LICA expects to have an inter-sectorial engagement that is facilitated by the local representative of the Ministry of Agriculture and Forestry, and that involves ministries representative (science and technology, education and sport, planning and investment, natural resources and environment, industry and commerce, and financial institutions). This engagement helps to embed the Agro Ecology transition priorities into the local official plans and strategies, and to ensure a common approach all over the local area.

It is feasible to develop intern –sectorial cooperation and mechanism to deal with the agro-ecology transition at national and sub-national levels, but bearing in mind that in the Lao context many bilateral programs have promoted this approach and confronted with various difficulties. A heavy structure and unclear responsibilities of ministries without proper fund and human resources allocation often lead to failure or malfunctioning. At the end the key leading ministry works harder while other ministries are passively participated. In the Lao context, the same political or administrative ranking person, the inter-sectorial mechanism often does not effectively function. Coordination within and between ministries proved as crucial weaknesses in many inter-sectorial mechanisms. Silo approach is still heavily dominated in the Lao bureaucracy system.

There are some governance structures and government policies as well as strategies are in place and implemented via different actors, that the agro-ecology transition or development could consider as advantages of the transition by strategically elaborate the most appropriate one and start with it rather than create news or doing more with low impact as many programs or projects have done in the past recent years; the programs or projects ended activities also ceased. Some of those need to be revised or re-assessed how to upscale the strengths and reduce the weaknesses in promoting the agro-ecology transition.

It is clear that for many years the Government of Laos and a number academic institutions have shown interest in agro-ecology through the promotion of clean agriculture concepts such as eco-farming, conservation agriculture, organic farming, permaculture, good agriculture practices (GAP) and many other ecological sound agricultural approaches. These clearly reflected in the following official documents and in cooperation programs/projects with various international development partners:

- The Resolution of the 8th Congress of the Lao People's Revolutionary Party in 2006 indicated that Laos should embark on stable, sustainable, clean, non-toxic and low cost agriculture development. On which basis the national strategies and legal frameworks for promoting and supporting agro-ecology were developed.
It thus has been put in the 8th five-year National Economic Development Plan 2016-2020 under the principles of “green economy” to end hunger, food security and improve nutrition and promote sustainable agriculture (SDG2), and to ensure sustainable consumption and production patterns (SDG 12), and to combat climate change and its impacts on people’s livelihood (SDG 13). Specifically the 8th NSEDP has highlighted the promotion of agro-ecological production in uplands and low lands and focused on supporting small holder farmers (the majority of Lao farmers) to diversify and improve production within integrated farming systems.

Laws, Decrees and Regulations and Agreements are amended and issued to support the implementation of the NSDP and government strategies e.g. the law on agriculture, forestry, land and the Agreement of the Ministry of Agriculture and Forestry on Organic Agriculture (OA) and Good Agricultural Practice (GAP) Standards, the Regulation on the control of pesticides in Lao PDR, Environmental Protection Law (2013), the Prime Ministry Decree No. 115 (2009) and recently No. 238 (2017) on Associations and the Decree No. 136 on Cooperatives.

The MAF responded to the Party Resolution by developing a long term Agriculture Development Strategy (ADS) (2016 to 2030) envisioning the development of clean, safe and sustainable agriculture, with four inter-linked goals to ensure a gradual transition from subsistence into commercial smallholder production through three strategies: promotion of smart and clean agriculture, development of diversified niche products and support for resilient farming systems for poverty reduction;

To implement the ADS, the Crop Multiplication Centre (CMC) has been restructured to a Clean Agriculture Development Centre (CADC) and a new Standard Division has been established under DOA. Similar restructuring has occurred with other Departments in the MAF. The National Agriculture and Forestry Extension Service (NAFES) has changed into the Department of Agriculture Extension and Cooperatives in 2013 (DAEC), and recently to the Technical Department of Extension and Agro-processing (TDEA).

In 2005 MAF approved the Lao Organic Standard and in 2008 the Lao Certification Body (LCB) was established which since 2009 carries out the inspection and certification for organic production in the whole country.

Aside all of these legislative frameworks there are coordination and exchange mechanisms set up between the Government and donors. A series of Sub-Working Groups have been created e.g. on Farmer and Agri-Business (SWG-AB), which organize studies e.g. on small farm holders development and create opportunities for cooperation and exchange between State agencies,
particularly the TDEA, the DOA, and non-state actors e.g. Helvetas, SAEDA\(^1\), CDEA\(^2\), WWF, and also some private Companies\(^3\).

- In 2008, the MAF issued an official agreement so that all provincial line agencies in the country would promote SRI. As a result the DoI\(^4\) has actively extended SRI techniques in all irrigated areas together with different local and international civil society organizations such as CUSO-VSO, SAEDA, WWF or ADRA Japan.

- PROSA started in 2007 in Laos in close collaboration between MAF and its sub-national representatives, CIRAD and AFD to provide institutional support to the MAF in expanding CA to the whole country and promote agro ecology and CA in the curriculum of Faculties and Colleges of Agriculture as well as support research and experimentation on development and dissemination of CA and develop a regional network for CA in South East Asia.

- The CANSEA (Conservation Agriculture Network in South-East Asia) network was created in 2009 in an attempt to tackle these issues from a regional perspective. The CANSEA has provided support to CA research conducted by its members in Laos within the framework of the European ORCATAD project (Open Resources for Conservation Agriculture and Trade and Development, 2006-2008). However the positive impact was undocumented and disseminated.

- The agro-forestry practices and non-timber forest products (NTFP) management practices introduced into Laos with engagement of various agencies from GoL, donors and CSOs as well as private sectors, but the scaling up of the results was unknown after the project ended. There are:
  - Production of forestry systems with regeneration and protection forests (PADETC and SDC with the collaboration of the Forest Science Research Centre (FSRC) of the National Agriculture and Forestry Research Institute (NAFRI);
  - Promotion of agro-forestry systems with plantations based on wood/commercial trees (such as rubber, candle nut, Jatropha, palm oil trees) in association with rice, corn or galangal/ginger cropping systems (SIDA project in collaboration with NARC and FSRC in Sayaburi, Luang Prabang, Oudomxay, Luang Namtha and Bokeo Provinces, 2004-2010);
  - Development of NTFPs production through sustainable management (SDC/NAFRI/FSRC project, GRET project in three districts of Houaphan Province since 2010 on bamboo), and domestication (plantation of NTFPs, possibly associated with traditional crops) as in the SIDA/NARC/FSRC project, Agro Forex Company in Phongsaly and

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\(^1\) Sustainable Agriculture and Environment Association

\(^2\) Community Development and Environment Association

\(^3\) Living Land and Nam Khan Project in Luang Prabang province and the Association to Support the Development of Peasants (ASDP), Agro-Asia Company in Vientiane Capital

\(^4\) Department of Irrigation
Rubber trees intercropped with tea trees, Luang Prabang Province, Lao PDR. AGRO-FORESTRY in spite of encouraging results (such as NTFPs domestication with Agro Forex Company and GAA), several constraints limit the adoption of agro-forestry practices due to pressure from foreign investors through the development of monocropping systems for rubber, maize or cassava. With substantial high labour force requirement the adoption of the system is just limited to the “middle class” as the poor lack labour and the rich lack interest.

Policy Constraints

While the policies, strategies, laws and regulations regarding agro-ecology have been formulated and are being implemented, there is not always coherence in the promoted policies. Actually a number of policies have negative consequences for agro-ecological practices. A clear example is the promotion of foreign direct investment (FDI). FDI is closely linked to concessions for the exploitation of natural resources like large scale monoculture plantations, mining, hydro-power plants or recreation. Indeed policies, strategies, institutional arrangements and legislative frameworks exist, but the problem is the weak coordination between institutions and effective law enforcement. FDI is also linked to large scale plantations and land tenure insecurity which are important factors in the steep increase in the use of agrochemicals and also contribute to a reluctance to invest resources in soil improvement.

Partly because of an increasing pressure on land (closely related to all the on-going investment projects), the land use system has rapidly changed and these days land that was used for the production of food or cash crops by farmers has been converted into the industrial crop plantations, other land is submerged under water etc. Moreover these changes lead to land use conflicts. With the pressure on land increasing small farmers are obliged to shorten the rotation cycles to produce food, energy and incomes, leading to rapid depletion of soil fertility, erosion and environmental destruction.

Another issue is the policies of promoting a market based economy and the monetization of the economy. Better market access and the improved infrastructure are closely associated with intensive harvesting of forest products for commercial purposes, coupled with a lack of proper management systems, is a contributing factor to the rapid losses of bio-diversity. This affects strongly to poor small farmers who relatively depend on food gathering for their livelihood.

The mis-interpretation of the green economy and the modernization of the GoL policy is another issue. It is commonly understood by Lao extension workers that traditional agriculture is a backward, unproductive, environmental destructive and unsustainable
production system. Therefore policies are implemented to eradicate or stabilise shifting cultivation and promote intensive cash crop plantations through land concessions. Policy makers often believe that through commercial and industrial agriculture in plantations (e.g. rubber, cassava, sugar, eucalyptus and etc.) poverty will be reduced. Land, forest and water sources, on which people depend for food and medicinal herbs, are being taken away and make people actually more food insecure.

- An increase of labour migration out of the agriculture sector and ageing farmers have pushed the GoL to prioritize mechanization, modernization and intensification of the agriculture production policy to ensure sufficient production and income without expansion of arable land. It is not really different from what is called sustainable intensification, in which yields are increased without adverse environmental impact and without the cultivation of more land, which governments of developed countries, financial institutions, agri-business companies and international research centres as well as international organizations see as a solution for small farmers in developing countries.

- Specialized market oriented production of high value crops is often seen as a panacea to improve the economic status of farmers. It is true that some, mainly wealthier, farmers are (temporarily) able to improve their living standard and increase their income through the transition from traditional food production mainly for self-consumption to high-value crops production for markets. The farmers managing to improve their situation are mostly frontrunners, who have better access to technical knowledge, financial resources and to market information.

\[5^{th}\] NSEDP


7 High value crops often have boom and bust cycles (see e.g. the rubber boom in Laos)