



Human Resource Development in the Process of Agriculture Mechanization

by
Mr. Chang Zhouwei
Key Account Director,
Zoomlion Heavy Machinery

3rd Regional Forum on Sustainable Agricultural Mechanization in Asia and the Pacific
3rd ASEAN Conference on Agricultural and Biosystems Engineering
Co-located with the 12th Engineering Research and Development for Technology in Agriculture
9-11 December 2015, Manila, the Philippines

Content

- **Importance of Human Resource in Agriculture Mechanization**
- **Challenge in China**
- **Thoughts from Zoomlion**
- **Solution from Zoomlion**

Importance of Human Resource in Agriculture Mechanization

- Requirement from modern agriculture
 - Private
 - Agriculture projects
- Higher output and profit
- Farmer becomes a “profession” — —Skills and knowledge



Importance of Human Resource in Agriculture Mechanization

- Human resource definition
 - Management expert
 - Mechanization expert
 - Service provider
- Demand of **Mechanization Expert** to create more value on agriculture production
 - Operation
 - Maintenance
 - Management
 - improvement

AGRICULTURE POPULATION
Nearly 35% or 693 Million people

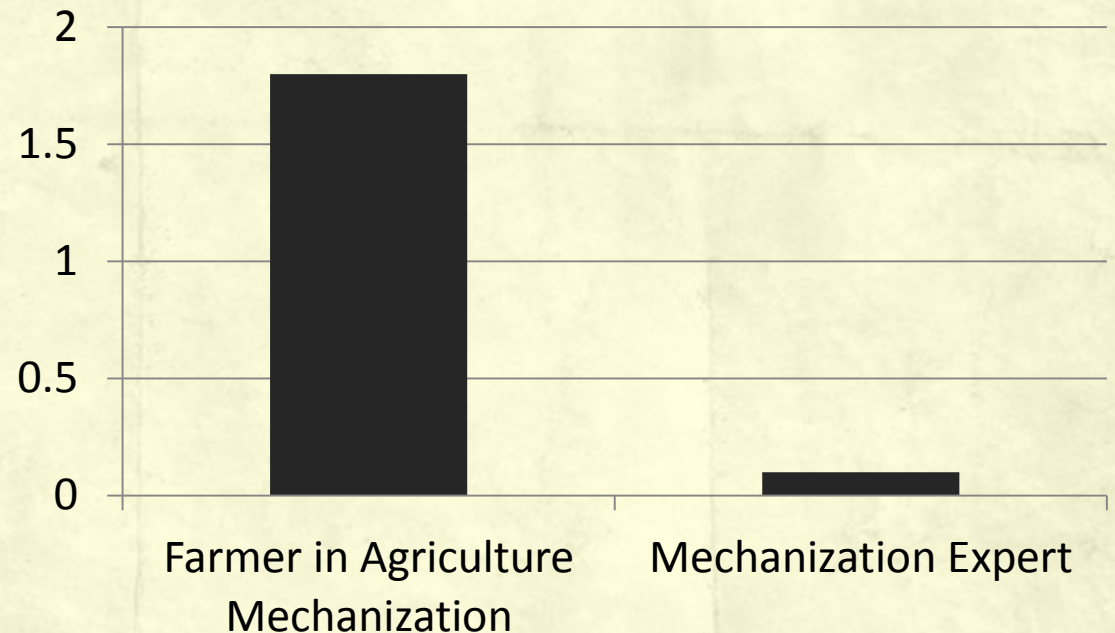


■ People Engaged
in Agriculture

Challenge in China

- **More region:** Large farm caused by land consolidation trend
- **More machinery:** Increasing 61% mechanization rate, with 1.8 M population in Agriculture Machinery.
- **More complicated:** Higher horse power, Multi-function and Specified purpose machinery

**MECHANIZATION EXPERT IN CHINA
(MILLION)**



Challenge in China

- Increasing Cross-Region Machinery Operation Activities since 1990s
 - 168,000 machinery service-providing organization,
 - 42,000 are cooperatives with more than 20% increasing rate,
 - Case in 2013, 500,000 combine for wheat harvesting, 300,000 are operated in a cross-region manner.
 - 2013, more than 36 Million Ha supported by cross-region machinery operation



Thoughts from Zoomlion


- **Re-definition of Farmer:** to direct the target
- **Change of the Training System:** Comprehensive Education, instead of temporary training
- **Multi-source of education:** bring experienced farmer, manufacturer, university professor, cooperatives and agriculture enterprise to the education system
- **Certified knowledge and skills system:** enable “Farmer” as a standard profession and occupation

Solution from Zoomlion

PRODUCT RANGES



Solution from Zoomlion

<p>Forest soil preparation</p>	<p>Excavator, bulldozer, grader, rollers, loaders and other earth-moving equipment is complete</p>	
<p>Cultivation</p>	<p>12-210 horsepower tractor , covering meshing sets, synchronizer, power shift, and other technology platform</p>	
<p>Irrigation</p>	<p>Provide a variety of equipment for irrigation network construction, realize full coverage of the various terrain and the planting of crops and agronomic requirements</p>	
<p>Field management</p>	<p>Meet the row, spreader, spray insecticide, etc all kinds of field management requirements</p>	
<p>Planting</p>	<p>Complete product series, meet rice, wheat, corn, sugar cane, cassava, etc growing demand</p>	
<p>Harvest</p>	<p>"GUWANG" wheat harvester, rice harvester, with its superior performance, sales ranked top three in China</p>	
<p>Drying</p>	<p>Circulation at low temperature, high temperature continuous and mobile dryer, meet the rice, corn, soybeans, wheat and other crops drying requirements</p>	
<p>Warehousing and shallow processing</p>	<p>Meet the demand of grain post-harvest storage and raw processing</p>	

Solution from Zoomlion

- Under the guidance of Ministry of Agriculture, Ministry of Education, Zoomlion, with more than 110 members, established **China Modern Agricultural Equipment Vocational Education Group**.

中华人民共和国农业部

Ministry of Agriculture of the People's Republic of China

中华人民共和国教育部

Ministry of Education of the People's Republic of China

 **ZOOMLION**



Solution from Zoomlion

- Member: more than 110 entities, including Manufacturer, research institute, professional college, etc
- Plan
 - Network of bases for technical training center
 - Universal certificate and training system
 - Information commutation system
 - Online technical consulting service platform



Solution from Zoomlion

- Target farmer character:

Professional

Technical

Knowledgeable

Management

Passionate

- The “GROUP” also has the division for “international cooperation and communication”
 - to conduct the cooperation with other country
 - Expand the model to overseas

Solution from Zoomlion

National Agriculture Machinery Skills Competition

全国农业职业技能竞赛

ZOOMLION

返回官网

聚星总动员

SUPERSTAR STORY

2015 “中联重科杯” 全国农业职业技能竞赛

2015 11.27-28 安徽·芜湖

Organized by
Mechanization Division, Ministry of Agriculture
Zoomlion Heavy Machinery

Solution from Zoomlion

- More than 2000 participants nationwide, 76 in the finals
- Technician, operator, head of cooperatives, farm owner ,etc
- Details:
 - Theory test
 - Practice test
 - Divided by tractor, combine harvester and other machinery
 - Maintenance, operation and sprae parts replacement



Solution from Zoomlion

- Discover the current system and make improvement
- Encourage more farmers to engage in education
- Establish the universal agriculture mechanization expertise certificate system



Thank you



ZOOMLION