SYSTEMATIC AGRICULTURAL LAND MANAGEMENT IN LAO PDR

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Lao PRD

Project core team

Presentation outline

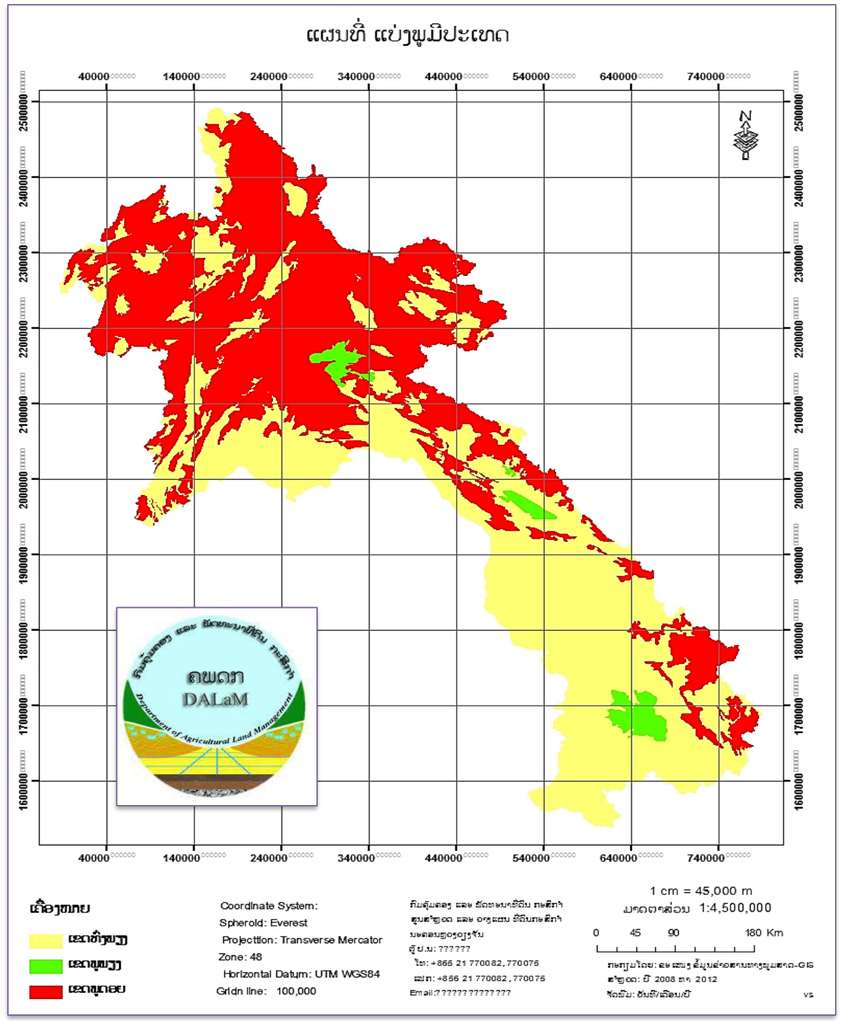
I. Country over view

II. Agricultural land utilization status

III. Agricultural land management policy

IV. Agricultural land management strategy 2040

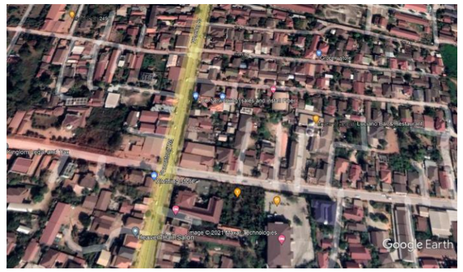
V. Implementation plan



I. Overall of Lao PDR

- **LAO PDR has total area about 236,800** Km^2 **(6,000** Km^2 **is water area).**
- **80% of land area are cover by mountainous**
- **Population is about 7.2 million people, 68 % are living in rural areas.**
- **In 2023, 16.87% (208,231 families) remained in poverty,**
- **The country has a tropical climate:**
  - **Rainy season May - October,** and
  - **Dry season November – February,**

(FAO, CIRAD and Union, 2022)



The importance of land utilization in economic development in Lao PDR

01

Economic Backbone

Agriculture is significance as a primary economic sector, **It accounts for approximately 20% of GDP,** Increase household incomes,

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02

Food Security

About 30 % use of agricultural land **produce enough staple crop production,** which are crucial for achieving food security and reducing import dependency.

03

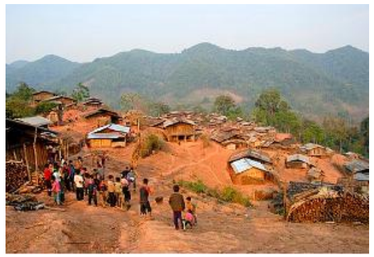
Poverty Alleviation

70% of the population is employed in agriculture. **Optimizing land use can create more job opportunities**. contributing to poverty reduction

04

Sustainable Development

Effective land management practices can mitigate deforestation effects, promoting sustainability and ecological balance.



05

Infrastructure Development

Market Access: Improved land utilization correlates with better infrastructure. For instance, **rural roads can increase access to markets, benefiting around 60% of rural households engaged in agriculture**.

06

Investment Attraction

The agricultural sector attracts about **20% of total FDI in Laos**. A well-managed land utilization strategy can further enhance this by fostering a conducive environment for investment.

07

Climate Resilience

Approximately 60% of farmers are vulnerable to climate change impacts in Laos. **Effective land management can improve resilience**, ensuring sustained agricultural productivity.

The challenging in Agricultural Land Utilization in Lao PDR

01

Lack of agricultural land data-information

Insufficient data, lack of up-to-date data, data standard.

02

Soil Degradation

Erosion and Fertility Loss: About 30% of agricultural land is affected by soil degradation, significantly impacting productivity. (Source: FAO, 2020)

03

Climate Change Vulnerability

Extreme Weather Events: An estimated 60% of farmers report being affected by climate-related issues, such as droughts and floods, which threaten crop yields. (Source: Asian Development Bank, 2019)

04

Limited Access to Technology

Low Adoption Rates: Only around 20% of farmers utilize modern agricultural technologies and practices, limiting productivity improvements. (Source: IFAD, 2021)

05

Infrastructure Deficiencies

Poor Rural Infrastructure: Approximately 50% of rural areas lack adequate road access, hindering market access and transportation of goods. (Source: World Bank, 2020)

06

Market Access and Pricing

Limited Market Opportunities: Around 30% of farmers face challenges in accessing markets, leading to price fluctuations and inadequate returns on their products. (Source: Lao Statistics Bureau, 2021)

07

Lack of Financial Resources

Limited Access to Credit: About 70% of smallholder farmers in rural areas do not have access to formal credit, restricting their ability to invest in agricultural inputs. (Source: ADB, 2020)

08

Environmental Degradation

Deforestation Rates: Laos loses approximately 1.3 million hectares of forest annually, with agricultural expansion being a significant driver of this loss. (Source: FAO, 2020)

9

Population Pressure

Increased Demand for Land: The population growth rate is about 1.5% per year, increasing competition for land and straining agricultural resources. (Source: Lao Statistics Bureau, 2021)

10

Policy Implementation Gaps

Weak Enforcement of Regulations: While policies exist, only about 30% of agricultural policies are effectively implemented and monitored, limiting their impact on land utilization. (S: UNDP, 2021)

II. Land allocation in Lao PDR

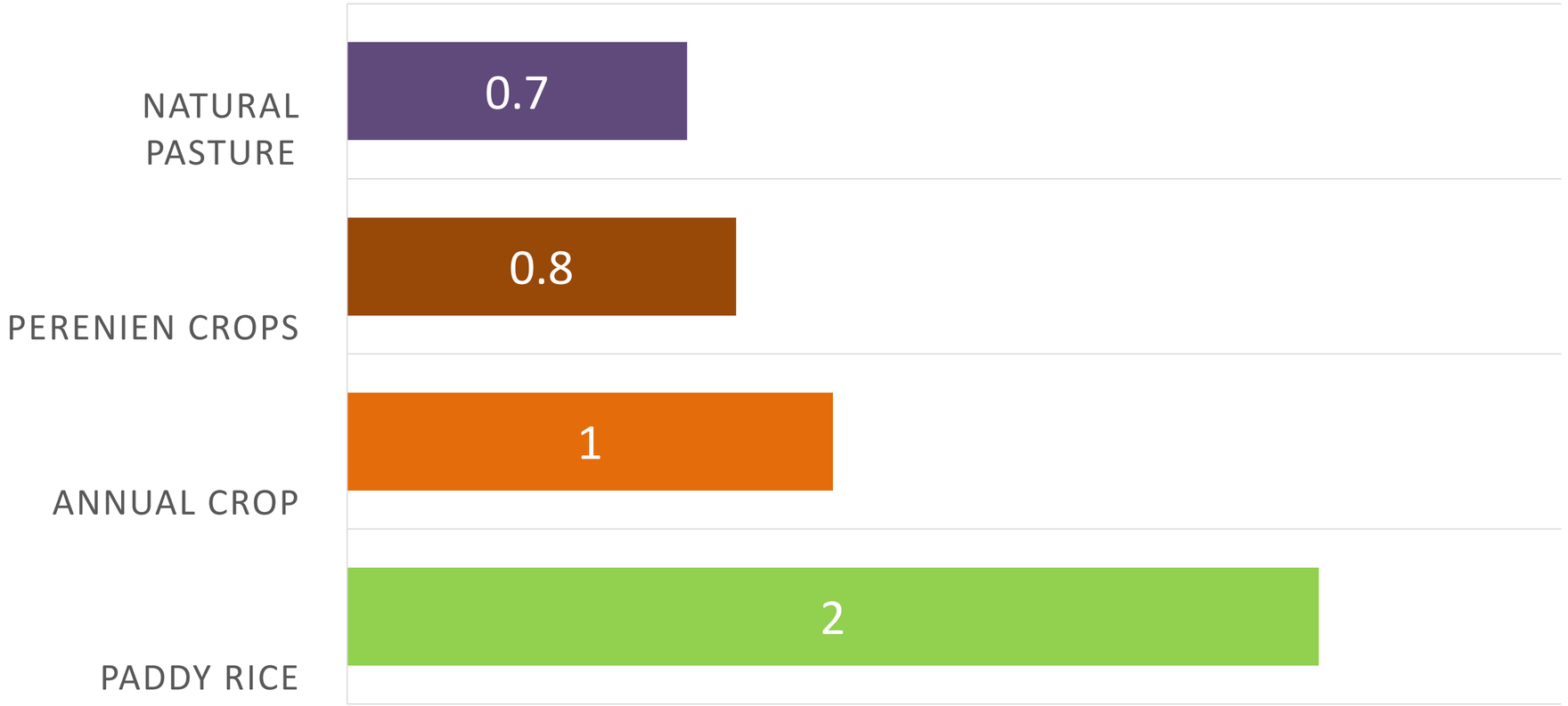
The national allocation master plan define land in 8 categories

1) Agricultural Land: 4.5 million ha (19%),
2) Forest Land: 16.5 million ha (70%),
3) Construction Land: 0.37 million ha (1.6%),
4) Transportation Land: 0.18 million ha (0.8%),

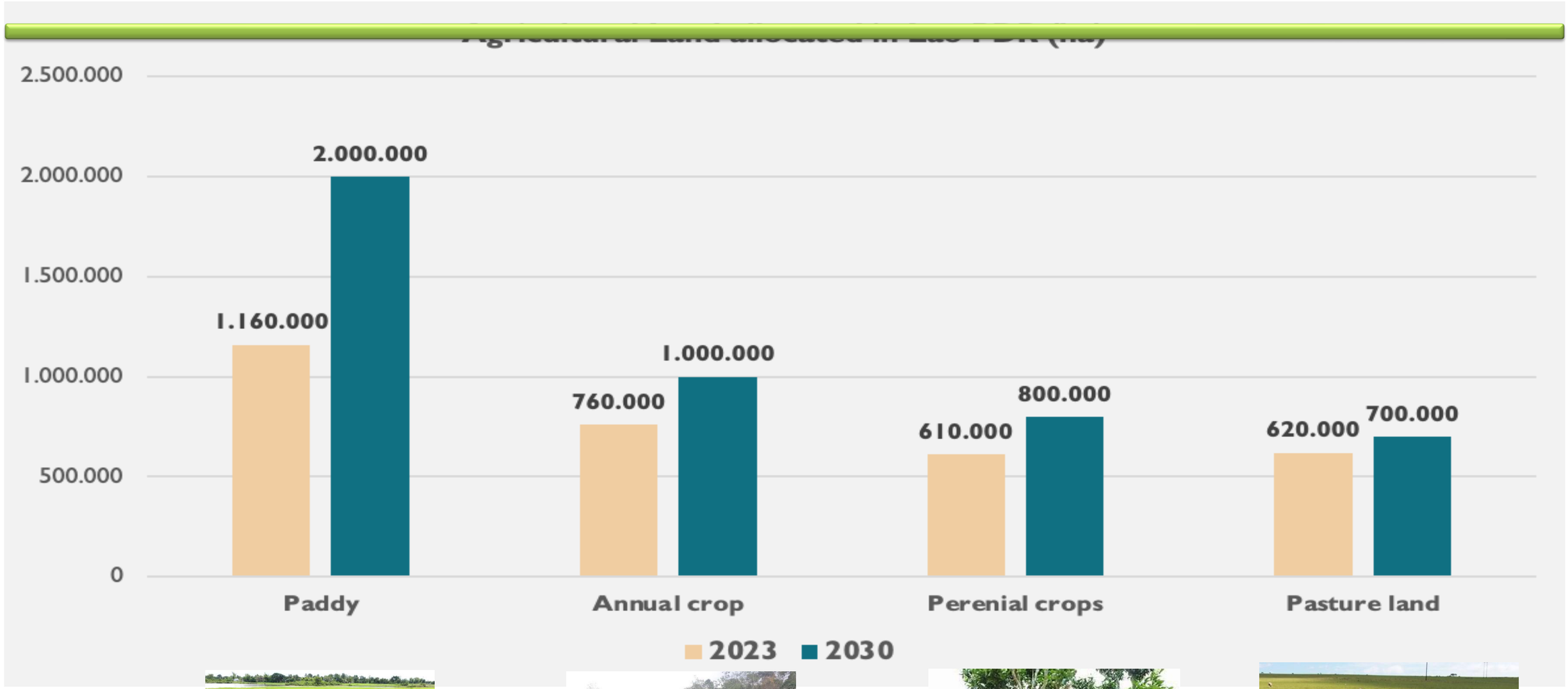
Other land types totaly 2.05 million ha (8.6%).
Including:

5) Industrial,
6) cultural,
7) Energy, and
8) National defense lands,

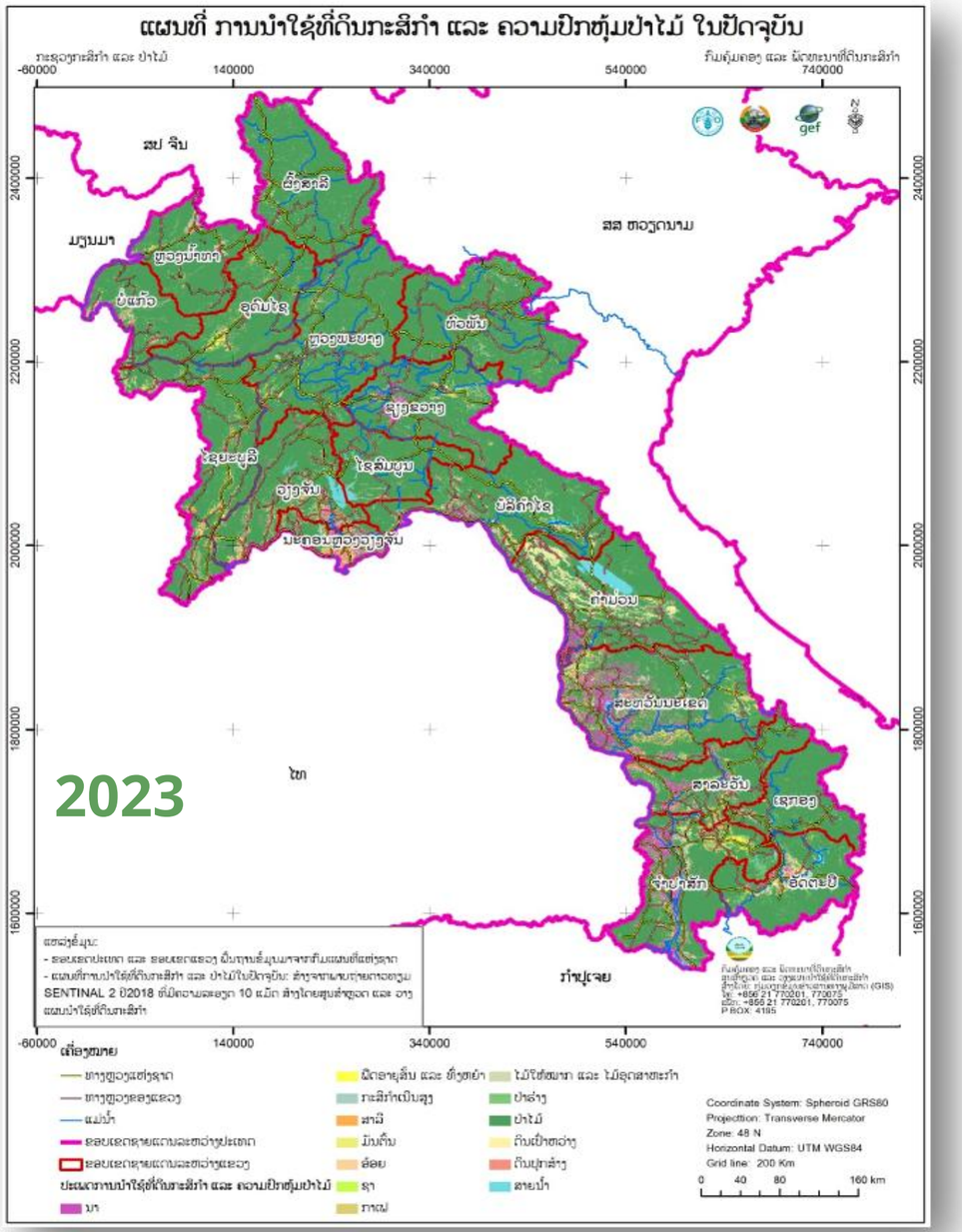
Agricultural land area are divided in 4 types (Million ha)

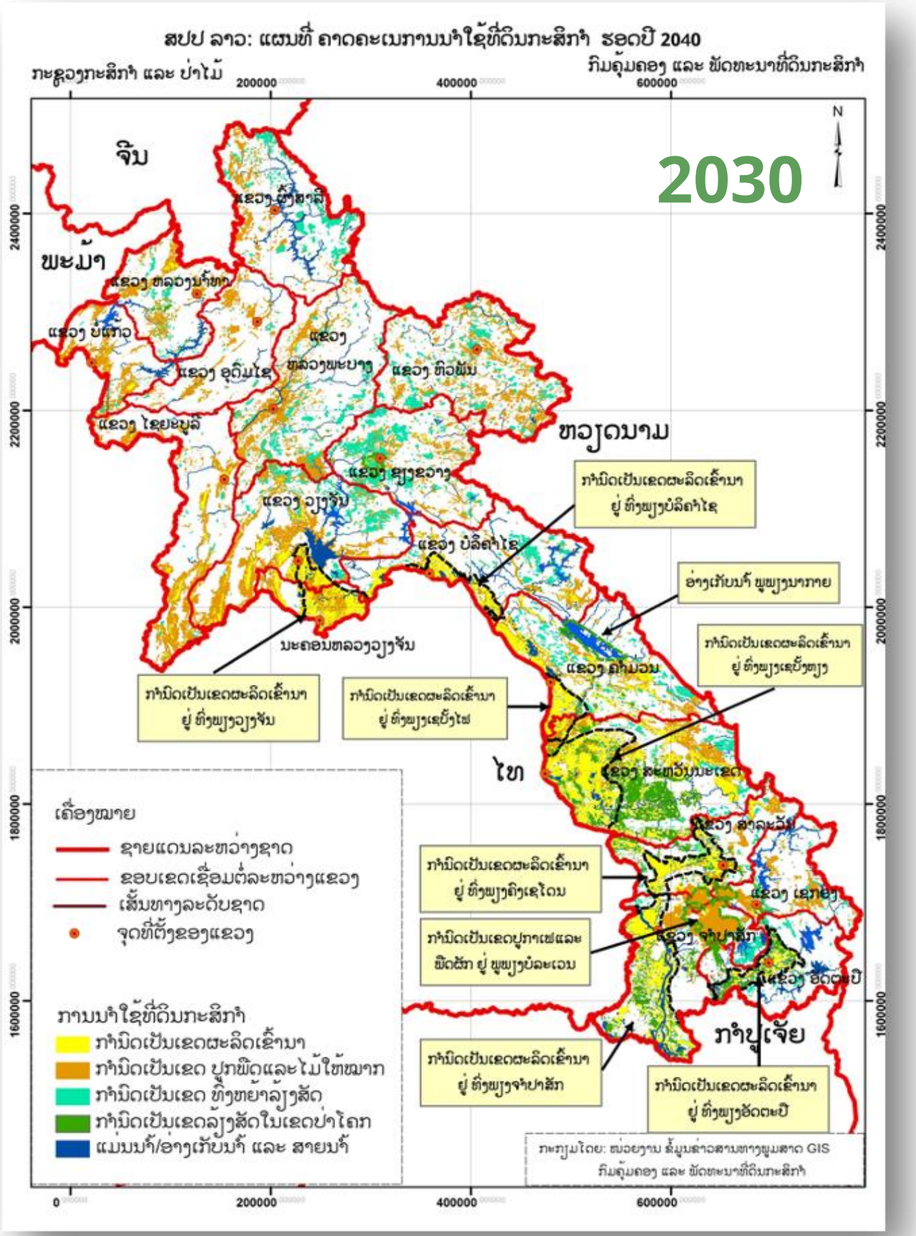


Agricultural land utilization and allocation target for 2030



Current agricultural land and allocation target maps for 2030 (cont.)





Agricultural land holding for household

1 **Northern provinces 0.5 to 1 ha**

2 **Central provinces 1 to 2 ha**

3 **Southern provinces 2 to 4 ha**

Soil improvement
Organic fertilizer + inorganic fertilizer

III. Agricultural land management policy in Lao PDR

1. Land Law (2003).

- Objective: To regulate land use, ownership, and management, ensuring sustainable land utilization.
- Key Features: -Recognition of land use rights for individuals and communities; Establishment of procedures for land registration and titling.

2. National Agricultural Policy (2015).

- Objective: To promote sustainable agricultural development and enhance food security.
- Key Features: -Focus on increasing productivity through modern farming techniques; Support for smallholder farmers and rural development.

3. National Strategy for Agriculture and Rural Development (2016-2025)

- Objective: To transform agriculture into a key driver of economic growth and poverty reduction.
- Key Features:- Emphasis on sustainable land management practices; Promotion of agroecological practices and diversification of crops.

4. Forest promoting law **(2019).**

- Objective: To protect forest resources while aimable land use.
- Key Features: -Regulation of land use in forested areas to prevent deforestation; Encouragement of reforestation and conservation efforts.

5. National Policy on Food Security (2016)

- Objective: To ensure food security for all citizens through improved agricultural practices.
- Key Features:- Support for local food production and reduction of reliance on imports; Emphasis on nutrition-sensitive agriculture.

III. Agricultural Land Management policy in Lao PDR (cont.)

6. Climate Resilience Strategy (2019)

Objective: To enhance the resilience of the agricultural sector to climate change.

Key Features: Promotion of climate-smart agricultural practices; Integration of climate risk assessments into land management policies.

7. Investment Promotion Law (2016)

Objective: To attract investments in agriculture and related sectors.

Key Features: Incentives for private sector investment in agricultural land development; Focus on sustainable practices and technology transfer.

8. Rural Development Policy (2020)

Objective: To improve the livelihoods of rural communities through enhanced agricultural productivity.

Key Features: Investment in rural infrastructure to support agricultural activities; Capacity building for farmers on sustainable practices.

9. National Biodiversity Strategy (2016)

Objective: To conserve biodiversity while promoting sustainable land use.

Key Features: Argo-integration of biodiversity conservation into agricultural land management; Support -biodiversity initiatives.

10. Decentralization Policy

To empower local governments in land management decisions.

- Local authorities are given more responsibility for land use planning and management.
- Encouragement of community participation in land management processes.

Future Directions

Recommended Policies for Better Land Management in Laos

1. Strengthening Land Tenure Security
2. Integrated Land Use Planning
3. Promotion of Sustainable Agricultural Practices
4. Capacity Building and Training Programs
5. Investment in Rural Infrastructure
6. Community-Based Resource Management
7. Environmental Impact Assessments
8. Support for Agroforestry and Biodiversity Conservation
9. Access to Financial Resources
10. Monitoring and Evaluation Framework

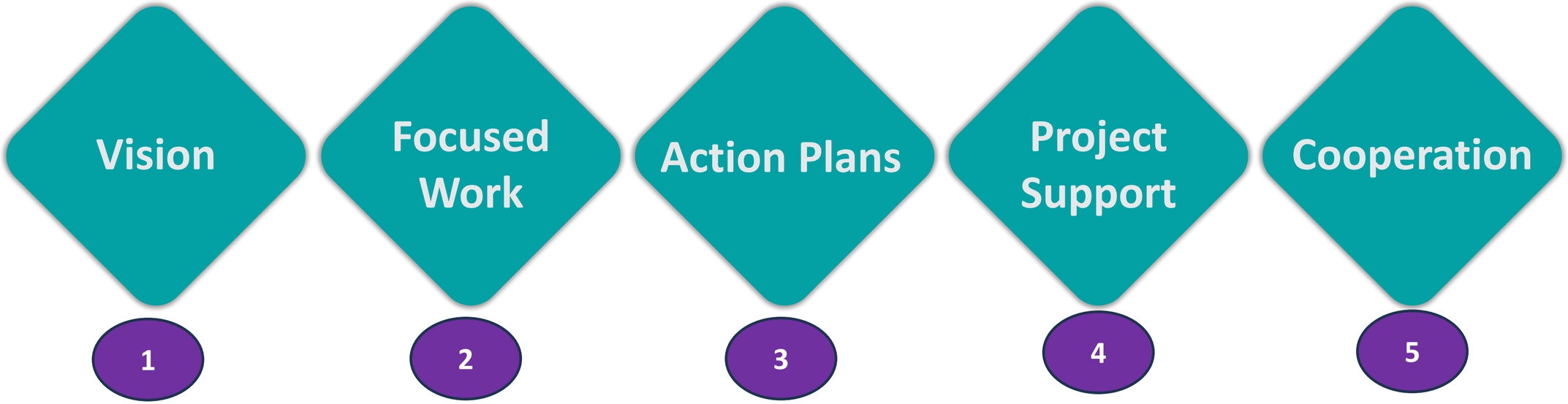
Importance of Technology and Innovation in Agriculture in Lao PDR

1. **Increased Productivity:** Technology enables farmers to enhance crop yields through improved seed varieties, precision farming tools, and advanced irrigation systems.
2. **Sustainable Practices:** Innovative agricultural practices, such as agroecology and conservation agriculture, help in sustainable land management.
3. **Climate Resilience:** Technology provides tools for climate-smart agriculture, including weather forecasting systems and drought-resistant crop varieties
4. **Access to Information:** Mobile technology and digital platforms facilitate access to agricultural information, market prices, and best practices.
5. **Efficient Resource Use:** Technologies such as drip irrigation and soil moisture sensors optimize water and nutrient use.
6. **Market Access and Value Addition:** Innovations in processing and packaging can help farmers add value to their products and access larger markets.
7. **Labor Efficiency:** Mechanization and automation reduce the labor intensity of farming operations.
8. **Research and Development:** Investment in agricultural research fosters innovation in crop breeding, pest management, and sustainable farming techniques.
9. **Collaboration and Knowledge Sharing:** Technology facilitates collaboration among farmers, researchers, and agricultural extension services.
10. **Food Safety and Quality Control:** Innovations in monitoring and traceability systems improve food safety and quality assurance.

Role of International Cooperation

1. Technical Assistance and Capacity Building
2. Financial Support and Investment
3. Research and Development Collaboration
4. Policy Formulation and Best Practices
5. Data Sharing and Monitoring
6. Environmental Protection and Climate Adaptation
7. Market Access and Trade Opportunities
8. Community Engagement and Empowerment
9. Crisis Response and Resilience Building
10. Networking and Knowledge Exchange

IV. Agricultural Land Management Strategy



Vision

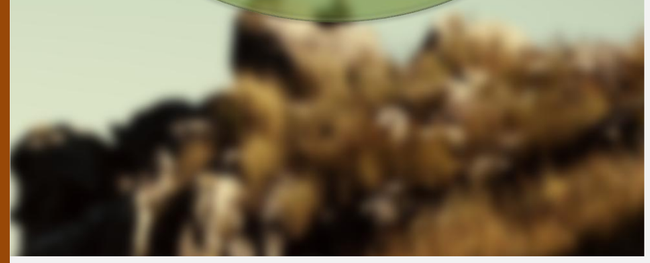
Manage agricultural land for efficient and secure land use.

Overall Goal

To ensure that food security and commodity production are under the efficient use of land resources , scientific and technological achievements in order to increase more profitability for the nation and producers.

Strategic Goal

Focus on agricultural land classification, planning, management, development, and monitoring the use of inputs in an efficient and sustainable manner.



Main focused work up to 2030

Naming Soil Series
To name soil series in Lao

Agricultural Land Maps
Generate accurate and internationally equivalent agricultural land maps.

Ag Land Use Plan
Identify agricultural land use plan for the whole country and disseminate the plan to locals.

Production Areas
Identify production areas in the government focused areas: 7 plateaus, 16 plains, 12 small-scale plains.

Effective Use of Ag Land
Ensure the efficient use of agricultural land for the benefits of society, both the quantity and quality.

Ag Knowledge Hub
Develop knowledge sources, personnel and information on agricultural land use, as well as networking and disseminating information to the more broadly society.

V. Implementation Plans

1. Legal Framework:

-Law on Forestry,

- Law on Agriculture,

- National Master plan on land allocation,

- Law on Survey and Mapping,

-Electronic Data Protection.

2. Governance:

1. DAlaM, MAF

2. Natioanl Geographic Department, MoHA

3. Department of Land, MoNRE

3. Financing

- 15 Million USD

-ODA

4. Data Acquisition:

-Target Area: 7 Plains

- Satellite imageries 0.3 m

- Field data collection

5. IT System

- Data Information Service Center

-Cloud, Platform

V. Implementation Plans

6. Innovation

- Satellite imageries combination with AI-power Automatic Labelling System

7. Data Standard

- Agricultural land use area

- Agricultural land categories

- Soil Property

8 Partnership

- PPP

-International Organization

9 Capacity Building

1. ICT, Database

2. GIS

3. Field Survey and Data collection

3. Project management