

# Welcome



# Present Status, Prospects and Challenges of Farm Mechanization in Bangladesh

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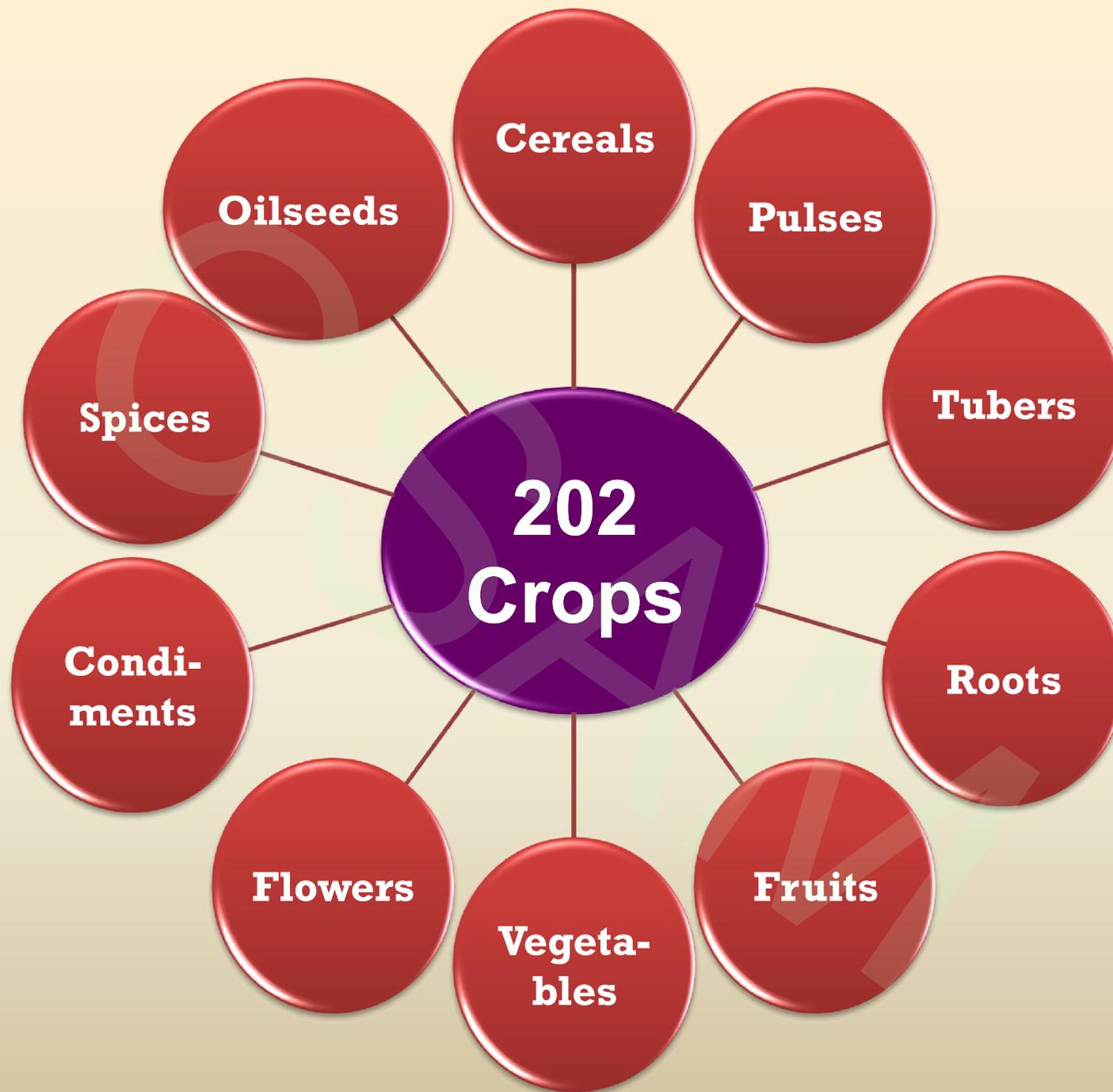
**Gazipur, Bangladesh**



# Bangladesh Agricultural Research Institute (BARI)



- **The Largest Multi-crop Research Institute**
- **Conducting Research on 202 Crops Developed more than 400 varieties & 450 technology**
- **More than 800 scientists of different disciplines work at BARI**



# Saline Area (1.0 m ha)

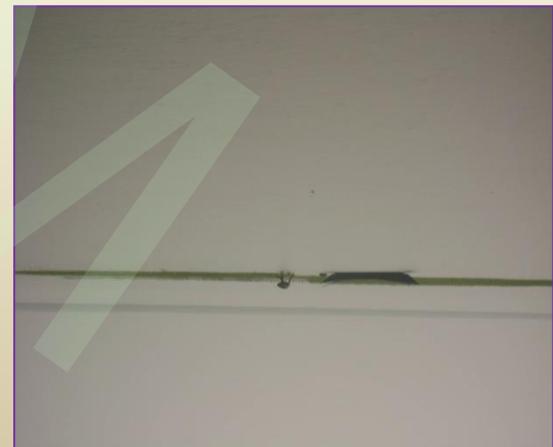
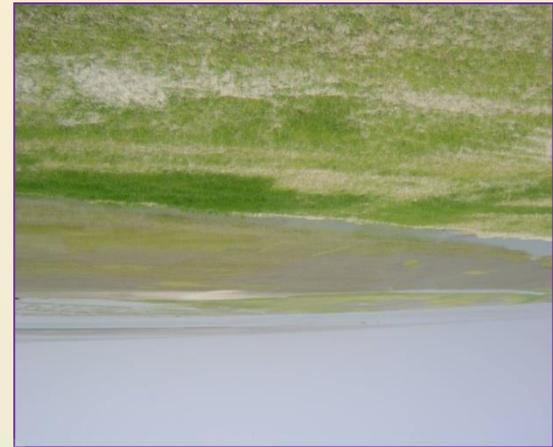


# Drought Prone Area (3.5 m Ha)



# Char land in Bangladesh

(0.83 m ha)



# Hilly Areas (1.28 m ha)



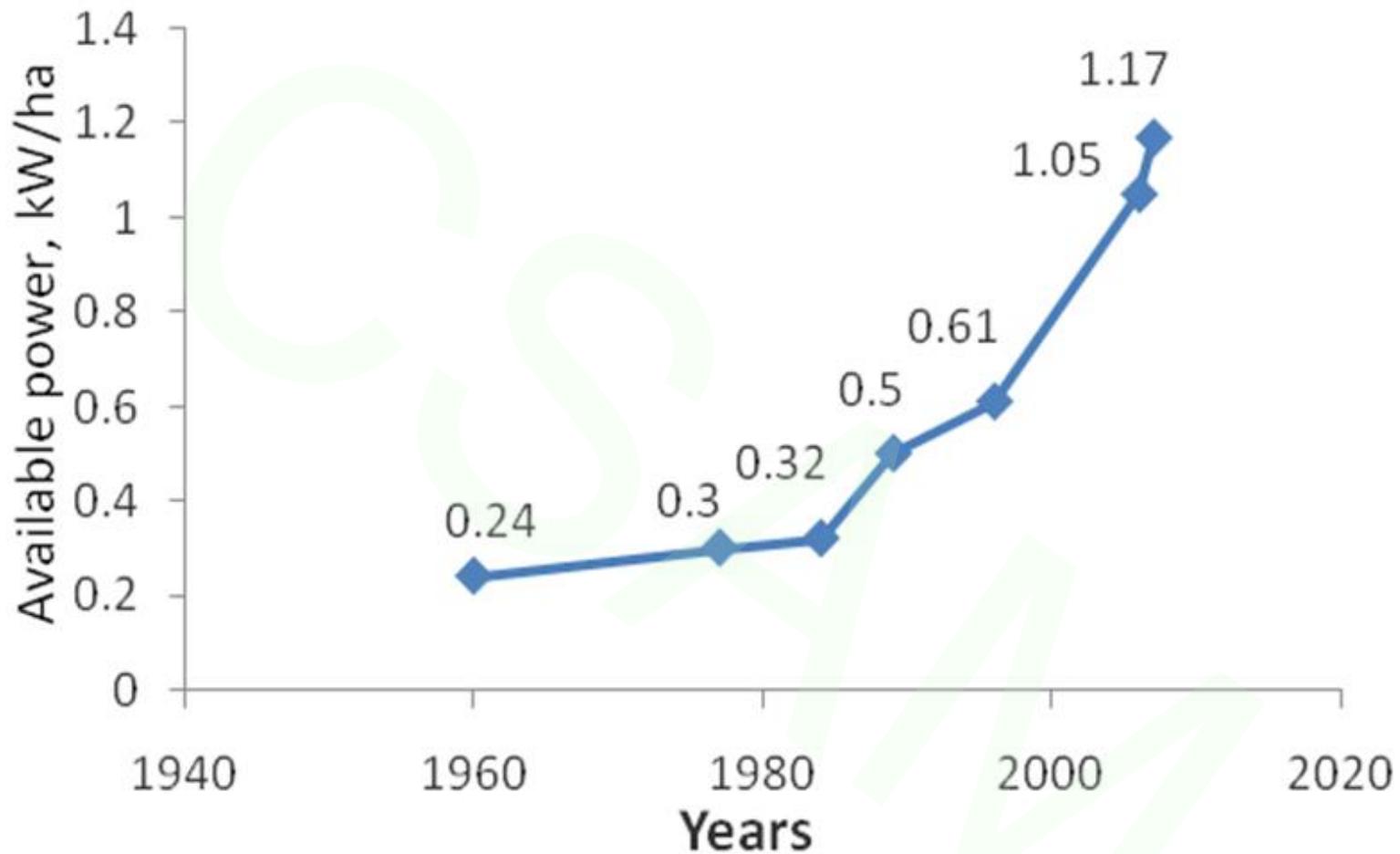
## Haor Area (1.97 m ha)



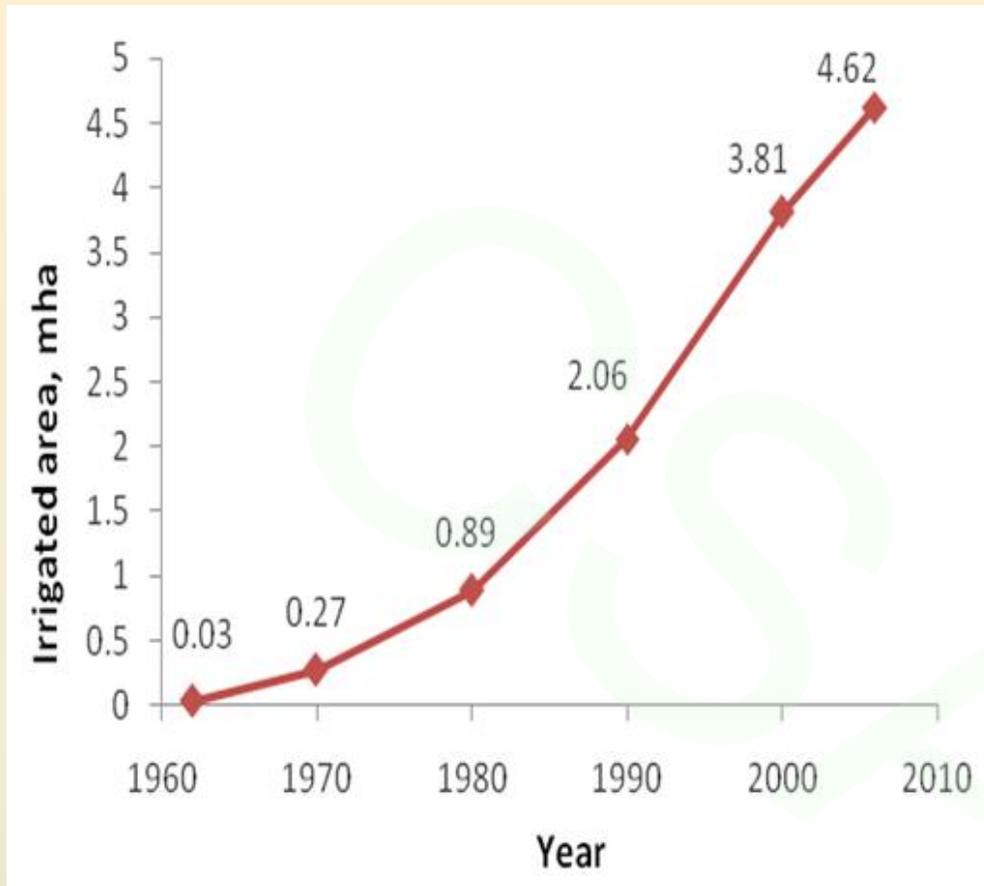
# Waterlogging & Flood prone area

(3.5 m ha)





## Available Power in Agriculture over Times



## Irrigated Area in Different Years

## Population of Different Farm Machinery Over Years

Name of Machine, Units	1977	1996	2012
Two Wheel Tractor (Power tiller)	2000	100,000	Above 7,00,000
Tractor	300	2000	> 35,000
High speed rotary tiller	-	-	>5000
Weeder	-	-	> 2,00,000
Seed-cum-fertilizer distributor	-	-	About10 00
Sprayer	-	-	14,50,000
Combine harvester	-	-	1 60
Reaper	-	-	200
Open drum thresher	-	10,000	1,80,000
Closed drum thresher	-	5,000	40,000
Winnower	-	-	1200
Dryer	-	-	500
Hand maize sheller	-	-	12,000
Power maize sheller	-	100	2,000
Deep Tube well	4,461	24,506	30,000
Shallow Tube well	3,045	325,360	1200000
Low lift Pump	28,361	41,816	1,20,000

## Status of Manufacturing Units of Agricultural Machinery

<b>Manufacturing Units</b>	<b>Number</b>
<b>Foundries</b>	<b>50</b>
<b>Agri-Machinery Manufacturing Workshops</b>	<b>550</b>
<b>Spare Parts Manufacturing Workshops</b>	<b>250</b>
<b>Repair and Maintenance Workshops</b>	<b>10,000</b>
<b>Village Artisans</b>	<b>1,00,000</b>

# Agricultural Mechanization Policy in Bangladesh

- “ The types of agricultural machines or the level of mechanization needed in any region depends on the socio-economic condition of the people, number and quality of the animals and availability of agricultural labour in that region. Measures will be taken to collect and publicize these information through mass media in order to attract private investment in this sector.
- “ In order to gradually reduced dependence of draft power, efforts will be made to grow farmers’ interest on mechanization as well as to provide credit facilities. To achieve this goal, information relating to increasing potential demand for and profitable investment in agricultural machinery will be publicized through the mass media so that the private sector can play an active role in creating a competitive market.

# Mechanization policy in Bangladesh

- “ Despite increasing use of mechanical power in agriculture, the use of animal power will continue in future depending on the socio-economic conditions of the farmers in different regions. Improved power delivery system will be evolved through research so that the scare draft power can be utilized more efficiently.
- “ Production and import of agricultural machinery will be specially encouraged so that the farmers can procure machines from the market according to their choice and convenience. Machinery workshops and industries engaged in agricultural mechanization activities will be provided with appropriate taxes/duties facilities for the import of necessary raw materials. This is expected to keep the machine prices within the purchasing capacity of the farmers.

To speed up the process of agricultural mechanization both producers and users of machines will be provided with necessary credit supports.

- “ Use of machines, which are usually expensive, is not often affordable by the individual farmers. In order to popularise mechanization in addition to the use of draft power, farmers will be motivated in purchasing or taking lease of agricultural machines through the cooperatives. Formation of such self-motivated cooperatives will be encouraged and necessary supports will be extended to mechanized cultivation based on cooperatives.





**BARI Bed Planter**



**BARI High Speed Rotary Tiller**



**BARI Inclined Plate Planter**



**BARI Reaper**



**BARI Urea Super Granule (USG) Applicator**



**BARI Maize Sheller**



**BARI Hybrid Dryer**



**BARI Winnower**



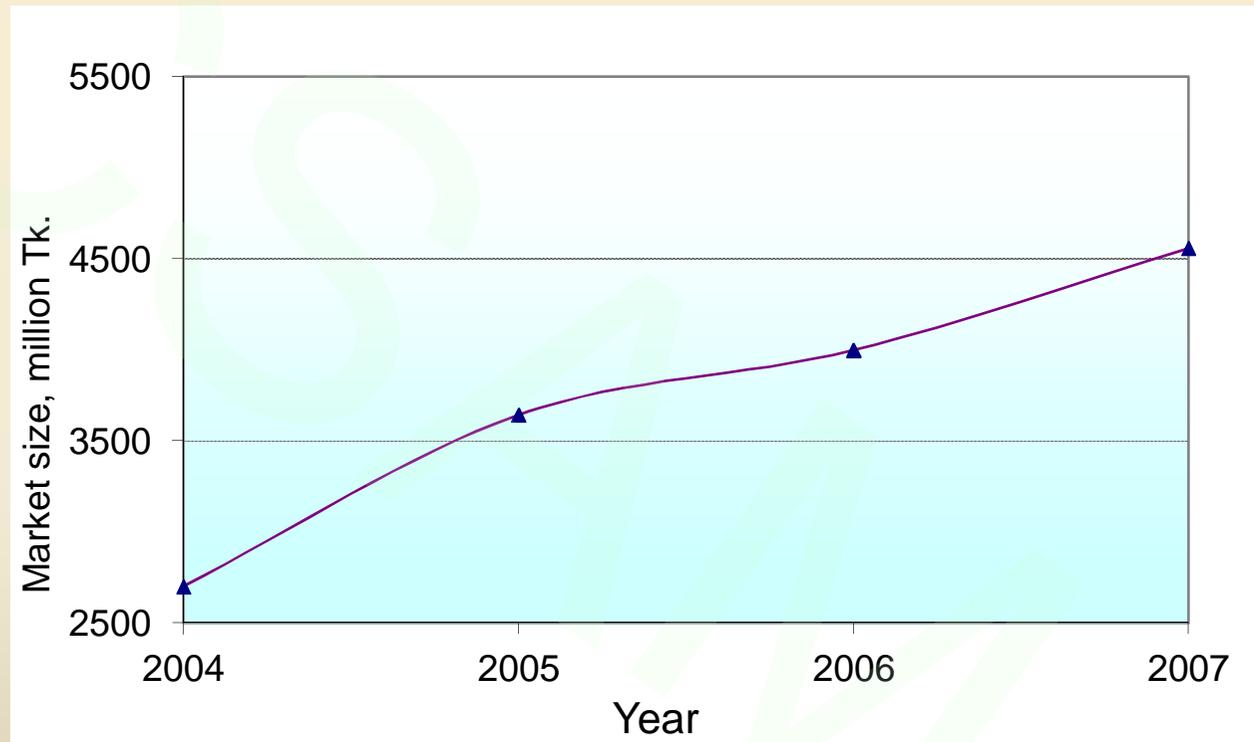
**BARI Closed Drum Thresher**



**BARI Dry Land Weeder**



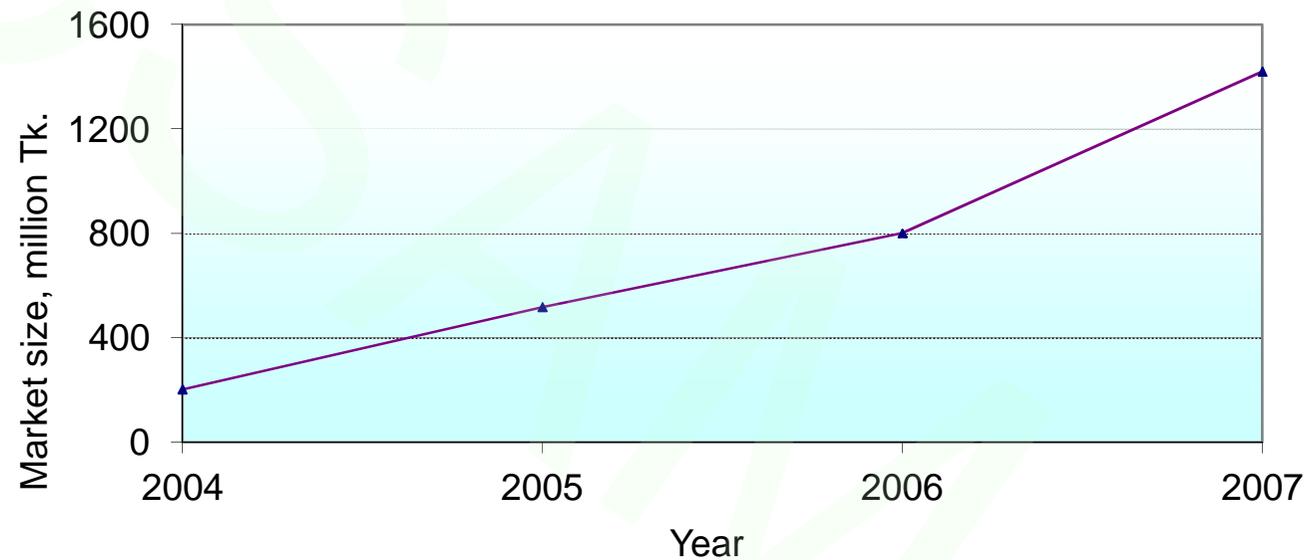
## Trend of Two Wheel Tractor (Power Tiller) Market



**Population of Two Wheel Tractor: 4,00,000 units**  
**Annual Import: 62,000 units**



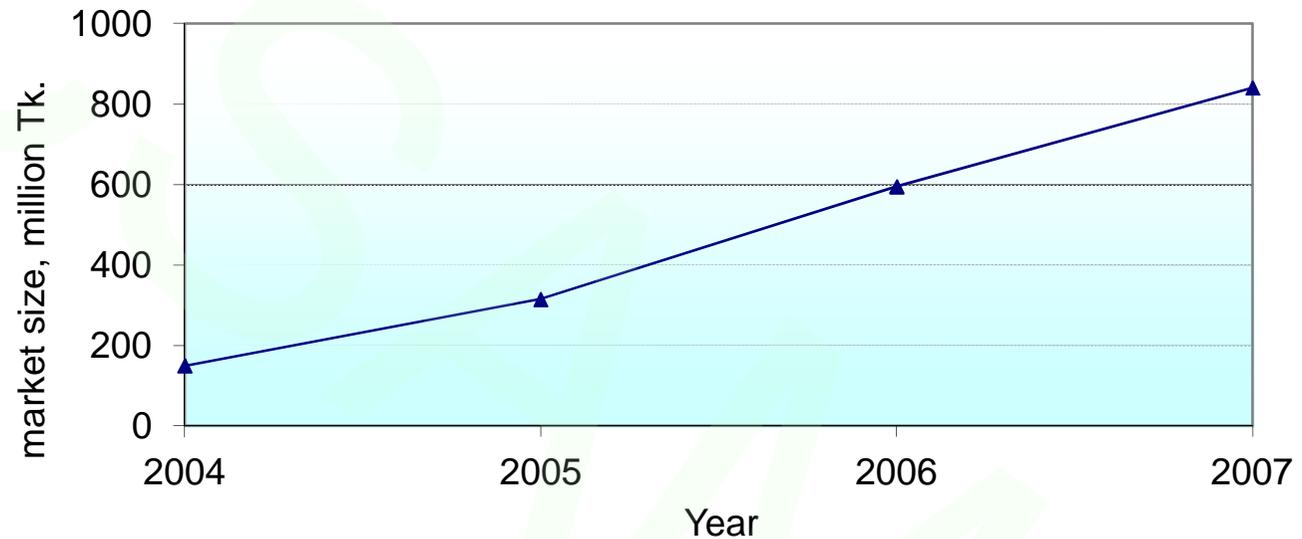
## Trend of Tractor Market



**Present population of Tractor: 12,500 units**  
**Annual import: 3,000 units**



## Trend of Centrifugal Pump Market



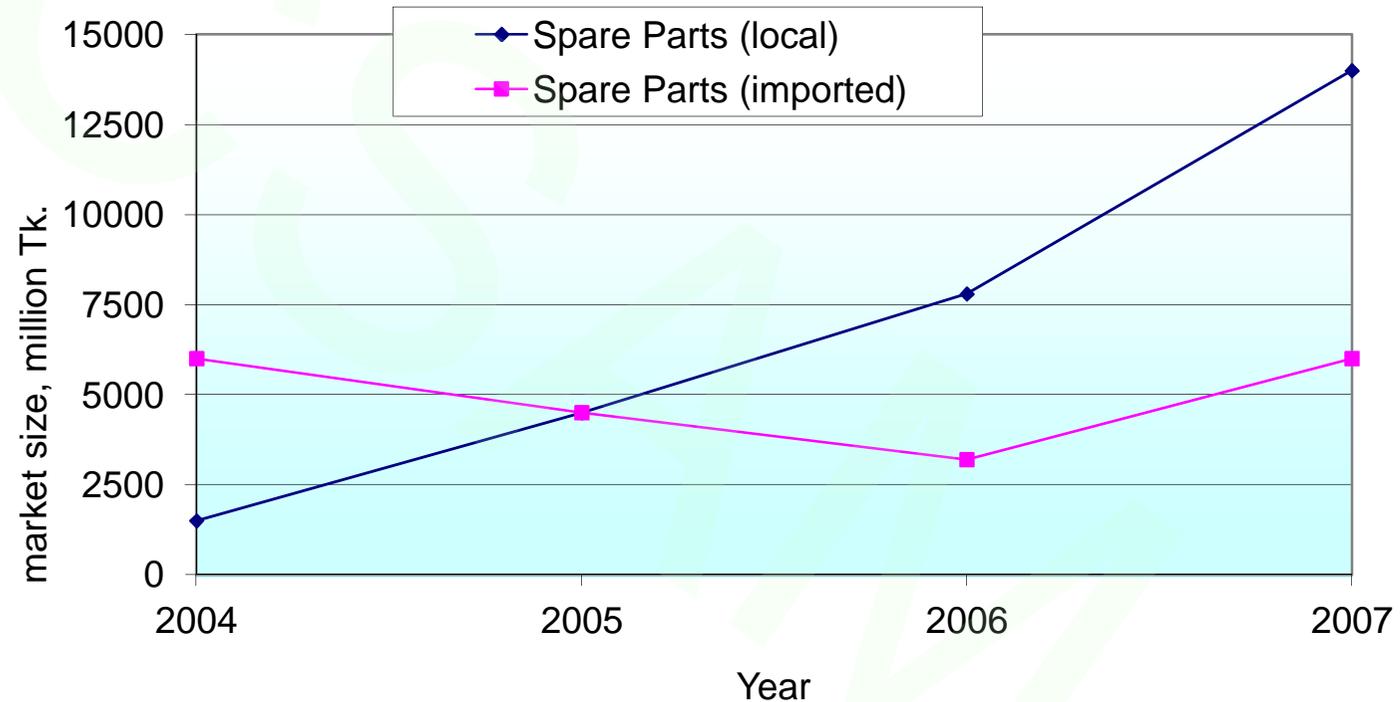
**Present population of STW: 11,82,525 units**

**Present population of LLP: 1,19,135 units**

**Annual production of Centrifugal pump: 4,20,000 units**



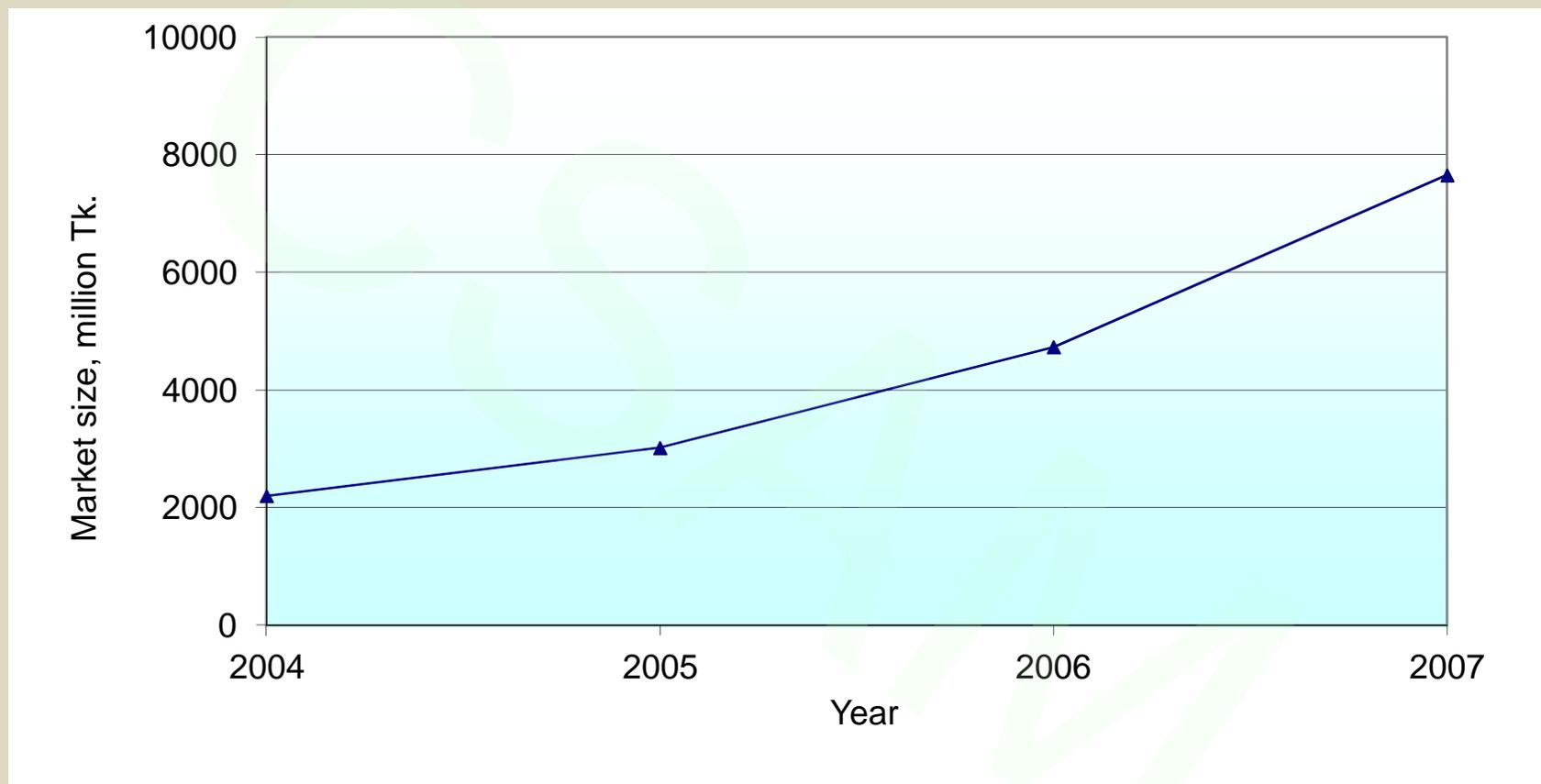
## Trend of Agro Tools Spare Parts Market



**Market size in 2004-05: Tk 7,500 million ( \$ 92 million)**

**Market size in 2007-08: Tk 20,000 million ( \$ 244 million)**

## Trend of Engine (STW, Thresher, Corn Sheller etc.) Market



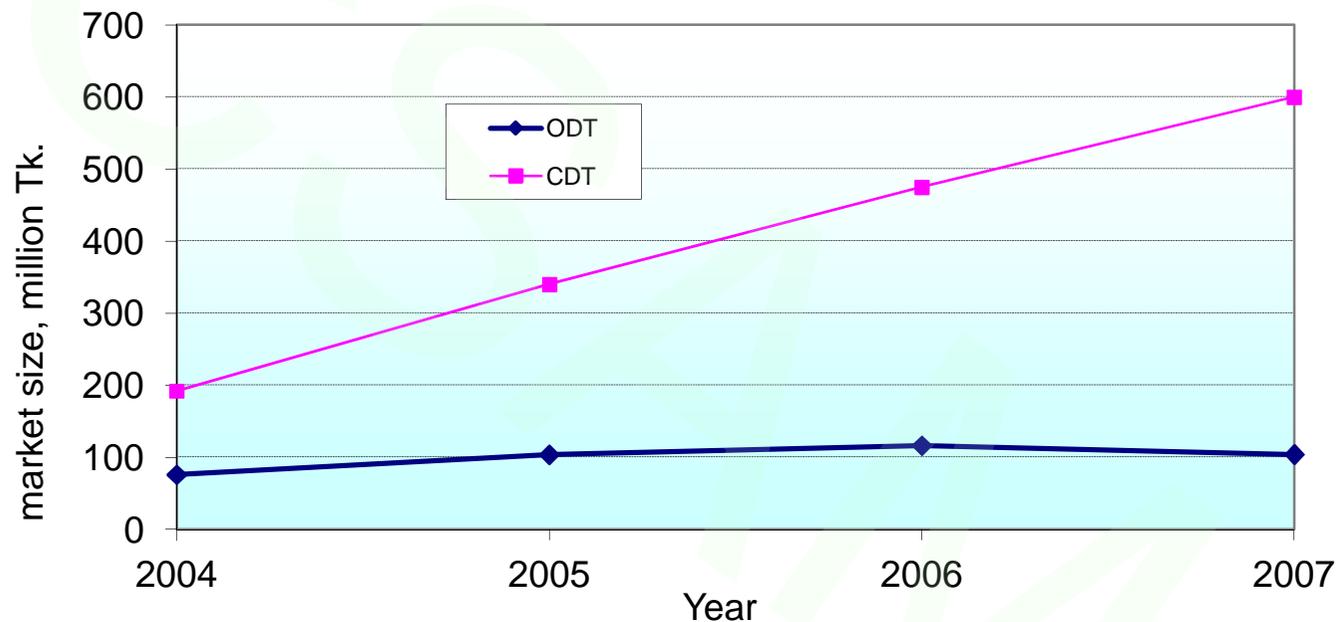
**Market size in 2007-08: Tk 6,800 million ( \$ 83 million)**

## Market Size of Hand and Foot Sprayers

<b>Manufacturing Units</b>	<b>Units</b>	<b>Market Size</b>
<b>Annual production of Hand and Foot sprayers</b>	<b>1,44,600</b>	<b>-</b>
<b>Annual market size of Hand and Foot sprayers</b>	<b>-</b>	<b>Taka 65.86 million ( \$ 0.803 million)</b>
<b>Annual market size of imported Knapsack sprayer</b>	<b>-</b>	<b>Taka 24.96 million ( \$ 0.304 million)</b>



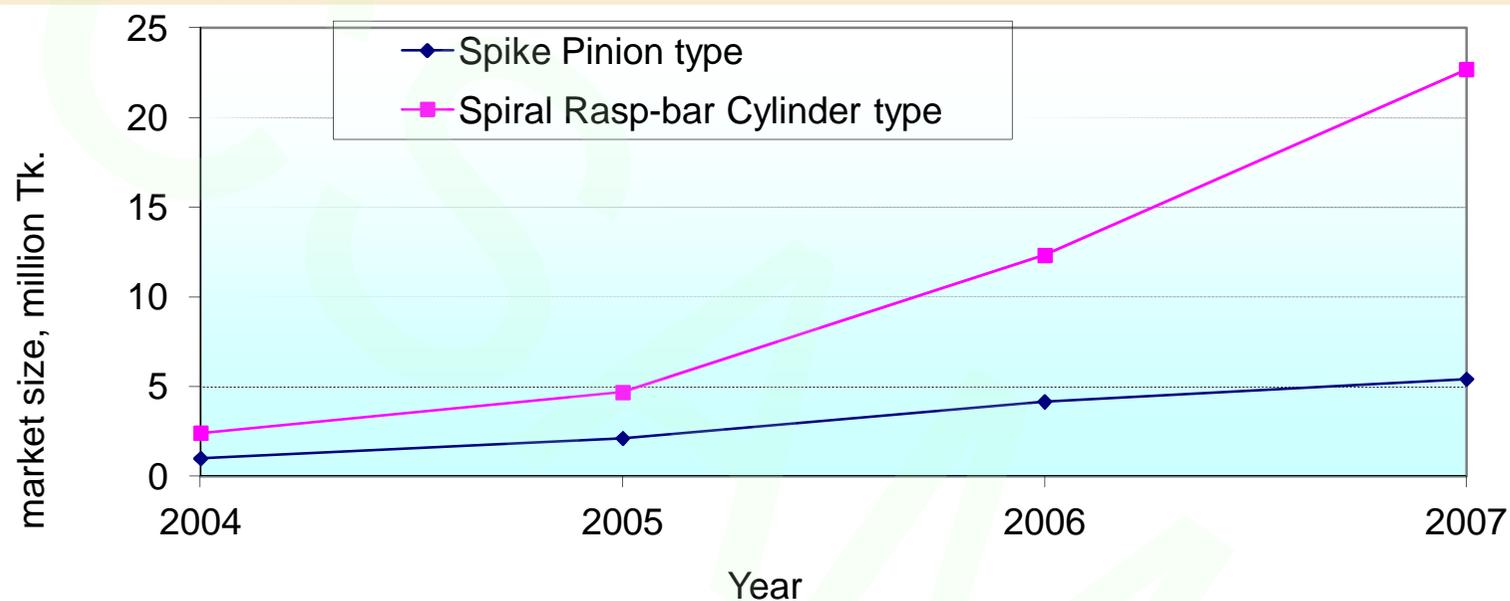
## Trend of Open and Closed Drum Thresher Market



**Population of Open & Close Drum Thresher: 1,50,000 & 35,000 units**  
**Annual production of Open & Close Drum Thresher: 20,000 & 20,000 units**



## Trend of Corn Sheller Market



Type of Corn Sheller	Year wise production worth, million Tk			
	2004	2005	2006	2007
Spike Pinion type	1	2.12	4.16	5.42
Spiral Rasp-bar Cylinder type	2.4	4.69	12.32	22.68

