, the area of mango was just about 700ha in 2019 and increased to 1700ha in 2020.

Cashew nut is the main industrial crop in Preah Vihear besides rubber and pepper. The area jumped more than 4 times in 2015 and then dropped in 2016 and 2017. The drop could be from cutting down old plantation with low-yield old variety with high-yield variety (M23 variety) since the area jumped remarkably from 2018. Since 2014, the area of cashew has been increased 10 folds. Pepper was about 100ha in 2016 (the pepper boom period), and dropped to only 60ha in 2020 due to the dramatic price drop.

Banana is the main fruit trees in Preah Vihear. The area was increasing every year, from 5,000ha in 2014 to 8,000ha in 2020. There was no yield data available for these industrial crops in any data sources.

3.5.2 Livestock and aquaculture / fisheries: increasing pig farm and aquaculture

Cattle, buffalo, and pig are important large livestock while chicken and duck are main poultry (Table 4). In terms of number, cattle, pig and chicken are the most important. Over 5 years from 2014 to 2018, the number of cattle and buffaloes decreased just around 5-10%. The decrease was less than expected as the farming and transportation is no longer used animal traction, and generally farmers have sold out cattle / buffaloes to purchase power tiller for higher capacity to farm on larger land. It remained 0.11% according to MAFF annual report in 2020. It could be explained by the concentration of cattle/buffalo for some households or farms who own big land and/or have more farm labor. In the opposite, the number of pigs increased more than 80% over the same time thanks to new pig farms as in fact the number of households raising pig and number of pigs per household dropped. Nevertheless, like cattle / buffalo the number of chicken and duck dropped closed to 10% likely due to the epidemic diseases, and/or the number of chicken farms are few.

Regarding to the aquaculture and fresh water fish production, following the national drop Preah Vihear found 35% dropped of fresh water fish collection while the production of aquaculture increased triple from 30t in 2014 to 90t in 2018 (Table 4).

Table 3 Changes of livestock and fisheries 2014-2018

Description		2014	2015	2016	2017	2018	% Variance
Livestock	Cow (heads))	77,495	76,027	74,506	73,015	71,555	-7.7
	Buffaloes (heads)	7,534	7,059	7,383	7,235	7,090	-5.9
	Pig (heads)	123,698	212,557	216,808	221,144	225,567	82.4
	Chicken (heads)	624,212	537,231	547,976	558,935	570,114	-8.7
	Duck (heads)	32,103	27,324	27,870	28,427	28,996	-9.7
Fisheries	Freshwater fish products (T)	200	300	130	120	130	-35.0
	Aquaculture (T)	30	30	35	50	90	200.0
	Total production (T)	230	330	165	170	220	-4.3

3.5.3 Machineries: transforming to mechanized farming

Over 5 years from 2014 to 2018, the number of agricultural machineries were increasing remarkably accounting 50% in particular for rice thresher, power tiller, rice harvester, and tractor (Figure 13). It appears that these machineries are used for rice farming, and it makes totally sense as the cultivated area of rice was dramatically increased. This also confirm the MAFF’s report that the farming, even for small farms, was mechanized abandoning the animal traction.

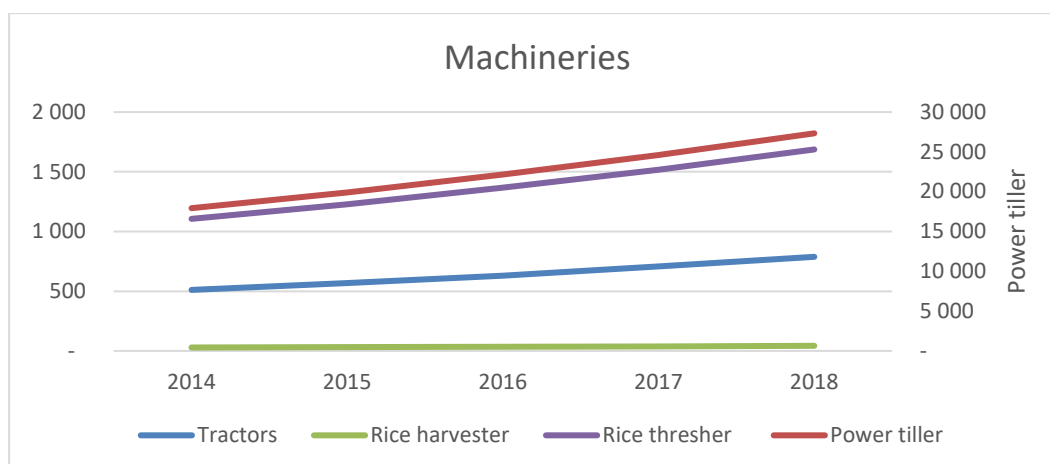


Figure 13 Changes in agricultural machineries

3.5.4 Promoting organic value chains

a. Organic rice

In Preah Vihear, the value chain of organic rice was initiated by Support to the Commercialization of Cambodian Rice (SCCRP) project coordinated by Supreme National Economic Council (SNEC) and funded by AFD in 2013. The project partnered with Cambodia Organic Agriculture Association (CoAA), a local NGO working as a certification body to promote organic agriculture in Cambodia, to provide technical training to the members of cooperatives in the production of organic paddy, and to support the cooperatives to set up internal control system (ICS) and get involved in the initial steps of selling the organic paddy produced.

Due to inefficient logistics and coordination during harvest time in 2013 with only 5 Agricultural Cooperative (AC) and the two rice millers (Amru Rice Co. Ltd., and Kim Se rice mill), the contract farming (CF) approach was introduced in 2014 with 8 AC (3 new ACs) and the organic rice standards were also changed at that time from CoAA standard to EU (EOS) and US (NOP) standards, requiring external certification by an international certification body (Ecocert) for the exportation to international market. With successes, Preah Vihear Mean Chey Union of Agricultural Cooperative (PMUAC) was set up in 2015 and officially registered as a legal entity by MAFF a year later with 12 AC (4 new ACs). It was the first union in Cambodia.

Under PMUAC (14), the contracted amount had dramatically increased from 3,300t in 2015 with 8 AC and 1 rice miller (Amru rice) to 21,600t in 2017 with 26 AC and two rice millers, Amru rice and Signature of Asia (SoA, new rice miller). The amount decreased to 18,500t in 2018 and to only 15,400t in 2019 with 25 AC (1 AC dropped, and with 3,607 households) and 3 rice millers (Golden rice, new rice miller). The decrease may be due to the low supplying capacity which was only 50% and 45% in 2017 and 2018 respectively. With high satisfaction, the supply was 95% of the contracted amount.

Besides contracting through the coordination of PMUAC, the rice millers also signed contract directly with the AC who are not member of PMUAC. Based on annual report of PDAFF in 2020, the total amount of contracted organic rice was 22,465t on 14,770ha with 5,341 households (PDAFF Preah Vihear, 2020). The premium price was defined by adding the reference price of conventional rice (taking average price from the 3 rice millers) with a premium price ranging from 35 to 75\$/t depending on the quality agreed in the contract in 2019 (PMUAC, 2020). Out of 75\$/t premium price, 60\$/t was distributed to the farmer, and 7.5\$/t each was given to PMUAC and AC for the ICS and coordination.

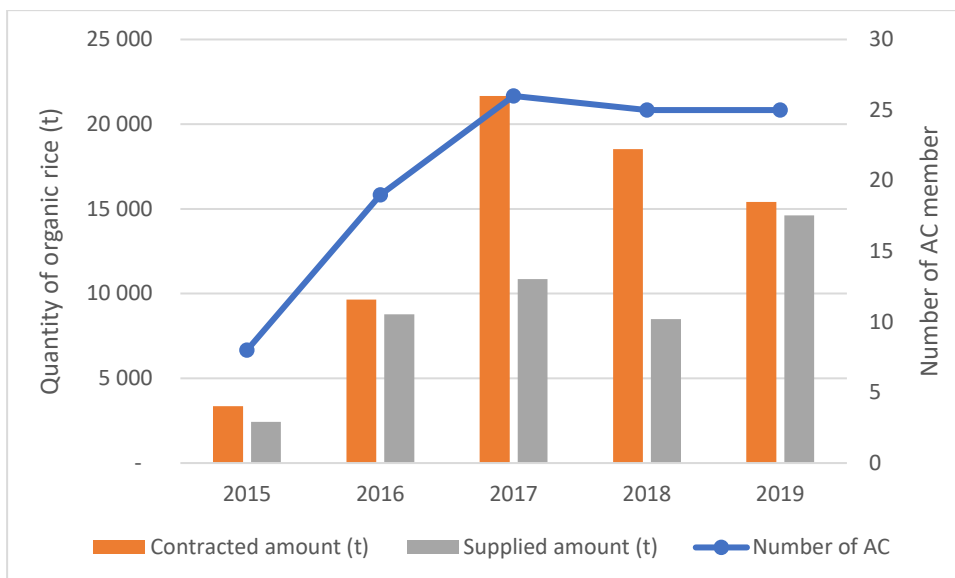


Figure 14 Evolution of organic rice contract farming from 2015 to 2019 under PMUAC

In the contract, the rice miller is responsible to purchase the amount with premium price and quality agreed in the contract, to cover the cost on transportation and certification from international Certification Body (Ecocert), and to provide technical supports in collaboration with governmental organizations and development partners. The AC is responsible to conduct the ICS ensuring the organic standard practices, and to coordinate the external audit of Ecocert, the logistics of harvest and transportation, and the payment.

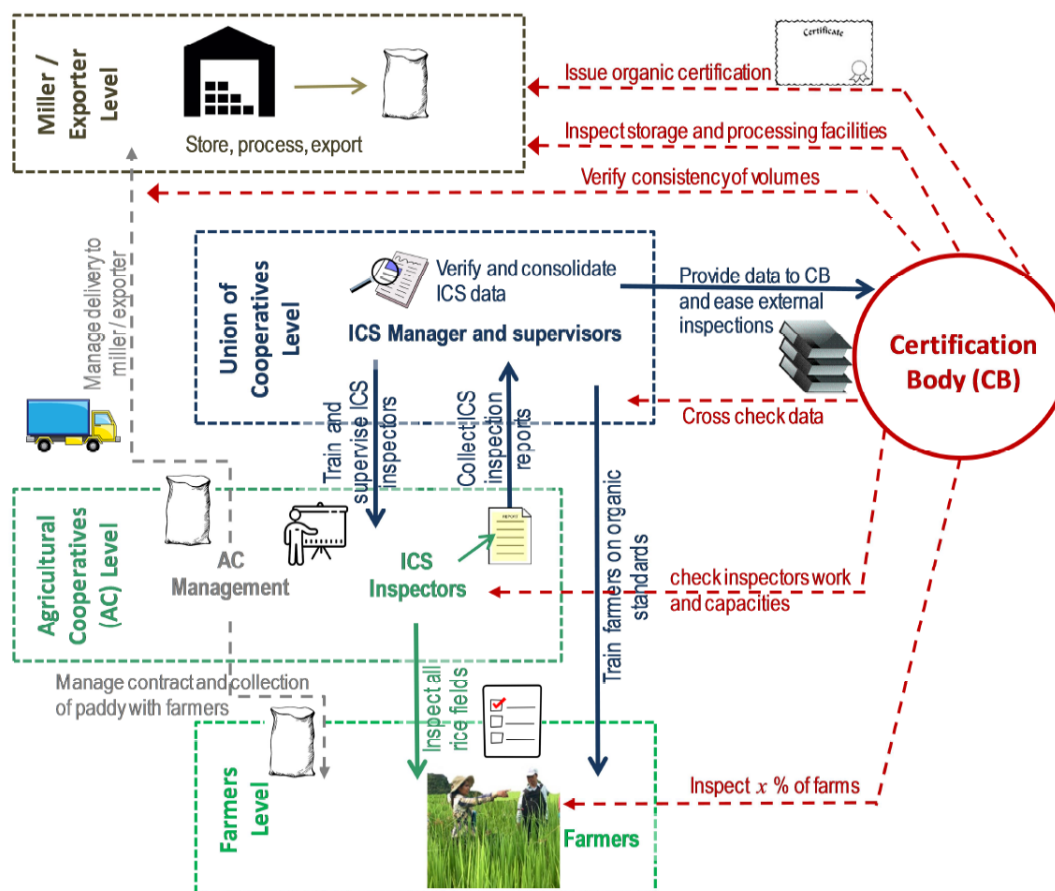


Figure 15 Simplified chart of the internal control system and organic certification (Meang et al., 2018)

In order to receive organic rice certification, facilitator (PMUAC or AC if not PMUAC members) consolidates data from the ICS and provide to AMRU Rice to prepare all the required documents to be submitted to Ecocert for inspection and for issuing EU and USA organic standard certifications. After receiving the request, Ecocert conducts inspection on field visits around October. Few points if any of non-compliance are notified to require immediate corrective measures. With support from the project / NGOs (mainly AVSF for PMUAC), the PMUAC or AC coordinates with the rice miller to implement corrective measures as required and to send necessary documentations to answer deviations to the certification body. Organic certification is then issued after further verification by Ecocert. Figure 15 presents a simplified chart of the internal control and certification system for organic standards (Meang et al., 2018), and notably the respective roles at AC level, Union level and Certification Body.

To improve even more visibility and trustfulness on international market, Oxfarm in Cambodia introduced a pilot project for 1 year (April 2018 to March 2019) named Blockchain for Livelihoods from Organic Cambodian Rice, or BlocRice. It was the first pilot in Cambodia using blockchain technology with a three-way digital contract farming agreement between AC (representing the 50 pilot organic farmers), rice exporter and buyers in the Netherlands. The project designed an electronic user platform with an application providing full value chain transparency and traceability to the cooperative, exporter and importer, but also to the end consumers (Figure 16). All information of actors, production (farmers), processing (rice miller), and shipping was recorded in the blockchain, in which all involved actors can access anytime and anywhere (Oxfarm, 2019).

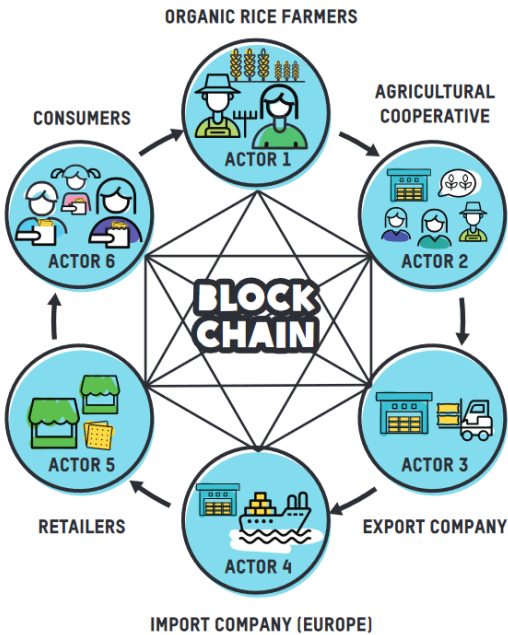


Figure 16 The BLOCRISE involves actors in the chain custody of organic rice value chain

b. Fair trade and organic rice and peanut

In addition to EU and US organic standard, the PMUAC has also received Small Producers’ Symbol (SPP) label for Fair Trade standard since 2018 for rice and 2020 for peanut from Ethiquable company for with great support of Agronome et Vétérinaires Sans Frontières (AVSF). SPP is a label that represents an alliance among organized small producers to build a local and global market that values the identity and the economic, social, cultural and ecological contributions of products from Small Producers’ Organizations (more information, please visit <http://www.ethiquable.be> and <https://spp.coop>). This SPP Fair Trade standard requires the organic certificate from Ecocert and the SPP certificate. The contracted amount is much smaller compared to the normal organic for instance only 110t in 2019, but the premium price is much higher. For example, in 2019 for wet paddy rice C1 quality, the premium price was 164\$/t, 45\$/t for normal organic and 119\$/t for SPP. The contract for rice was triple agreement between PMUAC, Amru, and

Ethiquable. For peanut, it was signed only between PMUAC and Ethiquable on about 10 tons. As for first, PMUAC is still find out the cheapest logistics and packaging. The technical SPP standard for peanut is developed by AVSF and PMUAC for the farmers (AVSF and PMUAC, 2020).

c. Organic cassava and cashew

The Cambodian Agriculture Cooperative Corporation, Plc. (CACC) is a subsidiary of Amru, that is the first cooperation company established in 2017 to purchase organic cassava and cashew in Preah Vihear and other provinces. The company has shares owned by the AC, and the representatives of AC members have roles in the operation and decision. In 2019, the company signed an individual contract with 8 AC on 5,000t with 553 farmers on 474ha (estimated about 10t/ha). With success for both parties, company increased the contract with 11 AC on 40,500t with 1,452 farmers on 2,400ha in 2020 (PDAFF Preah Vihear, 2020). It is noted that the company prefers to do contract directly with the AC without involvement of PMUAC. It could be more advantageous for the company in premium price negotiation, which is 12.5\$/t or 125\$/ha (10t/ha on average estimated) in 2020. The price of conventional fresh tuber was 85-95\$/t fresh tuber.

In the contract, company ensures to give 15-20% premium price, to not deduct the eventual loss (free-market buyers deducted 15-20%), to pay the organic certificate from Ecocert, to provide credit on high yield and quality cuttings, and to provide technical training often in collaboration with the projects / programs (e.g. ASPIRE, CAVAC...) of government and NGOs. The company reexports as raw material (fresh tuber, without any process after buying from the farmers) to Thai Wah Public Company Limited in Vietnam by fulfilling the sanitary and phyto-sanitary requirements and providing the certificate of origin and the necessary transitional certificate needed for cross-border shipment (Khmer Time, 2020).

The CACC also contracts with the AC to buy organic cashew with the same certification process from Ecocert. The company contracted totally 10 AC in 2020. Unlike cassava, the company has processing unit and packing facility to process and pack before exportation. Besides, Santana Agro Products Co., Ltd is the biggest company in Cambodia for both production and processing capacity. The company is located in the province (Rovieng district) and recently work to sign a contract farming with 2 AC. Generally, farmers apply high dose of chemical fertilizers and of pesticides (up to 10 times per year).

International Volunteers of Yamagata (IVY), Japanese NGO, is a leading development partner supporting currently 13 AC on the management / implementation as well as farming techniques, ICS / audit, and logistics coordination for organic certificate standard of EU, US and JAS (Japanese Agricultural Standards). IVY plans in 2020 to support 400 farmers for 400t contracted for organic cashew. The information on contracted quantity with CACC and Santana is not available, but assumingly less 1,000t as the value chain has been recently initiated. a

3.5.5 Applying a wildlife-friendly farming approach

The approach has been started since 2009 under an innovative payment for environmental service scheme so called Wildlife Friendly Ibis Rice initiated by the Wildlife Conservation Society (WCS) and Sansom Mlup Prey (SMP), in partnership with Cambodia's Ministry of Environment and the Forestry Administration. It involves the integration of conservation measures into farming practices with remote farming communities in the Kulen Promtep Wildlife Sanctuary in Preah Vihear, where is home to the critically endangered Giant Ibis. These communities commit to farming organically whilst following zero deforestation, zero poaching and zero-logging agreements.

The approach is currently continued under IBIS Rice Program, an innovative partnership between SMP and market-facing partner, the Ibis Rice Conservation Company, Ltd. (IRCC). SMP provides agronomic support to farmers, which includes training and demonstrations on organic and wildlife-friendly standards and practices including the use of cover crops for organically ecologically intensification while keeping the soil healthy. SMP also helps to conduct the required auditing and quality inspections to ensure organic compliance of EU and US standard from Ecocert. Concurrently, IRCC provides a guaranteed buyer, marketing expertise, and premium international and domestic

market access with an average 30 to 40% more than standard market prices (SMP, 2019). By 2020, there are 400 families on 2,000ha signing contract with IRCC.

3.5.6 High technology and quality vegetables production

In early 2010s, there were NGOs for instance World Vision, ADRA Cambodia...etc. promoting homestead vegetables for household food security and nutrition, but also a source of income. Since 2014, the high technology and market-oriented production of vegetables have been introduced through the Cambodia Horticulture Advancing Income and Nutrition (CHAIN) project (started from 2014), the Agriculture Services Programme for Innovation, Resilience and Extension (ASPIRE) program (started from 2015) and the Accelerating Inclusive Markets for Smallholders (AIMS) project (started in 2016). The objectives are to create farmer groups / cluster specializing in specific vegetables to reach critical mass of supply with high quality for a possibility to make contract farming with the private company.

To ensure the quantity and quality, the technical and financial support are given through on-farm demonstration / training in collaboration with PDAFF, NGOs, inputs suppliers... on high technology such as net house, irrigation system, solar panel, uses of fertilizers and pesticides following the Good Agricultural Practice (GAP) standard, good quality seed, market-demanded varieties...etc. Subsidy is provided with farmer's contribution for the investment on the water sources development (ponds, wells...etc.), net house, and solar panel or generator. Some kinds of these investment with a cost up to around 10,000\$ is provided directly to the master farmers as a show case. Around 10 farms are evaluated and provided CamGAP standard, away to raise public awareness on safety and high-quality vegetables and to get higher premium price.

With these efforts and intervention, the area of vegetables production increased from 600ha in 2014 to closed to 4000ha thanks to the promotion of fruit vegetables (egg plant, pumpkin, water melon...etc.) production, which need larger area.

3.5.7 Promoting climate smart agriculture

Chain focus on climate smart water management creating water sources ponds wells and solar pumping; irrigation systems; net house all techniques related to vegetables check report of Bong Borin

Aspire, 5 approach of extensions creating business cluster supporting inputs access to crops, livestock and aquaculture / fisheries with climate smart practices water sources for vegetables, fish culture, solar panel energy for vegetables / chicken; feed home made, net house, cassava, cashew nut; organic rice (same than classical ; seed, variety,...

3.5.8 Supporting agri-business, market access and quality visibility through agricultural cooperative and union

There are 43 agricultural cooperatives (AC) with key agri-business activities including saving and credit, supplying agricultural inputs, providing services e.g. clean water, threshing... and production of organic crops under the contract farming e.g. rice, cassava and cashew nut. The majority was created in 2014 (Figure 17)

The majority was initiated and registered under the support of Rural Livelihood Improvement (Rulip) project (funded by IFAD from 2007-2014 in Kratie, Preah Vihear and Ratanakiri). The project created under livelihoods improvement component (used 80% of the budget; 2nd component was support for decentralization and deconcentration in agriculture) 178 self-help groups dividing into 3 types: livelihoods improvement, farming systems improvement, and most vulnerable family. The groups received supports in areas/activities such as training, inputs, grants for revolving funds, savings and credit activities, introduction of improved technologies. With the promulgation of AC law in 2013, the project took an exit strategy to sustain the function / implementation to combine the groups according to the administrative boundary and geographical location, and registered them officially as AC. Totally,

there are 36 out of 43 AC created by Rulip project with considerable amount of capital from revolving fund.

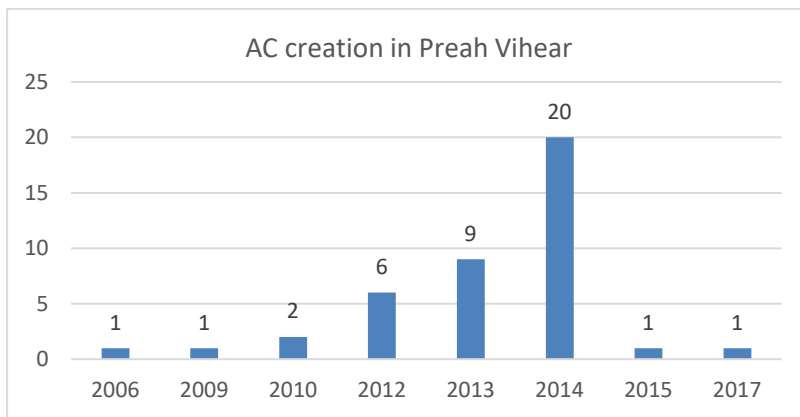


Figure 17 Year of creation Agricultural Cooperative creation in Preah Vihear

The other ACs were initiated by mostly NGOs. As mentioned above, the union was created with great support of AVSF under SCCRP project. Nowadays, five NGOs (World Vision, IVY, AVSF, DPA, and BFD) still continue to support the AC/Union at different level and scope mainly on the capacity building of committee / board members in management and operation, and the agri-business in particular on organic rice.

In 2020, there were 56 farm groups, 3 business clusters, and 5 net houses under CHAIN project. Under ASPIRE program, there are 18 business clusters and 25 net houses. In addition, a number of private companies such as Agri On, Remix...etc. signed a contract with the cluster / group to purchase the vegetables for Phnom Penh and Siem Reap market.

3.5.9 Promoting Conservation Agriculture (CA) / Agroecology (AE) for organic farming (namely for rice)

The CA / AE practices have been promoted since 2019 by three initiatives: SMP for organic rice wildlife-friendly farming and PMUAC (granted by GiZ), and WAT4CAM project (TA-Agri: CIRAD, DALRM/GDA, Niras, CIRDA). The common practises are to grow (a mix) cover crop species especially leguminous species e.g. Sunhemp to restore the soil fertility consequently improving efficiency of inputs and yield as well as the grain quality. PMUAC conducts a pilot in Kulen and Tbeng Meanchey district with also introduction of Eli Seeder (broadcasting in lines <https://www.youtube.com/watch?v=024Ein1ehXE>) to improve the germination, save seed, and improve growing. Facing prolong drought in 2020, SMP finances the communities to build collective and multipurposed ponds in the wildlife sanctuary for water and fish sources. Farmers can use the water to save the rice during drought, but also to grow cover crops during the dry season.

The scale and scope is larger under WAT4CAM

3.6 Agricultural systems

3.6.1 Rice systems

Table 4 presents the cultivated area, production, and yield of different rice systems in 2020. Almost all the rice area in Preah Vihear is rain-fed cropping only one cycle per year, so called wet season rice. There are four systems including early-cycle, medium-cycle, late-cycle and upland rice. The medium-cycle rice is more important sharing more than 60% of total area. Farmers practice this system thanks to the aromatic rice variety Phkar Rumdoul that is aromatic rice highly demanded by the rice millers for exportation. The yield of medium and late cycle rice was about 2.9t/ha while only about 2.5t/ha for upland rice and short cycle rice. The average yield for 2020 was 2.85t/ha, which is lower than the national one, 3.1t/ha. However, the average yield estimated in the contract farming for organic rice was 1t/ha for the 20,300ha in 2020. The estimation was highly conservative implying low productivity and especially high risks of climatic accidents.

Table 4 Rice systems in Preah Vihear in 2020

Rice cropping systems		Cultivated area (ha)	Harvested area (ha)	Production (t)	Yield (t/ha)
Dry season rice	Dry season rice	12	12	36	3.00
	Sub-total	12	12	36	3.00
Wet season rice	Short cycle	9,478	9,478	23,043	2.43
	Medium cycle	58,322	55,470	155,671	2.81
	Late cycle	21,310	21,310	62,277	2.92
	Floating rice	-	-	-	-
	Upland rice	3,110	3,110	8,049	2.59
	Sub-total	92,220	89,368	249,040	2.69
Total		92,232	89,380	249,076	2.84

3.6.2 Upland crop systems

Cassava is the most important annual upland crop accounting about 50% of total area, followed by soybean, mungbean, vegetables and maize (Table 5). At landscape level, it is considerably diversified if compared to other provinces e.g. Battambang. The yield was also high if compared to the national one for instance 20t/ha (fresh tuber), 2t/ha, 1t/ha, and 5t/ha for cassava, soybean, mungbean, and yellow maize. All these crops are mostly cultivated as monocropping without rotations or sequencing crops as it is totally rainfed (basically one crop per year). Good yield in 2020 could be the farmer's practices to shift degraded fields to plant cashew and grow annual upland crops on newly reclaimed fields. Generally, farmers are not in favor of using chemical fertilizers. Gradually, they adopt new variety and use the pesticides especially herbicides.

Regarding perennial crops, cashew nut is the main industrial crop while banana is the main fruit tree. Besides, there are smallholder rubber and pepper. There is no data available on the area of cashew plantation using local variety and the high yielding variety, M23. From various consultation and field visit, it is assumed the M23 variety is dominant. This variety is in general much more sensitive to pests, and so the more frequent application of pesticides and high dose of chemical fertilizers to express its yield potential are the common practices.

Table 5: Upland annual crop systems in Preah Vihear in 2020

Crops	Cultivated area (ha)	Production (t)	Yield (t/ha)
Cassava	23,440	468,800	20
Soybean	8,100	14,757	2
Mungbean	4,985	6,605	1
Vegetables	3,852	56,518	15
White maize	3,509	10,524	3
Yellow maize	1,402	6,997	5
Peanut	782	1,564	2
Sugar cane	305	6,100	20
Sweet potato	275	2,750	10
Water melon	191	1,910	10
Sesame	160	182	1
Tobacco	1	2	2
Total	47,002		

3.6.3 Market system actors

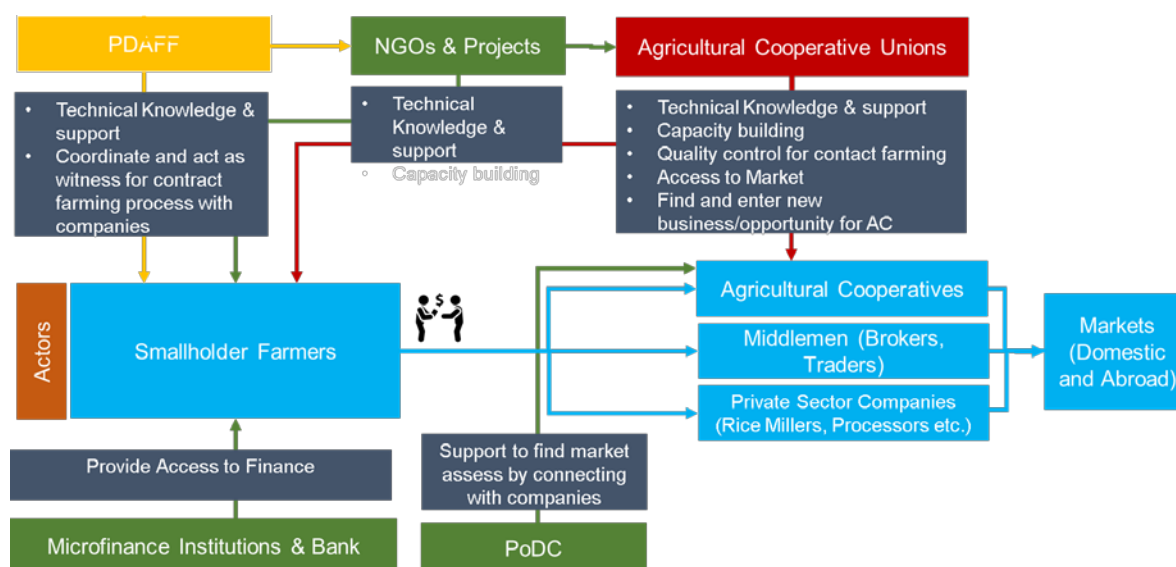


Figure 18. Market systems and actors in Preah Vihear Province

4. Status against selection criteria

4.1 Site relevance regarding targeted challenges

Sub-criteria	Score
1.1 Safe and fair food circuits	1
1.2 Lowland rice systems sustainability	3
1.3 Upland systems preservation	3

Note: Scoring options: 0. Not relevant; 1. Little relevant; 2. Relevant; 3. Highly relevant.

- *Challenge #1: Agriculture systems connected to urban areas: Feeding booming cities through safe and fair food circuits*

Scoring options:

0. Not relevant. Agricultural systems are little to not connected to domestic markets and food systems

1. Little relevant. Agricultural systems are connected to cities but volumes of AE products, or issues related to AE and food safety are not at the core of food circuits.

2. Relevant. Agricultural systems are connected to urban markets and food systems. Issues related to AE and food safety are raising in food circuits and value chains (volumes/stability/short/safe/fair...) but not locally perceived as a high-ranking priority.

3. Highly relevant. Agricultural systems are connected to booming cities. Issues related to AE and food safety are important in food circuits and locally set as high-ranking priority in development strategies

Preah Vihear is a low population density and remote area with limited connections to urban areas. However, the development of organic value chains in linkages with sub-criteria 1.2 and 1.3 is important.

- *Challenge #2: Rice-based systems in lowlands: Sustaining rice production as the cornerstone of food and farming systems*

Scoring options:

0. Not relevant. Little to no lowland areas

1. Little relevant. Some lowland paddy rice production but limited areas or limited issues related to rice production sustainability.

2. Relevant. Lowland paddy rice is a major production system (area, production, nb of producers). Issues related to rice production sustainability (quantity/stability/quality...) are raising but not locally perceived as a high-ranking priority.

3. Highly relevant. Lowland paddy rice is a major production system. Issues related to rice production sustainability are important and locally set as high-ranking priority in development strategy.

Preah Vihear is known as the organic Province in Cambodia, notably for rice production. Lowland rice is the cornerstone of smallholders farming system and the largest cultivated crop with 125,000 ha. Figure 18 presents the different rice ecosystems in Preah Vihear.

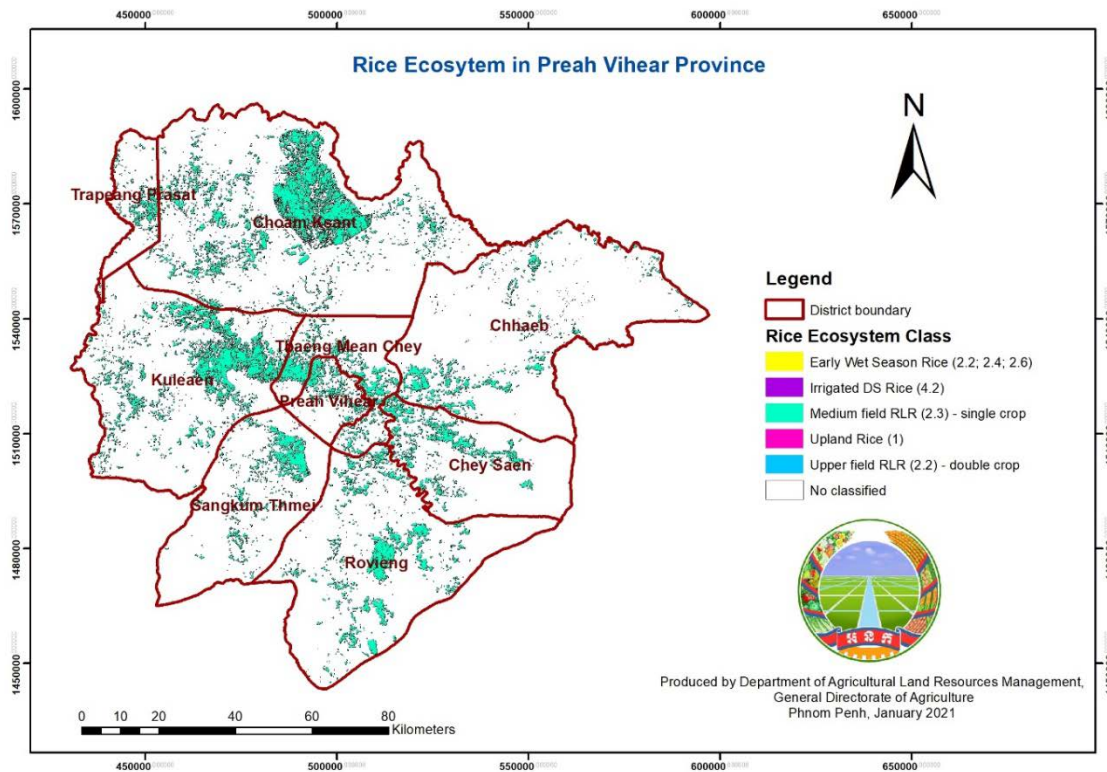


Figure 19. Rice Ecosystem in Preah Vihear province

- *Challenge #3: Crop-livestock-forest in rainfed uplands: Preserving uplands from social and environmental degradations*

Scoring options:

- 0. Not relevant. Little to no rainfed uplands and/or forest areas*
- 1. Little relevant. Some rainfed areas and crop-livestock-forest interactions but limited areas or limited issues related to uplands degradations.*
- 2. Relevant. Rainfed areas and crop-livestock-forest interactions are important (area, population). Issues related to Uplands degradations are important or raising but not locally perceived as a priority.*
- 3. Highly relevant. Rainfed areas and crop-livestock-forest interactions are important. Issues related to Uplands degradations are important and locally set as a high-ranking priority in development strategy.*

Preah Vihear is known as the organic Province in Cambodia, with a strong political will to develop organic value chains in the uplands for crops (e.g. cassava, cashew nut) and for livestock (e.g. organic milk production). Figure 19 indicates where are the main potential areas for organic value chains development in the Uplands.

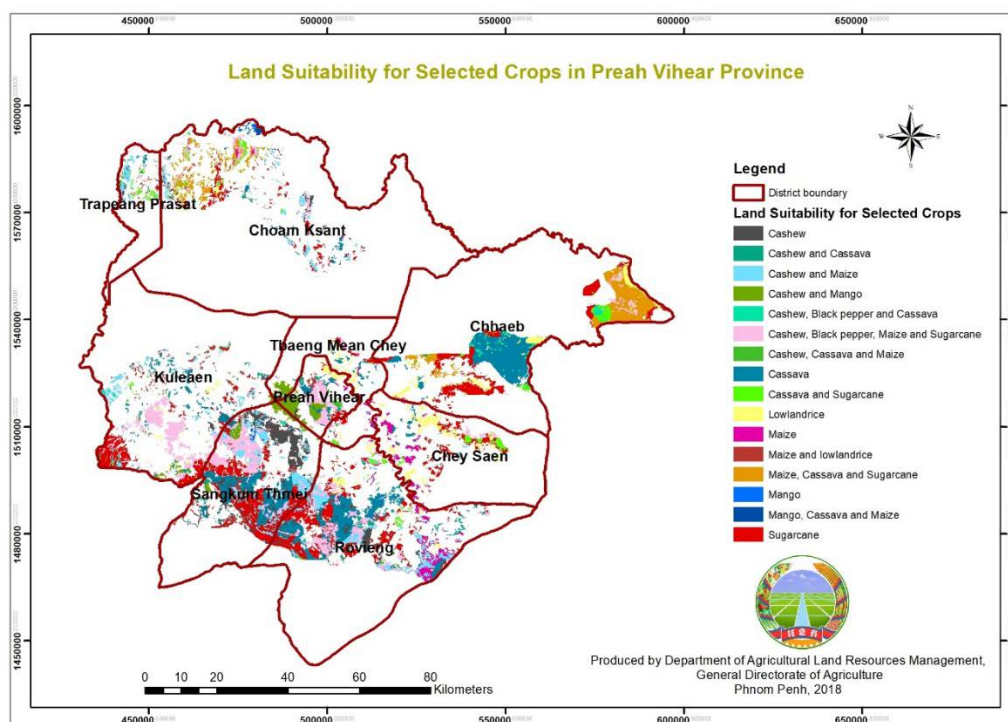


Figure 20. Land suitability for selected crops in Preah Vihear province

4.2 Opportunity for change and for impact

Sub-criteria	Score	Remark
2.1 Local perceptions of agricultural and food systems limits	3	0 is eliminatory
2.2 Levers for change identified by local authorities	2	0 is eliminatory
2.3 Levers for change identified by producers	3	0 is eliminatory
2.4 Levers for change identified by other market system actors	2	
2.5 Market innovations	3	

- Limits from current agricultural and food systems are clearly perceived and acknowledged by local stakeholders

Scoring options:

0. Limits are perceived by producers or local decision makers but not by both.
1. Limits are perceived and acknowledged by producers and local decision makers but solutions and/or levers are not yet identified
2. Limits are perceived and acknowledged by local stakeholders, solutions and/or levers are identified but not yet mentioned in local rural and agricultural development plans
3. Limits are perceived and acknowledged by local stakeholders, solutions and/or levers are identified and mentioned in local rural and agricultural development plans, with set objectives and related strategy

Limits are well perceived for local stakeholders, both the authority and producers in this case the agricultural cooperatives. Technical expertise in the organic rice value chain remains a challenge for producers and authority to tackle while the producers themselves have noticed of the decreasing in yield. PDAFF is well aware of the problems and identified technical training and supports as priority activities in their mid-term report of 2020. Throughout discussion with producers, the limits that they have provided mainly are Limit in technical expertise in standard and quality management and Limit in resources and finances of the farmers.

- Opportunities, constraints, and potential levers for change identified by local authorities

Scoring options:

0. Limited interest of local authorities for the project and project objectives

1. Some interest but no resources identified to support the project implementation

2. Local authorities are interested and plan to allocate both human and financial/logistic resources for the project

3. Local authorities are interested and plan to allocate human resources for the project

Local authorities are interested and willing to allocate human resources for the project.

- Opportunities, constraints, and potential levers for change identified by producers

Scoring options:

0. Limited interest from farmers for proposed AE and SFS innovations

1. Some farmers interested but implementation of AE systems rely on external support (project)

2. More farmers interested. Some of them are implementing AE systems without external support

3. Many farmers interested in the same location (village/village cluster. district). Farmers are organized to support the AE and SFS development process (cooperative, association, committee)

Some farmers are already implementing AE practices without external supports (Organic Rice Value chain). The local private sector initiated the Cambodia Agriculture Cooperatives Corporations to trade and create cassava organic value chain). Farmers' practice in the location are favourable toward AE as using pesticide and chemical fertilizer is not norm and is not welcomed by the farmers due to its cost of investment and concern on farmers' health issues. In addition, Union of Agriculture Cooperatives are created with support of external support but continue to run with little support until now, focusing on improving the quality and standard management of organic rice and crop production.

- Opportunities, constraints, and potential levers for change identified by other market system actors

Scoring options:

0. Beyond producers, no off-takers (e.g. traders, processors, service providers, wholesaler, retailer, consumers)

1. Some off-takers but passive

2. More off-takers, including active ones

3. Many off-takers, including active ones. Existing (or under-construction) local platform supporting increased linkages between market systems actors

Preah Vihear Meanchey Union of Agriculture Cooperatives (PMUAC) is one of the main and strong off-takers in term of interacting with other stakeholders especially the producers/farmers. While Agriculture Cooperatives are also strong and active in connecting and being the local platform for the farmers to continue to produce with contract farming and premium price. However, Preah Vihear is still a more remote place with no presence of local rice millers or companies that based there, most businesses are done from Phnom Penh, the capital city. Moreover, the Chamber of Commerce is freshly started and yet to have any members in the agriculture sector though they have connection in the sector and willing to cooperate given any opportunities.

- **Preah Vihear Meanchey Union of Agriculture Cooperatives (PMUAC)**

o **Level of Interaction with other stakeholders: High**

- **With Producers/Farmers:** work closely with all the AC as members on supporting activities. PMUAC hires young and competence staff to station and ready
- to support the AC anytime they need. It has been very helpful to the AC on preparing internal documents, getting technical knowledge to comply with standard and control quality and solving conflicts. With a full-time staff working with AC, PMUAC can get and

inform different info from the AC as members AC on time. In that way, PMUAC is effective and quick in addressing problems of AC and farmers.

- **With Consumers:** One of the main roles of PMUAC is act as coordinator and negotiator for AC with private sector companies who is the main buyers of organic rice value chain. In addition, PMUAC has been working on branding and marketing of organic rice Preah Vihear so it could reach consumers and has been selling to consumers directly as well.
- **Level of Interest and engagement: High**
 - Engagement with ECOCERT and maintenance Internal Control System: PMUAC has been the one who engaged with ECOCERT to certify its Internal Control System for the organic rice for all the AC members.
 - Working with different projects: PMUAC is working closely with different organisations and projects to receive resources and supports for the AC. For example,
 - Coordinated with ASPIRE to provide Rice processors for two outstanding AC.
 - Coordinated with GIZ to provide Eli Seeders to outstanding AC
 - Coordinated with AVSF and buy Rice processor for 12 AC
 - Coordinated with AVSF to support the practice of Conservation Agriculture such as planting cover crop.
- **Chamber of Commerce Preah Vihear & Kampong Thom:**
 - **Level of Interaction with other stakeholders: Not Relevant**
 - **With Producers/Farmers:** Not relevant because The Chamber does not have any members who is in the agriculture sector yet.
 - **With Consumers:** Not relevant because The Chamber does not have any members who is in the agriculture sector yet.
 - **Level of Interest and engagement: Low**
 - The Chamber is still so new and limited in capacity to engage. However, the members and presidents do have connection and network to brokers/middleman and business in the agriculture sector in the provinces.
- Note: Preah Vihear does not have any local processors and it is AC who owns rice processor machinery and other processors from Kampong Thom and Battambang province would go and buy from farmers directly.

- Market innovations

Scoring options:

0. Limited possibilities of market diversification, market extension, complementary products development and placement

1. Some possibilities but little explored yet

2. Possibilities under exploration (existing feasibility studies) up to pilot testing – small scale initiatives are in place

3. Market innovations are existing. New and/or complementary products are already placed, and certification, labelling and quality management mechanisms are in place. Actions are taken to gain in visibility and efficiency.

Score 3: PMUAC has been working with ECOCERT and strictly implement the Internal Control System (ICS) and deployed their own staffs to work and support the agriculture cooperatives in their district on the technical and administrative issues. They also help to produce and build brand as well as plan to register trademark for Preah Vihear organic rice. Within the Agriculture Cooperatives, the AC also takes actions by implementing peer-to-peer helping on quality management as well. There are also the creation of CACC which a number of ACs have shares in it to benefit and grow their own business of organic cassava there, shifting from only one organic value chain of Rice. Contract farming for organic produces is common in Preah Vihear and the ACs have receives a significant amount of contracts from private sectors each year in both cash crops and vegetables.

Interviews with:

- **Preah Vihear Meanchey Union of Agriculture Cooperatives (PMUAC)**
 - **Activities (doing and continue to do):**
 - Certification by ECOCERT in the organic rice value chain
 - Expanding Business into other crop organic value chain including cassava and peanut
 - Processing to build brand and register trademark for Preah Vihear organic rice
- **Agriculture Cooperatives:**
 - **Mlou Prey I AC:**
 - Developing production line for final product of organic rice by the community (using machinery from ASPIRE Project)
 - Expanding from Rice to cashew organic value chain
 - **Ou Kleng Por Mean Chey AC:**
 - Developing production line for Cashew nut snack and sell directly to consumers
- **Government Institutions:**
 - **Provincial Department of Commerce (PDoC):**
 - **Existing of contract Farming for organic value chain of annual crops and vegetable:**
 - AC producing organic rice have had contract farming with 3 main private sectors (Amru Rice, Signature of Asia, Golden Rice)
 - AC producing organic Cassava have had contract farming with Cambodian Agriculture Cooperatives Corporation (CACC)
 - AC producing safe vegetable in Kulen district have had contract farming with various companies including Agri-on, Remic, and LyLy Food industry company.
 - AC producing pepper is a member of pepper AC union in Tboung Khom Province and have had contract farming, importing to Germany and European Market.

4.3 On-going innovations and dynamics related to agroecology and safe food systems

Sub-criteria	Score
3.1 Technical innovations	1
3.2 Organizational innovations	3
3.3 Institutional innovations	3

A total score <3 is eliminatory

- *Technical innovations: AE practices (OA, AF, CA, SRI, AECF, crop-livestock etc.), on-farm and on-station experiments, post-harvest processing, waste management, bio-products, innovative agricultural machinery etc.*

Scoring options:

0. No initiatives/projects working on technical innovations

1. Existing technical innovations but not aligned/relevant regarding flagship main targeted challenges

2. Existing technical innovations that are relevant with flagship challenges but the level of adoption/adaptation by farmers is low

3. Existing relevant technical innovations that are applied and visible in outstanding sites

Existing innovations for organic vegetable production. On-going (but recent) technical innovations for integrated soil and weed management in lowlands (green manure, CA). No technical innovations for cassava or cashew nut production systems.

- *Organizational innovations: Participatory land use planning, farmer's access to market and services, farmers interactions with consumers, private and public actors, quality management, etc.*

Scoring options:

0. No initiatives/projects working on organizational innovations

1. Existing organizational innovations but not aligned/relevant regarding flagship main targeted challenges

2. Existing organizational innovations that are relevant with flagship challenges but the level of institutionalization and/or autonomy of the organizations and platform that emerged is still low, fragile, and highly dependent on external/project support

3. Existing relevant organizational innovations. The organizations and/or platforms are operational and autonomous (or have a strategy towards autonomy)

Score 3: In Preah Vihear, each commune has one agriculture cooperative, arranged by PDAFF Preah Vihear to avoid any conflict that hinder the growth of the agriculture cooperative. Farmers have build a strong sense of community around the agriculture cooperatives so it is very common for farmers to join the cooperatives. Agriculture Cooperatives have been created for sometimes and there are earliest back in 2012. Although there are flaws and points to be strengthen for the agriculture cooperatives, they already have a foundation that are being built for different organisations and the union already.

- **Preah Vihear Meanchey Union of Agriculture Cooperatives (PMUAC) (Annex)**

- Identified Innovations from the discussions:

- Support the organic rice value chain: work with AC as members to comply with standard of organic rice verified by ECOCERT using Internal Control System (ICS).
- Support the organic cassava and cashew value chain
- Support new organic value chain of different crop such as peanut

- Level of institutionalization and autonomy: *High*; PMUAC is independence and mainly receive financial supports from AC as members by getting an amount from volume of product being sold. Their structures are arranged to have ACs as members to be board as director and PMUAC as executives. It is fair to say the organization serve the benefits of farmers to the fullest. They are also being run by young and enthusiastic team so the coordination and communication work with different organizations is good.

- **AVSF**

- **Agriculture Cooperatives**

- Kulen

- Mlu Prey I AC:

- Identified innovation from the discussions

- Support the organic rice value chain: Continue to work closely with PMUAC in process of organic rice planting, contract farming and technical organic rice standard compliance. Each year, AC paid PMUAC according to their sale volume. This year they paid 25 million riels (Approximately 6,250 USD) to PMUAC. Additionally, In their good practice, they always provide good rice seeds and instruct the members to keep and produce seeds from year to year.
- Support the organic cassava value chain: Arrange to buy share and work with Private Sectors to found CACC. Support members to receive contract farming and to comply with technical organic cassava standard.

- **Level of institutionalization and autonomy: *Medium***; Mlu Prey I AC board of executives are organized and well connected. (Everyone can be connected by messaging apps telegram). They have been using this way of communication with authority, private sectors from different places, PMUAC, and other NGOs. They are trained by different organization on financial management, business management and documentations to run the AC, so they arrange their internal documents well such as annual and monthly reports of the AC. From the discussion, they also have proper plans to recruit more members to expand the AC and to organize a good and sustain source of income for AC.

- **Tor Su Sen Chey AC**
 - **Identified innovation from the discussions:**
 - **Support the organic rice value chain:** Continue to work closely with PMUAC in process of organic rice planting, contract farming and technical organic rice standard compliance.
 - **Support the organic cassava value chain:** Arrange to buy share and work with Private Sectors to found CACC. Support members to receive contract farming and to comply with technical organic cassava standard.
 - **Support new organic value chain of different crop such as peanut:** Arrange production group with the farmers as the members to test and grow different crops such as peanut and receive contract farming with PMUAC.
- **Level of institutionalization and autonomy: *Medium*;** Tor Su Sen Chey AC is led by a capable leader who, from the discussion, has proper planning and vision for AC to grow and coordinate work well with other stakeholders such as local authority, PMUAC, private sector(s) and NGOs. Because of that, PDAFF occasionally would contact the AC to connect and receive different contract farming with private sectors and AC is flexible and quick to solve problems with the private sector that make them continue to work closely with the AC despite target is not reached during some season.
 - **Putrea Meanchey AC**
 - **Identified innovation from the discussions:**
 - **Support the organic rice value chain:** Continue to work closely with PMUAC in process of organic rice planting, contract farming and technical organic rice standard compliance.
 - **Support new organic value chain of different crop such as Cashew.**

• *Institutional innovations: Access to inputs (seeds, bio products, machinery), visibility of AE products (branding, certification, marketing), sensitization campaigns, local entrepreneurship, policy dialogue mechanism, Incentives etc.*

Scoring options:

0. No initiatives/projects working on institutional innovations

1. Existing institutional innovations but not aligned/relevant regarding flagship main targeted challenges

2. Existing institutional innovations that are relevant with flagship challenges but that are still under way and highly dependent on external/project support

3. Existing relevant institutional innovations that led to the definition of new policies and/or support mechanisms. Supports for the enforcement/application of these policies are set or planned

Score 3: Existing strategies in plans and projects implementing by different organisations including Government institution and non-government institution. The strategy mainly for value chain development on improving stable production, branding and standard management. While for the next 4-5 years, a new opening marketing model for Conversation Agriculture called “Metkesekor” (meaning Farmer’s friend) will be piloting in Preah Vihear starting in 2021. The model is a product of Department of Extension of MAFF promoted by Swisscontact and CIRAD and supported by Kansas State University.

<https://cambodia.oxfam.org/BlocRice>

Strategic Plan documents:

- Metkesekor Concept Note

Interview with local authority:

- **Provincial Department of Agriculture Forestry and Fishery (PDAFF)**
 - **ASPIRE Project**
 - **Supporting Activities:**
 - Being witness to every contract farming between Agriculture Cooperatives and Private sectors
 - Being the connection between private sectors and Agriculture Cooperatives
 - Being the coordinator and connector for Agriculture Cooperatives: With extensive knowledge and well-connected with AC, PDAFF could redirect resources to the suitable AC in the province. For example, they have data of activities that all AC have been doing and their potential which they could read and match with incoming plans/projects of private sector or NGOs.
 - Engage and participant with different projects from NGOs such as joint training for Farmers with World Vision.
- **Provincial Department of Environment (PDoE)**
 - **IBIS Rice Project**
 - **Supporting Activities:**
 - **Advocating and Raising awareness on hazard agriculture activities to the environment: using pesticide,**
 -

Interview with Projects and Market System actors:

- **World Vision (Cheab District):**
 - **Background:** World Vision has been working in Preah Vihear since 2004 in Rovieng District and currently is working in all the districts in Preah Vihear. Their main activities previous is focusing on creating and building Agricultural Cooperatives (AC). However, since 2020, their vision has changed to focus on improving the livelihood of poor and vulnerable children. So, the activities that focus on AC will be reduced and continuing to provide supports of their legacy.
 - **Supporting Activities**
 - **Supporting in building capacity of Agriculture Cooperatives:** organized and provided different trainings both on technical farming (with experts from PDAFF) and soft skill and business management for capacity building of the AC.
 - **Supporting family to earn income with Agriculture activities:** provide funds and technical training on growing vegetables, raising livestock, and fishery.
- **PMUAC & Agriculture Cooperatives: the main platform for farmers**
 - Per previously mentioned, the AC and the union are the main platform for farmers to access to different information/knowledge, resources, inputs and markets.
- **AVSF**
- **CHAIN**

Table 6: Recap of main innovations and actors involved in Preah Vihear

No.	Dynamics/innovations	Innovation	Stakeholders
1	Supporting the organic value chain of rice, cassava, peanut, and cashew	Technical Organizational Institutional	PDAFF, AVSF, Union, AC, Ecocert, Rice Millers, CACC, IVY
2	Supporting the conservation of wildlife and forest via premium price of organic rice farming	Technical Organizational Institutional	WCS, Ibis rice company, Sansom Mlup Prey, Ecocert, AF, PDoE, AC
3	Promoting safety vegetables production	Technical Organizational Institutional	PDAFF, SNV, World Vision, Vegetable companies, Companies (agrion, remix...)
4	Promoting climate smart practices and income generation	Technical Organizational Institutional	PDAFF, PDoC, Companies (agrion, remix...)
5	Supporting to agri-business, market access and quality visibility	Organizational Institutional	PDAFF, PDoC, NGOs (World Vision, IVY, AVSF...), AC, Union, Companies (Santana, SBK...)
6	Promoting to the sustainable intensification of organic rice farming	Technical Organizational Institutional	PDAFF, CIRAD, DALRM, SmartAgro, Larano, Union, AC, Rice Millers, NGOs (world vision, GIZ, AVSF, CIRAD, SMP, Swisscontact, ...)
7	Support the extension model "Metkasekar" for CA/SI	Technical Organizational Institutional	Swisscontact, CIRAD, DALRM, DAE, DAEng, PDAFF, Companies, NGOs

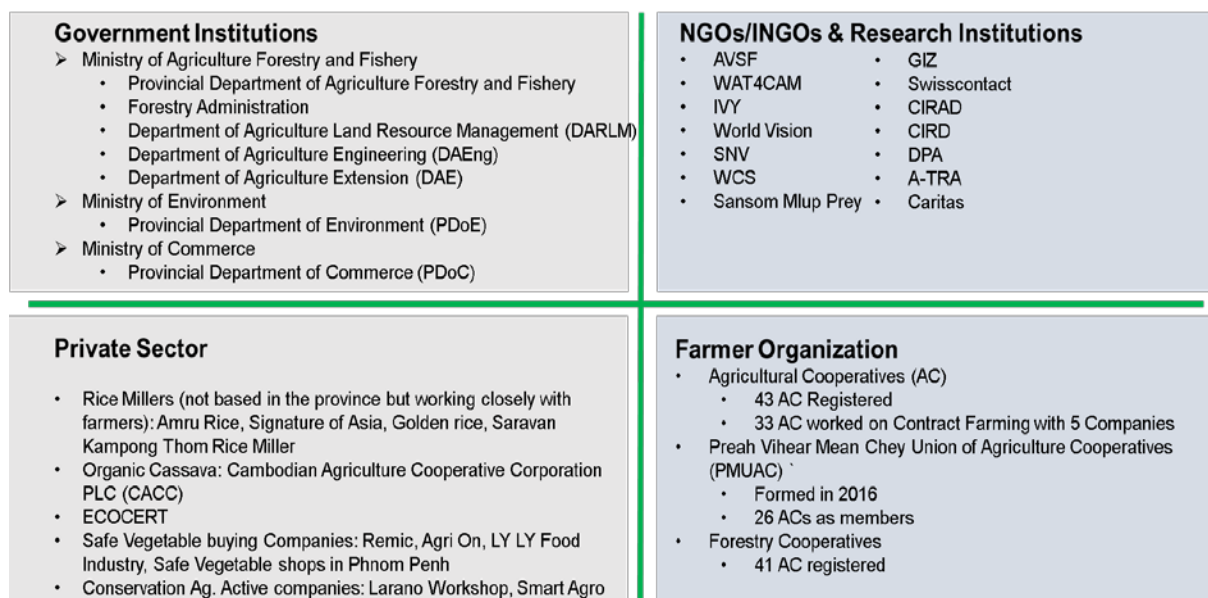


Figure 21. Main/key stakeholders for ASSET transitions in Preah Vihear Province

4.4 Opportunity for partnerships

Sub-criteria	Score
4.1 Number and diversity of potential partnerships	3
4.2 Flagship accessibility	2

- *Based on the inventory of projects and actors (§3), describe the number and diversity of potential partners that could be associated/mobilized through the intervention*

Scoring options:

1. *Local decision makers, farmers, and research institutions are the main partners*
2. *The partnership could involve other stakeholders but who have little leverage power on the transition process*
3. *The partnership could involve other stakeholders with potentially high leverage power (e.g. consumers groups, private company)*

In Preah Vihear, there are strong Agriculture Cooperatives (include one is the best Agriculture Cooperatives in the country) and Union. Both Local Stakeholders are cooperative and eager to receive further knowledge and practice the system that within the organic value chain and help improve their production. The location also has strong presence of NGOs, Private Sectors which are willing to invest in Agroecology and safe food system. The main local authority which is PDAFF is effective and happy to cooperate with the project too.

- *Flagship accessibility: the accessibility of the site may affect the frequency and cost of interventions, as well as the opportunities for strengthening and improving the connections to market.*

Scoring options:

0. *The flagship is at more than 8 hours driving distance from national capital and cannot be reached by air transportation*
1. *The flagship is at more than 8 hours driving distance from national capital but can be reached by air transportation*
2. *The flagship is at more than 4 hours but less than 8 hours driving distance from national capital*
3. *The flagship is at less than 4 hours driving distance from national capital*

4.5 Opportunity for co-funding of field activities

Criteria	Score
5. Opportunity for co-funding of field activities	2

Opportunities for co-funding of field activities is a major selection criteria; financial linkages with other initiatives, notably AFD or EU-supported projects, as an advantage

Scoring options:

0. *The opportunities for co-funding of field activities are limited to nul*
1. *Other initiatives would agree to contribute to the funding of joint-activities (e.g. training, workshops, exchange platform etc.)*
2. *Other initiatives would agree to support the funding of out-scaling activities but below a maximum total contribution of 50,000 euros/year*
3. *Other initiatives would agree to support the funding of out-scaling activities beyond a contribution of 50,000 euros/year*

There is an opportunity for co-funding by the private sector (cooperatives, services providers) through the Metkasekor Model.

4.6 Local expertise/champions that can be mobilized to support the transition process

Criteria	Score
6. Local expertise/champions	2

Present any individual (e.g. technician, farmer, decision-maker) or institution (e.g. cooperative, local association, policy dialogue board) that have acknowledged leadership or competences and that could be mobilized to support the transition process

Scoring options:

- 0. Little to no local experts to support the transition process*
- 1. Some local experts/champions but not available or interested to support the transition process*
- 2. Some local experts/champions interested and ready to engage but having limited recognition/leverage power*
- 3. Some local experts/champions interested and ready to engage, having strong experience in exchanging with other stakeholders and benefiting from a good recognition/reputation at local level*

Agriculture Union and Agriculture board of executives who are effective in leadership and project management that can be engaged and reached to Farmers.

4.7 Existing data and knowledge

Sub-criteria	Score
7.1 Current land cover and land use, LULC changes and land use trajectories	1
7.2 Local food systems	1
7.3 Agricultural value chains and quality	1
7.4 Local livelihoods and livelihood development strategies	2
7.5 Situation of youth, women, and ethnic minorities	2
7.6 Local policies and rural development strategies	2
7.7 Agricultural extension facilities and strategy	1
7.8 Actors and investment in the agribusiness sector	1
7.9 Performance and impact of conventional agricultural systems	1
7.10 Performance and impact of innovative AE and SF systems	1

Scoring options:

- 0. Data not existing or available*
- 1. Data existing, available but partial and/or fragmented*
- 2. Data existing, available; recent and comprehensive review of the situation*

Globally: some information existing (PDAFF, cooperatives, projects) but still largely fragmented except for women and youth situation, local development and extension strategies.

4.8 Intervention area and number of potential beneficiaries

Criteria	Score
8. Number of potential beneficiaries	3

Describe for each targeted interventions (see §2) what would be the potential area and potential number of beneficiaries

Scoring options:

1. <500 ha and/or 500 smallholders
2. From 500 to 2,000 ha and/or smallholders
3. > 2000 ha and/or 2000 smallholders

Difficult to assess prior to Theory of Change implementation but likely > 2,000 smallholders .

4.9 Environmental and social risks

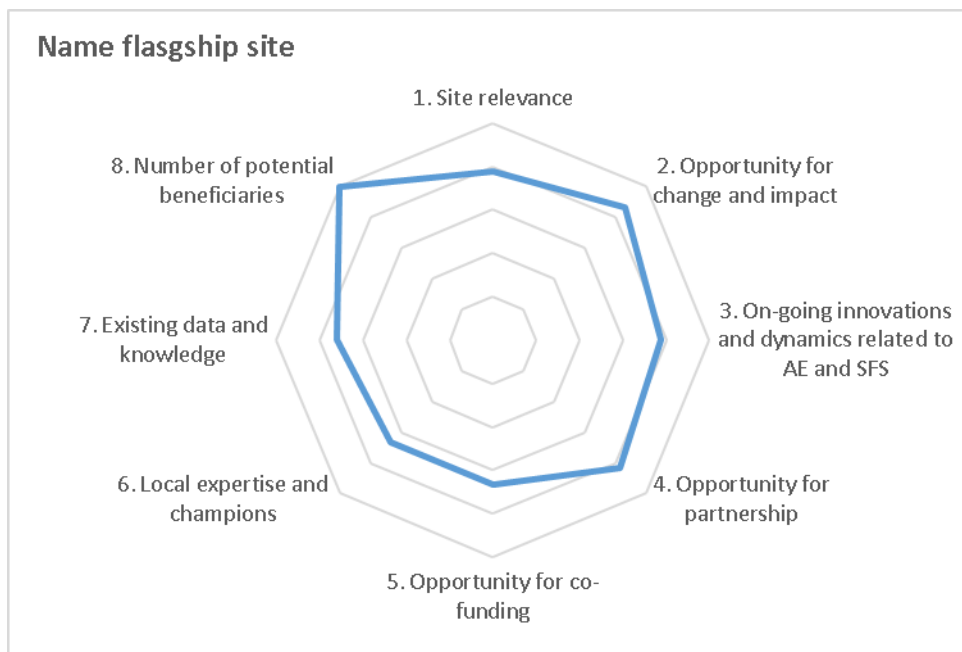
The status of the Province regarding 5 main environmental and social risks are presented in Table 6.

Table 7. Main Environmental and social risks in Preah Vihear

	YES	NO	Comments
1. Location: Does the site include or is it in close proximity to:			
• A protected area	X		<ul style="list-style-type: none"> • Kulen Promtep Wildlife Sanctuary within Upper Stung Sen Catchment (547,639 ha of KBA) • Forest Reserve for Conservation of Genetic Diversity, Vegetation and Wildlife Resources in Chhep and Chom Khsan districts
• A sacred or cultural site	X		Prasat Preah Vihear is one of Cambodia's revered temples located on the plateau of Dânggrêk Mountains
• Wetlands, mangroves		X	
2. Is the project require (land use)			
• A change in land rights			Not relevant: flagship site not yet selected
• Economic losses for all or part of the target populations			Not relevant: flagship site not yet selected
• Increase deforestation			Baseline: Forest cover of 78% in 2019
3. Site Context			
• Are indigenous peoples or traditional local communities present in the project area?	X		8,6% of ethnic minorities
• Are there any protected species or critical habitats in the site?	X		Sarus Crane <i>Grus Antigone</i> , Lesser Adjutant <i>Leptoptilos javanicus</i> , Giant Ibis (<i>Pseudibis gigantea</i>), White-shouldered Ibis (<i>Pseudibis davisoni</i>), Greater Adjutant (<i>Leptoptilos dubius</i>), Black-necked Stork (<i>Ephippiorhynchus asiaticus</i>) and Grey-headed Fish Eagle (<i>Ichthyophaga ichthyaetus</i>)
4. Would the project likely to cause			
• Loss or restriction of access to natural resources (water, timber, gathering)			Not relevant: flagship site not yet selected
• Increases in water requirements, Erosion risks, Flooding risks, waterborne diseases			
5. Have local changes due to climate change been taken into account in the project design?			Not relevant: flagship site not yet selected

5. Conclusions

5.1 Scoring results



5.2 Site average note

Criteria	Coefficient weighting	Site
1. Site relevance	1	0,78
2. Opportunity for change and impact	5	4,33
3. On-going innovations and dynamics related to AE and SFS	4	3,11
4. Opportunity for partnership	1	0,83
5. Opportunity for co-funding	2	1,33
6. Local expertise and champions	3	2,00
7. Existing data and knowledge	3	2,17
8. Number of potential beneficiaries	1	1,00
TOTAL	20	15,6

5.3 Global assessment: Advantages and drawbacks for selecting the site as flagship site in Cambodia

Potential

- Existing organic value chain and actor networking for rice (including wildlife and forest conservation) cassava, cashew nut, and peanut
- Medium-high level of agri-business (milled rice, cashew nut, pepper) and management capacity of AC/Union with little external support
- Biophysical (large forest with spots of crop area) and socio-economic (diversified cropping, livestock, conservative mindset) conditions favor organic farming and also for AE
- Common understanding among stakeholders current issues (low yield, soil fertility depletion, increasing weeds) and call for AE for organic farming
- Well connected and supporting environment among stakeholders

Limits

- Limited existing knowledge esp. for non-rice crops and experts in AE
- Difficult access to the fields esp. during rainy periods
- Limitations for mechanization due to small plots
- Low financial capacity of farmers if extra investment needed

References

- FA, 2014. Cambodian forest cover 2014. Forestry Administration. Phnom Penh.
- MAFF, 2010. Annual report, 2010. Phnom Penh
- MAFF, 2011. Annual report, 2011. Phnom Penh
- MAFF, 2012. Annual report, 2012. Phnom Penh
- MAFF, 2013. Annual report, 2013. Phnom Penh
- MAFF, 2014. Annual report, 2014. Phnom Penh
- MAFF, 2015. Annual report, 2015. Phnom Penh
- MAFF, 2016. Annual report, 2016. Phnom Penh
- MAFF, 2017. Annual report, 2017. Phnom Penh
- MAFF, 2018. Annual report, 2018. Phnom Penh
- MAFF, 2019. Annual report, 2019. Phnom Penh
- MAFF, 2020. Annual report, 2020. Phnom Penh
- Meang S., Prun J. M., 2018. Contract farming for organic paddy supply in Preah Vihear Province. Support to the Commercialization of Cambodian Rice Project (SCCRP). Supreme National Economic Council (SNEC). Phnom Penh.
- Oxfam, 2019. BlockChain For Livelihoods From Organic Cambodian Rice (BlocRice) Project. <https://cambodia.oxfam.org/BlocRice>
- PDAFF, 2020. 2019-2023 strategic development plan Preah Vihear Provincial department of agriculture, forestry and fisheries Preah Vihear.
- PDAFF, 2020. 2020 data of rice production Provincial department of agriculture, forestry and fisheries. Preah Vihear.
- PDAFF, 2020. Aspire report 2020 Provincial department of agriculture, forestry and fisheries. Preah Vihear.
- PDAFF, 2020. PDAFF report 2020 Provincial department of agriculture, forestry and fisheries. Preah Vihear.
- PDoP, 2020. Commune database Preah Vihear 2020 Provincial department of plan. Preah Vihear.
- PDoP, 2020. ID poor report Preah Vihear Provincial department of plan. Preah Vihear.
- PDoP, 2020. Poverty rate, Preah Vihear Provincial department of plan. Preah Vihear.
- PDoP, 2020. Profile 2019 for province, district, and commune. Provincial department of plan. Preah Vihear.
- PDoP, 2020. Progress 3-year plan for Preah Vihear. Provincial department of plan. Preah Vihear.
- PDoWA, 2020. Annual report 2020, women affair department Provincial department of women affair Preah Vihear.
- PDoWRAM, 2020. Annual report 2020, water resources department Provincial department of water resources and meteorology Preah Vihear.
- PMUAC, 2020. Annual report 2019. Preah Vihear Meanchey Union Agricultural Cooperative. Preah Vihear.

Annexes

Annex 1: List of the main projects and initiatives identified in Preah Vihear province

Nb	Project name	Acronym	Intervention type	Main crops/activities	Intervention area	Donor	Project Partners	Period
1	Mekong Inclusive and Innovation Growth Program	MIGIP	Developt	Engagement of private sector	National	SDC, Swisscontact	Swisscontact	2017 – 2020
2	Cambodia Conservation Agriculture Sustainable Intensification Consortium	CASIC	Developt	Policy dialogue, public – private partnership	National	MAFF Cambodia	Swisscontact, GDA, RUA/CE SAIN, KSU, CIRAD	2020 – now
3	Water Resources Management and Agro-ecological Transition for Cambodia (WAT4CAM)	WAT4CAM	R4D	Rice, crop diversification, Water Management	Battambang, Preah Vihear, Kandal	AFD	MAFF, GDA/DALRM & CIRAD	2020 – 2023
4	Developing Ecologically-based Participatory IPM package for rice in Cambodia	EPIC	R4D	IPM, Rice	National	USAID	IRRI	
5	Cambodian Institute for Research and Rural Development	CIRD	R4D, Developt	value chain e.g. SRP, organic, cooperative, AE	National	Various		
6	Cambodia Horticulture project Advancing Income and Nutrition	CHAIN	Developt	Horticulture	National	SDC	SNV, Swisscontact, World veg center	2014 - 2022
7	Project? of Ibis Rice	Ibis Rice	Developt	Organic rice	Preah Vihear	Various	WCS	
8	Support to the Commercialization of Cambodian Rice Project (SCCRP)	SCCRP	Developt	1) Support the dev of professional and inter-profes organizations in the Cambodian rice sector, 2) Improve Cambodian Rice quality consistency and international market recognition, 3) Support the involvement Farmer Orga in the commercializ. of paddy, 4) Up-grade Rural Develot Bank, 5) Project Managt and Coord	National esp. Preah Vihear, Battambang...	AFD	AVSF, CIRD, Eclasio, IRAM, AVSF, CIRD	2013-2017
9	Rural Livelihoods Improvement Project in Kratie, Preah Vihear and Ratanakiri (RULIP)	RULIP	Developt	1) Livelihoods improvement, including support for group formation, group revolving funds (GRFs) and introduction of improved ag technologies e.g. IPM, SRI, 2) Support for decentralization and de-concentration in agriculture	Kratie, Preah Vihear and Ratanakiri	IFAD	MAFF, MoWA, other service providers: private, NGOs	2007-2014

10	National Adaption Programme of Action to climate change	NAPA	Developt	Climate smart agricultural practices, water saving practices, solar panel...	Preah Vihear	Gov Cambodia, UNDP, GEF		2014
11	Agriculture Services Programme for Innovation, Resilience and Extension (ASPIRE)	ASPIRE	Developt	1) Evidence-based Policy Developpt, 2) Capacity Developpt for Extension Services, 3) Improved Extension Services, and 4) Infrastructure Supporting Climate Resilient Agriculture.	Preah Vihear	IFAD	NCDD, MAFF, PDAFF, Private sectors, SNEC, Service providers (from academy to private)	2015-2022
12	Accelerating Inclusive Markets for Smallholders (AIMS)	AIMs	Developt	Value chains dev: vegetables, backyard chicken, rice, cassava and raw silk.	Preah Vihear	IFAD	Ministry of Commerce, PDAFF, private sectors	2017-2023
13	Cambodia Horticulture Advancing Income and Nutrition (CHAIN-II)	CHAIN-II	Developt	1) Commercial and homestead producers and processors increase productivity by adapting improved technologies, 2) Farmer groups and processor groups provide demand-oriented services and facilitate transparent and fair market engagement, 3). Public and private sector actors deliver demand-driven, gender-sensitive and accountable advisory services.	Preah Vihear	SDC	SNV, Swisscontact, PDAFF	2018-2022
14	The Civil Society and Pro-Poor Markets (CSPPM) program	CSPPM	Developt	Support CBO rice value chain via conservation	Preah Vihear	WCS		
15	Project? of Sansom Mlup Prey Organization (SMP)		Developt	Organic rice, SRP	Preah Vihear	USAID, WCS		
16	Cambodia Agricultural Sector Diversification Project (CASDP)	CASDP	Developt	1. Enabling Ag Diversifi., 2. Support Public Infrastr., 3. Improving Ag Info Systems and Quality Control Manat, 4. Project Managt, Coordi, and M&E, 5. Contingent Emergency Resp.	13 target provinces including Preah Vihear	World Bank & Royal Govenor Cambodia	PDAFF and NGO (ARD)	2019-2024
17	WASP		Developt	Irrigation	Preah Vihear	AFD, ADB	MoWRAM, MAFF	
18	Micro-franchised Agriculture Services Expanded phase 2	MASE 2	Developt	1) Supporting Agricultural Cooperative on management, organization, agri-business... 2) Providing agricultural techniques	Preah Vihear	Australian Government	World Vision, PDAFF, AC	2017-2022
19	Support to the smallholder farmers through contract farming of organic cashew nuts through Agriculture Cooperatives	IVY NGO		1) Supporting Agricultural Cooperative on management, organization, agri-business... 2) Training techniques on organic farming and others and others; 3) support logistic coordination for contract farming	Preah Vihear	JICA	PDAFF, AC, private companies	2021-2022

Annex 2: Accelerating Inclusive Markets for Smallholders (AIMS)

Intervention area	National (data entered for Siem Reap Province)
Name of organization	CIRD
Name of contact person	Tep Sopheakmingkoul
Email Address	mingkoul.tep@gmail.com
Phone number of contact person	078928829
Website presenting the project	AIMS
Facebook page of the project	AIMS
Documents presenting the project	
Funding agency	IFAD Loan and Royal government of Cambodia
Main objectives of the project	For mobilization of farmers into the local VCs, the project will engage teams of marketoriented social mobilizers to work with the Regional Hub offices (located in provinces of Battambang, Kampong Cham, and Takeo). These social mobilization teams will also be the mechanism through which business and financial literacy training is provided to almost all participating AIMS farmers, via a cascade system using a system of Business Literacy Facilitators nominated by the members of the producer groups themselves.
Starting date of the project	2017
Ending date of the project	2023
Implementing institution(s)	Ministry of commerce
Project Partner(s)	CIRD, FNN, CFAP, and GIC
Targeted "Districts"	Siem Reap province: the whole province
Targeted "Communes"	Whole communes
Targeted farming systems	Vegetables production/ផលិតកម្មបន្លែ, Livestock: cattle, chicken, pig.../ផលិតកម្មសត្វស៊ី (គោ មាន់ ជ្រូក...)
Promoting agroecological systems	We do not support these activities
Supporting farmers access to :	Seeds and breeds/ពូជដំណាំ និងពូជសត្វ, Subsidy/ទុនឧបត្ថម្ភ, Organic fertilizers/ជីសរីរាង្គ, Bio pesticides/ថ្នាំសម្លាប់សត្វល្អិតធម្មជាតិ, Market/ទីផ្សារ
Promoting environmental protection	
Promoting safe food systems :	Processing of agricultural products/ការកែច្នៃផលិតផលកសិកម្ម
Promoting youth and gender	Gender equality/សមភាពយេនឌ័រ, Youth in agriculture/យុវជនក្នុងវិស័យកសិកម្ម
Promoting Agri-business and market access through cooperative/association:	Supporting the creation and the operation of farmer organization e.g. cooperative, union...etc./គាំទ្រការបង្កើត និងដំណើរការសហគមន៍កសិកម្ម, Supporting contract farming/គាំទ្រកសិកម្មកិច្ចសន្យា, Supporting standard certification and labeling e.g. organic, PGS, GAP.../ គាំទ្រ វិញ្ញាបនបត្រស្លាកសញ្ញា ស្តង់ដារគុណភាពឧ. សរីរាង្គ PGS, GAP ..., Development of training materials for farmers and field workers / ផលិតឯកសារបណ្តុះបណ្តាលដល់កសិករ និងកម្មករ
Project activity(ies):	Training/ការបណ្តុះបណ្តាល, Technical support/ការគាំទ្រផ្នែកបច្ចេកទេស, Financial support/ការគាំទ្រផ្នែកហិរញ្ញវត្ថុ, Support to local entrepreneurship/ការគាំទ្រភាពជាសហគ្រិនភាពមូលដ្ឋាន, Reinforcement organizational capacities/ការពង្រឹងសមត្ថភាពរៀបចំក្រុម បណ្តាញ សហគមន៍, Networking/ការពង្រឹងបណ្តាញភាគីពាក់ព័ន្ធក្នុងវិស័យកសិកម្ម
Experiences of co-financing with other projects or providing grants to stakeholders	Yes, only providing grants to stakeholders/ផ្តល់ថវិកាដល់ភាគីពាក់ព័ន្ធ

Number of families as beneficiaries	7,502 households
Number of villages as beneficiaries	907 villages
Number of communes as beneficiaries	100 communes
Number of districts as beneficiaries	11 districts
Key local stakeholders / partners	provincial department of agriculture, forestry, and fishery, commune administration, and district governors.
Farmers champions(s)	<ol style="list-style-type: none"> 1. Mr. Kean Ka, rolus village, rolus commune, Brasat bakorng district. H/P: 011 689 506 2. Mr. Chao Mean, Tbeng lech village, Tbeng commune, Banteay Srei district. 3. Mr. Chieve Hong. Batdang Koa village, Samroang commune, Sotnikum district. H/P: 012 413 151 4. Mr. Se Rei, Sang tey village, dan run commune, Sotnikum district. 5. Mr. Yoeung sela, Chrey khang choeung village, Kien Sangke commune, Sotnikum dsitric. H/P: 099 71 29 61
Cooperative champions(s)	<ol style="list-style-type: none"> 1. Agricultural Cooperative of safety vegetable, Chrey Khang Choeung village, Kien Sang ke commune, Sotnikum district. Siem Reap province. H/P: 099 71 29 61 2. Agricultural Cooperative of Samroang Meanchey, Bek Kamploeung village, Samroang commune, Sotnikum district. H/P: 012 413 151
Outstanding villages	<ol style="list-style-type: none"> 1. Rolus village, rolus commune on chicken raising adapt to technical raising. 2. Tbeng lech village, Tbeng commune on chicken raising adapt to technical raising. 3. Batdang Koa village, Samroang commune on safety vegetable with net house growing technique.
Outstanding communes	Rolus, Tbeng and Samroang communes.

Annex 3: Agriculture Services Programme for Innovation Resilience and Extension (ASPIRE)

Intervention area	National (data entered for Siem Reap Province)
Name of organization	Provincial Department of Agriculture
Name of contact person	o Pen Buntheurn
Phone number of contact person	093 34 66 99
Website presenting the project	http://aspirekh.org
Funding agency	IFAD
Main objectives of the project	Enhanced Cambodian model of agriculture services is a demonstrated as effective for assisting a diversity of smallholder farmers to contribute to broad-based economic growth through profitable and resilient farm business
Starting date of the project	2019
Ending date of the project	2023
Implementing institution(s)	Provincial department of agriculture
Project Partner(s)	District Agricultural officers level
Targeted "Districts"	All district exclude Srey Snom
Targeted "Communes"	
Targeted farming systems	Rice/ប្រព័ន្ធដំណាំស្រូវ, Annual upland crops: cassava maize .../ដំណាំឧដាឆ្នាំប្រចាំឆ្នាំ(ដំឡូងមី ពោត...), Tree crops: cashew, rubber.../ដំណាំឆ្នាំវែង/ឈើហូបផ្លែ (ចន្ទី កៅស៊ូ...), Vegetables production/ផលិតកម្មបន្លែ, Livestock: cattle, chicken, pig.../ផលិតកម្មសត្វ (គោ មាន់ ជ្រូក...), Aquaculture / Fishing/វារីប្រកម្ម / ចិញ្ចឹមត្រី, Agro-forestry/កសិវត្ថុកម្ម, Forestry/ព្រៃឈើ, All types of farming systems/គ្រប់ប្រភេទប្រព័ន្ធកសិកម្ម
Promoting agroecological systems	Organic agriculture/កសិកម្មសរីរាង្គ, Agroforestry/កសិវត្ថុកម្ម, Conservation agriculture/កសិកម្មអភិរក្ស, Home garden / permaculture / integrated farming/សួនបន្លែ / Permaculture / កសិកម្មចម្រុះ, Integrated Pest Management / Agroecological Crop Protection/ការគ្រប់គ្រងចម្រុះកត្តាចង្រៃ/ ការការពារដំណាំដោយកសិអេកូឡូស៊ី, Crop-livestock farming systems/ប្រព័ន្ធដំណាំចិញ្ចឹមសត្វ
Supporting farmers access to :	Seeds and breeds/ពូជដំណាំ និងពូជសត្វ, Bio pesticides/ថ្នាំសម្លាប់សត្វល្អិតធម្មជាតិ, Market/ទីផ្សារ
Promoting environmental protection	
Promoting safe food systems :	Safeguarding consumer health (pesticide residues...)/ការការពារសុខភាពអ្នកប្រើប្រាស់ (សំណល់ថ្នាំសម្លាប់សត្វល្អិត...), Setting up short and/or local food circuits/ផលិតកម្មស្បៀងអាហារក្នុងស្រុក ឬការដឹកជញ្ជូនជិតៗ, Processing of agricultural products/ការកែច្នៃផលិតផលកសិកម្ម
Promoting youth and gender	Gender equality/សមភាពយេនឌ័រ, Youth in agriculture/យុវជនក្នុងវិស័យកសិកម្ម
Promoting Agri-business and market access through cooperative/association:	Supporting the creation and the operation of farmer organization e.g. cooperative, union...etc./គាំទ្រការបង្កើត និងដំណើរការសហគមន៍កសិកម្ម, Strengthening public-private partnerships on agriculture/vocational training/ពង្រីកភាពជាដៃគូសាធារណៈនិងឯកជនលើការផ្សព្វផ្សាយបច្ចេកទេសកសិកម្ម និងបណ្តុះបណ្តាលជំនាញខ្លី, Supporting standard certification and labeling e.g. organic, PGS, GAP.../ គាំទ្រ វិញ្ញាបនបត្រស្តារកសិកម្ម ស្តង់ដារគុណភាពខ. សរីរាង្គ PGS, GAP ...
Project activity(ies):	Training/ការបណ្តុះបណ្តាល, Awareness/ការពង្រីកការយល់ដឹងជាសាធារណៈ, Technical support/ការគាំទ្រផ្នែកបច្ចេកទេស, Networking/ការពង្រឹងបណ្តាញភាគីពាក់ព័ន្ធក្នុងវិស័យកសិកម្ម
Experiences of co-financing with other projects or providing grants to stakeholders	Yes, both co-financing and providing grants/ធ្លាប់ទាំងសហការ និងផ្តល់ជំនួយ

Annex 4: Cambodia Agricultural Sector Diversification Project (CASDP)

Intervention area	National (data entered for Siem Reap Province)
Name of organization	Provincial Department of Agriculture
Name of contact person	Ma Sokhom
Phone number of contact person	092489518
Website presenting the project	https://www.mrd.gov.kh/casdp/
Funding agency	World bank \$91millions + Cambodian governors \$10millions
Main objectives of the project	The proposed Project Development Objectives (PDOs) are to facilitate the development of diversified agriculture value chains in selected geographical areas in Cambodia, and to provide immediate and effective response in case of an eligible crisis or emergency
Starting date of the project	2019
Ending date of the project	2025
Implementing institution(s)	Ministry of Agriculture, Forestry and Fisheries (MAFF), Ministry of Rural Development (MRD), Ministry of Economy and Finance (MEF) and Ministry of Water Resources and Meteorology (MOWRAM)
Project Partner(s)	Bank, Micro finance, Agriculture Suppliers
Targeted "Districts"	all district but focus on agricultural cooperative and producer group
Targeted farming systems	Annual upland crops: cassava maize .../ដំណាំខ្ពង់រាបប្រចាំឆ្នាំតឹងទឹកភ្លៀង(ដំឡូងមី ពោត...), Tree crops: cashew, rubber.../ដំណាំធំ/ឈើហូបផ្លែ (ចន្ទី កៅស៊ូ...), Vegetables production/ផលិតកម្មបន្លែ, Livestock: cattle, chicken, pig.../ផលិតកម្មសត្វ (គោ មាន់ ជ្រូក...), Aquaculture / Fishing/វារីប្បកម្ម / ចិញ្ចឹមត្រី, Support producer groups, private sectors (inputs suppliers, food processing, small and medium agriculture sellers) and agricultural cooperative
Promoting agroecological systems	Organic agriculture/កសិកម្មសរីរាង្គ, Home garden / permaculture / integrated farming/សួនបន្លែ / Permaculture / កសិកម្មចម្រុះ, Integrated Pest Management / Agroecological Crop Protection/ការគ្រប់គ្រងចម្រុះកត្តាចង្រៃ/ ការការពារដំណាំដោយកសិអេកូឡូស៊ី, Crop-livestock farming systems/ប្រព័ន្ធដំណាំចិញ្ចឹមសត្វ
Supporting farmers access to :	Seeds and breeds/ពូជដំណាំ និងពូជសត្វ, Subsidy/ទុនឧបត្ថម្ភ, Organic fertilizers/ជីសរីរាង្គ, Bio pesticides/ថ្នាំសម្លាប់សត្វល្អិតធម្មជាតិ, Market/ទីផ្សារ
Promoting safe food systems :	Safeguarding consumer health (pesticide residues...)/ការការពារសុខភាពអ្នកប្រើប្រាស់ (សំណល់ថ្នាំសម្លាប់សត្វល្អិត...), Setting up short and/or local food circuits/ផលិតកម្មស្បៀងអាហារក្នុងស្រុក ឬការដឹកជញ្ជូនជិតៗ, Processing of agricultural products/ការកែច្នៃផលិតផលកសិកម្ម
Promoting youth and gender	Gender equality/សមភាពយេនឌ័រ, Youth in agriculture/យុវជនក្នុងវិស័យកសិកម្ម
Promoting Agri-business and market access through cooperative/association:	Supporting standard certification and labeling e.g. organic, PGS, GAP.../ គាំទ្រវិញ្ញាបនបត្រស្លាកសញ្ញា ស្តង់ដារគុណភាពខ. សរីរាង្គ PGS, GAP ...
Project activity(ies):	Training/ការបណ្តុះបណ្តាល, Awareness/ការពង្រីកការយល់ដឹងជាសាធារណៈ, Technical support/ការគាំទ្រផ្នែកបច្ចេកទេស, Financial support/ការគាំទ្រផ្នែកហិរញ្ញវត្ថុ, Support to local entrepreneurship/ការគាំទ្រភាពជាសហគ្រិនតាមមូលដ្ឋាន, Reinforcement organizational capacities/ការពង្រឹងសមត្ថភាពរៀបចំក្រុម បណ្តាញ សហគមន៍, Infrastructure construction/សំណង់ហេដ្ឋារចនាសម្ព័ន្ធ, Networking/ការពង្រឹងបណ្តាញភាគីពាក់ព័ន្ធក្នុងវិស័យកសិកម្ម
Experiences of co-financing with other projects or providing grants to stakeholders	Yes, both co-financing and providing grants/ធ្លាប់ទាំងសហការ និងផ្តល់ជំនួយ

Annex 5: Cambodia Horticulture Advancing Income and Nutrition project (Chain-III)

Intervention area	National (data entered for Preah Vihear Province)
Name of organization	SNV
Name of contact person	Lim Sokundarun
Email Address	slim@snv.org
Phone number of contact person	012669648
Website presenting the project	www.snv.org/project/cambodia-horticulture-advancing-income-and-nutrition-chain
Facebook page of the project	CHAIN
Documents presenting the project	
Funding agency	SDC
Main objectives of the project	Improving the horticulture value chain for smallholders farmer in remotes province
Starting date of the project	Dec 2014
Ending date of the project	December 2022
Implementing institution(s)	SNV Netherland Development Organization Cambodia
Project Partner(s)	All actors in the value chain include public and private sector, ngo at national and sub national
Targeted "Districts"	Kulen, Sankum Thmey, Rovieng, Chheb, Chhey Sen, Tbeng Meanchey and Chamkhsan and Preah Vihear city
Targeted "Communes"	Many about 20 communes
Targeted farming systems	Vegetables production/ផលិតកម្មបន្លែ
Promoting agroecological systems	Organic agriculture/កសិកម្មសរីរាង្គ, Home garden / permaculture / integrated farming/ស្ថានបន្លែ / Permaculture / កសិកម្មចម្រុះ, Integrated Pest Management / Agroecological Crop Protection/ការគ្រប់គ្រងចម្រុះកត្តាចង្រៃ/ ការការពារដំណាំដោយកសិអេកូឡូស៊ី
Supporting farmers access to :	Seeds and breeds/ពូជដំណាំ និងពូជសត្វ, Market/ទីផ្សារ, Technical advice
Promoting environmental protection	
Promoting safe food systems :	Improving food nutritional quality/ការកែលម្អគុណភាពអាហាររូបត្ថម្ភ, Standard certification (public and private labels)/វិញ្ញាបនប័ត្រស្តង់ដារ (ស្លាកសញ្ញាសាធារណៈនិងឯកជន)
Promoting youth and gender	Gender equality/សមភាពយេនឌ័រ, Youth in agriculture/យុវជនក្នុងវិស័យកសិកម្ម
Promoting Agri-business and market access through cooperative/association:	Supporting the creation and the operation of farmer organization e.g. cooperative, union...etc./គាំទ្រការបង្កើត និងដំណើរការសហគមន៍កសិកម្ម, Strengthening public-private parternships on agriculture/vocational training/ពង្រីកភាពជាដៃគូសាធារណៈនិងឯកជនលើការផ្សព្វផ្សាយបច្ចេកទេសកសិកម្ម និងបណ្តុះបណ្តាលជំនាញថ្មី, Supporting contract farming/គាំទ្រកសិកម្មកិច្ចសន្យា, Supporting standard certification and labeling e.g. organic, PGS, GAP.../ គាំទ្រវិញ្ញាបនប័ត្រស្លាកសញ្ញា ស្តង់ដារគុណភាពឧ. សរីរាង្គ PGS, GAP ..., Development of training materials for farmers and field workers / ផលិតឯកសារបណ្តុះបណ្តាលដល់កសិករ និងកម្មករ, 9 interventions strategies
Project activity(ies):	Training/ការបណ្តុះបណ្តាល, Awareness/ការពង្រីកការយល់ដឹងជាសាធារណៈ, Technical support/ការគាំទ្រផ្នែកបច្ចេកទេស, Financial support/ការគាំទ្រផ្នែកហិរញ្ញវត្ថុ, Support to local entrepreneurship/ការគាំទ្រភាពជាសហគ្រិនតាមមូលដ្ឋាន, Reinforcement organizational capacities/ការពង្រឹងសមត្ថភាពរៀបចំក្រុម បណ្តាញ សហគមន៍, Networking/ការពង្រឹងបណ្តាញភាគីពាក់ព័ន្ធក្នុងវិស័យកសិកម្ម, Policy and dialogue

Experiences of co-financing with other projects or providing grants to stakeholders	Yes, both co-financing and providing grants/ ភ្ជាប់ទាំងសហការ និងផ្តល់ជំនួយ
Number of families as beneficiaries	100000
Number of villages as beneficiaries	400
Number of communes as beneficiaries	60
Number of districts as beneficiaries	20
Key local stakeholders / partners	40
Farmers champions(s)	51
Cooperative champions(s)	14
Outstanding villages	30
Outstanding communes	5

Annex 6: Conservation Agriculture and Sustainable Intensification Consortium (CASIC)

Intervention area	National
Name of organization	Swisscontact
Name of contact person	Sovannaret Mak
Email Address	sovannaret.mak@swisscontact.org
Phone number of contact person	+85570788490
Website presenting the project	https://www.swisscontact.org/en/country/cambodia/news/news-detail/news/casic-paving-the-way-for-conservation-agriculture-and-sustainable-intensification-in-cambodia.html
Funding agency	1. CE SAIN 2. Swisscontact
Main objectives of the project	to establish knowledge management of Conservation Agriculture (CA) related resources for easy access for members; create an enabling environment for the increased investment in CA; promote and enhance CA practices and strengthen collaboration between stakeholders in CA.
Starting date of the project	2020
Ending date of the project	N/A
Implementing institution(s)	1. General Department of Agriculture of Ministry of Agriculture Forestry and Fishery (GDA/MAFF), 2. DAEng/MAFF, 3. CE SAIN, 3. Royal University of Agriculture (RUA), 4. Swisscontact, 5. Sustainable Intensification Innovation Lab/Kansas State University (KSU), 6. CIRAD
Project Partner(s)	General Department of Agriculture of Ministry of Agriculture Forestry and Fishery (GDA/MAFF), 2. DAEng/MAFF, 3. CE SAIN, 3. Royal University of Agriculture (RUA), 4. Swisscontact, 5. Sustainable Intensification Innovation Lab/Kansas State University (KSU), 6. CIRAD
Targeted "Districts"	State wide
Targeted "Communes"	State wide
Targeted farming systems	Rice/ប្រព័ន្ធដំណាំស្រូវ, Annual upland crops: cassava maize .../ដំណាំឌួងរាបប្រចាំឆ្នាំពីងទឹកភ្លៀង(ដំឡូងមី ពោត...), Tree crops: cashew, rubber.../ដំណាំធំ/ឈើហូបផ្លែ (ចន្ទី កៅស៊ូ...)
Promoting agroecological systems	Conservation agriculture/កសិកម្មអភិរក្ស, System of rice intensification/ប្រព័ន្ធប្រពលវប្បកម្មដំណាំស្រូវ
Supporting farmers access to :	Seeds and breeds/ពូជដំណាំ និងពូជសត្វ, Land/ដី, Information on Conservation Agriculture
Project activity(ies):	Awareness/ការពង្រីកការយល់ដឹងជាសាធារណៈ, Advocacy/ការតស៊ូមតិ, Technical support/ការគាំទ្រផ្នែកបច្ចេកទេស, Networking/ការពង្រឹងបណ្តាញភាគីពាក់ព័ន្ធក្នុងវិស័យកសិកម្ម, Research/ការស្រាវជ្រាវ, Knowledge Management
Experiences of co-financing with other projects or providing grants to stakeholders	No, never before but still searching for co financing with other projects
Key local stakeholders / partners	Name : H.E Dr. Chan Saruth Status : MAFF Undersecretary of State and Chair of the Executive Board of CASIC Location : Phnom Penh Knowledgeable on : Conservation Agriculture/ Coordination Contact : saruthchan@gmail.com

Annex 7: Mekong Inclusive Growth and Innovation Programme (MIGIP)

Intervention area	National (data entered for Battambang Province)
Name of organization	Swisscontact
Name of contact person	Sovannaret Mak
Email Address	sovannaret.mak@swisscontact.org
Phone number of contact person	+85570788490
Website presenting the project	https://www.swisscontact.org/nc/en/country/cambodia/projects/projects-cambodia/project/-/show/migip-en.html
Facebook page of the project	N/A
Documents presenting the project	
Funding agency	"1. Swiss Development Cooperation (SDC)
Main objectives of the project	2. Laguna Foundation, Happel Foundation
Starting date of the project	3. Kuoni and Hugentobler Foundation"
Ending date of the project	In the agriculture sector, MIGIP aims to increase successful commercial adoption of appropriate existing agriculture technologies and strengthen local capacity in the development and commercialization of new, appropriate agriculture technologies for smallholder farmers.
Implementing institution(s)	2017
Project Partner(s)	2020
Targeted "Districts"	Swisscontact
Targeted "Communes"	"1. NGOs (CIRAD, CE SAIN)
Targeted farming systems	2. Government: General Department of Agriculture, Department of Agriculture Engineering of Ministry of Agriculture, Forestry and Fishery
Promoting agroecological systems	3. Private Sector: Larano workshop, Neourn Local Workshop"
Supporting farmers access to :	"1. Rattanak Mundol
Promoting environmental protection	
Promoting safe food systems :	all communes
Promoting youth and gender	Rice/ប្រព័ន្ធដំណាំស្រូវ, Annual upland crops: cassava maize .../ដំណាំឧដ្ឋានរាប់ប្រចាំឆ្នាំពីងទឹកភ្លៀង(ដំឡូងមី ពោត...), Tree crops: cashew, rubber.../ដំណាំធំ/ឈើហូបផ្លែ (ចន្ទី កៅស៊ូ...)
Promoting Agri-business and market access through cooperative/association:	Conservation agriculture/កសិកម្មអភិរក្ស, System of rice intensification/ប្រព័ន្ធប្រពលវប្បកម្មដំណាំស្រូវ
Project activity(ies):	Seeds and breeds/ពូជដំណាំ និងពូជសត្វ, Appropriate scale mechanization/គ្រឿងយន្តឧបករណ៍កសិកម្ម, Market/ទីផ្សារ
Experiences of co-financing with other projects or providing grants to stakeholders	Sustainable natural resources management/ការគ្រប់គ្រងធនធានធម្មជាតិប្រកបដោយនិរន្តរភាព
Number of communes as beneficiaries	Strengthening public-private partnerships on agriculture/vocational training/ពង្រីកភាពជាដៃគូសាធារណៈនិងឯកជនលើការផ្សព្វផ្សាយបច្ចេកទេសកសិកម្ម និងបណ្តុះបណ្តាលជំនាញខ្លី, Development of training materials for farmers and field workers / ផលិតឯកសារបណ្តុះបណ្តាលដល់កសិករ និងកម្មករ, Development of Model and documents for Private Sector

Number of districts as beneficiaries	Training/ការបណ្តុះបណ្តាល, Awareness/ការពង្រឹងការយល់ដឹងជាសាធារណៈ, Advocacy/ការតស៊ូមតិ, Financial support/ការគាំទ្រផ្នែកហិរញ្ញវត្ថុ, Support to local entrepreneurship/ការគាំទ្រភាពជាសហគ្រិនតាមមូលដ្ឋាន, Networking/ការពង្រឹងបណ្តាញភាគីពាក់ព័ន្ធក្នុងវិស័យកសិកម្ម
Key local stakeholders / partners	Yes, only co-financing with other projects/ធ្លាប់សហការផ្តល់ថវិកាជាមួយគម្រោងដទៃ
Farmers champions(s)	14080

Annex 8: Water Resources Management and Agroecological Transition for Cambodia (WAT4CAM)

Project overview

The WAT4CAM program is financed by the Agence Française de Développement (loan of € 55 million) and from the European Commission (grant of €11.5 million). The WAT4CAM program Phase 1 aims at:

- Accompanying the RGC's investment strategy in irrigation infrastructures, as a way to provide farmers with a secured access to water and to improve their resilience to climate change;
- Supporting the MoWRAM's strategy through capacity-building activities in terms of (i) Irrigation and Social Water Management (ISWM) as a way to encourage a lasting local appropriation, and (ii) IWRM, including use of satellite-based hydro-meteorological technologies;
- Supporting the Ministry of Agriculture, Forestry and Fishery (MAFF) in defining and implementing the RGC's commitment to a sustainable agriculture intensification and diversification, using the modernization of irrigation infrastructures to disseminate climate-smart practices as a way to increase fertility, yields and quality, to encourage value-chain structuration and agro-diversification, and to improve carbon capture and storage.

The Program consists in four components

- **Component 1:** Rehabilitation and completion of irrigation and drainage infrastructures. The Program will support rehabilitation, completion and modernization of around 7-13 medium irrigation schemes and around 20-40 Preks to improve the reliability of water supplies on about 15,000 ha to 20,000 ha. The rehabilitation works will consist mainly in renewing existing civil works but above all completing the development of schemes where initial investments were only targeted on primary infrastructures.
- **Component 2:** Improvement of irrigation management. This component is dedicated to capacity building & technical assistance to the implementation of the irrigation management policy.
- **Component 3:** Support to water resources monitoring and management. The component 3 aims at strengthening MoWRAM capacities in managing two main hydraulic systems with (i) the Tonle Sap/Mekong system and (ii) the Upper Mekong delta in a sustainable way, improving its knowledge on the water resources, on the hydraulic system functioning, their interaction and their evolution, considering climate change among other parameters such as the different uses of water in order to address these different issues.
- **Component 4:** Support innovative farming practices and support to rice value chain. The Program, through the component 4, has a double aim: (i) undertake agricultural transition within irrigation schemes and Preks by promoting agro-ecology practices and diversification and (ii) improve farmers' income by structuring and supporting value chains. MAFF and the General Directorate of Agriculture (GDA) are in charge of the component 4 that is sub-divided into the following components with (1) institutional support to MAFF/GDA, (2) R4D component on Agroecology, (3) Agricultural extension in the Irrigated Schemes and Preks, and (4) Value Chains Support. NIRAS and his consortium of partners has the lead on the sub-components 1, 3 and 4 and CIRAD has been identified to conduct the sub-component of R4D. There is a strong will of MAFF and AFD to explore new methods of interventions and cropping systems that match with the principles of Agroecology as irrigated rice usually fit with the principles of the green revolution inducing high environmental costs with raising concerns on human health and food quality. There is a need to improve water and nutrient-use efficiency safeguarding the natural resources and producing higher quality rice and non-rice crops.

For the R4D component, three irrigation and drainage systems in Battambang (Kanghot), Preah Vihear (O Kambor) and StungChinit and one Prek (Kandal) are targeted. They allow to cross a diversity of farming systems, biophysical conditions, value-chains and different degree of intensification with low inputs and organic rice production in Preah Vihear to high inputs and chemical-based intensification pattern for the irrigation scheme of Kanghot in Battambang and horticultural production in Kandal. Within the same IDS, a range of soil type, water access and management are generally observed generating a diversity of farming systems. Specifically for the R4D component, this diversity should be seen as an asset and different strategies should be targeted based on (i) how to maintain soil fertility, improve water and nutrient use efficiency, productivity and profit under an organic management in Preah Vihear, and (ii) how to design a transition from a chemical-based management (IDS and Preks) to agroecological practices while making positive contributions to natural and social capitals.

Main objectives

The main objectives of the R4D sub-component are to co-design and assess the performances and impacts of the agroecological practices and cropping systems with farmers, agricultural cooperatives and local private sectors.

The concept and practice embodied in the agroecological transition is a process of adaptation and the recognition that technologies are changing fast and new knowledge needs to be collectively created and implemented giving equal emphasis to ecological, social, organizational and technological innovations.

Main activities

- Understand trajectories of rural communities, diversity of farming systems, and identify main constraints to be addressed with a specific focus on soil fertility management and crop diversification.
- Co-design and assess with farmer organizations, local service providers and other key stakeholders a range of innovative practices and cropping systems (agroecological crop protection practices, diversification: relay crops, horticultural crops, mixed crop – livestock systems, perennial).
- Assess the performances and impacts of agroecological practices and cropping systems.
- Build capacities (smallholder, agricultural cooperatives, service providers, extension staff, Msc/PhD).
- Produce science-based evidence to enrich the policy dialogue.

Countries

Cambodia, Preah Vihear, Kampong Thom, Battambang and Kandal provinces

Partnership

Florent Tivet, Team Leader of the R4D sub-component of the Agriculture and Value-chain component led by NIRAS along with CiRD, and ATSA

Annex 9: Micro-franchised Agriculture Services Expanded (MASE 2)

Intervention area	National (data entered for Kandal Province)
Name of organization	World Vision International Cambodia
Name of contact person	SAVUN SamOI
Email Address	im_thano@wvi.org
Phone number of contact person	015864786
Website presenting the project	www.wvi.org
Documents presenting the project	
Funding agency	Australian Government
Main objectives of the project	
Starting date of the project	2017
Ending date of the project	2022
Implementing institution(s)	WVI
Project Partner(s)	1. Svay Brateal AC, 2. S' ang Phnom AC, 3. Khum Snalong AC, 4. Prek Dach Meanchey, 5. Rokar Chunleung
Targeted "Districts"	S' ang, Ksach Kandal and Leuk Daek districts
Targeted "Communes"	Svay Brateal, S' ang Phnom, Prek Dach, Sanlong, Rokar Chunleung
Targeted farming systems	Vegetables production/ផលិតកម្មបន្លែ, Livestock: cattle, chicken, pig.../ផលិតកម្មសត្វ (គោ មាន់ ជ្រូក...)
Promoting agroecological systems	Organic agriculture/កសិកម្មសរីរាង្គ, Home garden / permaculture / integrated farming/ស្ថានបន្លែ / Permaculture / កសិកម្មចម្រុះ
Supporting farmers access to :	Subsidy/ទុនឧបត្ថម្ភ, Organic fertilizers/ជីសរីរាង្គ, Bio pesticides/ថ្នាំសម្លាប់សត្វល្អិតធម្មជាតិ, Market/ទីផ្សារ
Promoting safe food systems :	Setting up short and/or local food circuits/ផលិតកម្មស្បៀងអាហារក្នុងស្រុក ឬការដឹកជញ្ជូនជិតៗ, GAP Vegetable Production in Svay Brateal AC
Promoting youth and gender	Gender equality/សមភាពយេនឌ័រ, Youth in agriculture/យុវជនក្នុងវិស័យកសិកម្ម
Promoting Agri-business and market access through cooperative/association:	Supporting the creation and the operation of farmer organization e.g. cooperative, union...etc./គាំទ្រការបង្កើត និងដំណើរការសហគមន៍កសិកម្ម, Supporting contract farming/គាំទ្រកសិកម្មកិច្ចសន្យា, Supporting standard certification and labeling e.g. organic, PGS, GAP... / គាំទ្រ វិញ្ញាបនបត្រស្លាកសញ្ញា ស្តង់ដារគុណភាពឧ. សរីរាង្គ PGS, GAP
Project activity(ies):	Training/ការបណ្តុះបណ្តាល, Technical support/ការគាំទ្រផ្នែកបច្ចេកទេស, Financial support/ការគាំទ្រផ្នែកហិរញ្ញវត្ថុ, Support to local entrepreneurship/ការគាំទ្រភាពជាសហគ្រិនតាមមូលដ្ឋាន, Reinforcement organizational capacities/ការពង្រឹងសមត្ថភាពរៀបចំក្រុម បណ្តាញ សហគមន៍
Experiences of co-financing with other projects or providing grants to stakeholders	Yes, only providing grants to stakeholders/ផ្តល់ប្រាក់ជំនួយដល់ភាគីពាក់ព័ន្ធ
Number of districts as beneficiaries	3 districts
Key local stakeholders / partners	Svay Brateal AC member: Chan Sophea, 012 242 967 S' ang Phnom AC: Ken Sophea 092 850 207 as Treasurer of the Cambodian AC Alliance in Cambodia (CACA)
Cooperative champions(s)	Svay Brateal AC S' ang Phnom AC

Annex 10: Metkasekor “opening the market” extension model

Project overview

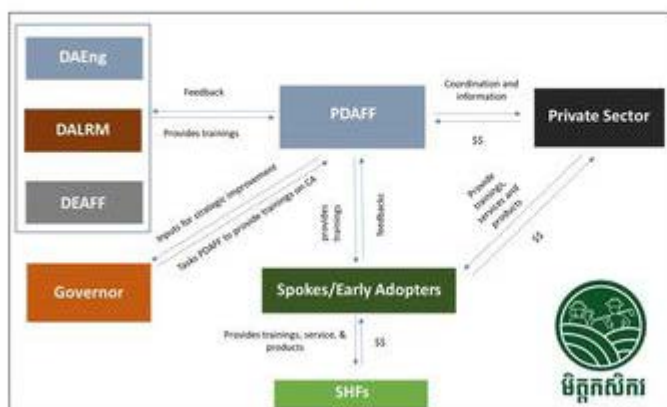
Along the last decade Conservation Agriculture and Sustainable Intensification practices and cropping systems have been designed, assessed and promoted in the lowlands and uplands of Battambang province. Promising practices and pre-extension model based on services to farms have been promoted but remain at a small-scale mainly due to a low engagement of the private sectors and to a low endorsement of the local public agencies including the Provincial Department of Agriculture, Forestry and Fisheries (PDAFF), the District office of Agriculture and the commune authorities. There is a need to test a new extension model, called Metkasekor, based on a direct involvement of public agencies – private sectors – agricultural cooperatives and farmers. The lack of new economic opportunities for the local private operators is among the main issue to be solved to foster the dissemination and CA & SI farming systems. The private sector is not interested until the demand is established and they are also not willing to pay to create the demand. Thus, it must be the Government and development projects that needs to help create the awareness. The private sector needs to be part of the awareness scheme, hence a hybrid extension model would work. Proper identification of interested farmers (early adopters) that are interested to pilot CA & SI practices is important. Following a lead farmer model where the services are paid for demonstrations creates expectations.

Agreements are established with the Government departments in piloting the model and showcase the costs that could then in part of the regular budget of the Government. Private sector will contribute to MetKasekor. During the previous phase (CASF: Conservation Agriculture with a Fee project), the private sector was called in to demonstrate the machineries. In Metkasekor, the private sector will place staff in the provinces and follow up with the agricultural cooperatives, local service providers and be part of all the service related to on-farm demonstrations.

Main objective

The main objective is to design an extension model, MetKasekor, that includes the government in the business model along with the private sectors.

The MetKasekor model

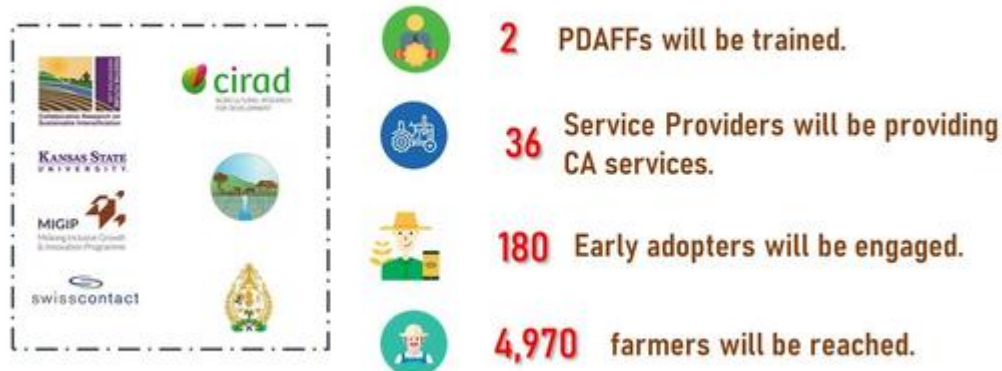


- Consultations with Department of Agricultural Engineering (DAEng), Department of Extension (DEAFF), Department of Land Resources Management (DALRM), Provincial Department of Agriculture (PDAFF) carried out who agree to this model
- Private sector partners who have been with us will continue. New private sector showing interest
- We will pilot this for the next four years
- Activities will be led on the ground by PDAFF

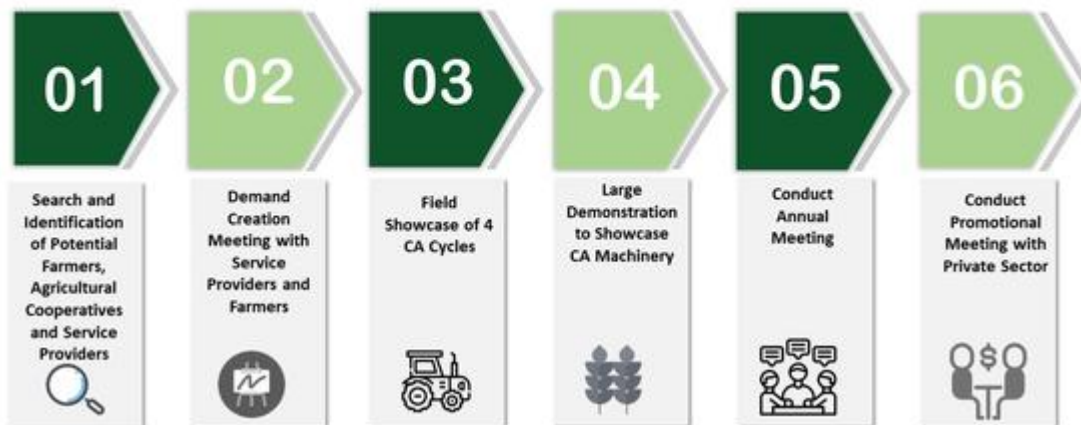
The components of MetKasekor



What we intend to achieve with MetKasekor 2021-2024



Stages of MetKasekor Model



Main activities

Several activities are described hereafter including the capacity building of the technical departments, PDAFF and district extension officers, the identification of early adopters, the demand-creation process along with agricultural cooperatives, local service providers and private sectors, on-farm demonstrations showing case of practices and cropping systems and larger scale extension.

Countries

Cambodia, Battambang and Preah Vihear provinces

Partnership

Swisscontact (MIGIP2), Royal University of Agriculture (RUA), Center of Excellence on Sustainable Agricultural Intensification and Nutrition (CE SAIN), Kansas State University (KSU), CIRAD, Department of Agricultural Land Resources Management (DALRM, GDA), Department of Agricultural Engineering (DAEng, GDA), Department of Extension Agriculture, Forestry and Fisheries (DEAFF)

Annex 11: List of the stakeholders met and field visits during field mission

DATE	ACTIVITIES	TYPE OF INSTITUTION
01/02/21	Provincial department of agriculture, forestry and fisheries	Government
01/02/21	Research and Development Koh Ke Station	Government
02/02/21	Provincial department of commerce	Government
02/02/21	Chamber of commerce	Government
02/02/21	Provincial department of Land Management, Urban Planning and Construction	Government
02/02/21	Provincial department of environment	Government
02/02/21	Krabao Prum Tep Agricultural Cooperative, Kulen district	Agricultural Cooperative
02/02/21	3 AE farmers and 2 non-AE farmers in Kulen district	Farmer
03/02/21	Provincial department of water resources and meteorology	Government
03/02/21	Provincial department of women affair	Government
03/02/21	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Cambodia	NGO
03/02/21	Preah Vihear Meanchey Union Agriculture Cooperative (PMUAC)	Agricultural union
03/02/21	Ou Khleung Por Meanchey Agricultural Cooperative, Preah Vihear district	Agricultural Cooperative
03/02/21	6 AE farmers and 5 non-AE farmers in Chheb district	Farmer
04/02/21	Provincial department of health	Government
04/02/21	Provincial department of plan	Government
04/02/21	Romdoul Samaki Meanchey Ou Mlu Pir Agricultural Cooperative, Chheb district	Agricultural Cooperative
04/02/21	Romdoul Mlu Prey Cheayden Agricultural Cooperative, Chheb district	Agricultural Cooperative
04/02/21	Chheb district authorities	Government
04/02/21	World Vision Cambodia	NGOs
04/02/21	6 AE farmers and 3 non-AE farmer in Chey Sen district	Farmer
05/02/21	Putrea Samaki Vatanak Meanchey Agricultural Cooperative, Cheysen district	Agricultural Cooperative
05/02/21	Tasu Meanchey Agricultural Cooperative, Cheysen district	Agricultural Cooperative
05/02/21	3 AE farmers and 0 non-AE farmer in Rovieng district	Farmer
06/02/21	Leuk Kampos Satrei Agricultural Cooperative, Rovieng district	Agricultural Cooperative
06/02/21	Rovieng district authorities	Government
06/02/21	Cheysen district authorities	Government
10/02/21	Sansom Mlup Prey (SMP)	NGO
10/02/21	Agronomes et Vétérinaires sans Frontières (AVSF) Cambodia	NGO
25/03/21	Restitution with PDAFF Preah Vihear	Government

Annex 12: Meeting note with provincial department of agriculture, forestry and fisheries

Province:	Preah Vihear	District:		Commune:	
Organization	PDAFF Preah Vihear				
Date	01/02/2021				
N. participants					
Contact	Name:	Srun Boren (□□□□□□ □□□□□)			
	Position:	Deputy director of PDAFF Preah Vihear			
	Tel:	012 954 253			

Background of organization

Preah Vihear is located in northern Cambodia, 294 km from Phnom Penh running through National Road No. 6 and 629. The province borders Stung Treng province to the east, Siem Reap province and Oddar Meanchey province to the west, Thailand and Laos to the north and Kampong Thom province to the south.

Government organization which is under Ministry of Agriculture, Forestry and Fisheries.

Potentials and priority of agroecosystems

- Rice farmers in the area have the potential to produce organic rice
- Growing organic Cassava and Cashew nut
- GAP vegetable

Challenges and issues especially related ASSET

- Human resources
- Market (price not stable)

Current activities or projects and targeted area

- Coordination in several projects implementation such as ASPIRE, CHAIN, WAT4CAM, etc.

Partners both NGOs and private companies

- All NGOs and private companies working related to agriculture

Innovations related to ASSET

- Technical innovation
 - Organic rice, cassava and cashew nut
 - GAP vegetable
- Organizational innovation: AC and PMUAC
- Institutional innovation: Business cluster, organic standard, Preah Vihear rice standard, GAP, internal control system, contract farming

Perspectives / Suggestions / Recommendations

- Support on the sustainable intensification through agroecology / conservation agriculture to restore the soil fertility especially for organic rice farming
- Support the organic value chain especially from the production, harvest, and post-harvest stage to ensure the high quality grain

Collected documents

- Annual report of 2020

Annex 13: Meeting note with provincial department of commerce

Province:	Preah Vihear	District:	Preah Vihear	Commune:	N/A
Organization	Provincial department of commerce, Preah Vihear				
Date	02/02/2021				
N. participants	Local Participants:				
Contact	Name:				
	Position:				
	Tel:				

Background:

Commercial activities of Agriculture in Preah Vihear mostly feeds to the local market and through contract farming. Despite being bordered with Thailand and Laos, the border is not opened for trading making the route of trading is moved through Oddarmeanchey for Thailand and Tbound Khnom for Vietnam. For Thailand, the dispute over Preah Vihear Temple making the border is too hot for trading while, the Laos border has the natural barrier.

Because Preah Vihear is still a remote and growing province, there is no rice mill based in the province yet, only the Agriculture Cooperatives that have rice mill. Farmers sell to broker/middlemen and through contract farming with private companies, coordinated by their Agriculture Cooperatives.

Main Supporting Activities:

So far, the activities of PDoC in Commercial activities of Agriculture including:

- Provide Knowledge and training to AC and farmers on business management, commerce law and financial literacy. (Sometimes by program from government while other time is joint partnership with different NGOs)
- Being the platform and connectors when private sectors approach and request to help find the market
- Implement AIMS Project: **Accelerating Inclusive Markets for Smallholders (AIMS) Project**
 - **AIMS Main Support Activities:**
 - **Support on 4 main commodities (Quality assured Rice, backyard chicken, Cassava and Vegetables)**
 - **Support by providing technical farming supports (Multi-stakeholder platform MSP):** The project facilitates ongoing MSP, business to business (B2B), business to service (B2S) and Contract Farming processes and then provide technical and financial support to address the particular identified priority bottlenecks and actions. In Preah Vihear, AIMS works with APSIRE for technical supports on quality assured rice and backyard chicken and works with CHAIN and East-west seed for Vegetables. AIMS also connects with different private sectors to find markets for farmers group and establish Weekend Market for farmers.
 - **Support by providing access to finance for new initiatives (Value Chain Innovation Fund):** up to 35% matching grant fund, as of the time of interviewing, the application to receive the funding is still in progress and no farmers have yet to receive any funding on the ground.
 - **Support by providing facilities (Sector Development Facility SDF):** provide investment to build “Public Goods” that are immediate priority for the actors in the sector such as Wells: so far, in preah vihear, AIMS has supported in building wells for vegetable farmers in Kulen District.
 - **Main Results:**

- Mild Success in strengthening backyard chicken and vegetables producers as they have been following a more technical farming than before the project.
- Facing challenge for quality assured rice due to lack of local rice miller and company presence in the provinces and logistic procedure in storing and transporting rice.
- Weekend Market is facing challenge due to COVID 19 situation and farmers are still producing vegetables according to season, so the number of sellers is not stable yet.

Challenges

- There is a limit in resources to spread the knowledge and information to all the farmers so the PDoC team could not do much more than what they have in their little budget. Farmers will still have to rely to different channels to receives knowledge and information such as the AC and Union.
- The complexity and lengthy period in applying for grants in AIMS projects, making farmers decide to drop out of the project and get the loan from micro-finance instead.
- Logistic issues and lack of transportation remain key obstacles for large productions for vegetable and backyard chicken.

Strategy and Future Plan

- Implementing the AIMS projects focusing on Backyard Chicken, Vegetable and kicking off with Rice and Cassava Commodities
- Continue to join efforts with PDAFF and NGOs on finding markets for smallholder farmers

Collected Documents: Provide list of all agriculture cooperatives in AIMS project

Annex 14: Meeting note with provincial department of environment

Province:	Preah Vihear	District:		Commune:	
Organization	Provincial Department of Environment				
Date	2/02/2021				
N. participants	2				
Contact	Name:	Mr. Choun Cheng (ឈុន ឆេង)			
	Position:	Deputy Director			
	Tel:	0888331727			

Background of organization

Government organization which is under Ministry of Environment

Potentials and priority of agroecosystems

- Involvement in Environment management i.e., water pollution, waste management, natural resources management, etc.

Challenges and issues especially related ASSET

- Lack of human resources
- Natural protected area not clear identify yet.

Current activities or projects and targeted area

- Organizing the Sanitary Day on waste management.
- Natural protected areas management 10 sites (964.566.882 ha)
- Wildlife sanctuary management 6 sites
- Natural protected areas management (37 communities=62.410.4ha)

Partners both NGOs and private companies

- CWS (Ibis rice), FAO

Innovations related to ASSET

- Technical innovation
 - Environment management i.e., natural resources management, etc.
- Organizational innovation
 - N/A
- Institutional innovation
 - N/A

Internal and external factor for success or failure

- N/A

Perspectives / Suggestions / Recommendations

- To support in use organic fertilizers and pesticide

Collected documents

- N/A

Annex 15: Meeting note with provincial department of health

Province:	Preah Vihear	District:		Commune:	
Organization	Provincial Department of Health				
Date	4/02/2021				
N. participants	4				
Contact	Name:	Mr. Ly Meng (លី ម៉េង)			
	Position:	Deputy Director			
	Tel:	017600682			

Background of organization

Government organization which is under Ministry of Health

Potentials and priority of agroecosystems

- Through support nutrition program from ministry of health

Challenges and issues especially related ASSET

- Lack of human resource

Current activities or projects and targeted area

- Promoting the world breast feeding
- To educate and rehabilitate malnutrition children in community

Partners both NGOs and private companies

- HPA, WVC, ADRA, AHC, CRS CARITAS, UNICEF, MRKR, EYE CARE, SHARE.... etc.

Innovations related to ASSET

- Technical innovation

(N/A)

- Organizational innovation

(N/A)

- Institutional innovation

(N/A)

Internal and external factor for success or failure

- Lack of technical staff at district and commune levels

Perspectives / Suggestions / Recommendations

(N/A)

Collected documents

Achievements of provincial department 2018-2020 PPT

Annex 16: Meeting note with provincial department of Land Management, Urban Planning and Construction

Province:	Preah Vihear	District:		Commune:	
Organization	Provincial Department of Land Management and Urban Planning Construction				
Date	2/02/2021				
N. participants	1				
Contact	Name:	Mr. Sor saveth (ស៊ី សាវែត)			
	Position:	Deputy Director			
	Tel:	012995689			

Background of organization

Government organization which is a under Ministry of Land Management, Construction and Urbanization

Potentials and priority of agroecosystems

- Provided the preparation of master plan on land use and land registration which are mandated under Land Law, and led to strengthen the land use conversion that useful for improving agricultural land use planning.

Challenges and issues especially related ASSET

- Lack of human resources
- Land dispute and illegal land grabbing

Current activities or projects and targeted area

- Register land holding 10.242
- Register economic land concession 21 sites (103.206 ha) and social land concession 1 site(5000ha)
- Provincial Department had established of master plan on land use in Preah Vihear city.

Partners both NGOs and private companies

- N/A

Innovations related to ASSET

- Technical innovation
- N/A
- Organizational innovation
- N/A
- Institutional innovation
- N/A

Internal and external factor for success or failure

- N/A

Perspectives / Suggestions / Recommendations

- N/A

Collected documents

- Master plan on land use in Preah Vihear city for vision 2034

Annex 17: Meeting note with provincial department of plan

Province:	Preah Vihear	District:		Commune:	
Organization	Provincial Department of Planning				
Date	4/02/2021				
N. participants	4				
Contact	Name:	Mr. Chea Vathana (ជា វង្សប្រាណ)			
	Position:	Deputy director			
	Tel:	012436040			

Background of organization

Government organization which is under Ministry of Planning

Potentials and priority of agroecosystems

- Coordination the provincial departments in planning for agricultural development

Challenges and issues especially related ASSET

- The projects in place were implementing by individual organization without gathering all target stakeholders to take in part.

Current activities or projects and targeted area

- Making and updating the provincial development planning

Partners both NGOs and private companies (N/A)

N/A

Innovations related to ASSET

- Technical innovation
- N/A
- Organizational innovation
- Coordination in planning development
- Institutional innovation
- N/A

Internal and external factor for success or failure

- Lack of agricultural technical staff at district and commune levels

Perspectives / Suggestions / Recommendations

- Enhancing on raising awareness on agricultural production technologies

Collected documents

- 3 years rolling plan 2021-23
- Profile PVR 2019

Annex 18: Meeting note with provincial department of water resources and meteorology

Province:	Preah Vihear	District:		Commune:	
Organization	Provincial Department of Water Resources and Meteorology				
Date	3/02/2021				
N. participants	2				
Contact	Name:	Mr. Khat Komsot (ខាត់ កំសត់)			
	Position:	Deputy director			
	Tel:	0978363684			

Background of organization

Government organization which is under Minister of Water Resources and Meteorology

Potentials and priority of agroecosystems

- Constructing and managing the irrigation system and water sources for efficient use of water
- Farmer Water Use Communities (FWUC) were formed to build up the project efficiency. In the present is successfully form 3 FWUCs.
- There are 7 Irrigation systems included: 95, Tekkroham, Sima, Kompingpuy Tasek, Ouraksa, Ousvay, and Oukambor can irrigate wet or season rice and subsidiary crops.

Challenges and issues especially related ASSET

- Human resources

Current activities or projects and targeted area

- Monitoring and repairing the irrigation systems
- Improving famer water use community (FWUC) such as Okambor, Sreysnom and 95.

Partners both NGOs and private companies

- FAO support for pond, NAPA support pond and well

Innovations related to ASSET

- Technical innovation
 - N/A
- Organizational innovation
 - Irrigation system infrastructure construction and management
- Institutional innovation
 - N/A

Internal and external factor for success or failure

- Not participated by farmers and local authorizes

Perspectives / Suggestions / Recommendations

- Better supporting FWUC through improvement the irrigation in their area and install modern irrigation system for the use in their productions.

Collected documents

- Annual report 2000

Annex 19: Meeting note with provincial department of women affair

Province:	Preah Vihear	District:		Commune:	
Organization	Provincial Department of Women Affair				
Date	3/02/2021				
N. participants	6				
Contact	Name:	Ms. Chun Sotheary (ឈុន សុផារី)			
	Position:	Director			
	Tel:	089674695			

Background of organization

Government organization which is under Ministry of Women Affair

Potentials and priority of agroecosystems

- Supporting women affair toward well health care

Challenges and issues especially related ASSET

- Human resources

Current activities or projects and targeted area

- Experienced involving with CHAIN project with PDAFF
- Extension program on wellbeing of life (to reduce family’s violence through creative careers for them to earns such as handicraft etc.
- Promoting the morality awareness in the social for teenagers to protect HIV and social dispute
- Involving and implementing regularly all activities under the framework of Women’s Association of Cambodia (e.g. supporting venerable women and old people)

Partners both NGOs and private companies

- FAO, CHAIN

Innovations related to ASSET

- Technical innovation
- N/A
- Organizational innovation
- Supporting women in agriculture development
- Institutional innovation
- N/A

Internal and external factor for success or failure

- Limited fund support

Perspectives / Suggestions / Recommendations

- N/A

Collected documents

- Annual Report of 2020

Annex 20: Meeting note with Chamber of commerce Preah Vihear – Kampong Thom

Province:	Preah Vihear	District:	Preah Vihear	Commune:	
Organization	Chamber of Commerce Preah Vihear-Kampong Thom				
Date	02/02/2021				
N. participants					
Contact	Name:	Mr. Phal			
	Position:	Person in Charge of Preah Vihear Branch			
	Tel:	016 367 111			

Background: The Chamber of Commerce in Preah Vihear is newly formed and placed under management of Kampong Thom Chamber Commerce. They currently only have 4 members, and none is in agriculture industry but F&B and real estate business.

Activities

Being a newly created in 2020, the Chamber of Commerce haven't had any activities of their own yet but only that of assigned from Kampong Thom Chamber of Commerce. The office is based in the house of the person in charge and any administration is referred to the Kampong Thom Chamber of Commerce.

Opportunity for Partnership

Mr. Phal is happy to cooperate if there are opportunity even though there is no formal connection/network with businesses in Agriculture but he can help mobilize and rely the information of opportunity for the sector.

Annex 21: Meeting note with Cheysen district authorities

Province:	Preah Vihear	District:	Chey Sen	Commune:	
Organization	District of Agriculture, Natural Resources and Environment				
Date	5/02/2021				
N. participants	3				
Contact	Name:	Mr. Lan Sinan (លាន ស៊ីណាន់)			
	Position:	Chief			
	Tel:	0885979585			

1. Background of organization

Cheysen District of Agriculture, Natural Resources and Environment is the government organization which is under Ministry of Interior. This organization plays an important role in the development of the agricultural system at Cheysen district. By adopting the strategy plan from PDAFF at Preah Vihear, this government organization has its responsibility to support the agricultural system and livestock at the district.

2. Potentials and priority of agroecosystems

At Cheysen district, there are 4 main types of agricultural products such as rice which covers land area of 12199 ha for 2020, cassava, cashew nuts and vegetables. At Cheysen district, each farmer family has at least their own land area of 3 ha for the agricultural. This district also has potentiality in livestock. So far, there are a lot of farmer families who based on livestock feeding at family scale as their main income. Those livestock are cow, pig, and chicken.

There are 6 farmer communities at Cheysen district, and each community has agricultural activities as follows:

- Setrey Ratanak Agricultural community: They support market for organic farming by helping to buy organic rice and organic cassava from the farmers in the community. They also provide small loan to farmers to develop their agricultural business.
- Tor Sou Senchey community: They support market for rice, cassava and peanuts. However, for peanuts, they just started growing in 2020. This community also provide small loan to farmers and provide milling rice service to farmers.
- Romdos Kropom Chhouk, Kiri Ratanak, and Romany Samaky communities: They grow non-organic rice. They have Romduol rice and normal rice (white rice). There is no contract farming for these communities. Among these communities, the road to Kiri Ratanak is still difficult to go. However, there is small available rice land area at Romany Samaky community.
- Chrach Saravon Agricultural community: They support rice farming and cashew nuts, providing loan to farmers. In addition, this community join with World Vision to help farmers by providing clean water system at farmer home. In the joining collaboration, World Vision will provide financial support for 70 %, while 30 % will be responsible by farmers or the community.
- Thealat Kiri Agricultural community: They support rice farming, providing small loan, and help to provide clean water system at farmer home as well.
- Putrea Vatannak Agricultural community: They support market for rice and cashew nuts. They also have milling rice services to farmers, provide small loan to farmers, and clean water system at farmer home.

3.Challenges and issues especially related ASSET

There are still high challenges and issues linking to the support of agroecology and safe food system transitions as follows:

- Not enough water resources / irrigation systems. Agricultural activities mostly depended on nature (e.g. raining water). For rice cultivation, farmer can do it only once time a year at rainy season due to the lack of water.
- Quality of soil is decreasing from year to year as the soil was used without maintain (for example less agroecology practices).
- Rice production yield is small (about 2 ton/ha only in average) for most area in the district due to not enough water draining, insecticides, and grass.
- Cashew nuts cultivation is quite challenging as it's hard to grow and take care, leading to high cost and low production yield.

4.Current activities or projects and targeted area

Main support activities:

- Support by providing facilities: ASPIRE project supports the growing of rice at all communities at Cheysen district by providing rice miller. There are also extension agents at the district to supply agricultural and livestock equipment to famers (e.g. chicken foods, fertilizer containers, etc.). There are also a lot of extension agents who provide service like plow field. They have up to 10 plow field trucks in each commune.
- Support by providing technical: NGOs in collaboration with Cheysen district authority used to provide some technical trainings such as utilization of pesticides and other chemical inputs on to the vegetables, fertilizer saving program, compost making at home and at farm.
- Support by providing financial: Rulip project had provided finance to all 6 communities. The communities play a role as a bank by providing small loan to all needed farmers at their communities to develop their agricultural business. Torsu community has about 500 million Riel for the agricultural loan; whereas Putrea Vatannak community has up to 600 million Riel for the agricultural loan. The loan interest is 2 % per year

5.Partners both NGOs and private companies

- World Vision and Hope: Support growing vegetables and livestock
- DPA: Support vaccination of livestock such as cow and buffalo
- ATRA: Support vegetables growing at family scale
- CHAIN: Support vegetable growing
- ASPIRE: Support vegetables growing, cassava, cashew nuts, chicken, fish, and cow

6.Innovations related to ASSET

- Technical innovation
 - N/A
- Organizational innovation
 - Farmers are encouraged by Cheysen district authority as well as NGOs to join the framer community. Because it is easy for them to get good market for their agricultural products through contract farming with private sectors or the community itself, and to get a suitable price for their agricultural products.
- Institutional innovation

N/A

7.Internal and external factor for success or failure

- Once there is enough rain, rice production yield can be up to 3.5 ton/ha.
- Torsu and Putrea Vatannak communities are the most popular due to the geography of the commune is potential as they have good soil and enough water irrigation to support their

agriculture. For example, at some area at Torsu commune, the rice production yield can increase up to 5 ton/ha in the rainy season.

8.Perspectives / Suggestions / Recommendations

- Growing organic vegetables is potential in the future if there are enough water draining system at the community
- Farmers are hardworking with the supports from projects, however, they have still limited concepts and understanding on agroecology and safe food system transition
- Livestock, especially cow and chicken, are also potential if there are enough supports from NGOs, projects and farmer community in terms of technical training and market supports.

9.Collected documents

- Statistic data of crop production in Cheysen district

Annex 22: Meeting note with Rovieng district authorities

Province:	Preah Vihear	District:	Rovieng	Commune:	
Organization	District of Agriculture, Natural Resources and Environment				
Date	5/02/2021				
N. participants	5				
Contact	Name:	Mr. Cheng Kuychon (ឆេង គុយជន)			
	Position:	Chief			
	Tel:	011551150			

Background of organization

Rovieng District of Agriculture, Natural Resources and Environment is the government organization which is under Ministry of Interior. This organization plays an important role in the development of the agricultural system at Rovieng district. By adopting the strategy plan from PDAFF at Preah Vihear, this government organization has its responsibility to seek for market for mainly organic agricultural products for farmers and promote organic agricultural producers as well as livestock producers at the communes

Potentials and priority of agroecosystems

At Rovieng district, all agricultural land areas are owned by farmers which can be an indicator for the sustainability of agroecology implementation. There are 4 main agricultural crops at Rovieng district such as rice, cashew nuts, cassava, and beans. However, among these crops, organic rice is the major agricultural product in the district which has been being grown over land area of 7500 ha. It is reported that the major of organic rice variety is Pha Romduol, and the average rice yield is 2.8 tone/ha. Either with contract farming or without contract farming, the Phka Romduol organic rice can be sold up to 1500-1600 Riel/kg, and fresh cassava can be sold for 340-350 Riel/kg, whereas the dried cassava can be sold for 700-750 Riel/kg. The price of cashew nuts and beans are unpredictable.

At Roving district, there are 9 farmer communities which consists of about 100 famer families in average for each community. Among them, 6 farmer communities were established under the supports and initiations from Rulip and ASPIRE projects. The communities produce the following agricultures:

- Rong Reung, Rohas Samaky Meanchey, and Reaksmei lerk Kompous Kasekor communities: They grow organic rice and organic cashew plant.
- Lerk Kompous Setrey, Samaky Romtom, and Raksa Steung Sen Meanchey communities: They grow organic rice.
- Romdos Kropom Chhouk, Kiri Ratanak, and Romany Samaky communities: They grow non-organic rice. They have Phka Romduol rice and normal rice (white rice). There is no contract farming for these communities. Among these communities, the road to Kiri Ratanak is still difficult to go. However, there is small available rice land area at Romany Samaky community.

Challenges and issues especially related ASSET

Even though organic agriculture is famous in Rovieng district, there are still high challenges and issues linking to the support of agroecology and safe food system transitions as follows:

- Lack of irrigation systems. Agricultural activities mostly depended on nature (e.g. raining water).
- Production yield from organic crops is low sometime, especially for cashew nuts due to insect.
- Most of farmers didn't practice organic farming for vegetables even though a lot of training had been provided to them.

Current activities or projects and targeted area

Main activities:

- Coordinating ASPIRE and BFP projects which mainly focus on Vegetable, Chicken and Fisheries cluster improvement.
- Support by providing facilities: ASPIRE project supports the growing of cashew nuts at Rong Reung, Rohas Samaky Meanchey, and Reaksmey Ierk Kompous Kasekor communities by providing some agricultural equipment such as cart, tape, tan, scissor, etc. While, Wat4camp project has plan to support water draining system at Rich Reay commune to improve the growing of cover crops and vegetables
- Support by providing technical and financial: Atra and World Vision has supported family-scale farmer by providing some training on growing organic vegetables and feeding chicken. In addition, for vegetable growing, they also provide training on utilization of pesticides and other chemical inputs on the vegetables. These organizations also provide financial support to family business. Rulip and ASPIRE projects supported by providing equipment to build cage for chicken for some farmer families and also food processing trainings. In addition, many projects provided training on fertilizer saving program, compost making at home and at farm to all 9 farmer communities

Main Result

- Mild success in strengthening the vegetable producers and chicken at family scale after the technical training provided by the organizations.
- Growing of vegetables has been increasing and some vegetables can be exported to sell in Phnom Penh. However, growing organic vegetables is still challenges as not many families are willing to continue the growing of organic vegetables

Partners both NGOs and private companies

- Rovieng district authority has been working with various organizations and projects such as World Vision, Rulip, Atra and ASPIRE to support agricultural system at the district

Innovations related to ASSET

- Technical innovation
 - Food processing was trained under many projects but mostly under Rulip project. However, it was not successful because no market for the ready-to-eat products or processed foods. The training was technical processing and packaging
- Organizational innovation
 - Each farmer community was registered at PDAPP to get an official certificate to run the community.
 - Community leaders help to find market for the farmers. They have a big meeting or workshop at least once a year that all farmers are invited to join the meeting
 - Community also be a shareholder with farmers some cases.
 - Each community has its own finance up to 100 million to 600 million Riel. The money is used to support farmer community through providing loan.
- Institutional innovation

N/A

Internal and external factor for success or failure

- Organizations provided training one Fertilizer saving program, compost making at home and at farm to all 9 communities. However, most of farmers didn't practice it after the training because they are thought it's not important and waste much time for them
- The potentiality and popularity of each community is similar. However, Ratanak and Romany communes have less potentiality and popularity. Romany commune has low financial

investment on the agriculture, while Ratanak commune has large financial investment, but farmers mostly didn't return loan on time or didn't return the load back to the community.

- Technology for growing organic vegetables and feeding chicken and cow was strongly supported by NGOs in term of technical training. Throughout the project, farmers were able to learn at field school for both theory and practices linked to organic agriculture.
- Farmers follow advice from community's leaders as they normally don't have conflict of interests.
- All agricultural products at Rovieng have good market even though the price of the products was slightly fluctuated every year, but all products can be sold. However, Non-organic vegetable has no good market

Perspectives / Suggestions / Recommendations

- Growing organic vegetables is potential in the future if there are enough water draining system at the community
- Farmers are hardworking with the supports from projects, however, they have still limited concepts and understanding on agroecology and safe food system transition

Collected documents

- Statistic data of crop production in Rovieng district

Annex 23: Meeting note with Agronomes et Vétérinaires sans Frontières (AVSF) Cambodia

Province:	Phnom Preh	District:		Commune:	
Organization	AVSF				
Date	10/2/2021				
N. participants	1				
Contact	Mr. Meang Savoeurn, project coordinator, +855 12 820 454				

Background of organization

- Long time NGOs in Cambodia and strong support on establishment of PMUAC in Preah Vihear

Potentials and priority of agroecosystems

- Support PMUAC and all AC under Aspire for the milled rice business, so mainly lowland rice area district

Challenges and issues especially related ASSET

- Own project to support the restoration of soil fertility after having observed the loss of fertility with decreasing yield as an indication
- Working as a pilot with PMUAC as coordinator, three approaches will be used: plowing to incorporate rice straw in the soil avoid burning, making compost from all kinds of resources, and using cover crops as green manure
- Maintain high premium price for organic rice and diversify income for PMUAC sustainability

Current activities or projects and targeted area

- Support PMUAC related to management, business...
- Support the soil restoration pilot scale as described above
- Working for Aspire to implement milled rice business. The project bought rice miller for 13 AC chosen among PMUAC's members and non-members
- Introducing fair trade standard for rice and peanut with Ethiquable and later on for other crops

Partners both NGOs and private companies

- Aspire, PMUAC...

Innovations related to ASSET

- Technical innovation: 3 techniques mentioned above, but not yet implemented
- Organizational innovation: first initiator to establish the PMUAC, agri-business...
- Institutional innovation: contract farming, organic standard by Ecocert, internal control system, fair trade, Preah Vihear rice standard

Perspectives / Suggestions / Recommendations

- Independent and sustainable operation of PMUAC

Collected documents

- Project report SCCARP

Annex 24: Meeting note with Sansom Mlup Prey (SMP)

Province:	Preah Vihear	District:
Organization	Sansom Mlup Prey (SMP)	
Date	10/2/2021	
N. participants	1	
Contact	Name:	Mr. Keo Socheat, SMP director, +855 86 550 027

Background of organization

SMP was founded in 2009 by the Wildlife Conservation Society (WCS) to help establish the cultivation of premium-quality, organic rice in remote communities inside the Kulen Promtep Wildlife Sanctuary in Cambodia's northwestern province of Preah Vihear through the IBIS Rice Program with the Ibis Rice Conservation Company, Ltd. (IRCC).

Potentials and priority of agroecosystems

Remote communities inside the Kulen Promtep Wildlife Sanctuary, mainly lowland rice area.

Challenges and issues especially related ASSET

- Reduction of endanger species e.g. the critically-endangered Giant Ibis, Cambodia's national bird from logging and poaching which can be financially lucrative activities for people in the areas. So, finding alternatives through giving premium price for organic rice binding also the forest and wildlife conservation
- Fast decrease of soil fertility and yield

Current activities or projects and targeted area

- Promote organic standard practices together with 4 wildlife conservation principles: no clearing forest to expanding rice land, no killing / poaching wildlife, no logging forest, and no eating wildlife animal
- Coordinate the contract farming on logistics and auditing between the communities and IRCC under organic certificate with support from WCS and provincial department of environment and forestry administration
- Provide technical support on the uses of cover crops to restore the soil and improve the yield

Partners both NGOs and private companies

- WCS, IRCC, Provincial department of environment, PDAFF, and forestry administration

Innovations related to ASSET

- Technical innovation: uses of cover crops, NT planters...
- Organizational innovation: individual contract by under community inspection
- Institutional innovation: contract farming

Annex 25: Meeting note with World Vision Cambodia Chheab District Branch

Province:	Preah Vihear	District:	Cheab	Commune:	Cheab
Organization	World Vision Chheab district Branch				
Date	04/02/2021				
N. participants					
Contact	Name:	Mr. Ros Sereyvoudh			
	Position:	Area Program Manager/ chheab Area Program			
	Tel:	093 777 315/ 097 340 34 03			

Background:

World Vision has been working in Preah Vihear since 2004 in Rovieng District and currently is working in all the districts in Preah Vihear. Their main activities previous is focusing on creating and building Agricultural Cooperatives (AC). However, since 2020, their vision has changed to focus on improving the livelihood of poor and vulnerable children. So, the activities that focus on AC will be reduced and continuing to provide supports of their legacy.

Main Supporting Activities

- **Supporting in building capacity of Agriculture Cooperatives:** organized and provided different trainings both on technical farming (with experts from PDAFF) and soft skill and business management for capacity building of the AC.
- **Supporting family to earn income with Agriculture activities:** provide funds and technical training on growing vegetables, raising livestock, and fishery.

Main Results:

- Success in strengthening the Agriculture Cooperatives and help establish few of the Agriculture Cooperatives in Cheab District
- Provided poor families of sustainable incomes through agriculture activities by giving out funds to build fishpond and vegetable growing

Challenges

Strategy and Future Plan

- The shift target group of World Vision global to poor and vulnerable children leading world vision to drop a lot of their activities to support Agriculture Cooperatives. However, due to their successful result from previous year, they will continue to support the AC that they have been supporting in any way possible and align to benefit their target groups.

Annex 26: Meeting note with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Cambodia

Province:	Preah Vihear	District:	Preah Vihear	Commune:	
Organization	GIZ				
Date	03/2/2021				
N. participants	1				
Contact	Mrs. Ly Chhay Loem, SMG advisor, 093229093				

Background of organization

- Under Regional Economic Development Programme IV in 3 provinces, Preah Vihear, Siem Reap and Oddor Meanchey
- Goal is to improve the economic and employment situation of disadvantaged rural households in selected provinces
- 3 parts of intervention: sub-national by integrating the need of the poor, increase the rural employment, and sustainable agriculture

Potentials and priority of agroecosystems

- Area around the town where there is high rate of disable population, poor group, and widow women. It is mainly area for vegetables.
- But, for cover crops use i

Challenges and issues especially related ASSET

- Failure of cover crops was mainly from freely grazing carttle

Current activities or projects and targeted area

- Support by providing techniques and inputs for vulnerable groups to start up livelihood activities such as fish culture, vegetables production...
- Support widow women for weaving
- Promote the uses of cover crops

Partners both NGOs and private companies

Innovations related to ASSET

- Technical innovation
 - The use of cover crops and line broadcaster, Eli seeder
- Organizational innovation
- Institutional innovation
 - Sub contract with PMUAC and PMUAC collaborate with SmartAgro to implement the pilot test with the farmers in 3 districts, Kulen, Tbeng II, and Preah Vihear town

Perspectives / Suggestions / Recommendations

- As the project is ended this Sept 2021, ASSET and other projects should continue to support PMUAC and the AC / members who have already experienced the uses of cover crops and the Eli seeder.

Collected documents

- None

Annex 27: Meeting note with Preah Vihear Meanchey Union Agriculture Cooperative (PMUAC)

Province:	Preah Vihear	District:	Preah Vihear	Commune:	
Organization	PMUAC				
Date	03/02/2021				
N. participants	4				
Contact	Name:	Mr. Oeur Sam Ath, PMUAC leader, +855 16 353 423			

Background: The union was formed in between 2016 and 2017 and currently have 25 ACs as members. They are currently working on 4 main activities including:

Main Supporting Activities:

- Support Agriculture Cooperatives on capacity building and Coordinate negotiation and procedure of Contract farming with private sectors company
- Support Agriculture Cooperatives on Standard Compliance and Quality control using Internal Control System (ICS) by ECOCERT
- Support Agriculture Cooperatives to access to market and premium price
- Grow the businesses of Union to sustain the activities and benefit the Agriculture Cooperatives as members and shareholders

Partners and Supporting Actors:

PMUAC currently received the backing of internal fund from AVSF and operating on their own budget received from the Agriculture cooperatives as members in which they paid 30 riel per Kg on the premium price.

They have been working closely with ASPIRE project and GIZ organization to provide equipments needed for the Rice processing value chain which included Rice miller and Rice purifying machinery to the 2 Agriculture Cooperatives.

Challenges:

Strategy and Future Plan:

- Continue to work closely with farmers by having their staffs based in each district to help the Agriculture Cooperatives in both quality management and standard control following the ICS that certified by ECOCERT as well as any administrative works.
- Create Branding and Marketing for Preah Vihear Organic Rice with the aim to reach direct consumer and to get a better negotiation power in the contract farming process.
- Develop different organic value chain which is now Peanut.

Annex 28: Putrea Samaki Vatanak Meanchey Agricultural Cooperative, Cheysen district

Province:	Preah Vihear	District:	Cheysen	Commune:	Puthrea
Organization	Putrea Samaki Vatanak Meanchey Agricultural Cooperatives				
Date	05/02/2021				
N. participants	4 (Local), 1 (Sovannaret Mak)				
Contact	Name:				
	Position:				
	Tel:				

Background: Founded in 2014 legacy from Roleb project. Starting from 55 family when created to 157 family currently. The production of AC mainly focused on rice and works closely with two companies: Signature of Asia (SoA) and Golden Rice.

Main Supporting Activities:

- Access to finance for farmers as members: Provide loan without collateral to farmers as members and let them pay back with their products
- Coordinate Organic farming Contract Farming with Private Sectors and buy in products from farmers as members in good price.
- Clean Water maintenance and coordination (the project is first initiated by world vision and continue by the AC)
- Coordinate the growing and producing organic cashew.

Partners and Supporting Actors:

The AC is the member of PMUAC so they have been receiving supports from the Union. The organisation has been supported by World Vision on capability training until their project ended in 2020. Currently, they are receiving supports from IVY, a Japanese NGO, on growing and producing organic cashew nut.

Challenges:

- Limits in technical knowledge of the farmers in growing organic products
- Limits in administrative management and capacity of AC
- Limits in expanding to use machinery due to relatively small plots of farmers and difficult road to the farm

Strategy and Future Plan:

- Due to their performance, they have received equipment for Rice milling and processing from ASPIRE project through PMUAC. It has become a part of their business for the AC to produce final rice products with market to direct consumer aside from the contract farming.
- They want to focus on improving their ability and capability to manage and strengthen their agriculture cooperatives to grow and gain more members and more stable contract farming.

Collected Documents: Agriculture Cooperatives Annual Report

Annex 29: Meeting note Romdoul Mlu Prey Cheayden Agricultural Cooperative, Chheb district

Province:	Preah Vihear	District:	Cheab	Commune:	Mlu Prey I
Organization	Romdoul Mlu Prey Cheayden Agricultural Cooperative				
Date	04/02/2021				
N. participants	6 (Local), 2 (Sovannaret Mak, Peany Houng)				

Background: Founded in 2012 with legacy from Roleb project and currently have 259 family as members. The cooperative is the member of PMUAC and shareholder of CACC.

Main Supporting Activities:

- Access to finance for farmers as members: Provide loan without collateral to farmers as members and let them pay back with their products
- Run business as Cooperatives and profit is used to develop the community and benefit the members according to shares amount
- Provide Technical supports to farmers as members especially on complying with organic standard
- Coordinate Contract Farming with Private Sectors and buying products from farmers as members in good price.

Partners and Supporting Actors:

The AC is the member of PMUAC so they have been receiving supports from the Union. The organisation has been supported by World Vision on capability training until their project ended in 2020. They hold shares in Cambodian Agriculture Cooperatives Corporations (CACC) and have produced organic Cassava with contract framing with them. They also sell their products directly at weekend market coordinate under AIMS project.

Challenges:

- **Limit in technical expertise and organic rice yield decreasing & growing challenges:** The organic rice that the AC have been producing is using the traditional technique and there are growing challenges in maintaining a high-quality organic rice due to lack of technique in controlling weeds and insects. This make rice yield decreases and the head of the AC mentioned to us that he and his executives have been noticing that the yield is decreasing, and they will need to find solution to improve soil quality before the yield is no longer acceptable for producers.
- **Limit in resources and finances:** Producers/farmers in the AC generally do not have many reserves especially on finance in farming process so if they cannot sell on-time or sell in lower than the expected price, they will be worse off. In this way, there are also many farmers whom are in debt and cannot expand production.

Strategy and Future Plan:

- **Cooperate closely with different institutions to receive needed supports:** the AC works closely with PMAUC and receives supports on quality control management, contract farming processes and skills & helps on internal documents including financial statement and annual reports. Additionally, AC has been keeping a close contact with PDAFF and NGOs to receives different trainings to build their compatibility and competency and technical expertise in farming.
- **Recruiting more producers/farmers into the AC:** in order to increase resources to receive more contract farming, the board of executive continue to actively recruit producers/farmers by providing them information and invite them to different meetings.

Collected Documents: Agriculture Cooperatives Annual Report

Annex 30: Meeting note with Romdoul Samaki Meanchey Ou Mlu Pir Agricultural Cooperative, Chheb district

Province:	Preah Vihear	District:	Chheb	Commune:	Mlu Prey II
Organization	Romdoul Samaki Meanchey Ou Mlu Pir AC				
Date	04/2/2021				
N. participants	6				
Contact	Mr. Nheb Som, head of AC, 097 75 07 064				

Background of organization

- The AC was created in 2014 by Rulip project, PDAFF with 8 committee members and 63 members
- From 2015, World Vision supports in many aspects: farming techniques vegetables, rice... livestock e.g. chicken, access to market... the word vision also provided inputs making sure farmers had all what needed for the production. The
- Today, there are 10 committee members and 273 members

Potentials and priority of agroecosystems

- Lowland rice is dominant with no upland area. Farmers have no longer accessed to the upland as it is allocated to the ELC for sugarcane plantation and processing
- Each household own 3-4ha of lowland rice.

Challenges and issues especially related ASSET

- Logging and yield lost. Few combine harvester, can not harvest all on time
- Contract farming that the companies did not buy at the agreed amount. When the price is low, the company delay and check the quality seriously.
- As often facing with rain floods damaging the grain quality, the company always blame on the quality to reduce the grade.

Current activities or projects and targeted area

- Two main activities: crediting and buy-sale organic rice through contract farming with the rice millers. From mid last year, they receive rice miller provided by Aspire through AVSF.

Partners both NGOs and private companies

- PMUAC member, so can access to different information on techniques and market
- PDAFF through the contract farming and PMUAC
- Word vision provide strong support
- Aspire and AVSF for rice miller and milled rice market

Innovations related to ASSET

- Technical innovation and organizational innovation
 - Not really, farmers just follow the traditional practices
 - AC and Union members
- Institutional innovation
 - Contract farming and internal control system

Perspectives / Suggestions / Recommendations

- Increase amount of purchase from the member for milled rice
- Increase members to get bigger area of organic, and improve harvest techniques and farming techniques.

Collected documents:

- Annual AC report

Annex 31: Meeting note with Tasu Meanchey Agricultural Cooperative, Cheyssen district

Background:

Founded in 2012 with legacy from Roleb project and currently have 281 family as members. The cooperative is the member of PMUAC and shareholder of CACC. The AC won number 1 as the best Agriculture Cooperatives over the country in 2020.

Main Supporting Activities:

- Access to finance for farmers as members: Provide loan without collateral to farmers as members and let them pay back with their products
- Run Rice processing and sell to PMUAC and consumers who connected through networks
- Provide Technical supports to farmers as members especially on complying with organic standard
- Coordinate Contract Farming with Private Sectors and buy in products from farmers as members in good price.

Challenges:

- **Limits in standard and quality management of general farmers:** Farmers find it difficult to follow thoroughly with the standard to maintain the quality for organic rice and so the AC has to spend a lot of resources to support and help them so they can fulfill the quality.
- **Limit in resources and finances of farmers leading to breaching of contract farming:** Producers/farmers in the AC generally do not have many reserves especially on finance in farming and so many of them take out loan to do the farming. Consequently, if they cannot sell on-time, they will be worse off as they have to pay penalty price for their late interest fee. In this way, farmers choose to sell to brokers/middleman whom could give the money to them once they harvested. This creates short supplies for the company who are in contract farming.

Strategy and Future plan, Levers/Solutions:

- **AC coordinate closely with company:** AC has proper planning and yield project, letting them have the capability to negotiate with company beforehand shall there is shortage to the agreed amount in the contract. Easy to work with letting them secure different contract farming despite some target are not fulfilled.

Collected Documents: Agriculture Cooperatives Annual Report

Annex 32: Meeting note with Krabao Prum Tep Agricultural Cooperative, Kulen district

Province:	Preah Vihear	District:	Kulen	Commune:	Kulen Tboung
Organization	Krabao Prum Tep AC				
Date	02/2/2021				
N. participants	1				
Contact	Name:	Toeuk Veach			
	Position:	Head of AC			
	Tel:	+855 976106849			

Background of organization

- The AC was created in 2009 by the Rulip project of PDAFF. Right now, there are 409 members.
- Since then, there are many projects supporting the AC.

Potentials and priority of agroecosystems

- Kulen district is one of potential district for some area of red soil suitable for rubber, pepper, vegetables... with high productivity. The district has similar share (bigger lowland) for lowland rice. The 2 cycles of rice about 30ha is done here with natural streams (no irrigation system yet). In other communes, targeted ones for Chain, AIMS, and Aspire, the area for vegetables are at large scale more than 1ha growing open place (some have net house) fruit vegetables (eggplant, chinese radish, onion...)
- In the commune, there is more lowland area and the area has been cultivated longtime ago.
- On average, each household own about 4ha of lowland rice and 2 ha of upland. The rice farming consists of short cycle (local varieties) and medium cycle e.g. Phkar Rumdoul. Upland is mainly used for cassava and cashew nut (just 3 years planting high yield variet M23, before only about 0.5ha local variety).

Challenges and issues especially related ASSET

- Decreasing yield of rice for the organic farming making the profit is lower compared to the chemical one. More farmers are observing and some of them are thinking if to stay or shift to chemical. Some use organic fertilizer, Coop, but is quite expensive compared the chemical ones and the amount of yield gained. Average yield of Phkar Rumdoul is 2.5t/ha dried grain.
- The same for the cassava, the yield is decreasing from about 25t/ha decreasing from 40t/ha fresh tuber
- Big issues are the companies do not promise on the agreed amount both for rice and cassava. Last year, Amru bought only about 500t out of 600t contracted while CACC bought only 3000t out of 6000t

Current activities or projects and targeted area

- The AC has 5 businesses: buy and sell organic rice through contract farming with Amru since 2015, buy and sell organic cassava with CACC since 2018, produce and supply clean water using solar panel, credit to members, and milling service and sell milled rice.
- Clean water supply is the first business supported by NAPA project for climate change responses. From 2014, all management was handed over to AC. There are 2 tanks and solar set supplying to around 30 hh each and generating income about 20\$ per month.
- AC also received drying facility for rice from Malis project. It was shared between AC (land and shelter) and project (building drying facility). It is still on operation.
- AC also received rice thresher from Rulip project to provide services for the members as income generation. It is not in operation much as now the harvest is done by combined harvester

Partners both NGOs and private companies

- AC is among the first AC member for the PMUAC. PMUAC provides capacity training on management, internal control system, agribusiness, but also connect to private companies for market improvement and premium e.g. organic rice and cassava. PMUAC also provides technical training and bring support via different projects for the AC. It is more connected and larger network to join the PMUAC
- Through PMUAC, some AC members learn how to use cover crops (Sunhemp) and the line broadcaster (Eli seeder) that is implemented from 2019 and 2020.
- AC does contract farming with Amru through the PMUAC since 2015 and CACC for the cassava since 2018
- AIMS projects, some members received net house, but mostly at early stage
- AVSF and Aspire, receiving rice millers for milled rice suppliers mainly in the province, but also others via PMUAC. AC buy rice from the members and do business as private rice miller
- World Vision for all types of techniques but rather at smaller scale for vegetables, fish culture, livestock (mainly chicken)

Innovations related to ASSET

- Technical innovation
 - Uses of cover crops before rice sowing from 2019. Line broadcaster, Eli seeder, is also tested.
 - Organic practices following the standard, but mainly using organic fertilizers promoted by Amru (Coop). As the soil fertility is depleted with low yield (~2t/ha dried grain), most farmers esp. large farm use this fertilizer.
 - Organic cassava and cashew production, but not really observe innovation except following the organic standard
- Organizational innovation
 - One of old AC in the province created by Rulip and on good functions and operations
 - One of PMUAC members with broad knowledge on the long term benefits and importance of working together to solve the common issues.
 - With AC, members join by business e.g. clean water supplier showing high capacity of organization
- Institutional innovation
 - Internal control system team, 1 member check 20-25 households, and logistics management and arrangement
 - Contract farming through PMUAC for rice with Amru and directly with CACC for organic cassava

Perspectives / Suggestions / Recommendations

- The company respect the contract for the amount to be purchased
- Technical support for increasing the yield

Collected documents

- Sample of contract with Amru and CACC

Annex 33: Meeting note with Leuk Kampos Satri Agricultural Cooperative, Rovieng district

Background:

Founded in 2002 with support from ADRA with 250 members, all females at first, reflecting their names of “Women empowerment Agriculture Cooperatives”. Currently, they are having 725 members, mixed between males and females; however, female is dominating with all executive board of members are mostly female. They used to be member of PMUAC but withdrew in 2019 due to conflicts.

From then on, they have been managing the contract farming with Amru rice by themselves.

Main Supporting Activities:

- Access to finance for farmers as members: Provide loan without collateral to farmers as members and let them pay back with their products
- Coordinate Contract Farming with Private Sectors and buy in products from farmers as members in good price.
- Run side business to support the AC such as producing Dish washing soap, providing vet service and small-scale rice milling.

Challenges:

- **Limits in getting a stable contract farming and late payment from the companies:** companies that are providing the contract farming give out the payment for the product in a lengthy period (a few month period), which is very hard to deal it for the AC to keep members delivering the products according to the contract.
- **Limits in capacity in administrative management of the AC:** the executive members of the AC are struggling with the administrative management including keeping records of list of farmer members and reports. It is because they do not have knowledge of computer to prepare the documents and other supports to keep the operation going well. As the result, there were times that some farmers have no names for the contract farming and ending up selling in a low price for their harvested products. They also faced problem of members resigning and moving to different nearby Agriculture Cooperatives.

Strategy and Future plan, Levers/Solutions:

- **Continue to work closely with local PDAFF officer:** They have been receiving support from the PDAFF officers and NGOs such as World vision and BDSA to improve their administrative management even though there are a lot to improve.

Annex 34: Meeting note with Ou Khleung Por Meanchey Agricultural Cooperative, Preah Vihear district

Province:	Preah Vihear	District:	Preah Vihear town	Commune:	Pahal
Organization	Ou Khleung Por Meanchey AC				
Date	03/2/2021				
N. participants	1				
Contact	Name:	Mrs. Chea Sreymom, head of AC, 071 6919444			

Background of organization

- The AC was created in 2006 by Rulip and Malis project supported to buy truck for service provision among members
- In 2016, JICA helped to build the office
- From 2020, world vision supports processing techniques, help finding appropriate processing unit. Then, AC sold out the truck and invest in buying the processing unit >10,000\$
-
- to buy the processing facility for cashew nut. AC sold out the truck and invest in processing and marketing as getting higher price and profit

Potentials and priority of agroecosystems

- In 2006, farmers grew soybean, mungbean, banana ... then they shifted annual crops to cassava and cashew nut
- Cashew nut is dominant crop followed by cassava. Banana is the only tree crop with some area of rubber and pepper
- On average each household own about 2ha of cashew, 1ha of cassava, and 1ha of lowland rice

Challenges and issues especially related ASSET

- Very high prevalence of insects for high yield variety of cashew M23. All farmers need to use insecticides intensively. In this area, organic production is not possible. The AC receive GAP standard
- Besides, changes of rainfall patterns making more and long drought impacting negatively on the yield of cashew nut

Current activities or projects and targeted area

- Buying cashew nut from the members, processing it into nut, marketing this processed nut. They sell to Siem Reap and Phnom Penh at 12.5\$/kg.
- Processing unit has capacity, 100kg/8hour for peeling out, grill by motor 10kg/45mn. Not yet have packing unit
- Support members on the techniques for cashew nut
- Crediting among members

Partners both NGOs and private companies

- Support from world vision on the techniques of processing and marketing.
- PDAFF support techniques and GAP standard

Innovations related to ASSET

- Technical innovation

- GAP standard techniques
- Organizational innovation
- AC and control system for GAP standard
- Institutional innovation
- Collective business processing the nut and marketing the nut

Perspectives / Suggestions / Recommendations

- Improving facilities with packing unit
- Increase market if possible exporting abroad

Collected documents

None

Annex 35: Restitution note with PDAFF Preah Vihear

Organization	PDAFF Preah Vihear
Date	25/03/2021
N. participants	<ul style="list-style-type: none"> - Mr. Poeung Tryda, PDAFF director - Mr. Srun Borin, PDAFF deputy director - Mr. KONG Rada - Mrs. Mak Sovannaret

1. Clarification on the rice variety promotion and IVY NGOs
 - Promotion of rice variety depends on the demand of rice miller (contractor) from year to another. For example, if they need white rice, jasmine, red jasmine... not really follow the potential of biophysical conditions and rice varieties. It means the premium price is high enough to attract farmers. This year 2020, the companies requested to have higher quantity of short cycle white rice, but local variety. A few years ago, PDAFF had promoted Phkar Rumdoul variety.
 - IVY is Japanese NGO, with full name as International Volunteers of Yamagata. A project has been implemented in Preah Vihear for 3 years; it comes to 3rd year. IVY mainly support the value chain of organic cash. It is currently supporting 8 AC for contract farming with CACC and also with Santana company to better market and higher price. Moreover, they also support the techniques.
2. Coordination between the projects e.g. AIMS, APSIRE, Chain... for same target farmers and village / communes
 - Each project has different scope, for example Chain only support the horticulture mainly vegetables production. The concept / approach of PDAFF is to support as many as aspects / components of farming systems / livelihoods of the farmers. PDAFF encourages the project to coordinate and support each others to ensure the increase diversification of incomes from as many as production systems e.g. vegetables, rice, cassava, cashew nut.. and livestock. So, if Chain and Aspire already support the farmers to produce good quality, AIMS could work in connecting them with the private companies for better market access and price. Also, for livestock, AVSF support on livestock production.
3. Perspectives of PMUAC
 - One of the strategic supports of PDAFF from different government projects e.g Aspire whatever possible on the investment, capacity building, human resources... directly or through the 3rd parties like AVSF
 - The support has been already for 4-5 years starting from 8 to 15 and now 25 AC members with 10 qualified staffs and around 100,000\$ annual budget. The support is mainly on the management capacity, auditing, internal control system in collaboration with Ecocert for the organic certification process.
 - PMUAC play the most important role in the achievement of organic rice production through the contract farming with the companies so far. It has stronger power in negotiate the price with the company, and the company can be flexible in term of amount, variety, logistics... as there are many AC and members.
 - Besides supporting on the internal control system / auditing for organic rice, PMUAC provide the training to the AC members on the management, leadership, business plan... also techniques for different crops
 - PDAFF also push through different 3rd parties e.g. AVSF for PMUAC produce other organic crops e.g. peanut with Ethiquable company for fair trade standard, turmeric, cassava... the goal is to diversify the market and crops
 - In general, rice and cassava are the two commodity crops in PV. The price of cassava is very high this year, dried tuber more than 200\$/t which made the profit much higher than rice. PDAFF work with other partners to disseminate clean stem and high yield free from CMD.

- Also, PDAFF strongly involve in the coordination between stakeholders esp. PMUAC to establish the Preah Vihear rice standard registering officially the trademark at ministry of commerce. The process is now at the last stage, final consultation workshop and publish the standard guideline. This is another way to boost the national market and rice quality for the Cambodians in general.
4. Transparency of contract farming execution
- When starting at the beginning, there were many problems. The most problems have been solved; yet the remaining ones are more challenge caused by both sides during too low and too high price.
 - When too low price, the companies delay the purchase or do not buy at the agreed amount from the AC for many different reasons especially on the quality (much more strict). Also, the AC members sometimes tried to help members adding more amount even with low quality (due to rainfall, delay harvest as no labor to harvest). PDAFF and/or PDoC sign in the contract as a witness. After receiving report from the district, PDAFF calls for a meeting with all stakeholders and discuss possible solutions for win to both sides since they are on the same boat. If more profit for the company, the premium price is also higher and then the profit for the farmer is also higher.
 - When the price is high, it is often for the companies to complain as the AC members just sell out the rice to the middlemen for higher price.
5. Livestock
- Recently, there is a trend of creating big farms in collaboration with CP company in Cambodia for chicken and pig. There is also dozen cattle farms for fattening.
 - Thanks to Covid 19 epidemic, it is observed increasing families and number of chicken. More families invest in hatching machine 100-200 eggs.
 - However, generally in Preah Vihear the cattle raising is family scale and very extensive, 6 months freely roaming and 6 months fenced during rainy season. PDAFF has worked very hard on that, and it is more effective for the communes and villages along the road with busy traffic and populated area. The cattle owners give in to tie up in one place their cattle. However, for more remoted villages and communes it is still common. The outsiders (crop growers) have to fence the crops. They claim it is a tradition.