



CSAM



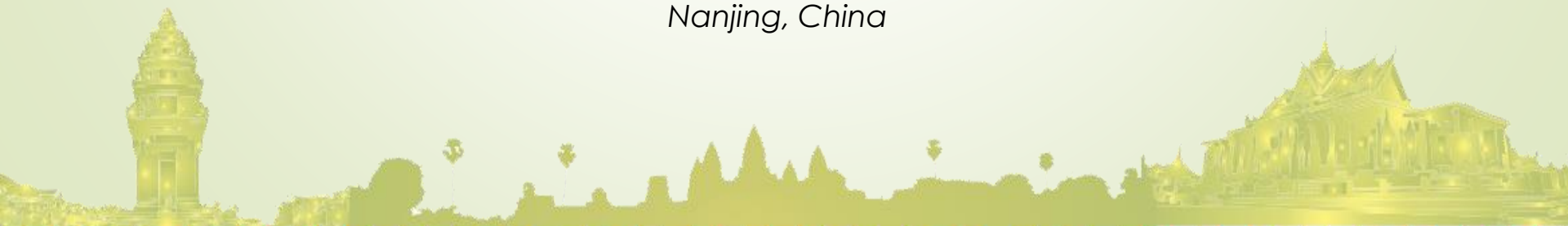
Constraints and challenges to adoption and promotion of CA and CA mechanization in Việt Nam

HOANG VAN MANH
Agricultural Machinery Engineer
Vietnam Institute of Agricultural Engineering and
Post-Harvest Technology (VIAEP)

Training Workshop on Sustainable Mechanization for Smallholder Farmers in Asia and Africa in Support of the Sustainable Development Goals

12 – 18 May 2019

Nanjing, China



I. Introduction and foundation of Vietnamese agriculture

- ▶ Geographical position of Vietnam: Southeast Asia, Bordered by Pacific Ocean, China, Laos and Cambodia. Area Km² 329,560; Population (millions) 92.48.

- GDP by industry: agriculture: 21.5%, industry: 40.7%; service: 37.7%

- Labor force (million): 49.18

- Labor force by occupation of agriculture: 48%; Industry: 21%, services: 31%

- ▶ - Vietnam has two major deltas:

- +Red River Delta (Northern Delta)

Approximately 15,000 km² is covered by alluvium of two large rivers, the Red River and Thai Binh River.

- +Mekong Delta (southern delta)

Widely over 40,000km², is fertile land, favorable climate. This is the largest delta of Vietnam. This land is most affected by climate change.



I. Introduction and foundation of Vietnamese agriculture

- ▶ On the level of mechanization of agricultural production in Vietnam. Recent years show that the number of motors, agricultural machines used in agriculture has increased. Specifically, compared with 2006, the number of tractors increased 1.6 times, rice harvesters increased 25.6 times (mainly concentrated in the Mekong River Delta accounts for 75% of the number of harvesters across the country), spraying plant protection increased 6 times, water pump for agricultural production increased 1.2 times ...
- ▶ The rate of mechanization in many stages such as land for rice, reached 93%, sugarcane reached 82%. Cultivation, care also reached the rate of mechanization over 30% ... ect.
- ▶ Research and transfer of technology on mechanization in conservation agriculture has been paid attention and is studying method of replication in Vietnam. Current research is still small by region and specific crops such as corn, soybeans, etc.



Mechanization of sugarcane production



Deeply flush 5-blade land

- Deeply plow and do not overturn, to both ensure the depth and create underground channels to hold water when drought



II. Constraints and challenges to adoption and promotion of CA and CA mechanization in Việt Nam:

► Limitations still exist:

a) The level of mechanization in agricultural production is low and not uniform



Compared with other countries in the region, the level of dynamics of agricultural machinery in Vietnam is low, with an average of 1.6 HP / ha of cultivation

II. Constraints and challenges to adoption and promotion of CA and CA mechanization in Việt Nam:

- ▶ Low technical infrastructure, clematis farming practices that impede the application of mechanization Field size in our country is small, scattered.



At present, Vietnam has 70 million plots, each household has only 0.7 ha of cultivated land, including 3-4 plots. Although there is a policy of "consolidation of land plots", in general the situation is still scattered common. This limited the introduction of mechanization into the cultivation and harvesting stages.

II. Constraints and challenges to adoption and promotion of CA and CA mechanization in Việt Nam:

- ▶ Vietnam's mechanics industry has not met the requirements of agricultural production, foreign investment in this field is still low
- ▶ Agricultural products in Vietnam only meet the quantity and quality of some machines such as rice cultivators, sugarcane reapers, maize, small tractors ... etc ...



II. Constraints and challenges to adoption and promotion of CA and CA mechanization in Việt Nam:



II. Constraints and challenges to adoption and promotion of CA and CA mechanization in Việt Nam:



II. Constraints and challenges to adoption and promotion of CA and CA mechanization in Việt Nam:

- Foreign investment in the field of manufacturing and assembling engines and agricultural machinery is very little, from 2009 KUBOTA Vietnam Co., Ltd., ect...



- > B Series (nhỏ hơn 30HP)
- > L Series (từ 30 đến 50HP)
- > M Series (hơn 50HP)



- > DC-35
- > DC-60
- > DC-70
- > DC70 Plus



- > SPW-48C
- > SPV-6CMD
- > NSPU68C
- > SR-K800VN

III. Recommendations

- Strengthen the coordination and exchange of technology and equipment of mechanized research institutions in conservation agricultural production in Asia and the Pacific.
- Funding applied research programs and promoting knowledge of sustainable agriculture in Asia and the Pacific.
- Co-operation and linkage to create large-scale commodity production; provides the basis for the implementation of mechanization and transfer of scientific and technological advances in conservation agriculture production in Asia and the Pacific.



