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India

*The 6th Regional Forum
for Sustainable Agricultural Mechanization in Asia and the Pacific
- Enabling Environment for the Private Sector
25 October 2018, Wuhan, China*

Agricultural Machinery Industry in India

To be presented during Regional Forum Meeting 2018 On 25.10.2018 at
Wuhan

Presented by

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The presentation is divided into three parts:

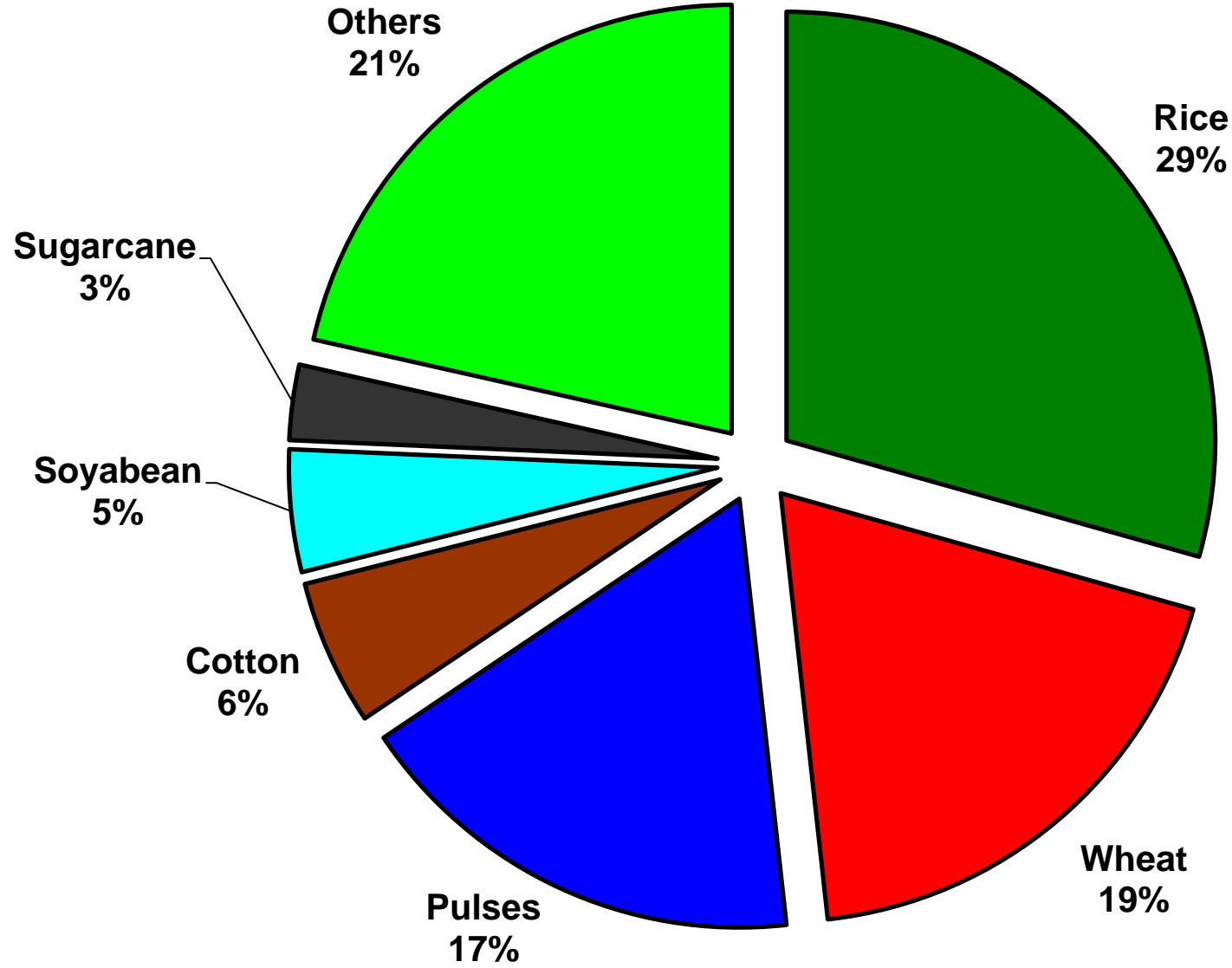
- 1) General status of the agricultural machinery industry in India;
- 2) What is most needed of the enterprise?
- 3) Recommendations related to stakeholders including public sector, academic and research, as well as the private sector

General status of the agricultural machinery industry in India

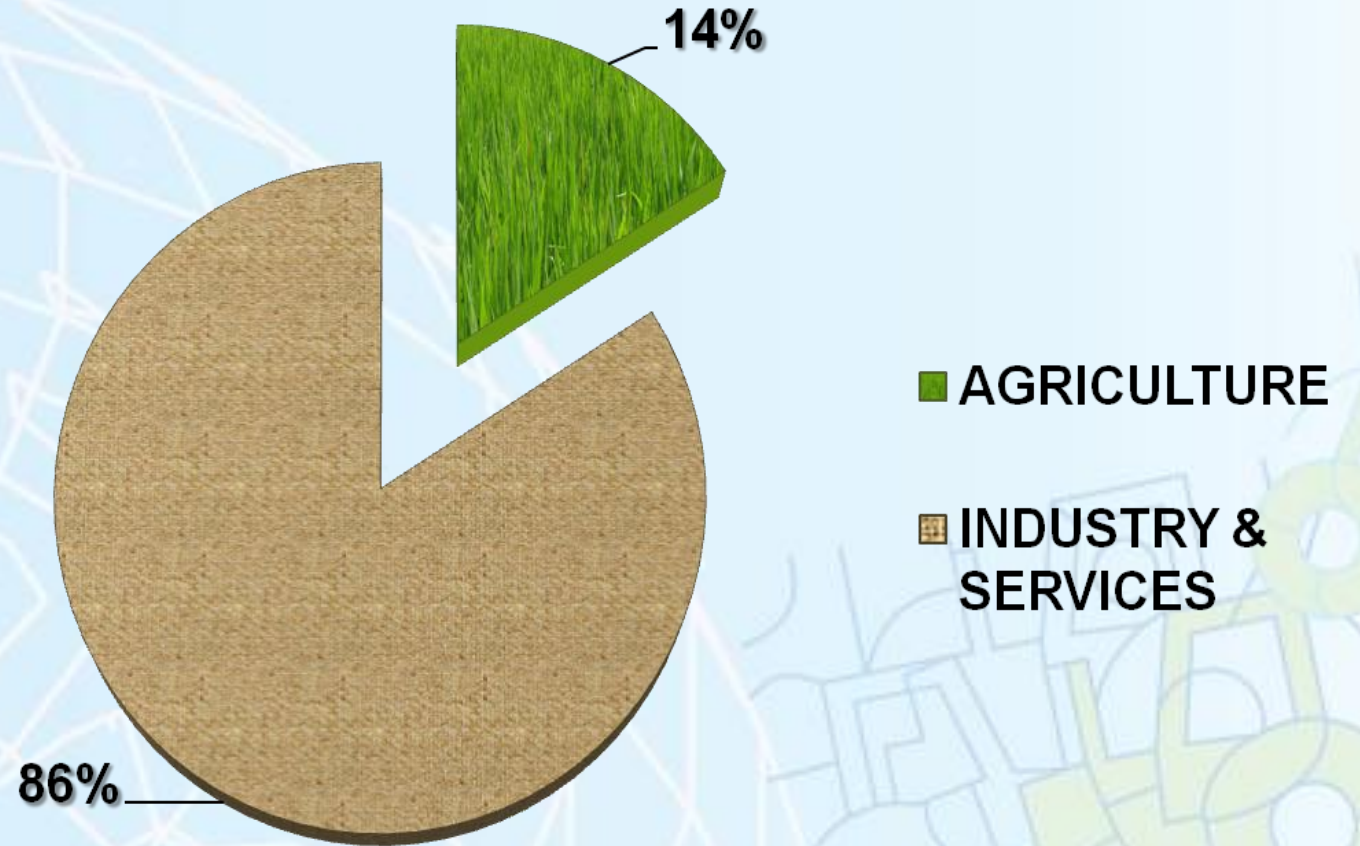
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Indian Agriculture at a Glance.....

- **Round the year cultivation - 20 Agro-climatic regions and 46 soil types suited for round the year cultivation**
- **Ranks first in production of Milk, Pulses, Sorghum, Jute and allied fibers**
- **Second largest producer of Wheat, Rice, Groundnut, Tea, Fruits and Vegetables, Sugarcane**
- **Third largest producer of Mustard, Potatoes, Cotton lint, etc.**



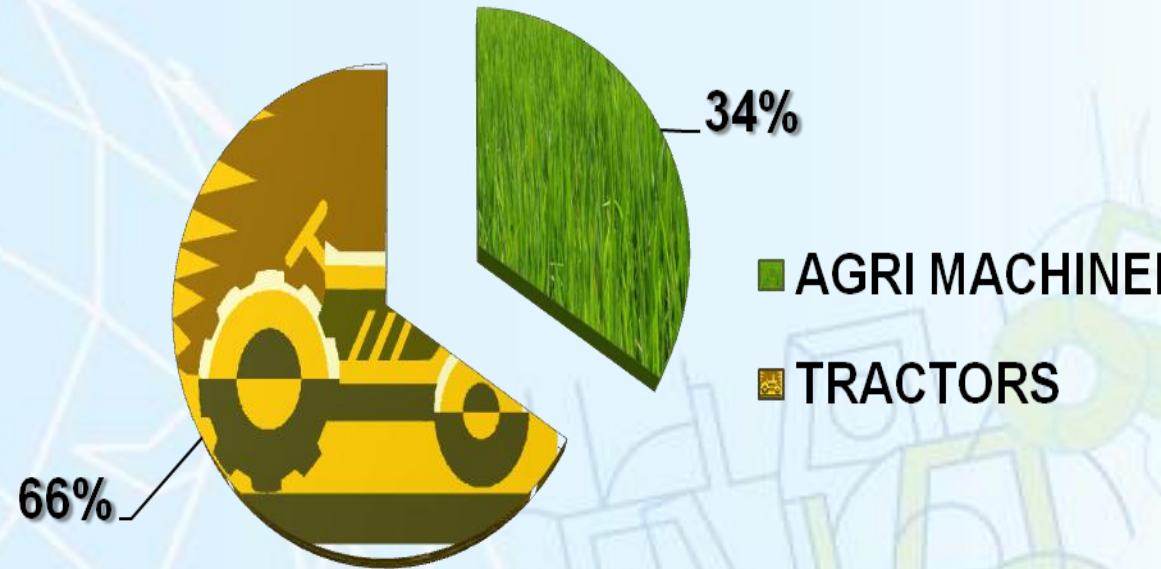
INDIAN AGRICULTURE CONTRIBUTION TO GDP



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Indian Agricultural Machinery Industry

- 250 Medium to Large Scale Units
- 2,500 Small Scale Industries
- 15,000 Tiny Industries
- 1,00,000 Village level Artisans
- Rs. 55,000 Crores (USD 7500 millions) Industry including tractors, power tillers, combine harvesters and other agricultural machinery with **CAGR growth 5%**



Indian Agricultural Machinery Industry

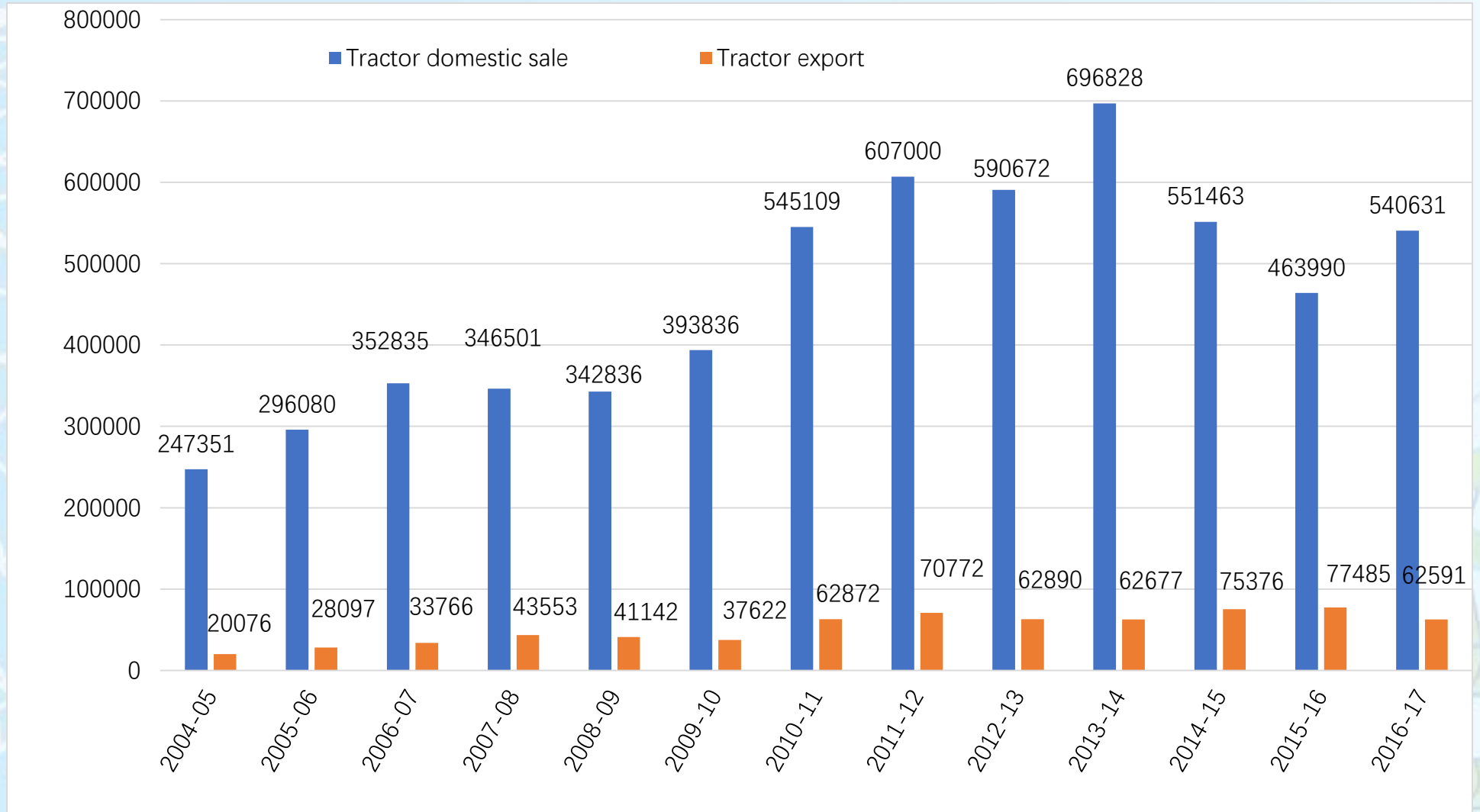
About 2000 small, medium and large industries are involved in production of agricultural machinery including tractors, power tillers, combine harvesters and farm equipment from tillage to harvesting and threshing. 661 are the members of AMMA-India.

Manufacturing Units in India

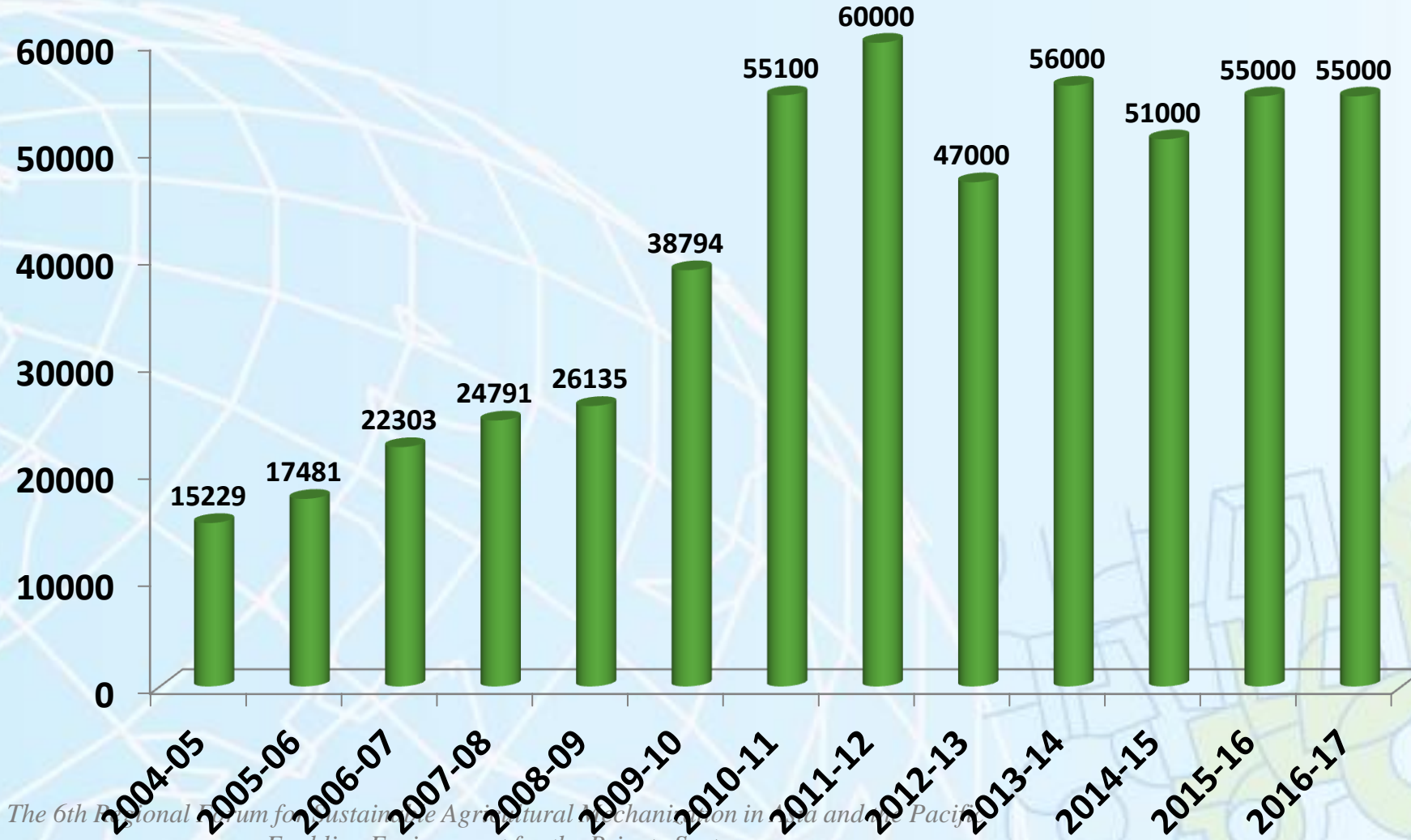
The 6th

Equipment manufacturers	No. of units
• Agricultural tractors	21
• Power tillers	7
• Irrigation pumps	600
• Plant protection equipment	300
• Combine Harvester	48
• Reapers	60
• Threshers	6000
• Seed Drills and planters	2500
• Diesel oil engines	200
• Plough, cultivators, harrows	5000
• Chaff cutter	50
• Rural artisans (hand tools)	>1 million

Tractor sales data



Power tiller sales data



Population of farm machines in India

Farm Machinery	Number of farm machines available ('000)		
	2003-04	2013-14	% Increase over 2003-04
Power operated sprayer/duster	561	796	41.9
MB Plough	852	1328	55.9
Cultivator	949	1170	23.3
Disc harrow	913	1260	38.0
Seed cum fertilizer drill	1011	2852	182.1
Planter	75	92	22.7
Leveler	1827	2343	28.2
Thresher/Multi crop thresher	5309	7775	46.4
Combines (Both tractor-drawn and self-propelled)	20	59	195.0

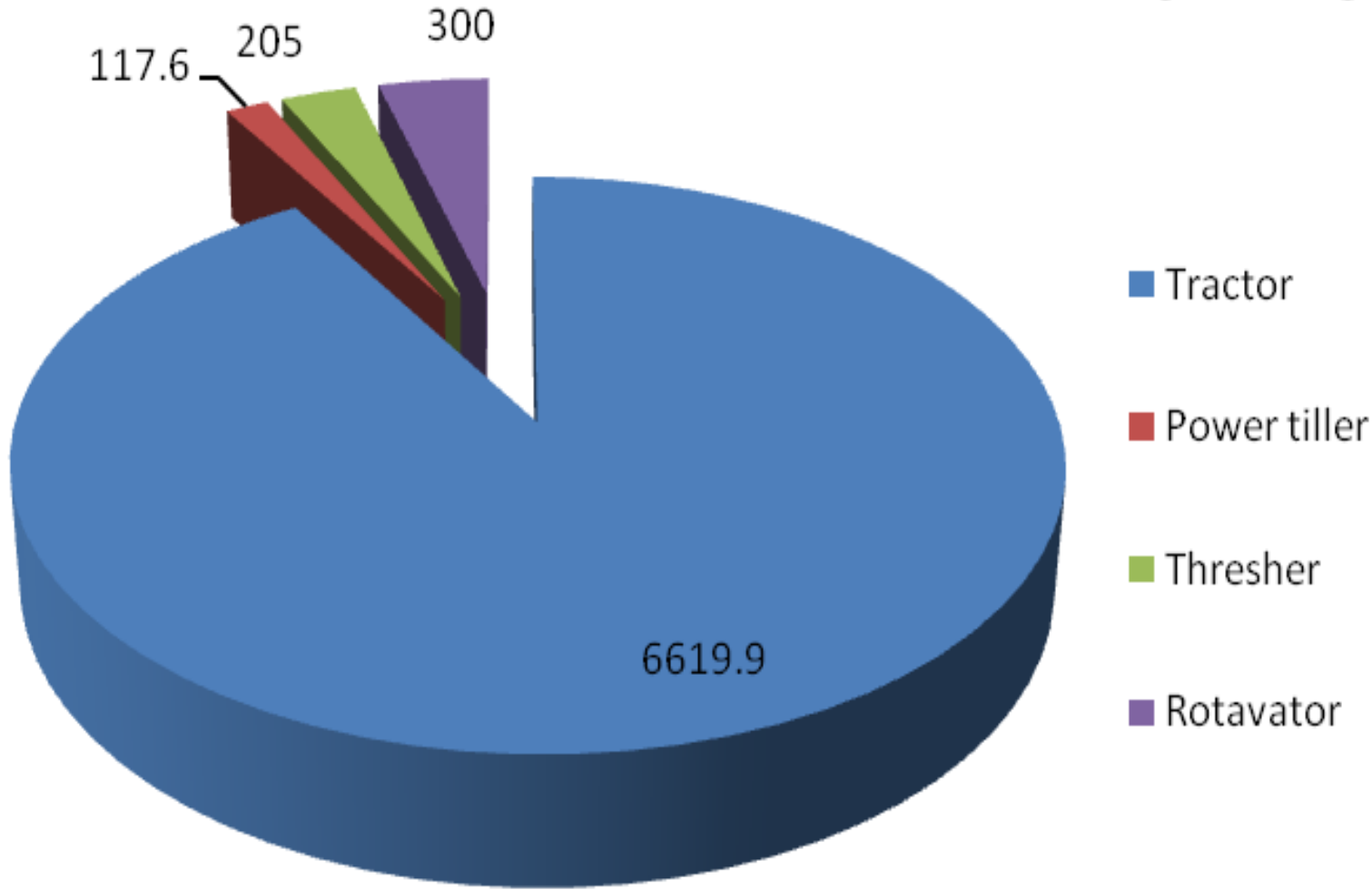
Population of agricultural machinery in India

Name of equipment	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
SP/TO reaper	5926	8776	11976	15536	19386	23400	27500
Reaper binder	2145	2805	3855	4855	6235	7575	9650
Rotavator	46000	71000	111000	161000	221000	291000	365000

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2014-15



Market share of different farm equipment (US\$ million)

Annual market of major farm machinery used in India

Item	Numbers	Item	Numbers
Tractors	500000	Power tillers	55000
MB plow	50000	Rotary tiller	100000
Cultivators	150000	Harrows	120000
Seed-ferti drills	60000	Planters	15000
Rice transplanters	3000	Power weeders	35000
Reapers	10000	Threshers	60000
Combine harvesters	3500	Trailers	150000
Sprayers (TD)	10000	Laser land levellers	2500
Potato diggers	25000	Rotary hoes	20000

INDIA – Agriculture Machinery Sector

- ▶ Indian Farm Equipment Market is expected to grow at a CAGR of 5%
- ▶ Indian Agriculture Farm Equipment Market is now widely exposed to International Trade
- ▶ Favourable Factors needed:
 - ▶ Monsoon
 - ▶ Government Declared Support Prices for Crops
 - ▶ Supportive Credit Policy of Banks

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What is most needed of the enterprise?

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- **Need small land holding solutions rather large land holding solutions**
- **Need awareness programme for agricultural machinery**
- **Require easy financing rather subsidy**
- **Require quality support rather testing of agricultural machinery**
- **Require custom services rather custom hiring**

Need

Multi-crop capability machines

Multi-purpose machines

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Requires Business and enterprise friendly policies, laws, and regulations as well as physical and institutional infrastructures which encourage commercial activities and entrepreneurship in farming, input supply, produce handling, processing and marketing as well as in manufacturing.

Issues Need Support

- **Capacity Building through regular training**
- **Knowledge sharing through seminars/workshops/exhibitions and visits to industries, institutions, exhibitions within the country and abroad**
- **R & D support for need based solutions for crops and operations**
- **Extension, Technology transfer, Technical Support Services require for popularization and demonstrations of newly developed farm equipment**

Recommendations related stakeholders including public sector, academic and research, as well as the private sector

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- **Reduce or eliminate subsidies and use these funds to reduce interest rates on loans (to may be 4-5%)**
- **Invest in infrastructure, mainly, roads, electricity supply, irrigation systems and markets with storage (grain storage and cold storage) and processing facilities in catchment areas.**
- **Number of custom hiring centres and services, especially in areas of small and marginal land holdings should be increased substantially.**

- **More research and development efforts should be diverted towards development of machines for small farms and mechanization of horticulture, hill agriculture and other allied sectors.**
- **Skill development programmes may be strengthened in the rural areas for operation, repair and maintenance of farm machines.**

- **Create Export Promotion – A special duty drawback package for export of all agricultural machinery.**
- **Technology Up gradation Fund (TUF) – Provision for TUF for existing industries at an subsidized interest rate will be a great helping hand for those who wishes to upgrade their facilities to cater the growing demand and to explore the export market**
- **Establish Agriculture machinery export promotion council**
- **AMMA-India has its own Export Promotion Task Force (EPTF) and helps members in this Endeavor with support from Govt.**

Future Requirements of Farm Equipment

Equipment for Seed Bed Preparation Sowing, Planting, transplanting

- Rotary Tillage
- Power harrow
- Rotary plow
- Para plow

- Pneumatic Precision Planter
- Vegetable Transplanter
- Rice Transplanter

Irrigation Equipment

- Sprinkler Irrigation System
- Drip Irrigation System

Plant Protection Equipment

- Power Weeder
- Plastic Mulching
- Electro Static Spraying
- Orchard Sprayer

Harvesting & Threshing

- High Capacity Multicrop Thresher
- Strip Harvester cum Reaper Windrower
- Mechanical Cotton Picker
- Sugarcane harvester



CSAM



中国农业机械流通协会
China Agricultural Machinery Distribution Association



THANK YOU

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