

# Human Resource Development for Sustainable Agricultural Mechanization in Indonesia

Amiq Nurul Azmi, STP

Indonesia Center for Agricultural Engineering Researh and Development, IAARD Ministry of Agriculture

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





# TARGET OF INDONESIA AGRICULTURE DEVELOPMENT



# SUSTAINABLE FOOD SELF SUFFICIENCY & SECURITY



# **INCREASE ADDED VALUE, COMPETITIVENESS EXPORT**



### **INCREASE FOOD DEVERSIFICATION**



### **INCREASE FARMER WELFARE**

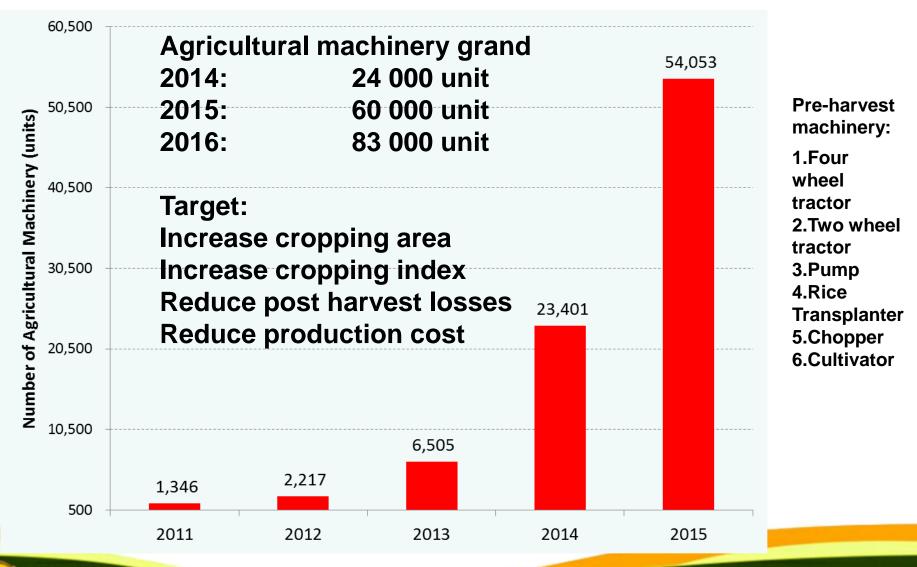




# Strategies, Policies, and National Programs to Achieve National Target in Agricultural Development



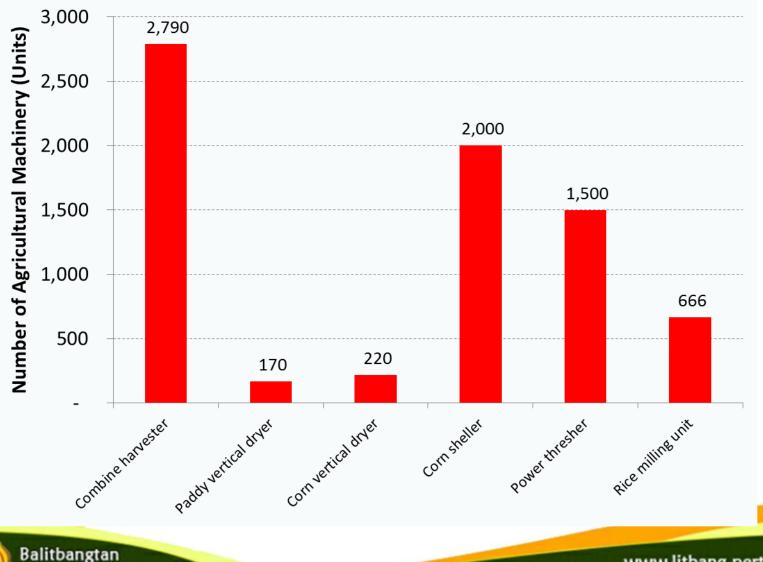
#### **Government support for farm Machinery**







# Government subsidies and grand for harvesting and post-harvesting machinery in 2015



Kementan



# Constrain in developing sustainable agricultural mechanization

- 1. Low capability of custom hiring manager, operator and technician of agricultural machinery
- 2. Lack of agricultural mechanization training program
- 3. Limited number of agricultural mechanization extension worker
- 4. Lack of agricultural mechanization expert including engineer and researcher
- 5. Limited number of agricultural machinery workshop





# **Government Strategy to Achieve Sustainable Agricultural Mechanization**

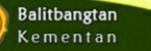
- 1. Increase the capacity of agricultural machinery custom hiring from beginner to advance through national training program
- 2. Increase the number and capacity of extension worker (10 000 new extension worker in 2016)
- 3. Increase the number of farm machinery workshop up to district level
- 4. Improve extension program of agricultural machinery for: Extension worker, manager of custom hiring, farmer group and operator of agricultural machinery and technician for repair and maintenance
  - 5. Improve the capacity of engineers, researchers & lecturers of agricultural mechanization





#### **National Training Program**

- **1.** Training for Trainer (TOT):
- University lecturer :15 people
- Extension worker : 25 people
- Agricultural extension officer : 21 people
- 2. Topic of Training : operation, repair and maintenance of various agricultural machinery and management
- Two wheel tractor
- Four wheel tractor
- Pump
- Rice transplanter
- Power weeder
- Rice combine harvester
- Power thresher
- Rice milling unit







#### FUTURE NATIONAL TRAINING PROGRAM

- 1. Increasing training program for agricultural mechanization by Agricultural Human Resources Development, Ministry of Agriculture
- 2. R&D and Planning:
- Need assessment of agricultural mechanization
- 3. Technical Aspects:
- Agricultural machinery & equipment design and manufacturing
- Production, storage, processing, packaging techniques
- Cultivation
- Pest control
- 4. Management Aspects:
- Agricultural machinery & equipment and management
- Farming management
- Marketing, human resource and information management



**Balitbangtan** Kementan



# THANK YOU VERY MUCH