

Sustainable Agricultural Mechanization Strategy in Cambodia



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I. Introduction

- Cambodian agriculture remains one of the main priority areas of the Royal Government of Cambodia. It contributes about 28.6% to the GDP and employs 60% of total population.
- Cambodian farming systems are largely subsistence oriented and are dependent on rainfed conditions thereby excessively exposing producers to production uncertainties. Most systems are centered on paddy rice production, which is a staple food in the country and 84% of total area is under wet season rice.
- The agriculture sector contribute to the GDP is about 28.6% in 2015, while industry sector is about 29.7% and services sector is about 41.7%.

II. Ag mechanization in Cambodia

- At present, more farmers are using agricultural machineries in farming. However, the use of traditional tools and local made machineries and equipment are still practice by some farmers, especially those whose farms are not suitable to use machineries since their farm size is small or not leveled.
- Agricultural mechanization in Cambodia has been increasing widely since 1990s especially in land preparation, irrigation, threshing and recently harvesting.
- The provinces around Tonle Sap Lake and dry season rice areas in the south have higher growing rate.

II. Ag mechanization in Cambodia - cont'd

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III. Challenges of Ag mechanization

- Structure of the Provincial Office of Agricultural Engineering is still weak;
- Inadequate skilled workforce at both national and provincial level;
- Credit scheme for buying farm machinery and equipment is not exist;
- Most of workshops for repairing and maintenance of farm machinery and equipment are not available at the rural areas;
- Annual budget allocated for the implementation of agricultural engineering activities fails the nationwide coverage;
- Less activities on Research and Development for agricultural engineering and technology and it exists mainly at the national level;
- Inadequate legislation framework on water resources management and utilization;

III. Challenges of Ag mechanization – cont'd

- Institutional capacity building on water resources management and utilization remain limited at both national and provincial level;
- Some of irrigation schemes are not well functioning from the main reservoir to the agricultural farms;
- Water resource management and utilization is not undertaken in an integrated manner;
- Limited of water access from the canal to the agricultural filed;
- External support and cooperation with development partners is still missing; and
- Gap in cooperation with private sector dealing with agricultural engineering and technology.

IV. Lesson learned and good practices

- Raising farmers' incomes allow greater savings and the demand for agricultural mechanization services;
- Climate change and migration of rural young people. This has led to a shortage of manual labor, particularly at peak times, which has caused rural wages to increase;
- Labor shortages have increased the demand for agricultural mechanization custom hire services to complement hired labor, especially at peak times of land preparation and harvesting;
- Introduce of agricultural land consolidation in order to improve the effectiveness of utilization of agricultural machines;

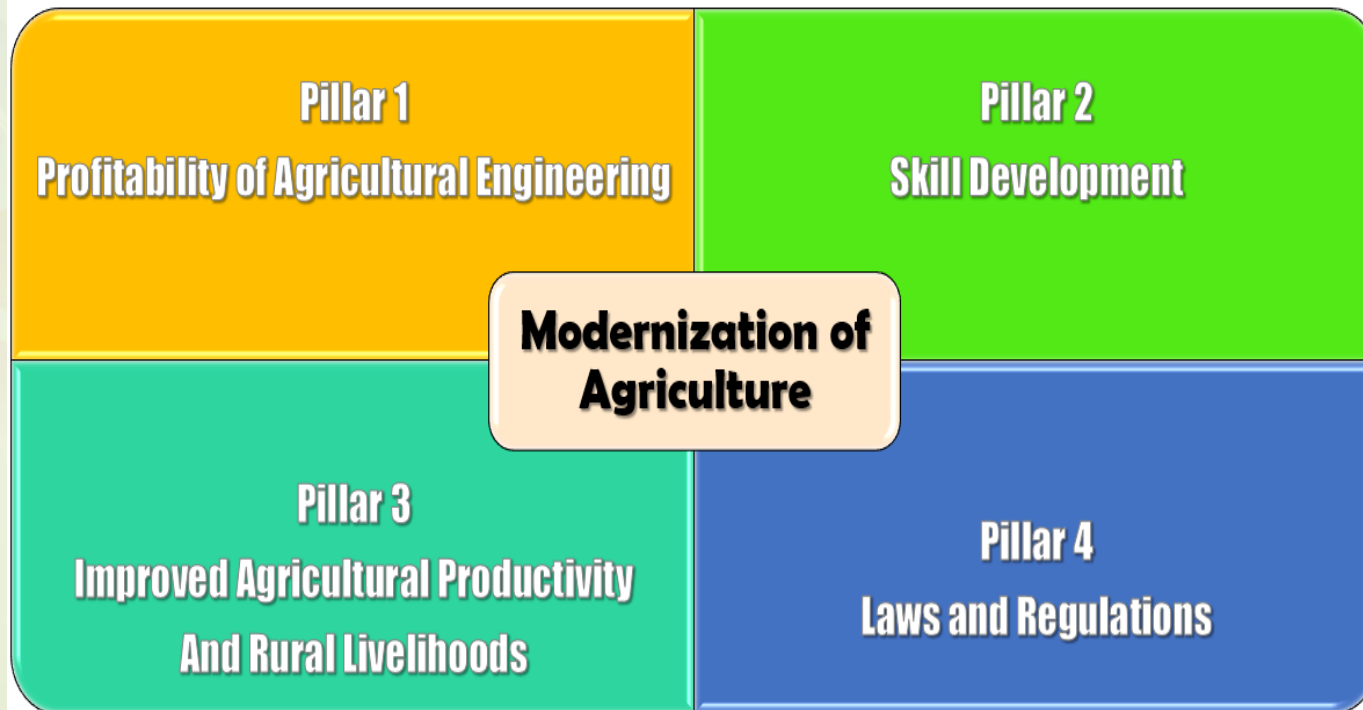
IV. Lesson learned and good practices – *cont'd*

- Close collaboration between the public and private sectors on agricultural mechanization, It is a joint responsibility of public and private organizations in agricultural mechanization activity and provides benefits on managing and disseminating knowledge and experience of agricultural mechanization to the end users;
- Establishment of Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM). It is a good mechanism for maintaining agricultural machine in good quality, occupational safety and environmental aspect ; and
- Involvement in Center for Sustainable Agricultural Mechanization (CSAM). It is vital to forge links with existing networks related to agricultural mechanization and serves as an important platform for policy dialogue, technological innovation, and cooperation.

V. Policy on Ag Mechanization

- Cambodia does not have a policy regarding current work on testing of agricultural machinery. But the strategic plan on agricultural mechanization in Cambodia had already done since 2011.
- The strategic plan serves as the four key drivers in promoting agricultural mechanization as below:
 1. Enabling Access to Mechanization;
 2. Promoting of self-help group (saving group) among farmers to mobilize local financial resource to invest in mechanization;
 3. Commercialization of Agriculture Technologies; and
 4. Better Policy, Legal and Regulatory Environment.

V. Policy on Ag Mechanization – cont'd



VI. Solutions and Suggestions

There are some key driving factors should be considered as below:

- Strengthen and support the existing policy and strategy on agricultural engineering to increase agricultural productivity, ensure food security and improve living condition of farmers;
- Improve on farm and water management infrastructure to meet the climate change;
- Introduce appropriate technologies that can be applied and scaled up;
- Support and encourage local manufacturers to produce farm machinery and equipment with reasonable price, safety, quality and suitable for local geographical conditions;

VI. Solutions and Suggestions – *cont'd*

- Provide capacity building to relevant stakeholders to improve their knowledge and skills on agricultural engineering technology and management;
- Enhance research and development of new agricultural engineering technology which are needed at the present or in the future for different geographical conditions;
- Promote environmentally friendly agricultural engineering practices for agricultural production and water conservation that will result in sustainable economic growth; and
- Improvement of collaboration both inside and outside the region as well as building good relationships between public institutions, private sector, development partners, farmers and other stakeholders to enhance efficient management of agricultural mechanization.



THANK YOU FOR YOUR ATTENTION