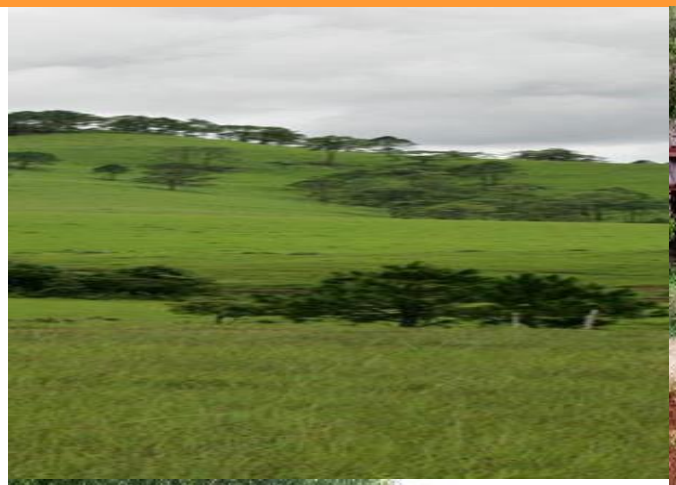
Lao PDR Country Presentation
Policy Issues on Sustainable Agricultural Mechanisation
Regional Training on Appropriate Scale Mechanisation for Conservation Agriculture in CSAM
6-9 May 2019 in Cabodia



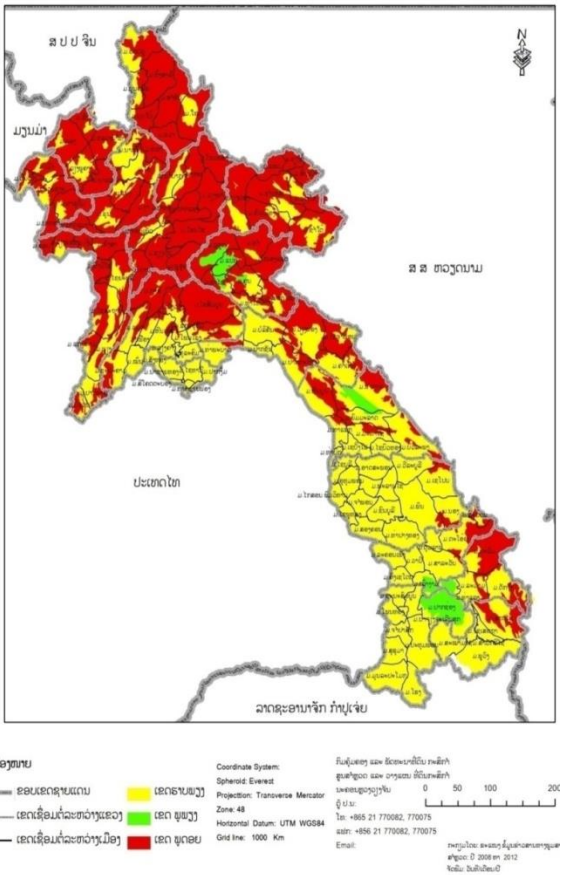

Presented by Mr. Thongsavanh Keonakhone

Department of Agricultural Land Management

Ministry of Agriculture and Forestry

Email: tkeonakhone@hotmail.com

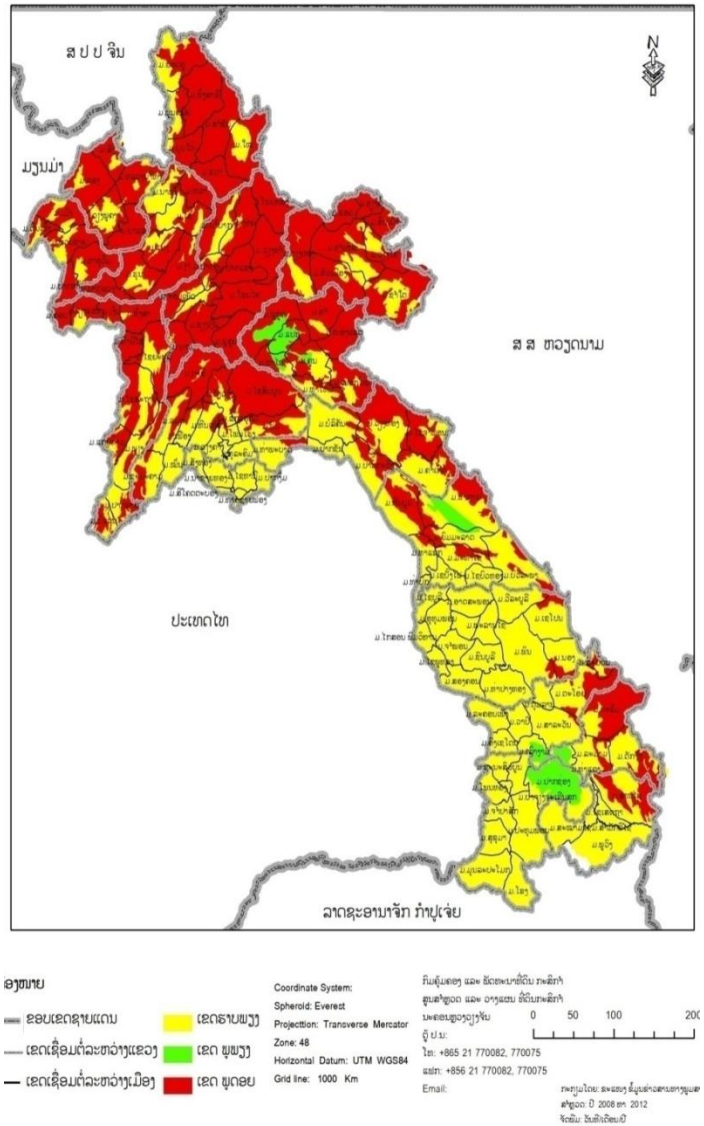
Country overview and Agriculture Sector



- Lao is landlocked area, 80% Mountainous area
- Lao population: 6.901mil. Prs. (Female: 3.443 mil.prs.) (LSB, 2017)
- The total land area: 236,800 square Kilometres
- 8 Land type in Lao PDR are devided (Forest 70%, Agriculture 19%, other 11%)
- Agriculture area about 4.5 mil.ha (19%)
- The geographical characteristic of 3 main Agro-Ecological Zones :

1) Low land (plain): about 100-300 m above the sea level (Agr. area 3.42 mil.ha)
2) High land (Plateau): about 500 m from the sea level (Agr. Area 0.18 mil.ha)
3) Upland (Moutainous area): higher than 500 m from the sea level (Agr. Area 0.9 mil. ha)

Country overview and Agriculture Sector



- **Agricultural Land: 4.5 Mil. Ha.**
  - **Rice Field : 2.0 Mil. Ha (50% are rice cultivated, 5% irrigated)**
  - **Annual Crop: 1.0 Mil. Ha (Maize, Job's tear, Sugarcanes, Cassava, Tobacco…)**
  - **Perennial Crop : 0.8 Mil. Ha (Coffee, Fruit tree, Tea, Banana, Pineapple…)**
  - **Grass land: 0.7 Mil. Ha (Livestock raising)**

(Resolution of NPA, No. 098 June 2018)

The key vulnerabilities facing smallholders in Lao PDR

- At present, the most smallholders in the mountainous (rural area) are weak of skill and knowledge on agricultural mechanisation process for their field.
- Lao farmers are facing with natural hazards, this lead to low productivity.
- farm operation usually causes negative impacts to environment and health of the farmers in term of overuse herbicide, pesticide and burning crop residues in the field (most in upland).
- Farmers weakness the full operation capacity to the full-scale operational mechanization such as land preparations, planting/ transplanting, management and post harvest.
- The most of farmers are using small hand tractor due to farmers can easily invest in this machines with affordable cost, these hand tractors may causes for land preparation in drought land.

The adoption of agricultural mechanization by smallholders

- In general, over the last two decades, farmers widely using agricultural mechanization such Rice mill, Threshers, Tractors, Transplanting machine, Combine, Corn Seeder,, Sprayers, Drum seeder…
- The application of traditional production method based on animal power and man power, particularly in Lowland gradually reduce and shift to mechanization.
- Establishing machinery cooperative in each level and promote private sector to service on farm machine and marketing.
- Diversification to promote mechanization knowledge on pre- post harvest technologies and marketing techniques to farmers still facing.

The national policies or strategies to promote sustainable agricultural mechanisation

- The key policy framework for the rural sector of the country are following: (1) the 8th Five-Year National Socio-Economic Development Plan (2016-2020) (NSEDP-8), and (2) the Agricultural Development Strategy to 2025 (ADS-2025) and Vision to 2030.
- The ADS-2025 vision remains "*to ensure national food security through clean, safe and sustainable agriculture and build an agricultural production potential highly contributing to the nations' economy according to its objectives of industrialization and modernization*".
- Regarding agro-ecological practices, there are regulatory framework for conservation agriculture (since 2012) and for organic farming (since 2005) with a certification body at MAF level. Nevertheless, there are no clear mechanisms or tools to promote such practices at national level.

The impact of the policies and strategies

- The local authorities give strategic orientations (reduction of maize production in Northern Region for example or pesticides ban in some districts) but the orientations are not coupled with incentives or specific support with the information system to support farmers in innovative practices.
- In compliance with poverty alleviation strategy, many development initiatives are developed mainly in Northern mountainous provinces and promote one or several agro-ecological practices (agroforestry, organic farming, SRI, IPM…). The demand for safe or organic products is low and price is the most important criterion when it comes to buying food.

The Challenges and lessons learned faced

- Lack of skill in the process of agricultural mechanisation and market value change.
- Lack of labor and access to finance.
- Lack of information, technology and knowledge.
- The most suitable way to implement this full-scale mechanization approach is by the way of pilot projects in various production conditions.
- Both training and practical experience in the field can provide the necessary and essential information about specific local needs and necessary modifications.
- Provide farmers successful implementation of mechanization for:
  - Farm Mechanization Planning,
  - Mechanization & Farm Management,
  - Technical training including operation & maintenance

Lao Initiative on Conservation Agriculture and Agro-ecology (LICA)

- The **"Lao Initiative on Conservation Agriculture"** (LICA) had been endorsed in the 34th SOM-AMAF Meeting in Vientiane, Lao PDR, on the 27 September 2012. Then the special SOM-AMAF 36th in August 2015 in Nay Py Taw, Myanmar.

- **1st LICA** Meeting held in 5-6 May 2016 in Lao PDR, 5 ASAEN member states: Cambodia, Lao PDR, Malaysia, Myanmar and Singapore, and the ASAEN Secretariat, FAO and CIRAD also in attendance. The 1st LICA is aim to propose actions and programs to ecologically intensify existing traditional or conventional farming systems to preserve ecosystems.

Lao Initiative on Conservation Agriculture and Agro-ecology (LICA)

- At the Special **38th SOM-AMAF** meeting in Singapore, in 14-15 August 2017.
- **The 2nd LICA** Meeting held in 21st March 2018, 4 ASEAN member counties (Cambodia, Lao PDR, Myanmar and Vietnam) and CIRAD. The 2nd LICA Meeting to enlarged to Agro-ecology (AE) in ASEAN Member States. The 2nd LICA is aim to share experience, knowledge of the 4 or 5 countries on CA and AE to formulate their concept note, and formulate the Action plan for CA and AE implementation and particularly tool and supporting mechanism of each SEA member countries.
- **The LICA** is led by DALaM/MAF is to develop a strategic vision of agro-ecological transition in the country (ACTAE phase 2 will be support).

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Toward a share CA and AE in SEA

- The LICA initiative, will be transferred to a higher level at MAF or at least to a Department whose purpose would be more strategies and policy issues rather than a technical department.
- ACTAE 2: ALISEA network: core element for ACTAE 2 are:
  - Definition of a share strategic vision of agro-ecological transition in different (4 or 5) countries as a reference framework for ALISEA networks and ACTAE project.
  - Policy dialogue and support of policy and institutional mechanism to support the agro-ecological transition.
  - Knowledge management / technical and organizational innovation
  - Increased visibility for agro-ecology/sustainable agriculture and product.

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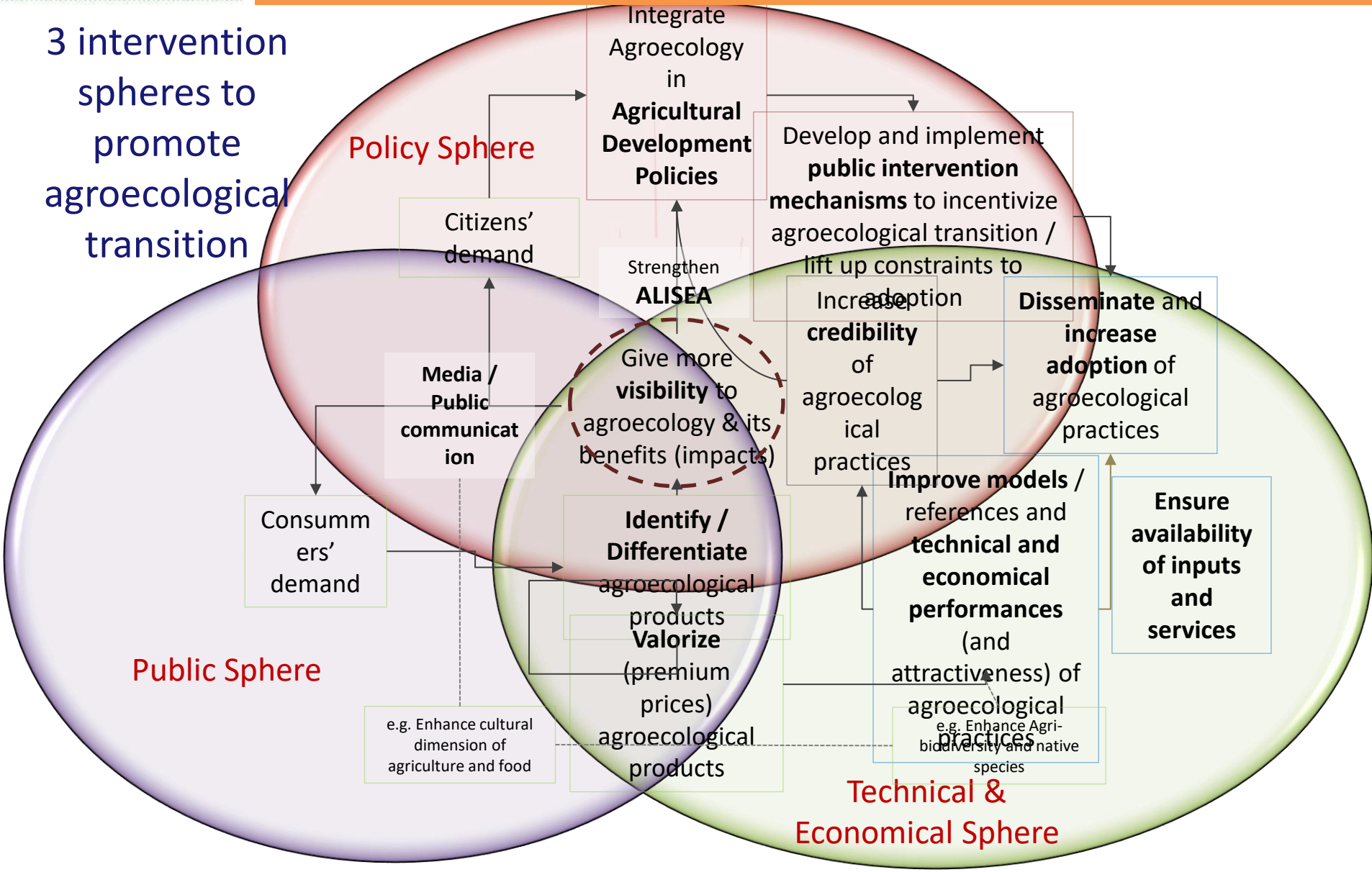
Towards a share CA and AE in SEA

3 intervention spheres to promote agroecological transition



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LICA Concept note

Towards a shared understanding of agroecology in SEA

A set of agricultural practices. Agroecology designates at the same time a set of agricultural practices, a scientific field of research (focusing on the efficiency of its practices), and a social movement (focusing on the most environmental-friendly practices). Within the policy perspective of an ASEAN collaboration, agroecology will be understood as a set of agricultural practices.

Agroecology as a purpose: the agroecology transition. Many farming practices in SEA that contribute to environment restoration and safe food production are still quite far from a fully agro-ecological farming. However, such efforts have to be supported for a progressive shift towards agroecology: a regional policy should focus on accompanying an *Agroecological transition*.

The most found agroecology practices in SEA (source: Actae project)

Agroecology as a method: an integrated understanding of environmental and economic issues. The agroecology perspective highlights the links between safe consumption, profitable development, environmental preservation, and local-level issues. At a policy level, that drives to integrate in a same policy framework not only different sector policies, but also global level (countries and SEA) mechanisms and locally contextualized approaches, as follows.

The plain of Jars

Thank you for your Attention