Mrs. Dares Kittiyopas
Deputy Director General
Department of Agricultural Extension
Thailand

The 6th Regional Forum
for Sustainable Agricultural Mechanization in Asia and the Pacific
- Enabling Environment for the Private Sector
25 October 2018, Wuhan, China
The Role of the Public Sector in Agricultural Machineries’ Driven in Thailand

Presented by
DARES KITTIYOPAS
Deputy Director General - Dept. of Agricultural Extension, and President - Thai Society of Agricultural Engineering
OUTLINE:

- The Driving Forces
- Agricultural Policy
- What works well and what are the lessons
- Recommendations for future direction
The Driving Forces

- Aiming to boost up the economy by Thailand 4.0 policy: to transform and develop value-based economy by Innovation and Technology
- The “THAILAND 4.0” brings “AGRICULTURE 4.0”
- 20 Years Strategic Plan
- Aging of Agricultural Workforce
- Reduction of Workforce
The Driving Forces: THAILAND 4.0

- traditional farming to smart farming
- producing premium quality foods and ingredients using advanced technology
- knowledge of technologies and innovation through universities' networks
- private sector investment, financial supports, and government funds for infrastructures
The ultimate target: to position Thailand as a center of agriculture and food, an organic and safe food producing-country.

- Lower production costs and add value to products
- Use innovative and environmental-friendly technology
- Modern and innovation-driven agricultural entrepreneurs
- Smart Farmers by good management knowledges and capability
- Bring the farmers out of poverty
The Driving Forces: Aging of Agri. Workforce

The most crucial factor

The 2016 population was 66 million, 0.5%/yr growing during the last decade, 1.9%/yr declining rate of agricultural sector labor force

In 2016, only 11.7 million people or about 31% of total labor force, were employed in agriculture sector.

Opening of the ASEAN Economic Community in 2015, allows the transfer of labor force from neighboring countries.
The Driving Forces: Reduction of work force

WORK FORCE (MILLIONS)

- Agriculture, -0.7%
- Non Agriculture, 2.2%
Agricultural Policy

- Trade Facilitation
- On Farm Facilitation
- Agriculture 4.0
- Farm Machinery Services Project
Agricultural Policy: Trade Facilitation

- Facilitated the cross-border ag. trade by reducing regulatory and administrative border procedures
- Attempts to abolish all the tariff and non-tariff barriers
- Free trade agreements have been signed with countries facilitating the free import of ag. machineries
- Partner Support in arranging the Conference, Business forum and Exhibition
Collaboration of Public and Private Sectors

- AGRI FORUM & KUBOTA SHOWCASE 2018; Bangkok, Konkan, Phisanulok Provinces
- AGRITECHNICA ASIA since 2017 at BITEC – Bangkok International Trade and Exhibition Center
- SIMA ASEAN since 2015 at IMPACT Exhibition and Convention Center
- AGRICULTURAL MACHINERY FAIR: Kasetsart University at Kampangsan Campus for more than 20 years
AGRI FORUM & KUBOTA SHOWCASE

- The program focuses on combining ‘Agricultural Solutions’ and ‘Machinery Solutions’ in order to reduce cost, increase income, and improve the sustainability.

- Kubota introduced technologies invented by Kubota under the concept of ‘Good Technology For Good Life’. The technologies introduced were mainly precision agriculture technologies, including guidance system and auto steer of which purpose are to reduce time consumption and labour.
AGRITECHNICA ASIA

- AGRITECHNICA ASIA emphasizes on agricultural engineering solutions that are both relevant and important to the development of agriculture in the Asian markets. Their concept is Mechanization through modern machinery will increase significantly in the next decade mainly due to the growing labor shortages, more competition and therefore the requirement to reduce production costs.
SIMA ASEAN

- SIMA ASEAN Thailand, the all-in-one agribusiness annual trade platform, showcases the latest technology and innovation from agriculture machinery and equipment to a comprehensive range of products and services to meet all farm operation needs. Combined with a series of seminars, workshops, business matching and networking sessions.
KU-AGRICULTURE & MACHINERY FAIR
Agricultural Policy: On Farm Facilitation

- Establishment of 882 learning and training centers with its 10,523 networks
- Promoting 4,622 Collaborative Farming Projects
- Agri-Map: Crop Suitability Producing Areas’ Map
- Planting Data and Map: Recent Production Areas and Land used Map
- To Support Loan for Ag. Machineries investment to Cooperatives and Farmer Groups
Collaborative Farms
Agri-Map: Crop Suitability Producing Areas
Planting Map: the Recent Production Areas
Agricultural Policy: Agriculture 4.0

- Precision Farming
- Cost Reduction
- Less Workforce
- Minimized Working Time
- Less Fatigue
- Risk Reduction
- Higher Yield
- Production Plan
Mobile Application
IoT for Agriculture R&D
The Agricultural Machineries Distribution
Farm Machinery Services Project

- To Support Loan for Ag. Machineries investment to Cooperatives and Farmer Groups service for their members
What works well and what are the lessons

Synchronized in
- Policy
- Technology Transfer through Trade Exhibition
- Trade Facilitation/On-farm Facilitation
- Investment Loan
- IoT/ Mobile app
- DATA
- Precision Farming
Recommendations for future direction

- To Synchronize between Areas – People – Products and Markets
- To have Technology Transfer as Public-Private collaboration
- To do Data Analytic for Planning
- To do Precision Farming
Thank you