



Proceedings of the National Workshop on Agroecological Transition

30th and 31st March 2016, Phnom Penh, Cambodia



Supported by:



Produced by Lucie Reynaud, Pierre Ferrand and Dr. Saythong Vilayvong (ALiSEA, Gret)

Contents

- I. Workshop wrap up 3
 - 1. Introduction..... 3
 - 2. A short account of the 2 days’ workshop..... 3
 - 2.1 Day1: Setting the stage..... 4
 - 2.2 Day 2: Working groups and brainstorming about agriculture challenges and a future governance for ALiSEA 7
 - 2.3 A contribution to the way forward... .. 10
- II. Case studies (powerpoints)..... 12
- III. workshop presentation extended abstracts 13
- IV. List of participants 24

I. WORKSHOP WRAP UP

1. Introduction

The 2 days' workshop has been very intense and very fruitful paving the way to some common principles, common understanding and common expectations about agroecology. There are still some works to do in order to define in an encompassing way agroecology but it is on the right track.

The workshop has offered room for a lot of experience sharing from Cambodia. It has enabled to start knowing each other and to present the regional dynamic that ACTAE intends to support. It also allowed identifying some key challenges faced by farmers and that are hindering broader promotion of agroecology.

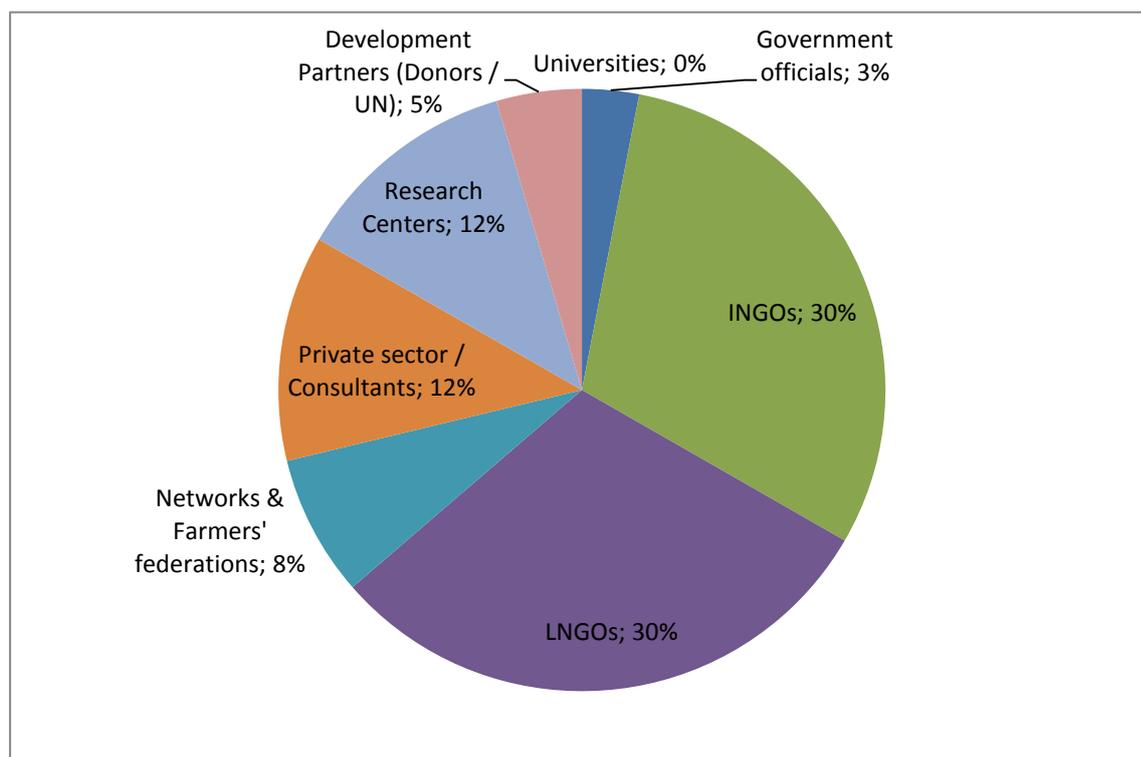
This 1st national workshop was instrumental in laying down the foundations of a national Cambodia network that will partake in a regional Agroecology Learning Alliance, bringing together all stakeholders active in the field of agroecology.

It was the first of its kind and it is expected that others will follow to keep on networking, sharing experiences and best practices and ultimately promote agroecology transition in the Mekong region.

2. A short account of the 2 days' workshop

The 1st national multi-stakeholder workshop addressing Agroecological Transition in the Mekong Region, and more especially in Cambodia, was held on the 30th and 31st of March 2016 in Phnom Penh. It was organized by CIRAD and GRET as part of the inception phase of ACTAE project, funded by the French Agency for Development (AFD).

It brought together **66 specialists and practitioners** from national and international NGOs, research, farmers' and consumers' associations, government agencies, development partners and private sector actively working on sustainable agriculture sector in Cambodia (see participants list in annex).



It aimed at sharing knowledge, information and experiences between agricultural development stakeholders, more especially through:

§ **The presentation of ACTAE program with its 2 components:**

- Conservation Agriculture Network in South East Asia (CANSEA)
- Agroecology Learning Alliance in South East Asia (ALiSEA)

§ **The discussions of initial findings from the 1st study carried out in the framework of ALiSEA** about *Cambodia agroecology stakeholder mapping and policy framework review* (report available on ALiSEA website: <http://ali-sea.org/aliseaonlinelibrary/agroecology-stakeholder-mapping-and-situation-review-in-cambodia/>)

§ **The introduction to the online ALiSEA knowledge management and experience sharing platform on Agroecology** (<http://ali-sea.org/>) and its Facebook page (<https://www.facebook.com/AgroecologyLearningAlliance/>)

§ **The presentation of 12 case studies** from various stakeholders

§ **Working groups** building upon lessons learnt from the case studies and ACTAE presentations resulting in

- A brainstorming about main agriculture challenges faced by farmers and formulation of recommendations for promoting agroecology
- A shared understanding and common vision of agroecology and a sound and accurate translations (in national language) of the concept of agroecology
- A preliminary brainstorming about governance and structure for a future national platform addressing agroecology transition

2.1 Day1: Setting the stage

Agriculture at a crossroad and the urgent need for a shift towards agroecology

The first day of the workshop provided room for presenting few overall reflections about agroecology in general and some concrete illustrations of past / ongoing agroecological initiatives in Cambodia. It provided some lessons learnt and supported collective discussions regarding agroecology promotion and dissemination.

First of all, to have a shared understanding regarding why agroecology is necessary today, it was reminded the Green Revolution's limits and negative impacts, the increasing importance of climate change and the current ecological crisis that agriculture and small holders in particular are facing.

These elements call for alternative cropping systems, and agroecology provides convincing and evidence-based alternatives to the current agrifood systems.

It was mentioned that agroecology seeks to produce diversified and high-quality food, reproduce – or even improve – the ecosystem's fertility, limit the use of non-renewable resources, avoid contaminating the environment and people, contribute to the fight against global warming.

In addition, it was emphasized on the fact that agroecology is not new, relying on empirical learning processes and knowledge transfer from generation to generation. Meanwhile, it can be also seen as a modern approach for agriculture, building on both traditional empirical knowledge and scientific research for a better understanding and use of ecological processes operating in the farming systems.

Thus, Agroecology provides innovative concept and approaches capable of tackling issues related to food security / sovereignty, and mitigation & adaptation to climate change

In line with the need for concept clarification, historical principles of agroecology (Altieri and al. 2005) were reminded since they provide a sound basis for addressing most of technical issues related to food production

- **Enhanced recycling of biomass**, optimizing nutrient availability and balancing nutrient flows.
- **Securing favorable soil conditions** for plant growth, particularly by managing organic matter and enhancing soil biotic activity.
- **Minimizing losses** due to flows of solar radiation, air and water by way of microclimate management, water harvesting and soil management through increased soil cover
- **Species and genetic diversification** of the agro-ecosystem in time and space.
- **Enhanced beneficial biological interactions** and synergisms among agro-biodiversity components thus resulting in the promotion of key ecological processes and services.

To put it in a nutshell and to quote some of the work from A. Wezel (2009), Agroecology can be seen as a set of practices, a scientific discipline and a social movement.

A broad range of agroecology practices found in the region and in Cambodia: quick stakeholder mapping and few case study based illustrations

A presentation from Proyuth Ly, independent consultant hired by ALiSEA, of his main findings regarding Cambodia agroecology stakeholder mapping and policy framework review, introduced a session of the workshop dedicated to take stock of the multitude of agroecology initiatives implemented in Cambodia.

6 sets of practices most commonly found have been identified during a feasibility study conducted by GRET in 2013 across the Mekong Region: System of Rice Intensification (SRI), Integrated Pest Management (IPM), Organic Agriculture (OA), Integrated Farming System (VAC as its acronym in Vietnam), Conservation Agriculture (CA), Agroforestry (AF)

As far as Cambodia is concerned, most of these practices are implemented across the country, and supported by different mechanisms. They are either

- driven by market demand (OA for instance),
- promoted by INGO/LNGO (SRI or Integrated farming for instance),
- implemented by default by farmers due to remoteness of their locations and lack of access to input or affordability (OA for instance)
- supported by factory scale production

All these support mechanisms vary according to the crops and to the regions.

In relation to the 5 historical principles of agroecology (presented above) and/or to the 6 most commonly found “set of practices” in the Mekong region, 12 cases studies were presented by various stakeholders according to 3 main topics (see detail list of case studies in annex):

- Improving production through agroecological practices (5 case studies)
- Trade-off between agriculture production and ecosystems services (2 case studies)
- Making markets work for agroecology products: value chain development, farmers empowerment and certification (5 case studies)

Such case studies were completed by a movie on farmer testimonies regarding the implementation of agroecological practices in Siem Reap province.

In terms of diversity of stakeholders, there were 1 presentation from Government representatives, 3 from research centers, 1 from agricultural cooperative, 1 from LNGOs representative, 4 from INGOs representatives and 2 from private sector.

Such presentations were instrumental to feed the collective brainstorming on Day 2. In addition, they stimulated some preliminary exchanges between the different stakeholders.

Most of the remarks mostly addressed 3 important issues:

- Participants suggested enhancing and facilitating more exchange on agroecology if we want to promote agroecology.
- The main problem of Organic Agriculture in Cambodia is the lack of market. One asked for improving local certification of Organic Agriculture and for better price compare to products from conventional agriculture. Policy for Organic Agriculture in Cambodia is not yet finalized and published by MAFF. To improve its market, the participants suggest doing assessment the demand and supply of Organic Agriculture and also improving the soil fertility.
- Overall trend of agricultural production in the past 5 years: The agricultural sector in Cambodia has moved towards more commercial agriculture as the number of cash crop planting have been increasing from year to year : Massive increase in cassava production driven by international demand (around 600 000 ha under cassava at the moment which need to be seriously taken into consideration since it has a huge impact on natural resource depletion and play an important role for smallholder economy), significant increase in rice production especially aimed for export (short term / medium term fragrant varieties which is quality and high value rice). However, questions have arisen about sustainability regarding Jasmine rice since productivity is still low and farm gate cannot cover fully labour and production costs / difficulties to invest in quality rice. In addition, despite this shift towards commercial agriculture, majority of farmers still focus on home consumption rather than market oriented production.

Other issues were also mentioned and should be given further room for discussions:

- To have a clear definition of agroecology.
- Labor constraints for upscaling agroecology practices (such as SRI) and need to develop alternatives that can address farm labour shortage (small machinery in some cases)
- Need for assessing the economic performance of Integrated Farming system (production costs and income) alongside with the scale of its dissemination across the country.
- Impact of climate change (increasing occurrence of high temperature) on vegetable growing. c. Several organizations mentioned some ongoing activities on this specific topics such as the National IPM program (addressing rice and vegetable, with specific work on impact of temperature increase due to climate change), IDE (conducting research & experiment on drought tolerant vegetable varieties such as capsicum), and APSARA (conducting experimentations of vegetable growing (cabbage) under shade together with climbing plant (beans) → with 50% less radiation, it is found that the productivity increases by 30% in the dry season)

2.2 Day 2: Working groups and brainstorming about agriculture challenges and a future governance for ALiSEA

Addressing agriculture challenges and agroecology principles

3 working groups were set up according to the nature of the stakeholders (Local NGOs & Networks, International NGOs & Private Sector, and Research) in order to brainstorm about challenges currently faced in agriculture especially related to:

- Agriculture production (soil fertility, pest and disease management / control, water management, access to good quality seeds...)
- Dissemination of innovations / extension approaches
- Access to market (certifications, incentives for quality product)

5 main cross cutting issues were highlighted:

- Poor soils fertility and irregular rain/drought
- Difficulties in access to knowledge of innovations
- Farmers have limited market linkages, rely mainly on middlemen
- Lack of quality guarantee systems and application;
- Lack of consumers awareness; Agroecology needs a facelift in the region in terms of public perception.

The following section is mostly extracted from the research / academia group since it encompasses most of what has been discussed as well within the other working groups:

Production techniques:

- Changes in scale of production
- Lack of knowledge on chemical fertilizers use leading to soil degradation issues
- Widely use of counterfeit inputs (fertilizers, pesticides) due to lack of control and enforcement
- Irrigation – lacking, but in some cases even drinking water is problematic
- Comprehensive packages of soils/water management needed to emphasize links between agricultural and ecological issues
- Farmer planning: multi-year, on-farm planning allows a number of sustainability innovations. However this is especially difficult for the poorest producers with little financial liquidity and stability

Biophysical:

- Soils (acidity, erosion), poor soils in general
- Vegetable diversity very low in many regions
- Genetic resources – massive loss of diversity, landraces, genetic heritage
- Seed quality, especially for indigenous landraces

Weather/climate change:

- Drought/irregular rain
- Deforestation-related water management concerns

Research/technology dissemination:

- Extension service not yet widely cover the farming population
- Lack of clear identification and awareness of priority issues
- Difficulties in access to knowledge of innovations
- Little leadership/willingness in on-farm experimentation and motivation to effect change
- Long-term nature of soil-based interventions
- Collective learning systems a critical need

- Little to no real valorization of natural resources (soil, water, air, etc.) in meaningful terms

Operational guidance:

- Are researchers working in the right place, and with the right people, to change producers' attitudes?
 - Input producers/sellers
 - Market/end user demands
- Need for a mutual, collective consensus on the nature and definitions of agroecology in local languages

Public awareness:

- NGOs and agencies often work with the poorest of the poor – this is valuable from a humanitarian perspective, but they are also the most powerless stakeholders
 - Subsistence agriculture of the poorest is *not* the major effector for agriculture-based environmental degradation
 - This is not the type of work that will create the needed links with industry
- Agroecology needs a facelift in the region in terms of public perception
- Communications and media work very critical
- Need to avoid the 'Good and Bad' narrative when we talk about agriculture. This dialogue marginalizes people and industry by making them the 'bad guys'. Better to bring them on board using positive, adaptive language and approaches rather than finger-pointing
- Understanding of the real value of natural resources and ecosystem services is a critical step towards accepting and implementing conservation

Governance

- Particularly an issue in relation to technical advice, regulation of inputs, sales
- Linkages to stakeholders, public policy necessary
- Public consultations not sufficient
- Agribusiness models are extractive, following the classic post-industrial resource exhaustion curve
 - How do we better engage agribusinesses in agroecological production?
 - Need for market-oriented linkages that motivate these actors to invest in sustainability of the resource base
- Cambodia, Laos – cases of raw resource extraction with value-added transformation occurring in neighbouring countries. This leaves little possibility for financial incentive reflows to emphasize sustainable production domestically
- Transnational trade: within ASEAN there is some emphasis on food security, sustainability – but these policies are difficult to enforce in the face of neoliberal trade policies and big agribusiness interests

Market access

- Lack of understanding about seasonal market prices for various products
- Lack of quality guarantee systems and application
- Poor linkages between producers and hotels, leading to practices such as delayed payments. Middlemen negotiating unfavorable deals from unorganized producers

Addressing governance and structure features for ALiSEA Cambodia

✓ Experience sharing on past and current involvement in existing networks

The discussion highlighted the need to clarify the different terminologies = forum, network, platform, learning alliance.

What is ALiSEA?

- A Network / platform (both terms are synonymous)
- A learning alliance as a group of people with different background, sharing same goal, interested to learn and share among each other
- A forum as public open space to allow free discussion

A platform allows:

- To share and exchange experience/knowledge towards a common goal that members want to reach together;
- To develop common advocacy policy to address to policy makers;
- To share information, findings from other organizations, to facilitate the dissemination of good experience and innovations.

What are the requirements to become a member of ALiSEA? ALiSEA is an open coalition of a wide diversity of stakeholders sharing the same vision and willing to promote agroecology. ALiSEA wish to be member driven and provide services to its members.

How ALiSEA works? In this regard, the project focuses on: 1) strengthening knowledge and experience sharing among agroecological initiatives and actors; 2) increasing visibility and credibility of agroecological movement towards policy makers and consumers; and 3) scaling up the development and adoption of agroecological practice among farmers.

What is going on after the project finishes? For this concern, this is 10 years project and we plans to create the network and recruits the National Secretariat for each country to ensure that project activities will be continuous implementing after project ends.

How to get information accessible and understandable by farmers? The platform need to raise awareness among farmers, to increase visibility through documenting farmers testimonies, sharing videos library, broadcasting documentaries on TV etc. The participants propose to include the Farmer Organization and researchers into the AE network for sharing experience on AE implementing.

SOFDEC inform on current studies that should be broadly shared: Sustainable land management study carried out by FAEC including case study; CARDI also conducting some work on farming systems; and IFPRI also conducted recently a study on rice.

✓ **What are the expectations of the stakeholders towards their participants to ALiSEA network?**

- To help local organizations to make their voice heard and understand to provincial and national levels.
- To play a role of marketing facilitator regarding the certification and control system as currently poor added-value are given to agroecological or organic products.
- To promote consumers awareness and to support linkages between producers and buyers.
- To provide cases studies analysis that give concrete examples of successful farmers able to improve their livelihood thanks to agroecology practices. To generate evidence base of successful agroecology farming system compared to chemical agriculture.
- Investment cost and gross margin data should assessed more closely and made available to farmers in order to support adaptability / mass adoption of agroecology practices.
- To create and gather data on agroecology (GIS mapping), to make a regional observatory on agroecology.

- To dissemination information and reach farmers through close collaboration with farmers federations. Federations could mainstream agroecology concept to their members.
- To enhance awareness of consumers through national and international consumers associations.
- To aggregate all agroecology initiatives, to works as inclusive platform that belongs to the members and take into consideration information access of farmers. Farmers could be reaching through the collaboration and dissemination by Federations.

2.3 A contribution to the way forward...

✓ A first working group formed

At the end of the 2 days' workshop, a **first working group** of 12 volunteer members have committed to contribute to the elaboration of the **structure of the future Cambodia Agroecology Learning Alliance**:

From left to right on the picture hereafter: Mr. Mike Tharamangalar (Green Business JV), Mr. Neou Sethea (PADEK), Mr. Khun Leang Hak (SOFDEC), Ms Im Sothy (ADG), Mr. Prak Sereyvath (CIRD), Mr Christophe Goossens (ADG), Ms Chhey Horn and Lim Ratha (Union of Maison Familiale Rurale), Ms Neang Malyne (Ecoland).

Not on the picture but also included in the working group: Mr. Chhim Phallyboth (COD) and Ms. Seng Kim Hian (IDE).



✓ Launching the small grants facilities

2 Small Grant Facilities will be launched shortly with different objectives as described in the PowerPoint (available on ALiSEA website shortly):

- One managed by CIRAD, aiming at supporting CANSEA members and amounting 320 000 Euros
- One managed by GRET, aiming at supporting ALiSEA members and amounting 210 000 Euros

ALiSEA Network will provide around **22 grants** for **2 years** and **4 countries** (Myanmar, Cambodia, Lao PDR and Vietnam). Grants will preferably be proposed as co-funding, with a

maximum of 10,000 USD. The objective of the SGF is to provide means to address the issues related to agroecology dissemination, production, market access. It aims at fostering knowledge generation and sharing.

ALiSEA SGF will be launched at the end of the 4 National Workshops on Agroecology Transition in Mekong Region, around June 2016. All details information will be displayed on ALiSEA website.

Interested stakeholders should send a 2 pages concept note with an obligation to produce **2 short “agro-ecological transition stories”** and a brief narrative and financial report.

The concept note should be preferably written in English. Specific support through ALiSEA national coordinator could be provided to grass root organizations that could write their concept note only in Khmer language. The objective is to support all potential applicants to develop a concept note and other documents in English so that it can be shared within the region with other stakeholders.

Master students can get the small grant if their project proposal meets to the project goals.

✓ **Learning and sharing events: organizing collective events in the coming months...**

For farmers they need face to face meeting. While for other levels we can have email, workshop, google group, Facebook, and Skype meeting.

Several kinds of events could be considered according to the target audience and the message that needs to be disseminated:

- To develop organic agriculture in Cambodia
- Internal Control System vs Participatory Guarantee System (ICS not suitable for local it suites for exporting, PGS is suited for local certification)
- To have sharing knowledge at national and international level
- ALiSEA should have tools to support partners in Cambodia

Annexes

II. CASE STUDIES (POWERPOINTS)

All the case studies presented and listed below are available for download on ALiSEA website

<http://ali-sea.org/1st-national-multi-stakeholder-workshop-addressing-agroecological-transition-in-cambodia/>

Improving production through agroecological practices

- IPM National Program, Chou Cheythyrit
- How to improve yield crop in organic farming? Case study of vegetable and rice crop on poor acid sandy soil of Angkor World Heritage, APSARA
- Improving soil fertility, rice productivity and fodder resources in the lowlands rice of Cambodia, CASC
- Accompany transition toward agro-ecology production practices, ADG
- Advocacy for a living soil, CIRAD

Trade-off between agriculture production and ecosystems services

- Trade-offs between ecosystem services and opportunity costs in the Tonle Sap Lake agro-ecosystem, Ecoland
- Key dynamic of Ibis Rice is to pay a premium to farmers to not expand production into protected forest, not hunt wildlife and not use chemicals, WCS

Making markets work for AE products: value chain development, farmers empowerment and certification

- Development of an economically viable organic rice supply chain via a Contract Farming scheme, SCCRP
- How does the agroecology practice integrate and develop in the vegetable value chain? PUAC
- Strengthening farmers' organizations to meet certification and quality requirements, COD
- Role in market in agroecology – a case study on vegetable supply. Promote safe food supply and empower farmer market, Natural Agri-village Shop.
- Khmer community Market Shop, COG

III. WORKSHOP PRESENTATION EXTENDED ABSTRACTS

How to improve yield crop in organic farming? Case study of vegetable and rice crop on poor acid sandy soil of Angkor World Heritage

Presenter: Dr Tan Boun Suy, Department of Agriculture and Community, APSARA National Authority

Problem addressed

Compost is the basic natural fertilizer of Organic Farming. It brings beneficial microorganisms resulting in good health of the soil. But the nutrients released are very low comparing with the chemical fertilizers.

How to solve this issue? We present our experimentation on poor acid sandy soil of Tuk Vil Research Station. Objective: utilization of Green Manure, Bat Guano, Rice Husk Ash in vegetable and rice crop.

Results

- Green Manure can replace Urea; bat guano is rich in nitrogen and phosphorus.
- We obtained encouraging results with *Chromolaena odorata* and bat guano.
- The effect of *Chromolaena odorata* is fleeting, that of bat guano is more sustainable.

Key issues:

1. ***Chromolaena*** is suitable for small demonstration plot. Spontaneous vegetation, we find it everywhere in the open space. But for large surface of crop, the quantity naturally found is not enough, for we use 10T/ha. So it is recommended to study how to grow this plant for getting large quantity of leaves and stems.

2. **Bat Guano** is expensive due to its scarcity. Some farmers host bats, sugar palm tree leaves are pulled down around the trunk to create shelter for bats.

3. **Rice Husk Ash** brings potassium, calcium to improve the pH of acid soil. It is cheap and available in great quantity; it could become one of the most interesting amendment of sandy acid soil.

Improving soil fertility, rice productivity and fodder resources in the lowlands rice of Cambodia: a complex trade-off

Rada Kong^a, Vira Leng^{bd}, Sopheak Trang^a, Veng Sar^a, Yosei Oikawa^b, Sovannara Chheong^a, Florent Tivet^{ac}, Sonoko D. B. Kimura^d, Soh Sugihara^b, Haruo Tanaka^b and Stéphane Boulakia^c

^a Conservation Agriculture Service Center (CASC), Department of Agricultural Land Resources Management (DALRM), General Directorate of Agriculture (GDA), Ministry of Agriculture, Forestry and Fisheries (MAFF), Phnom Penh, Cambodia

^b Soil Science Laboratory, Tokyo University of Agriculture and Technology (TUAT), Tokyo, Japan

^c Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), UR AIDA/CSIA, Montpellier, France

^d The Leibniz Centre for Agricultural Landscape Research, Müncheberg, Germany

Introduction

Rice is the principle staple crop of Cambodia and a commodity with increase export of jasmine and fragrant rice in the last few years. Any deterioration of rice production systems through climate change (less water, higher prevalence of diseases and pests ...) would seriously impair food security of the nation and the export capacity. Drought is a major limiting factor for the production of rain-fed lowland rice representing 2.2 million ha (Tsubo et al. 2009). Most rice paddies lie in gently sloping lowlands but field water availability varied from upper (sandy soils) to lower positions (clayed soils) of a sloping land in the rain-fed lowland ecosystem of the Tonle Sap region, causing variation in yield within the toposequence. The production of paddy rice has remarkably progressed during the last 10 years from 4.2 million tons in 2004 to 9.4 million tons in 2013. However, this global increase of the rice production remains poorly qualified and presents deep disparities between regions (some remaining very sensitive to climate accidents), between type of rice farming system and type of producers. Rice is commonly grown only once a year as a mono-crop in the wet season with still low input and relatively low output even if the yield has increased from 1.4 to 2.8 t/ha over the last 20 years (Fukai and Ouk, 2012). Animal husbandry is one of the main components of the rice farming system. Cattle and buffalo are in a constant state of undernourishment as they rely on poor-quality roadside grasses and rice straw as their primary source of nutrition in both wet and dry seasons (Pen et al. 2010).

Problems/Challenges addressed

Significant improvements in the rice production systems are crucial and should be based on diversification of non-rice crops e.g. pulses, sesame and/or establishment of fodder legume species after wet season rice (Tivet et al., 2015), while always improving income, soil fertility and water management. Thus, the main objective is to increase the resilience of the rice farming system through an improvement of the soil fertility and diversification pattern with the use of legume fodder species after wet season rice. A paired-plot design was established in 2011 in the irrigation scheme of Stung Chinit (Santuk district, Kampong Thom) to assess the soil fertility changes under contrasted soil and crop management comparing Conventional Tillage (CT, farmer's practice) and Conservation Agriculture (CA: no ploughing, residues are maintained on the top soil to preserve the soil fertility and cover/relay crops are used to diversify the productions) management comprising different rice cropping patterns with 1 to 3 cycles of rice per year. In addition, a demonstration plot of the most potential system was set up in 2013 to have a better assessment of labour requirements and economic performances. Under CA, leguminous plant species, *Stylosanthes quianensis* (stylo) and *Centrosema pascuorum* (centro), were broadcasted before or after rice harvesting at the end of the rainy season (from earlier November to mid-December depending of the position on the

toposequence) when water still remains in the field with main objectives to improve the soil fertility and to increase the fodder resources. After four years, changes in soil fertility were assessed (soil organic C-SOC, total N-TN, labile C pool). Soil samples were collected at 4 depths (0-5, 5-10, 10-20 and 20-40 cm depths). In addition, biomass productions of these two fodder species were assessed in 2015.

Stakeholders involved / existing partnerships

These activities are implemented by the Conservation Agriculture Service Center (CASC) of the Department of Agricultural Resources Management (DALRM), General Directorate of Agriculture (GDA). The representatives of the Farmer Water User Community (FWUC) in Stung Chinit are invited with volunteer farmers from surrounded villages to 2-3 field days per year to demonstrate the technical operations, progress results, and to identify the main challenges to adapt on their own farms these technologies. Recently, smallholders, who have lands inside and outside the irrigation scheme, were engaged in a diversification pattern using stylo and centro after wet season rice. At this scale the performances and abilities of the systems to match the means and goals of the farmers will be assessed. Our team provides technical support to them and seeds of the fodder legumes to start this activity. This process is still on his early stage and as emphasized hereafter there is a need to move to a social and collective learning approach.

Results / impacts / Lessons learnt

Our results indicate that soils under CT decreased SOC (from 16.8 to 36.8 tons of soil organic C per ha) stocks from 25% to 66% when compared with the native vegetation (49.4 tons soil organic C per ha), contributing to the depletion of the soil fertility and rice productivity. After 4 years, soil organic C and N stocks are higher under CA than that observed under CT. On average, SOC and TN accumulation under CA ranged from 0.2 to 1.4 tons C/ha/yr. and from 0.10 to 0.23 tons N/ha/yr when compared with CT. The increase in N stock is a unique advantage for small-scale farming, especially on sandy terraces with poor soil fertility where the use of mineral fertilizers induces economic hazards under conventional management. In addition, increasing trend in labile C stock was also observed also under CA in 0-20 cm depth. This result means that higher energy is available for the soil biota activity and significant changes were observed with higher macrofauna activity under CA when compared with CT. This labile-C pool also contributes to an improvement of the soil physical properties improving soil porosity and aggregation preventing fast soil organic matter oxidation.

In addition to the provision of ecosystem services of regulation, the use of stylo and centro increases the fodder resources in the dry season, and thus might enhance the efficiency of the rice – livestock system. These two species produced from November to May on the sandy soils between 14 to 25 tons of fresh biomass per ha. Increase in yield of the jasmine rice was also observed and ranged from 2 to 4 t/ha in some fields that were previously abandoned by farmers.

Key issues identified as be furthered / conditions for upscaling / potential bottlenecks

Our result emphasized that the soil fertility can be improved even on a poor sandy soil (80% sand, upper sandy terraces) under CA management, an increase in biomass inputs and the use of a large diversity of plants enhancing biological processes and synergies. However, several issues should be considered if we expect a dissemination of these agro-ecological systems. The first issue is related to the trade-off between the use of the biomass of stylo and centro as fodder sources and the biomass quantity that should be restituted to improve the soil fertility avoiding a fast depletion of the soil fertility through the exportation of an already limited pool of soil nutrients. Additional research and soil fertility monitoring should be implemented on a medium and long-term process to define this trade-off. The second issue is the way the remaining biomass of stylo and centro will be managed for the rice production. Two options

would be explored by smallholder farmers: (i) the remaining biomass will be used as a green manure and incorporate into the soil or (ii) the biomass will be rolled down at least 2 to 3 weeks before rice sowing (depending of the biomass), then rice will be direct seeded into the mulch and soon after rice emergence water will be bring into the field to control the weeds. The second option implies to have access to specific no-till planter that opens a furrow and drops the seeds into the soil through a thick mulch layer on the soil surface. The lack of no-till planters in Cambodia represents a clear constraint to move to this option that represents the best management of the soil fertility. Another option is to improve the seed broadcasting technology broadcasting rice seeds into thick mulch which introduce more technical challenges than the first two options. Beside technical constraints, the main challenge is related to social barriers for adoption, where for example, new collective rules for livestock and rice stubble fire management should emerge within the community. In many areas, roaming animals is the norm in the dry season and rice stubble is generally burnt to facilitate land preparation (ploughing even done by tractor). With this new fodder resource there is a need to ‘control’ the grazing in order to prevent a high stocking rate that will damage the soil physical properties and the fodder resources. Changes in the way livestock are managed imply collective decision and to go through a negotiation process between farmers within the same community. Our main strategy is to provide flexibility and options to smallholder farmers and to move with them to an iterative process understanding the advantages of diversification and biomass restitution for the management of the soil fertility, improving the fodder resources, and increasing yield and profitability.

Reference

- Fukai, S., Ouk, M., 2012. Increased productivity of rainfed lowland rice cropping systems of the Mekong region. *Crop Pasture Sci.* 63, 944–973.
- Pen M., Savage D., Stur W., Sophal L., Seng M., 2010. Cattle feeding and management practices of small-holder farmers in Kampong Cham province, Cambodia. *International Journal of Environmental and Rural Development* 1, 132–138
- Tivet F., Kong R., Trang S., Leng V., Boulakia S., Sovuthy P., 2015. Development of direct seeding mulch-based cropping systems for irrigated lowland rice on poor Sandy Soil - Stung Chinit, Season 2014. 22p
- Tsubo M., Fukai S., Basnayake J., Ouk M., 2009. Frequency of occurrence of various drought types and its impact on performance of photoperiod-sensitive and insensitive rice genotypes in rainfed lowland conditions in Cambodia. *Field Crops Research* 113: 287–296

Trade-offs between ecosystem services and opportunity costs in the Tonle Sap Lake agro-ecosystem (Cambodia)

Authors: Malyne NEANG ⁽¹⁾, Philippe MERAL ⁽²⁾, Olivier AZNAR ⁽³⁾, Christophe DEPRES⁽³⁾

(1) Auvergne University (Clermont-Ferrand, France)

(2) IRD, UMR-GRED (Montpellier, France)

(3) Metafort-VetAgro Sup (Clermont-Ferrand, France)

Abstract

The usefulness of Ecosystem Services Framework (ESF) to emphasize relationships between agriculture and ecosystems has received much less attention. In addition, studies applying ESF to understand links between ecosystem services and rice production systems are still missing. The objective of this paper is to try to fill this gap by adopting the ES and EDS (ecosystem dis-services) approach suggested by Zhang *et al.* (2007), and combine with Agrarian System Analysis and Diagnosis methodology (Cochet and Devienne, 2006a; Dufumier, 2006; Cochet *et al.*, 2007; Cochet, 2012) in order to identify ES and EDS provided by rice production systems adopted by peasants on the agro-ecosystem of Tonle Sap Lake flood plain. Our finding show that organic rice production system is not economically and ecologically performant in ES provision. Contrary, rainy season rice, floating in particular, is the most performance for ES provision. We propose 3 choice to reconcile economic and ecologic performance as following (1) Promote production system with medium performance for ES but low opportunity cost is to promote adoption of rainy season rice excluding floating rice in combination with short-term rice. (2) Promote production system with medium performance for ES with medium opportunity cost is to promote adoption of rainy season rice including floating rice in combination with short-term rice. And (3) Promote production system with high performance for ES with high opportunity cost is to promote adoption of floating rice alone in production system.

Ibis Rice: making conservation not just viable, but valuable.

Presenter: Nick Spencer, nick@smpcambodia.org Cambodia, Sansom Mlup Prey – Ibis Rice

Co-Presenter: Simon Mahood, smahood@wcs.org Cambodia, WCS

The key dynamic of Ibis Rice is to pay a premium to farmers to not expand production into protected forest, not hunt wildlife and not use chemicals. Having previously had limited, low-value and unreliable access to market for agricultural produce they would look to the forest to supplement their living in unsustainable ways. De-forestation risks the long-term viability of the community for short-term gains. The best climate change mitigation strategy for the communities is to have healthy forest around them for water retention, biodiversity and soil conservation. Furthermore, the Giant Ibis, no 1 bird on the EDGE list (Evolutionarily Distinct and Globally Endangered) is found almost exclusively in these forests. By combining high-end, low-impact ecotourism with Wildlife Friendly, premium markets for their prestigious Pkha Roudol Jasmine rice, conservation becomes not just viable but highly valuable to these communities.

Farmers in these areas are already organic chemical compliance which is monitored through our conservation compliance. However to really communicate this to the consumer, especially internationally, we saw the need to gain EU and USDA regarded Organic certification. It has been shown that this certification can bring an increase in value enough to pay the farmers 20% more for their farming methods. This certification long-term can open international markets that will allow growth of the project and stable income. We successfully certified 40% of our production in 2015.

Furthermore, the training in organic methods and the premium we pay them strengthens resistance to the pressures and coercive tactics of the chemical salesman that target these remote, often illiterate communities. Chemicals sold are often without Khmer translation and with very dangerous advice.

Organic certification means all a farmers land and outputs are inspected and certified. It also requires the farmer group to address soil fertility through organic methods such as preserving hummus, mulching, use of legumes and low/zero tillage techniques. Effective implementation of these methods have will great impact on both fertility and water retention, vital in a single crop, rain-fed system increasingly effected by climate change. This really is the next great challenge for Ibis Rice, to design a system specific to a village level that can progressively improve soil condition and therefore yield.

Organic certification would make legumes cash crops, such as black-eye peas on the fallow a valuable practice, as these too would be certified organic. This again improves income without expansion of agricultural land and strengthens food security with an increasingly variable climate and wet season.

During the last year we have begun to leverage Ibis Rice to pilot the Sustainable Rice Platform (SRP) Standards and Indicators within extensive dry-season rice farming areas in the Tonle Sap floodplain. The SRP is a global organization composed of public and private sector partners, and NGOs, of which WCS is the only wildlife conservation organization. Through our pilot, we will test the efficacy of version 0.1 of the SRP Standards and Indicators, and build on our experience with Ibis Rice to improve the biodiversity gains achieved under SRP. This represents an incredible opportunity to improve the sustainability of rice cultivation on a large scale. Consumer preferences are driving change in the industry at the farm level with global consequences. We see SRP as a tool for major commodity corporates to assess their supply change for the most acute sustainability challenges and built privately funded or co-funded projects to address these issues.

Development of an economically viable organic rice supply chain via a Contract Farming scheme in Preah Vihear province, Cambodia

Jean-Marie BRUN, IRAM¹, SCCRP² Project Management Advisor, Cambodia – jm.brun@iram-fr.org

Sophoan MIN, AVSF³, Country Coordinator, Cambodia – s.min@avsf.org

Sarang SOK, CIRDD⁴, Team leader of C#3 of SCCRP project, Cambodia – soksarang@cird.org.kh

Summary

Whereas organic value chains have not always succeeded to maintain their costs of management and certification, a partnership based on a contract farming model is showing encouraging results in Preah Vihear province. Economy of scale, achieved by a rapid growth of paddy volumes engaged and by the willingness of farmer leaders to pull resources for the creation of a Union of Agricultural Cooperatives, is the keystone of the viability of this organic paddy supply chain. Long term vision and the aspiration of a committed exporter to build a fair partnership with farmers are also essential pillars of this success.

The challenge of developing economically viable organic supply chains

Despite the potential and the numerous initiatives to promote organic agriculture in Cambodia in the past 15 years, success stories of economically viable organic value chains are scarce, notably in the rice sector. Whereas growing concerns of Cambodian urban middle-class regarding food safety opens a potential, the absence of public regulation or organic standards and the lack of a reliable and consumers-known private-owned organic label makes the potential of domestic market barely exploited. On the other hand, the lack of connection to international markets limits the scale of organic production initiatives. As a consequence, international certification costs per unit of product remains too high to be sustained, and the potential of international markets for organic products is left untapped.

Initial support to organic rice production in Preah Vihear province

The Support to the Commercialization of Cambodian Rice Project (SCCRP) is financed by the *Agence Française de Développement* (AFD). Among other objectives, it aims at developing the involvement of Farmer Organizations in the commercialization of paddy and at differentiating Cambodian Rice on international market by various quality labels and compliance with standards.

In 2013, in partnership with the Cambodian Organic Agriculture Association (COAA), a first support was provided to 5 cooperatives in Preah Vihear province (a remote province in the North of Cambodia) to produce organic rice. The objective for that first year was only the compliance with COAA private organic standard, yet allowing the setting-up of an Internal Control System (ICS). COAA organic logo could be used for domestic market, yet could also be considered within some regional market destinations which do not have a public regulation on organic agriculture and labelling (such as Singapore). It was expected that this would

¹ IRAM: *Institut de Recherche et d'Application des Méthodes de développement* / Institute of Research and Application of development Methods – www.iram-fr.org

² SCCRP: Support to the Commercialization of Cambodian Rice Project.

³ AVSF: Agronomes et Vétérinaires Sans Frontières - www.avsf.org

⁴ CIRDD: Cambodian Institute for Research and Rural Development - www.cird.org.kh

already generate a moderate premium to motivate producers, while this first season would be used as a springboard toward international certifications. This first year was successful from the point of view of building awareness of farmers on organic production and establishing internal control system: about 625 tons of paddy were declared compliant with COrAA standards. But it was a failure from the commercial point of view as only about 100 tons of paddy were sold as organic, to AMRU Rice (Cambodia) Co. Ltd., one of the lead Cambodian rice exporters.

Lessons learnt from 1st season and improvements in 2014

AMRU Rice Co. was actually willing to buy more organic paddy from 2013 harvest. But the paddy was bought fresh (before drying), whereas the logistic organization of the paddy collection was not efficient enough. To avoid depreciation of the quality, farmers had to sell the paddy within 48 hours after harvest, to local traders (as conventional paddy) if the company could not buy on time. For the Agricultural Cooperatives involved, this revealed the risk of investing further in the internal control system without reasonable guarantees that the paddy will be sold as organic, with the corresponding premium price. To secure deals with buyers from the beginning of the cropping cycle was thereof seen as a must.

In 2014, 8 cooperatives were involved and a meeting was organized with potential buyers of organic paddy in the very early stage of the season to select a partner. Cooperatives have met individually three or four potential buyers to compare the conditions they would possibly offer for organic paddy purchase, then decided to negotiate a Contract Farming agreement with AMRU Rice. Contracts were signed for the supply of a total of 1,800 tons of organic jasmine paddy for harvest 2014. The agreement defined different grade of quality with corresponding detailed specifications, and for each grade, the level of premium price to apply. Reference price was set based on prices offered by other rice mills in the neighboring province of Kampong Thom. The target in 2014 was to achieve organic certification against both EOS/EU and USA/NOP standards. Moreover the modalities of quality control and collection were clarified in order to address the difficulties faced in 2013. AMRU Rice Co. was in charge to hire an international certification body (Ecocert), while cooperatives had to maintain the internal control system. Additional training and supervision of cooperatives inspectors was provided by COrAA, mobilized by the SCCRP project.

At harvest time, even if the full target volume was not achieved, the results were very encouraging: all the 8 cooperatives were certified by Ecocert and 1,465 tons of organic paddy were delivered to AMRU. In average, the level of premium applied was +128 Riels/kg of paddy, additional to a reference price already significantly higher than prices offered by collector in the production area.

Building the economic viability

Results of 2014 harvest were very encouraging. However, it was acknowledge that the role undertaken by COrAA and financed by the project was still crucial to sustain the organic certification. The next challenge faced was thereof to ensure a complete weaning of the emerging organic paddy supply chain from project subsidies. To maintain a team able to supervise internal control inspectors, verify and consolidate the data of the Internal Control System, liaise with the certification body and provide managerial support to the cooperative was seen as a must. Different scenarios were developed, with a simulation of associated costs. Two options in particular were considered: 1. the externalization of this support service, possibly by the mobilization of COrAA paid directly by the cooperatives, or 2. the mutualization of resources by the cooperatives in order to hire (and keep) a competent team. The second option was chosen: the eight cooperatives have decided to establish a Union of Agricultural Cooperatives (which is about to become the first – or one of the first – Union of Cooperatives registered in Cambodia) through which they will mobilize the adequate staff.

Before to engage further support, the partners were asked to formally confirm the following commitments, seen as the pillars of the economic viability of the model: AMRU Rice took commitments regarding the increase of premium prices and volumes to be purchased (not less than 3,500 tons of paddy by 2016). Cooperatives have accepted to channel 50 Riels/kg of paddy, withhold on the premium, to cover the cost of the Union. And on its side, the SCCRP project (reassured by the above commitments of its partners), has accepted to subsidize the costs of the Union from mid-2015 until the harvest. Based on a hypothesis of 2,500 tons of organic paddy sold to AMRU, it was foreseen that the Union would generate enough resources to cover 75% of its costs in 2016. Then additional growth up to 3,500 tons would be sufficient to balance the costs from 2017.

2015 harvest: on track with previsions

For the second year, contracts were signed between AMRU Rice and the 8 cooperatives, with agreed level of premiums and for over 3,300 tons of paddy. The Union (still informal) has recruited 4 staffs, temporarily paid with project's subsidy for the first 6 months. Organic certification was obtained, and Ecocert has even noted the improvement of the ICS allowed by the presence of the team of the Union, operational since mid-July 2015.

2,438 tons of organic paddy were delivered to AMRU: still less than the volumes expected as per contracts, but very much in line with the foreseen scenario toward economic sustainability of the model. Since the level of premium was significantly increased, incentives for farmers were still very satisfactory, while 50 Riels per kg were actually withhold and transferred to the Union of Cooperatives after the harvest, generating a budget of nearly 30,000 Dollars US for the Union (approximately 3/4 of its annual budget).

In average, the level of premium applied was +150 Riel/kg of paddy, additional to a reference price already significantly higher than prices offered by collector in the production area.

Scaling up: on track toward a viable organic paddy supply chain

Via its commercial efforts, AMRU Rice captures a growing demand for organic rice notably on the USA and European markets. Further scaling-up is expected in 2016, with considered aggregation of new cooperatives and inclusion of new farmers. AMRU could order approximately 5,000 tons of organic paddy this year: enough to ensure sufficient resources to cover the costs at cooperatives and Union level.

In this model, the involvement of a large scale exporter, committed to seek markets for organic rice, and the solid partnership built on a long term perspective between the exporter and cooperatives are keys of the success, while project investments are made with a well-defined phasing out plan, clearly understood by partners.

How does the agroecology practice integrate and develop in the vegetable value chain of Peri Urban Agriculture Cooperative (PUAC)?

Presented by: Mrs. YOU Lun, President of Peri Urban Agriculture Cooperative in Kampong Speu
Address: Village Chamkar Doung, Sangkat Chbar Morn, Krong Chbar Morn, Province Kampong Speu, CAMBODIA
Tel: +855 (96) 546 7398

In the last five years, there are various impacts from non-respect and over dosage of chemical products. In order to increase yield, farmers mostly decide to apply chemical products including chemical fertilizer, pesticide, and herbicide. Farmers are often insufficient skill to use properly and correctly of chemical products above. Consequently, farmers are not profitable economically because the production cost is quite high. There are also the health impact to consumers and producers. Based on these problem statements, the farmers were initially syndicated to become cooperative specialized in vegetable production named Peri-Urban Agriculture Cooperative (PUAC). PUAC was established since 29th April 2009 registered in the Provincial Department of Agriculture in Kampong Speu in 2009; with the purpose of producing and selling vegetables in order to improve the small scale farmers in Peri-Urban to grow chemical-free vegetables and to promote local sustainable development. PUAC locate in village Chamkar Doung, commune Chbar Morn, district Chbar Morn, Kampong Speu province. This cooperative has actually 70 farmers who are vegetable producers with the average surface of 0.2 acre per household. The applied cultivation methods consists of using only natural fertilizer as well as imported vegetables seeds from Belgium, Vietnam and Thailand. Nowadays, PUAC grow mostly Europe Vegetable including romaine, red romaine, red butter head, Batavia, Batavia red, lolo rosa, fris , iceberg, cherry tomato, tomato, okra, Khmer and Japanese cucumber. The annual production is approximately 50 tons.

PUAC is playing as agriculture platform centre to disseminate agriculture technique and facilitate on the access to market. There are two kinds of agroecology practises including solid and liquid compost which are developing as below:

- **Solid compost:** farmers are practically used by collecting the local existing resources: water hyacinth, tree leaf, waste vegetable, cow manure and rice husk. Farmers dig a hole to store this solid compost and keep for the process of humufication within a minimum of one month.
- **Liquid compost:** farmers are practically used by collecting the local existing resources: siam weed (*Chromolaena odorata*), kitchen waster and cow manure. Farmers prepare a jar to put this liquid compost mixed with cow and human urine for the process of humufication within a minimum of one month.

The farmers are using the classic model of agriculture technique such as (i) soil preparation (animal traction), (ii) manual line preparation, (iii) natural fertilization (compost from animal manure, (iv) manual plough, (v) nursery, (vi) manual transplantation, (vii) watering, (viii) maintenance (manual wedding and natural pesticide) and (ix) harvesting. After harvesting, PUAC is collecting point centre from members' farmers and distribute different sale points in Phnom Penh such as Khmer Farmer Garden, Japan Farm Shop, Market Kilometer Number 6 and O'Russey Market. There is local sale point in Kampong Speu Market. To conclude, these two agroecology practices are advantages to enable the good value chain of vegetable production and support small-scale farmer by reducing the chemical fertilizer and improving soil fertility. Farmers can used their local existing resources to produce the natural fertilizer. More importantly, agroecology products are quite demanding in the market with the higher price than chemical products.

Strengthening farmers' organizations to meet certification and quality requirements

Chhim Phallyboth, Executive director of Center for Organic Development

The Center for Organic Development (COD) is a nationwide operating non-governmental organization working for the promotion of organic agriculture in Cambodia. COD is active in support of organic agriculture, the processing and marketing of organic products. It aims to facilitate trading, and provides technical support especially for organic rice farmers to meet the requirements for organic certification as well as the quality criteria for export. Furthermore, COD gathers information on the organic sector and analyses the capacity of potential organic producers to meet the requirements.

Vision: The livelihoods of Cambodian smallholder farmers are enhanced, as they are reliable partners of other value chain actors. They produce crops based on sustainable agricultural principles and supply healthy food to the market at premium prices.

Mission: To support organic producers and their cooperatives in accessing national and international markets by enabling and strengthening the farmers' organizations to meet certification and quality requirements and to satisfactorily manage their own affairs.

Objectives:

- To raise awareness on the requirements of organic agriculture standards and certification;
- To provide services to stakeholders in organic value chains to meet especially quality and certification requirements;
- To link organic and sustainable smallholder farmers to markets;
- To assist leaders of agricultural cooperatives and farmers' associations.

IV. LIST OF PARTICIPANTS

No	Name	Position	Institution
1	Aymeric Roussel	Attaché Natural Resources Management - Rural Development	European Union
2	Bun Sovansa	Admin & Accountant	SEED
3	Bun Sreag	Managing Director	Natural Agriculture Village Shop
4	Chan Kimcheng	President	Women Farmers Network
5	Cheav Sunnary	AE Technician	CIRD
6	Chhey Horn	Manager of Association	MFR Cambodia
7	Chhim Phallyboth	Executive Director	COD (Center for Organic Development)
8	Chhoun Monorum	Project Coordinator	CEDAC
9	Chinh Pheareak	Agriculture Coordinator	Agrisud
10	Chou Cheythyryth	Coordinator IPM/GDA	IPM/GDA
11	Christophe Goossens	Country director	ADG
12	Dennis McMahon	Chief Executive Officer	Green Business JV
13	Erik Delaquis	Cassava agroecologist in Hanoi	CIAT
14	Florent Tivet	Agronomist Researcher	CIRAD Cambodia
15	Franck Enjalric	CANSEA coordinator	CIRAD Lao
16	Germain Priour	Consultant	Film maker and photopgrapher
17	Guillaume Jumel	Program manager	Vivre de sa terre
18	Guillaume Lestrelin	Technical Advisor	CIRAD Lao
19	Haruko Toyama	Agriculture Manager	JICA
20	Ieng Sotheara	Chairman	Eco-Agri Co., Ltd.
21	Im Sothy	Senior Agronomist	ADG
22	John Shaw Muir	Consultant	Irrigation, NRM & Sustainable resilient Rural Livelihoods consultant
23	Kalyan Ky	Director	CANZEM
24	Keo Kanelea	Regional Policy Advisor	Oxfam
25	Khin Theary		Khmer Market of Association
26	Khom Sokheng	General Manager	Khmer Community
27	Khun Leang Hak	Director	SOFDEC
28	Kong Meurn		PUAC
29	Kong Rada	Technical and Scientific Coordinator	MAFF-GDA-CASC
30	Kong Sophalrachana	Volunteer in Land Management and	Ecoland-RUA

		Land administration	
31	Koy Saran	Program Director	Farmer Livelihood Development (FLD)
32	Lang Seng Horng	PO	ICCO
33	Laure Montchamp	Project officer - Rural development, Environment and vocational training sectors	AFD
34	Lim Ratha	Voluntee	MFR Cambodia
35	Lucie Reynaud	Technical Advisor	GRET-ALiSEA
36	Meas Chanty	Country Representative	GRET-Cambodia
37	Meas Chendamuny	Project Coordinator	ATSA
38	Michel Sonet	Gestion de projets - Référent agronomique	ADG
39	Mike Tharamangalar	Country Manager	Green Business JV
40	Neang Malyne	Director	Ecoland-RUA
41	Neou Sethea	Agricultural program coordinator	Padek (Partnership for Development in Kampuchea)
42	Noun Sopheak		COAA
43	Ouk Lykhim	Community Engagement Manager	Conservation International
44	Pan sodavy	Executive Director	ATSA
45	Philippe Cao Van	ACTAE coordinator	CIRAD Lao
46	Phong Saret	Leader	Farmer Cooperative Siem Reap - Vegetable production
47	Pierre Ferrand	Regional Coordinator Agroecology	GRET-ALiSEA
48	Piseth Long	Project Officer - Agriculture and Rural Development	ADB
49	Prak Norak	Member of Association	Khmer Market of Association
50	Prak Sereyvath	Director	CIRD
51	Proyuth Ly	Consultant	Agroecology Consultant
52	Ry Saren	Field Technician	Siem Reap
53	Samorn Channa	Advisor	GIZ
54	Sar Sanphiren	Consultant	Agroecology Consultant
55	Say Sophal	Manager	Community Organizing Group
56	Saythong Vilayvong		GRET Lao
57	Sean Prum	Project officer consultant	Oxfam
58	Seng Chantho	Head of farmer cooperative	Farmer Cooperative of Rattanak Mondoul district
59	Seng Kim Hian	Project Coordinator	IDE
60	Seng Sophanna	Admin & Accountant Officer	GRET Cambodia
61	Simon Mahood	TA Biodiversity Conservation	WCS

62	Sophoan Min	Country director	AVSF
63	Tan Bun suy	Deputy Director of APSARA	APSARA
64	Touch Sokharith	Project Manager	GRET-Cambodia
65	Victor Onions	Senior Advisor	Srer Khmer
66	You Lun	President	PUAC

National Multi Stakeholder workshop on agroecology transition

Participants profiles



Phnom Penh, Cambodia
30th and 31st of March 2016





CHOU Cheythyryth,

MAFF-GDA, Cambodia

thyryth72@gmail.com

In 2014 – Present: Head of Research and Training on Rice Office, Department of Rice Crop and National IPM Project Coordinator, the National IPM Programme, General Directorate of Agriculture (GDA).

May 2007 – Dec 2014: The National IPM Project Coordinator, the National IPM Programme, GDA, funded by FAO-IPM Programme.

Feb. 2014 – May 2007: Provincial Agriculture Advisor (SPAA), PLG/UNDP, in Prey Veng and Svay Rieng province.

Dec. 1997 – May 2014: The National IPM Training Officer and National IPM Technical Officer, the National IPM Programme.



KONG Rada

Ecoland Center of Royal University of Agriculture, Cambodia

radakong@yahoo.com

Rada KONG is an agronomist and agro-economist specialized in tropical agrarian systems and Conservation Agriculture. After getting a joint MSc. degree under Sustainable Development in Agriculture (Agris Mundus) program in Agricultural Development from Copenhagen University and in Tropical Agrarian Systems and Environmental Management from Montpellier SupAgro, he has been working as a coordinator of Research and Development projects on Conservation Agriculture since 2011 in Cambodia with Ministry of Agriculture, Forestry, and Fisheries (MAFF) and French Agricultural Research Center for International Development (CIRAD). He is currently pursuing his PhD on “land scape and livelihood changes in the northwestern uplands of Cambodia: impacts on ecosystem services and opportunities to build resilient farming systems” at Graduate School for Life and Environmental Sciences, and Technology Sciences (GAIA) of Montpellier SupAgro University.



FERRAND Pierre

GRET, Laos

ferrand@gret.org

He is an agronomist, holder of a Master of Science in Tropical Agriculture Development from CNEARC (post graduate college for tropical agronomy) in Montpellier, France.

He has been working in the field of agriculture development for over 10 years, including 5.5 years in Myanmar (2006-2011) implementing Food and Livelihood Security Projects (agriculture development and extension, value chain development...) and 3.5 years at Gret Headquarters in Paris (2011 to 2015) as Project Officer in agriculture development and value chain.

Starting from May 2015, he moved to Vientiane, Laos PDR, to take part to a regional project (Laos, Cambodia, Myanmar) addressing the promotion of agroecology transition in South East Asia. He is in charge of facilitating the emergence and coordinating at regional level an Agroecology Learning Alliance, bringing together all relevant stakeholders active in the field of agroecology (CSOs, research centers, government officials, private sector).



GOOSSENS Christophe

Aide au Développement Gembloux (ADG), Cambodia & Laos

christophe.goossens@ong-adg.be

South-East Asia Representative

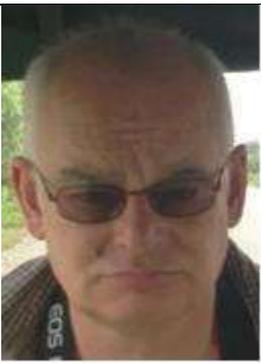
Christophe is an agronomist / socio-economist specialized in Natural Resources Management graduated from Belgium and France.

Christophe started farming in the Middle-East for almost three years, then, in 1988, joined NGOs and IOs in the Middle-East and in Asia working on rural development. Christophe works with ADG since 2007 in Cambodia and Laos, on several projects supporting Farmer Organizations and the promotion of agro-ecological value Chains.

SONET Michel

Aide au Développement Gembloux (ADG), Belgium

michel.sonet@ong-adg.be

	<p>Michel is an agronomist from the Gembloux University of Belgium.</p> <p>Michel works in several NGOs and IOs over the world and since 2010 is based at ADG Head Quarters in Belgium in charge of the Coordination, External Relations, Projects Management, and is the reference for Agro-Ecology.</p>
	<p>IM Sothy</p> <p>Aide au Développement Gembloux (ADG), Cambodia sothy.im@ong-adg.be</p> <p>IM Sothy is an Agronomist graduated in 2005 from Prek Liep National School of Agriculture (PNSA), who followed a Master of Development Management in 2012 at the Norton University (NU) in Cambodia.</p> <p>After being in charge of the SRI network for CEDAC, Sothy works as a Senior Agronomist with ADG Cambodia since 2010, with a specific focus on supporting farmers in their transition to agro-ecological production.</p>

	<p>CHINH Pheareak Agrisud International, Cambodia chinhpheareak@gmail.com</p> <p>He is a biologist with a Bachelor Degree in general biology from Phnom Penh Royal University, in Cambodia.</p> <p>After 11 years as Training manager and project manager for Agricultural projects (Agrisud), Food and livelihood security project (ECOSORN) and Silk project (PASS) in Cambodia, he started to work for Diversification of Peri-Urban Agriculture and Fight Against Malnutrition in Siem Reap project as Agricultural Coordinator in 2011. He is now the Agricultural Coordinator of Agrisud International.</p>
	<p>MIN Sophoan Agronomes et Vétérinaires Sans Frontières (AVSF), Cambodia s.min@avsf.org</p> <p>Mr. Sophoan MIN is Geography with a Master’s Degree in Actor of Rural Development (ADR) from Institute of Hot Region (IRC), in France. He has 18 years of experience in working in rural development project implemented by AVSF in Cambodia. He is the representative of AVSF in Cambodia. For this last two year, He works also as national backstopping support to “Support to Commercialization of Cambodian Rice Project (SCCRP), implemented by National Supreme Economic Council (SNEC), with financial support from French Development Agency (AFD). SCCR project support with success a pilot component on Organic rice Production and commercialization to Europe and USA. Mr. Sophoan involve in supporting to farmers and organization of producer to produce this organic rice.</p>
	<p>BRUN Jean-Marie IRAM, Cambodge (www.iram-fr.org) jm.brun@iram-fr.org</p> <p>Jean-Marie Brun is an agricultural engineer graduated in ISARA, Lyon (France) in 1994. He has more than 20 years of international professional experience in agriculture and rural development, in particular in Cambodia and South-East Asia.</p> <p>He has notably coordinated various project and implemented expertise missions with a focus on value chains, farmer</p>

	<p>organizations, irrigation management and agricultural policies.</p>
	<p>OUK Lykhim Conservation International, CI Cambodia louk@conservation.org</p> <p>Lykhim is an environmentalist with a Master’s Degree in Environmental Management from Flinders University, Australia.</p> <p>Since the completion of the master degree in 2010, he has worked for CI Cambodia as a Community Engagement Manager.</p>
	<p>SENG Kim Hian iDE, Cambodia skimhian@ide-cambodia.org</p> <p>Kim Hian is an agronomist with a PhD Degree in Plant Science from Lincoln University, New Zealand.</p> <p>She has more than 10 years of work experience related to Horticulture Production, IPM and project management. In her career, Kim Hian has involved with many local and international organizations as well as UN agency. Just to highlight some of her work, currently she manages a USAID-funded project called IPM Innovation Lab in Cambodia and provides technical advice related to Agronomy to NZAID-funded project called “Commercial Development and Strengthening of Horticulture”. From 2014-2015, she successfully led a DIPECHO-funded project called “Consolidating Capacities of Disaster Risk Reduction in Agriculture in Southeast Asia: Cambodia, Laos PRD, Philippines and DRPK”. The latter project was implemented by Food and Agriculture Organization of the United Nation (FAO).</p>
	<p>SAMORN Channa GIZ, Cambodia channa.samorn@giz.de</p> <p>Agronomist, Rural development specialist</p> <p>Mr. Samorn CHANNA, 34 years old, holding Master degree in “Integrated Farming and Rural Development” at Royal University of Agriculture, Phnom Penh. He show very high</p>

	<p>level of technical expertise on agro-ecology and organic farming. He is currently working as Advisor for GIZ in project called ASEAN Sustainable Agrifood System (http://www.asean-agrifood.org) that focuses on policy framework, production technology and marketing. He has strong competences in testing and providing training on biocontrol agents (BCA).</p> <p>In cooperation with CEDAC (www.cedac.org.kh), he has worked as Advisor for 3 years to upgrade the organic rice value chain that performed well to capacitate agricultural extension staff and farmers to improve production.</p>
	<p>VILAYVONG Saythong GRET, Laos vilayvong2002@gmail.com</p> <p>Dr. Saythong is an agronomist with a PhD. in Systems Agriculture from the Khon Kaen University, Thailand. During he studied PhD. he works with ARMI (Association for Rural Mobilization and Improvement) in Savannakhet province, Laos over the period of 2012-2014. Then after finishes PhD. he returns to work as the professor at the Faculty of Agriculture, National University of Laos where he is holding the position of Deputy of Head of Graduated Division. Today, be side of working with the Faculty of Agriculture, he also splits his time to work as the National coordinator for the Agroecology Learning Alliance in South East Asia (ALiSEA) Laos.</p>
	<p>TOUCH Sokharith GRET, Cambodia touch.cambodia@gret.org</p> <p>TOUCH Sokharith is an agronomist, holder of a Bachelor degree in Rural Development from MVU “Maharishi Vedic University” in 2005, Prey Veng province, Cambodia supported by Australia Government.</p> <p>He has been working in the field of agriculture development for more than 9 years including Food and Livelihood Security Improvement Projects “agriculture development and extension, natural disaster risk management/mitigation, value chain development.”</p> <p>Starting from April 2010, he has moved to work more on value chain development project to addressing the promotion of agro-ecology transition.</p>

	<p>REYNAUD Lucie GRET, Cambodia reynaud@gret.org</p> <p>Lucie Reynaud is an agronomist, holder of a Master of Agronomy and Food Science from ISARA-Lyon, France.</p> <p>She is working in the field of agriculture development for 4 years. She is currently Technical Advisor on APICI project called Development of sustainable agriculture for small holders in Siem Reap Province.</p> <p>Starting from May 2015, she takes part as the National coordinator in Cambodia to a regional project (Laos, Cambodia, Myanmar, Vietnam) addressing the promotion of agroecology transition in South East Asia.</p>
	<p>MEAS Chanty GRET, Cambodia meas@gret.org</p> <p>Mr. Meas Chanty is an agronomist with a Master’s Degree in Tropical agronomy engineering (Sup Agro Montpellier) from 1992 to 94, in France.</p> <p>He is working for GRET Cambodia since 1991 as research assistant of French expat on Agriculture and provided agricultural training to Royal University of Agriculture Chamcar Daung. He works as Project manager for Agricultural Research in Prey Veng province from 1995 to 1998. He was the coordinator of agricultural program in Prey Nup Polders Project from 1998 to 2007, he started to work as internal consultant for GRET agricultural project and also as external consultant from 2007 until now a day. From 2015, he works as GRET Cambodia representative and TA of agricultural extension for TA TAG project.</p>
	<p>TOYAMA Haruko Japan International Cooperation Agency (JICA), Cambodia Office ToyamaHaruko.CM@jica.go.jp</p> <p>After about 2 years as JICA volunteer working at Kampong Thom Provincial Teacher Training College, she started to work</p>

	<p>at the Embassy of Japan as KUSANONE grant coordinator in 2011-2013. She is now the program officer in agriculture section of JICA Cambodia Office.</p>
	<p>SEAN Prom</p> <p>Oxfam in Cambodia prum.sean@gmail.com</p> <p>Mr. Sean Prom, lives in Kampong Thom province. He started to work for Civil Society Organization since 1999. He did Bachelor degree in Veterinary on animal production at Prek Leap Agricultural National School in 2010.</p> <p>Prom has started his professional job with several NGOs such as:</p> <ul style="list-style-type: none"> • In 1999-2003, He started his work with ADRA_Cambodia, in the project of community-based food security (CBFS), which mainly focuses on home gardening and fish culture for promoting nutrition status of rural poor families in Kampong Thom province. • In 2003-2007: He started working with Mlup Baitong on community-Based Natural Resource Management (CBNRM) and livelihood project Officer, focusing on small scale income generating activities and community forest management. • In 2008-2013: he started working with Oxfam Great Britain (OGB) as program officer on Civil Society Pro-Poor Market (CSPPM) program supported by DIFID/DANIDA, which mainly focusing on multi-stakeholder dialogue, Natural Resource Governance and market chain information. And another project on climate change adaptation and humanitarian works on emergency response on natural disaster in 2009 and 2012). • In 2014-2015: He worked with Community Translation Organization (CTO) based in Siem Reap province as program manager; he managed 3 projects in two provinces (Siem Reap and Preah Vihear). In Preah Vihear, he managed community forest project and WASH project and in Siem Reap, he managed school project. <p>In August 2015 till now: He started working with Oxfam America as project officer on Transform Women farmer through Institutional Strengthening (TWIS) project, focusing on promoting voice of women farmers in Agriculture through building their network and creating free space for them to share their experiences and challenge with other relevant</p>

	<p>stakeholders at sub-national and national levels using women farmer forum as means to convey their message to those relevant stakeholders.</p>
	<p>KEO Kanelea Oxfam America kkeo@oxfamamerica.org</p>
	<p>CHAN Kimcheng Member of Community Fishery Committee in Koh Kong province. Women Farmers Champion Network. 088 915 233 6</p> <p>Ms. Chan Kimcheng lives in Srer Ambil in Koh kong province. She completed school in grade 8 and started to work as social activist, leading youth group in Koh Kong and then become community journalist.</p> <ul style="list-style-type: none"> • In 2012 she facilitate youth group to identify their issue. • 2014 she selected as community fishery committee member and working on fishery resource management and then she become community journalist. • From 2014 till now, she is holding position as community fishery committee member, a community journalist, and working as trainer to train women led farm in 6 villages funded by Action Aid. <p>In 2015 she selected and promoted to be village vet (animal health promoter at village level).</p>
	<p>JUMEL Guillaume VIVRE DE SA TERRE, France guillaume.jumel1@gmail.com</p> <p>JUMEL Guillaume is a graduate in philosophy and mathematics at the Sorbonne University. His research work focuses on education sciences and subtropical agronomy.</p> <p>He is the founder of VIVRE DE SA TERRE in 2014 and is a projects coordinator in support of training, entrepreneurship and farmer innovation.</p>



MAHOOD Simon

Wildlife Conservation Society (WCS), Cambodia

smahood@wcs.org

Simon is an ecologist with a Master’s Degree from the UK.

He has worked in Southeast Asia for nearly ten years and is now the Senior Technical Advisor for WCS Cambodia. Much of his work in Cambodia is at the frontier between conservation and agriculture. Simon has a particular interest in finding agricultural solutions that benefit biodiversity and improve incomes and well-being of rural farmers.



SPENCER Nicholas

Sansom Mlup Prey (SMP)

nick@smpcambodia.org

Nick has been CEO at Ibis Rice since January 2015. Coming from the start-up sector focusing in zero-emission urban logistics, The value-add Cambodian rice sector was a real learning curve.

His focus has been on Organic certification, which was gained this year, readying the brand for an international audience and diversifying into value-add products.

He sees major opportunities in yield improvement through organic methods to bring long-term stability and improvement to the system and project farmers. This is now very much in focus.



PAN Sodavy

Agriculture Technology Services Association (ATSA)

davy.atsa@gmail.com

Ms. Pan Sodavy holding Bachelor of Science in Agronomy from the Royal University of Agriculture, Phnom Penh (1994), and Master of Development Management (MDM) in Norton University (2009). Furthermore, Sodavy has received many short training courses/workshops on agricultural development both in country and outside abroad.

Sodavy has more than 15 years experiences involved working in the field of agricultural training, natural resources management. The main experience was on agriculture training as below:

- Developed curriculum and conducted season long

	<p>training of trainer and short term training on IPM on rice, vegetable garden and integrated rice-fish culture. Participatory approach and non-formal education were used to carry out the trainings.</p> <ul style="list-style-type: none"> - Developed session guide for topics in each training above - Conducted ground working for training need assessment and facilitator in the short and season long training of trainer. Participatory approach and adult leaning concept were considered during the training - Provided technical backstopping to trainers while they are conducting training - Extensive background and skills in ecological agriculture analysis, monitoring, and evaluation of development program and more experiences on poverty-related issues and policy impact assessment. <p>During the past few years, Ms. Pan Sodavy has been providing consultancy service on project impact assessment, environmental impact assessment as fertilizer and pesticide expert and also EiA coordinator, trainer for training on fertilizer use, developed NRM investment package for NCDD and safeguard monitoring. In addition, Pan Sodavy also conducted study for UNDP to review and develop training curriculum on resilient agriculture farming for NAPA Follow up project and conduct training on rice production to GRET and staffs of private agricultural inputs supplier companies.</p>
	<p>MEAS Chendamuny Agriculture Technology Services Association (ATSA) chendamunymeas@gmail.com</p>
	<p>CHHOUN Monorum Cambodian Center for Study and Development in Agriculture (CEDAC) monorum@cedac.org.kh, monorum097@gmail.com</p> <p>I am an Engineer of Agronomy, graduated from The Royal University of Agriculture in Phnom Penh, Cambodia (2004-2008).</p> <p>Jan 2016- Now: I work for CEDAC as Project Coordinator, Phnom Penh, Cambodia</p> <p>May 2014-2016: I work for CEDAC as Project Officer, Phnom</p>

	<p>Penh Cambodia</p> <p>April 2013- May 2014: I work for CEDAC and Earth Net Foundation as Organic Seed Production Officer, Chiang Mai Thailand</p> <p>Jan 2011- Apr 2013: I work for CEDAC as Health and Environment program assistant, Phnom Penh, Cambodia</p>
	<p>PRAK Sereyvath</p> <p>Cambodian Institute for Research and Rural Development (CIRD)</p> <p>Director, Cambodia</p> <p>praksereyvath@cird.org.kh</p> <p>Agronomist, Rural development specialist</p> <p>Mr. Prak Sereyvath, 43 years old, holding Master of Science degree in “Tropical Agriculture Development” from France in 2000. He is a co-founder of CEDAC (www.cedac.org.kh) in 1997 and worked for CEDAC for nearly 10 years as Research and Training Unit Coordinator then as Executive Director up to August 2009. He founded CIRD (Cambodian Institute for Research and Rural Development – www.cird.org.kh) in 2009 and is currently working as CIRD Director. Besides, he had worked (2000-03) as chief of Horticulture Department of the Prek Leap National College of Agriculture (PNCA) and still currently be a guest lecturer of Farming Systems and Project Management subjects. Beside organisational and project management experiences, he also directly implement field research on agricultural technical innovation and value chain of agricultural products.</p>
	<p>CHEAV Sunnary</p> <p>Cambodian Institute for Research and Rural Development (CIRD)</p> <p>sunnarycheav@cird.org.kh</p> <p>Miss. Cheav Sunnary, 29 years old, is holding BSc. in agriculture at Prek Leap National Collage of Agriculture (PNCA) in 2012. From 2012 to 2014, she had been working for CIRD (www.cird.org.kh) as a junior agriculture technician within the “Improving rice quality and productivity through seed supply” project funded by IFC-World Bank Group. From mid 2014 to date, she is working as Agricultural Technician for CIRD within Agro-ecology component of the AFSA project (a 6-year project funded by DG-D through ADG). So far she had directly</p>

	implemented field research and training on agricultural technical innovation and value chain of agricultural products.
--	--



SOK Sarang

Cambodian Institute for Research and Rural Development (CIRD)

[soksarang@cird.org.kh/](mailto:soksarang@cird.org.kh) soksarang007@gmail.com

Mr. SOK Sarang, 34 years old, holding Master of Science degree of Health and Life Sciences in “Environment, Hygiene and Quality” from University of Tours – France relocated in Ho Chi Minh City, Vietnam in 2005.

From 2005 to 2007, he worked for TomBoy Aquafeed Company at Mekong Delta, Vietnam as Technical and Sale Assistant.

Then, from 2007 to June 2009, he worked at **CEDAC** (Centre d’Étude et de Développement Agricole Cambodgien – Cambodian Center for Study and Development in Agriculture) as Project Officer and then Researcher.

He is a co-founder of **CIRD** (Cambodian Institute for Research and Rural Development – www.cird.org.kh) founded in July 2009 and since CIRD’s foundation, he has worked as Program Officer/Manager in charge of Product Quality Standard and Policy Advocacy) inside CIRD. Under CIRD, since 2013 up to now, he has been working as National Team Leader of C#3 of SCCRP project (Support to Commercialization of Cambodian Rice Project) of SNEC (Supreme National Economic Council) funded by AFD (Agence Française de Développement/French Agency for Development).

Since August 2010, he has also worked for **ECOCERT** as Auditor and Trainer (Free Land Consultant) of ECOCERT SA for providing training and inspection on Organic Agricultures (rice, pepper, coconut, noni, wild collection products, moringa, different kinds of vegetables, medicinal plants...etc.) and Fair Trade in many countries such as Cambodia, Thailand, Vietnam, Lao PDR, Philippines, Indonesia, Fiji and Australia.



CHHIM Phallyboth

Center for Organic Development (COD) , Cambodia

chhimphallyboth@yahoo.com

Mr. CHHIM Phallyboth, who had graduated Bachelor degree of Business Administration from National University of Management, and Bachelor degree of Education in Teaching English as a Foreign Language at Royal University of Phnom Penh, has satisfactorily completed one year course of International Leadership Training (ILT), managing development in rural regions in Germany in 2011.

After almost 4 years as Senior Marketing officer for Cambodian Center for Education and Development in Agriculture (CEDAC) under the program of Natural Agri-Products (NAP) and almost 4 years as Program Coordinator to Cambodian Organic Agriculture Association (COAA), he is now working for Center of Organic Development (COD) as Executive Director since 2015. The Center for Organic Development is a nationwide operating non-governmental organization working for the promotion of organic agriculture in Cambodia.

KOY Saran

Farmer Livelihood Development, Cambodia

saran@fldcambodia.org

Mr. Koy Saran holds a Master Degree in Development Management and a Bachelor Degree in Education in English. He has been involved in Community Development in Cambodia for 17 years. For all these years, he has a great deal of experience and expertise in Management of Integrated Community Development, Management of Capacity Building Programs, Partnership Management and Design and Organizational Development Management. Before joining FLD in December 2012, he used to work with other NGOs such as World Vision International, Every Child UK and Plan International. The Royal Government of Cambodia has awarded him three gold medals and appreciation letters for his contributions to the national construction of Cambodia.



NEOU Sethea

Partnership for Development of Kampuchea (PADEK), Cambodia

nsethea@padek.org; sethea_n@yahoo.com

I am an Engineer of Agronomy, graduated from Instituto Superior de Ciencias Agropecuarias de la Habana, Cuba in 1987. And Maize Breeding, Mexico, 1991.

- From 1988 to 1995: I was a Deputy Director of Banteay Dek Maize Experimental and Seed production Station, Department of Agronomy. Cambodia.
- From 1996 to 2002: Deputy Director of Technical Office of Memot Rubber Company, Kompong Cham.
- From 2003 to 2006: I worked for PADEK as Project Manager in Kompong Speu Area Support Unit.
- From 2006 to 2010: I was a Provincial M & E and Sector Advisor for UNDP/PSDD in Preah Vihear Province.
- From 2010 to 2013: I work for HLH Agriculture Co. Ltd., as Technical Officer. Kompong Speu province.
- From 2013 to 2014: I was a Project Coordinator for Canadian Hunger Foundation (CHF), Phnom Penh, Cambodia.
- From 2015 to 2016: I work for PADEK as Program Coordinator. Phnom Penh Cambodia.



KHUN Leang Hak

Society for Community Development in Cambodia, SOFDEC

kleanghak@yahoo.com

Khun Leang Hak is a Plant Breeder with a PhD in Agricultural Science from Kagoshima University, in Japan.

After 4 years working as research assistant for Cambodia-IRRI Australia Project in 1999, Leang Hak pursued post graduate study in Japan until 2006. He spent 2 years working for Cambodian Agricultural Research and Development Institute (CARDI) as Researcher and Deputy Head of Plant Breeding Division in 2008. From 2008 until now he is an Executive Director of SOFDEC.



ONIONS Victor

Srer Khmer, Cambodia

vic.onions@gmail.com

My training was in Natural Science and Tropical Agriculture and have had more than 35 years experience working on Pacific

	<p>Islands in Agriculture Extension, in Australia on natural resources such as crocodile, emu and tropical oyster farming. Over some 12 years in Cambodia I have worked on organic vegetable and cashew production and capacity development with Srer Khmer.</p>
	<p>RY Saren rainry24@yahoo.com</p>
	<p>RATHA Lim UNION of MFR lmratha@gmail.com</p>
	<p>CHHEY Horn Union of MFR Cambodia 077 940 574</p>
	<p>NOUN Sopheak Cambodian Organic Agriculture Association, (COAA) sopheaknoun@coraa.org</p> <p>I am an agronomist hold bachelor degree of agronomy science from Royal university of agriculture, Cambodia. I have involved a conservation agriculture project when I was year 4 at the university. Together with, I have one year experience as an organic farming inspector in COAA. Now I am a certification officer working for COAA.</p>
	<p>SENG Chantho Farmer Cooperative of Rattanak Mondoul district 017 823 953</p>
	<p>PHONG Saret</p>

	<p>Farmer Cooperative Siem Reap - Vegetable production rainry24@gmail.com; sel.rechaney@gmail.com</p>
	<p>YOU Lun Peri Urban Agriculture Cooperative (PUAC) Kampong Speu province, Cambodia vansambath009@gmail.com and faec.fed@gmail.com</p> <p>I was born in 1957 in village Rumlornng Chrey, Commune Kaheng, District Samorng Torng, Province Kampong Speu. I am vegetable producer since 1980 and I planted local vegetables including pumpkin, cucumber, water melon, eggplant. In 2001, I had been master farmer of vegetable production “European Vegetable” via the support from ADG (Aide au Développement de Gembloux). In 2009, I was elected as treasury of PUAC. In 2014, I was elected as President of PUAC.</p> <p>I am vegetable producer of 20 acres and I mostly grow lettuce (battavia, fries, romaine, and butter head) and cherry tomato. I am also rice producer of 1 hectare and I produce only 1 time per year.</p> <p>Regarding to agriculture technique and knowledge, I get many training course relevant pest management, compost production, and post-harvest) from Provincial Department of Agriculture in Kampong Speu and also from development partners supported from program AFSA (Agriculture Familiale and Souverainité Agricole) funded from ADG.</p> <p>*PUAC is adhered of Federation of farmer associations promoting family agriculture enterprise in Cambodia (FAEC): #233, St. 466, Sangkat Boeung Trabek, Khan Chamkar Morn, Phnom Penh, CAMBODIA.</p>
	<p>CHAN Sothea FAEC</p>



TAN BOUN Suy

APSARA National Authority, Siem Reap/Angkor, Cambodia

bounsuytan@yahoo.com

Agronomist, soil science specialist working in organic farming research since 2004.

Department of Agriculture, APSARA National Authority.



DELAQUIS Erik

International Center for Tropical Agriculture (CIAT) - Vietnam

e.delaquis@cgiar.org

Erik Delaquis is a research associate focused on the development of sustainable, diversified cassava-based production systems. His research aims to achieve sustainable intensification goals by fostering robust, resilient agroecosystems. Based in Hanoi, Erik works on a portfolio of projects across Southeast Asia on improving production systems, eco-efficient pest and disease control, and enhancing ecosystem services.

Erik's experience includes working with smallholder cropping systems agroecological village models in West Africa and Asia and on-farm development of biomass energy crops in North America. Other experience includes work with the Canadian International Development Association, an Ocean Path fellowship, Agriculture and Agri-Food Canada, the University of Victoria's Center for Forest Biology, and as staff agronomist with Resource Efficient Agricultural Production (REAP).

Erik holds a M.Sc. in Plant Science from McGill University, Montreal.



TIVET Florent

CIRAD, Cambodia

Conservation Agriculture Service Center (CASC), Department of Agricultural Land Resources Management (DALRM), General Directorate of Agriculture (GDA)

florent.tivet@cirad.fr

Florent Tivet is an agronomist from CIRAD, French Agricultural Research Center for Development. He holds a PhD in Crop Science and a post doctorate in Soil Organic C dynamics. From 2009 to 2012, he joined the State University of Ponta Grossa in Brazil and the C management and sequestration center at the Ohio State University assessing changes in soil organic C under contrasted no-till cropping systems in the tropics. His areas of expertise include conservation agriculture, ecological intensification, cropping system design, and soil fertility assessment. He participated in a diversity of research and development projects in the field of Conservation Agriculture and Ecological Intensification since 2000 and works in the region, mainly Laos and Cambodia, since more than 10 years. He is based in Cambodia, working with the Department of Agricultural Land Resources Management, General Directorate of Agriculture from the Ministry of Agriculture, Forestry and Fisheries. He coordinates the activities of the Conservation Agriculture Service Center.



CAO VAN Philippe

CIRAD, Laos

philippe.cao_van@cirad.fr



ENJALRIC Frank

CIRAD, Laos

frank.enjalric@cirad.fr

Frank ENJALRIC is an agronomist with more than 25 years experience in agricultural development in different tropical countries in Africa (Cameroon, Gabon, Madagascar), in Asia (Laos, Vietnam) and France.

After 6 years in Madagascar as scientific coordinator of national focal institution on Conservation Agriculture and agroecology (GSDM), he spent 2 years as Project manager for Eficas (Eco friendly agricultural systems) in Lao PDR (2014-2015), and then he started to work for ACTAE regional project as CANSEA component coordinator in 2014.



LESTRELIN Guillaume

CIRAD, Laos

g.lestrelin@gmail.com

Guillaume is a social scientist with a PhD in Human Geography from the University of Durham (United Kingdom) and ten years of research experience in mainland Southeast Asia, especially in Laos. His research deals with the interactions between rural development, environmental policy, agrarian and land use change and land degradation.

Guillaume is currently working for the EFICAS project (Laos) and the IPERCA project (Cambodia), coordinating a comparative study on the agrarian transition, land use intensification and agro-ecological innovation in agricultural pioneer fronts.



NEANG Malyne

Ecoland research center, Royal University of Agriculture. Cambodia.

nmalyne@gmail.com; ecolandcentre@gmail.com

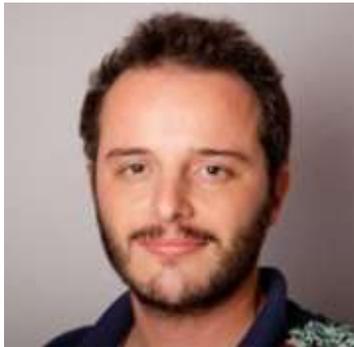
Malyne Neang got her PhD of Environmental Economics Sciences from Auvergne University in France. Her research topic was "Maintaining Ecosystem Services provided by Rice Production Systems in Cambodia: Identifying Costs for Farmers and Consumers' Preferences". Her Master was in the field of «Analysis and Diagnosis of Agrarian Systems». AgroParisTech in cooperation with University of Paris X, Nanterre, France.

	<p>Malyne NEANG is actually Lecturer & Researcher of Ministry of Agriculture, Fishery and Forestry based in Faculty of Agricultural Economics and Rural Development (FEARD) at the Royal University of Agriculture (RUA), Phnom Penh, Cambodia.</p> <p>Since Dec 2013, she becomes Director of Ecosystem Services and Land Use research centre (ECOLAND) based at RUA, which she initiate its creation. She developed partnership and collaboration in internal, local and international level (RUPP in Cambodia; Kasetsart University in Thailand; CIRAD, VetAgro Sup, Montpellier SupAgro, IRD-UMR-GRED, SERENA, IRSTEA in France).</p> <p>Since 2010, she created and teaches the course « Payment for Environmental/Ecosystem services » for 2nd year of Bachelor degree at RUA and she is speaker/trainer of ES concept. And she supervises every years 15 bachelor students' thesis and 1 to 5 Master thesis (local and international).</p> <p>From 2010, she led several research projects and collaborations project. And she expertise several short consultancy related to the field ES and PES (opportunity cost, stakeholders analysis, policy analysis).</p>
	<p>LY Proyuth Freelance consultant proyuth.ly@gmail.com</p> <p>Proyuth Ly is currently a freelance consultant. His work experience is in the areas of agricultural and rural development projects, agricultural system research and development, environmental impact assessment of the farming practices, climate change mitigation and adaptation in agriculture. He holds a PhD in agriculture from University of Copenhagen, Denmark and Msc. in sustainable development in agriculture from University of Copenhagen, Denmark and SupAgro Montpellier, France.</p>
	<p>SHAW MUIR John Irrigation, NRM & sustainable resilient rural livelihoods consultant johnysmuir@gmail.com</p> <p>John is a lifelong sustainable farming agronomist having started in Australia with the department of primary industries-agriculture as local district agronomist including irrigation, rice and floodplain farming for 10 year. He was seconded to AusAID for 2 years in 92-94 during UNTAC in Takeo cambodia as irrigation agronomist on an integrated rural development project. He developed as team</p>

	<p>leader one of Australia’s biggest local land care NGO associations with 600 members and a budget over \$ 2 mill worked in conjunction with regional catchment care /watershed management funding organizations implementing NRM projects while with land care developed and implemented the first international land care project with ACIAR – Australian Centre of International Agricultural Research - AusAID in Mindanao Philippines over several years as land care facilitator trainer.</p> <p>Similarly was land care in horticulture – farm care – in South east qld coordinator for same ACIAR project above working with peak sub -tropical horticulture industry on NRM sustain agriculture issues e.g. pineapples erosion sugar cane fruit trees and vegetables. He developed the first Australian commercial industrial hemp industry factory for fiber and grain with new innovative growers in hunter valley and east coast Australia over 5 years.</p> <p>One year Oxfam NL cambodia - sustainable resilient rural community advisor Pursat, Takeo and Kompong Thom project sites.</p> <p>He is a freelance NRM and sustainable agriculture consultant in cambodia – Takeo including NGO, MAFF, private companies etc. I believe in redesigning the landscapes, livelihoods and mindscapes, through participative community development.</p>
	<p>KY Kalyan CANZEM kalyanky@gmail.com</p>
	<p>SAY Sophal Reporter Cambodia Media Network (CMNRADIO) Washington DC USA, Khmer Community Market Manager and Adviser to Senior Citizens of the Community Legal Education Center (CLEC) routhneadiy@gmail.com</p> <p>Sophal received her MA in political science from Chulalongkon University, Thailand, and she had her BA in journalism from the Royal University of Phnom Penh. For two years following graduation she volunteered to serve under Friends Without Borders to raise funds for children hospitalized at the Angkor Children’s Hospital in Siem Reap province.</p> <p>As of 2011 she has worked as a journalist while using her spare time to set up project proposals on vulnerable rural women’s and children’s education and vocational training. These projects were</p>

	<p>submitted to various national and international relief organizations aimed at improving the welfare of women in need and poor students prone to victimization, rights abuses, and violence. With the support of local communities and CLEC, in 2014 Sophal implemented projects for communities and the youths to exchange experiences. The first project was launched in the Areng valley of the Cardamom Mountain range and more similar projects were applied in Sre Ambel, Koh Kong, Botum Sakor, and Kiri Sakor districts of Koh Kong province, in Veal Veng district of Pursat province, in Oral district of Kampong Speu province, in Lomphat district of Ratanakiri province, and in Banteay Srei district of Siem Reap province.</p> <p>Since Cambodia has big agricultural potentials, in 2015 Sophal set up an organic farming project by exhorting and persuading poor students from faculties specializing in crop planting, veterinary medicine, development law, and applied science to go to the field and help educate locals with financial assistance from CLEC and Cambodian Youth Networks (CYN). By the end of 2015, together with a dozen student volunteers. Sophal opened a shop called Khmer Community Market to act as an outlet for farm produce of the rural people with cooperation from GRET, a project focusing on organic farming based in Siem Reap province.</p>
	<p>BUN Sieng, Natural Agriculture Village Shop, Cambodia bsieng68@gmail.com</p> <p>Bun Sieng is an agronomist with a Master’s Degree in Agricultural Science from Chiang Mai University, Thailand.</p> <p>After 13 years of working experience with development organizations and having seen a lot of impacts concerning chemical food and gap of market linkage, she set up an enterprise named Natural Agriculture Village Shop (NAV) in early 2015 in order to promote safe food supply and empower farmer market. NAV has had contract farming with 38 households and with two farmer cooperatives (around 600 members) to grow organic vegetables. NAV supplies vegetables around 4 tons per month to supermarket and other organic shops. Beside this, NAV is working closely with the farmers to set up two farmer shops along two National roads in order to extend the organic market.</p>
	<p>LANG Seng Horng ICCO senghorng.lang@icco-cooperation.org</p>

	<p>THARAMANGALAR Mike</p> <p>Green Business JV</p> <p>mtharama@dal.ca</p>
	<p>MCMAHON Dennis</p> <p>Green Business JV Marketing Sdn Bhd, Malaysia Private company</p> <p>dennisybjut@gmail.com, dennis@gbjvt.com</p> <p>Dennis McMahon (Australian citizen), CEO of Green Business JV Marketing Sdn Bhd has more than 25 years of sales, marketing, project management and problem solving experience, including building various businesses in Australia and Malaysia.</p> <p>I am involved in speaking, training and problem solving in the big development areas of the world: food, environment, water and energy. I see the solutions we develop and deploy as channels for improving the lives of developing country's families, through the application of well-designed, profit making (therefore self-sustainable) business models that address both the short term needs issues of the families and communities, as well as the longer term self-reliance needed (for when the development agencies and donors have all moved on to other, more exciting places 😊).</p>
	<p>IENG Sotheara</p> <p>ENTRÉE BAITANG CO., LTD.</p> <p>info@entreebaitang.com</p> <p>www.entreebaitang.com</p>



PRIOUR Germain

Photographer, France/Cambodia

germainpriour@gmail.com

10 years experienced in filmmaking and photography, Germain Priour is a professional filmmaker and photographer independent interested in development issues and working in Cambodia since 2008. He worked on numerous fields as, for instance, health insurance, microfinance, water and sanitation. But since long, he has been involved in media production about agricultural issues, especially Agroecologie.

He is working since one year about a web documentary project about small scale farmer and also on a farmer to farmer video training project in order to disseminate agroecological practices towards new horizons.



LONG Piseth

Asia Development Bank

plong@adb.org

Piseth Long is a Senior Project Officer at ADB-Cambodia Resident Mission. Piseth is currently in charge of supervising/implementing five Agriculture Natural Resources (ANR) projects in Cambodia. He leads review missions and conducts project monitoring and dialogue with the executing agencies. He has also contributed to project formulation, processing, and administration of ANR projects. At sector level, he have regularly assisted the program team to conduct consultation and policy dialogue with government officials and development partners to prepare Country Partnership Strategy, ANR Sector Assessment, and ANR strategy. Prior to joining ADB, he was a Senior Program Officer at DANIDA, Phnom Penh, in charge of managing DANIDA Natural Resources and Environment Program for Cambodia. He was also a researcher at Cambodia Development Resource Institute and had prepared a number of working papers.

He holds a Master Degree in Economics from SOAS, the University of London, the United Kingdom, and a Bachelor Degree in Economics from Institute of Economics, Phnom Penh.



MONTCHAMP Laure

Agence Française de développement - AFD, Cambodia

montchampl@afd.fr

Laure Montchamp is an economist with a Double Master's degree in Sustainable Development for Developing Countries, from CERDI (France) and International and European Affairs, from Sciences Po (France).

After 1 year as a consultant for the Evaluation Department at AFD, she started to work as a Project Officer in charge of Rural Development, Environment and Forestry and Vocational Training in 2014, and is still holding this position today.