Asian and Pacific Workshop on Whole-Process Mechanization of Potato Production

## Cassava production and Mechanization in Cambodia

#### **Presented by Mr. Sar Santy**

#### Officer of Department of Agricultural Engineering, GDA, MAFF

27-28 June 2016, Kunming, China





## Content

I. Overview of Cassava supply chain in Cambodia

- II. Status of mechanization in cassava production
- III. The need assessment of cassava production mechanization
- IV. Challenges and constraints faced for whole-process mechanization of cassava production in Cambodia
- V. Suggestions for regional cooperation for the workshop, and potential contribution
- VI. Conclusion

## I. Overview of Cassava supply chain in Cambodia

- Cassava is the second most important agricultural crop after rice.
- Lacking processing facilities of cassava, Cambodia farmer must sell the dried cassava chip and flour to abroad markets, where it is processed into food textiles and paper products.
- The main actors in Cambodia's cassava value chain are farmers (both small-scale and large-scale), collectors, traders and



# II. Status of mechanization in cassava production in Cambodia

- The cassava production is still using labor force in their work
- The mechanization have been used in only land preparation and part of harvesting stage.
- For the cassava production, Tractors are used from 60-90 Hp for the large land and power tiller from 12-15 Hp for small one.
- Local workshop can produce only a small scale of machine.



# II. Status of mechanization in cassava production in Cambodia

#### Implements required for field operation

No	Operation	Power	Implement / Tool
1	Land Preparation	Tractor, Power tiller	Disc plow, Rotary, Plow
2	Creating Ridge	Tractor, Power tiler	Ridger
3	Cutting stem for	Labor	Cutting machine, Wood
	planting		Cutting
4	Planting	Labor	Hoe
5	Weed Control	Labor	Hoe, knapsack sprayer,
			hand weeder
6	Fertilizer and Pest	Labor	Knapsack sprayer
	control		
	application		
7	Cutting stem	Labor	Knife
8	Harvesting root	Tractor, Power tiller	Digger

III. The need assessment of cassava production mechanization in Cambodia

- Farm machinery workshops are still small scale size, the technical skill of producer is low.
- Technical skill is needed to be improved in order to develop adequate machinery equipment for cassava production.
- Mechanization is more important when the labor force in countryside move to work in the city and abroad.
- Climate change is also influence to cassava production in term of water supply and solar drying.
- Farmer still operate manually in planting, pest control, fertilization and harvesting.

## **Chopping machine**





### Local product

#### Imported product

Slide #7

IV. Challenges and constraints faced for whole-process mechanization of cassava production in Cambodia

 Most of Cassava machinery using in Cambodia is imported from abroad and local workshop is still small scale.

- The producer doesn't have enough adequate knowledge and skill, and lack of technical support from national experts.
- The local production faces high competition with farm machinery imported from neighboring country which the quality is high and price is low.

## Tractor implement for Cassava production





Slide #9

# V. Suggestions for regional cooperation for the workshop, and potential contribution

- Keeping and improving international or bilateral cooperation among Asian member state and other country to research and develop on mechanization on cassava production.
- Sharing or transferring skill, technology and knowledge to farmer and producer.
- Sharing or transferring new innovation on mechanization of cassava production among Asian member state and the Pacific country.
- Proposing reginal workshop and conference on cassava mechanization regularly.

## Conclusion

- In Cambodia, the lack of local processing make no stable market. That's why the price is depend on the middleman.
- Local workshop in country can produce only a small scale of machine because most producers don't have enough knowledge, skills and technique.
- Most Cambodia farmer still operate cassava production manually.
- The need of cassava production mechanization is necessary to help farmer while the lack of labor force in countryside because of the immigration.
- The country product has challenge with imported product which has the good quality and the low price.

Thanks for your attention..!

## Mr. Sar Santy

#### Officer of Department of Agricultural Engineering

santy.rua@gmail.com

Slide #12