



# AGRICULTURE

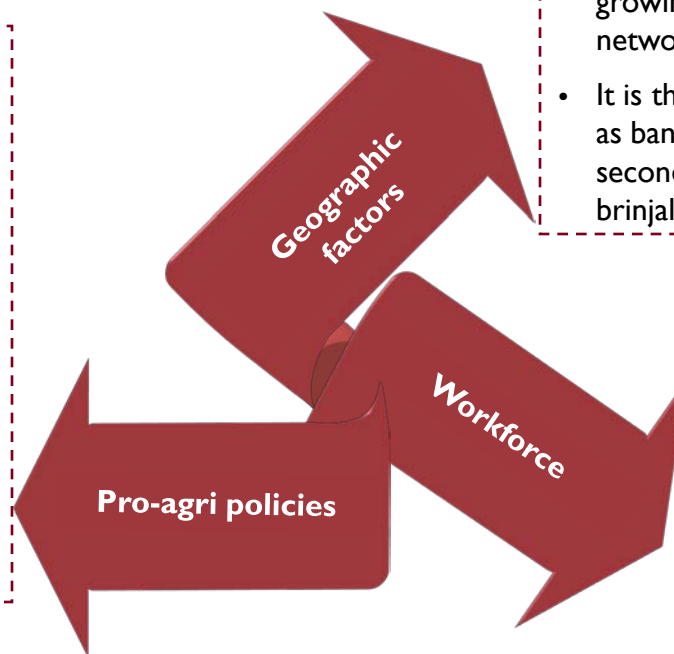
April 2010

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## Advantage India

- India's agricultural policy focusses on food self-sufficiency, remunerative prices for farmers and maintenance of stable prices for consumers. The government is trying to achieve these goals by measures such as minimum support prices, food subsidies for consumers, regulated markets and input subsidies for producers.
- The public sector outlay in the sector, according to the Eleventh Five Year Plan (2007–2012), is US\$ 29.6 billion (INR 1,363.8 billion).



- India has favourable geographic features including diverse climates and soils suitable for growing a range of crops, availability of a large network of rivers and biodiversity.
- It is the largest producer of several fruits such as bananas, mangoes and papaya, and the second-largest producer of vegetables such as brinjal, cabbage and onion.

- The share of agriculture and allied activities in India's GDP is 15.7 per cent (2008–09).
- The agriculture sector is the source of livelihood for more than 52 per cent of the Indian population.

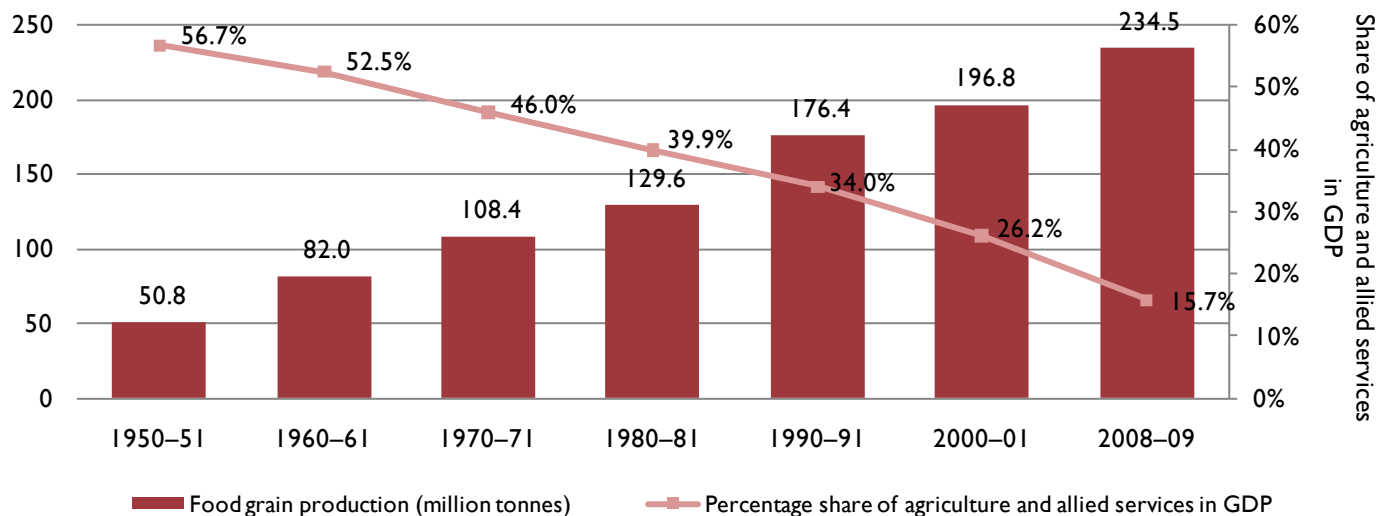
Sources: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; "Agriculture and Food Management," Economic Survey 2009-10, Government of India: Union Budget and Economic Survey, <http://indiabudget.nic.in/es2009-10/esmain.htm> accessed 08 March 2010

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## Market overview ... (I/II)

Growth of food grain production in India



- The increase in food grain production from 50.8 million tonnes in 1950–51 to 234.5 million tonnes in 2008–09, can be largely attributed to the Green Revolution, which took place in the 1960s. Agri input, including fertilisers, high yielding varieties (HYVs) of crops, pesticides, surface irrigation and mechanised farming, has been primarily responsible for the growth in agricultural productivity.

Sources: “Handbook of Statistics on the Indian Economy 2008-09,” Reserve Bank of India website, <http://www.rbi.org.in/home.aspx> accessed 18 January 2010; “Second Advance Estimates of Production of Foodgrains for 2009–10,” [http://dacnet.nic.in/eands/Advance\\_Estimate/2ndAdvance\\_Estimates\\_2009-10\(English\).pdf](http://dacnet.nic.in/eands/Advance_Estimate/2ndAdvance_Estimates_2009-10(English).pdf) accessed 08 March 2010; Dr R Albert Christopher Dhas, “Agricultural Crisis in India: The Root Cause and Consequences,” The American College, Madurai; Economic Survey 2009–2010

## Market overview ... (2/11)

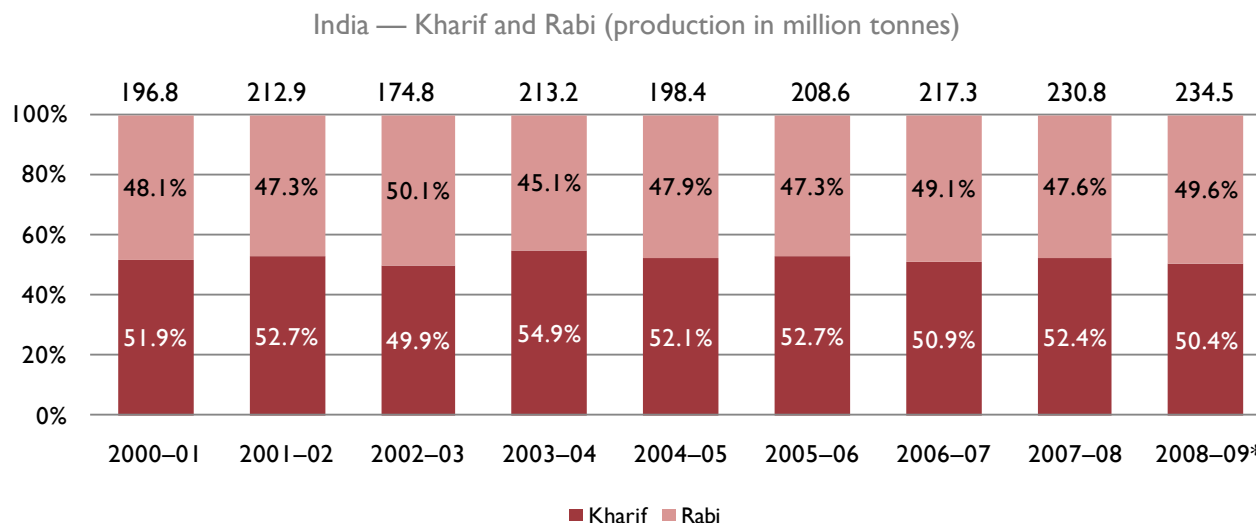
- The shift from agriculture to a services and industry-driven economy has resulted in a decline in the share of agriculture and allied services in India's GDP from more than 50 per cent in 1950–51 to 15.7 per cent in 2008–09.

Sources: "Handbook of Statistics on the Indian Economy 2008-09," Reserve Bank of India website, <http://www.rbi.org.in/home.aspx> accessed 18 January 2010; "Second Advance Estimates of Production of Foodgrains for 2009–10," [http://dacnet.nic.in/eands/Advance\\_Estimate/2ndAdvance\\_Estimates\\_2009-10\(English\).pdf](http://dacnet.nic.in/eands/Advance_Estimate/2ndAdvance_Estimates_2009-10(English).pdf) accessed 08 March 2010; Dr R Albert Christopher Dhas, "Agricultural Crisis in India: The Root Cause and Consequences," The American College, Madurai; Economic Survey 2009–2010

## Market overview ... (3/11)

### Kharif and Rabi seasons

India has two crop seasons, *Kharif* and *Rabi*, based on the dependence of crop productivity on the monsoons. The Kharif season is during the summer months and monsoons, lasting from April to September, and the main crop grown during this season is rice. The Rabi season is during the winter months of October to March, and the main crop grown is wheat.



Sources: "First Advance Estimates of Production of Food grains for 2009-10," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; "Second Advance Estimates of Production of Foodgrains for 2009-2010," [http://dacnet.nic.in/eands/Advance\\_Estimate/2ndAdvance\\_Estimates\\_2009-10\(English\).pdf](http://dacnet.nic.in/eands/Advance_Estimate/2ndAdvance_Estimates_2009-10(English).pdf) accessed 08 March 2010

\*Final estimate

## Market overview ... (4/11)

- According to the final estimates of the Agricultural Statistics Division, Government of India, production of food grains in 2008–09 was estimated to be 234.47 million tonnes, with the Kharif crops accounting for 118.14 million tonnes and the Rabi crops for 116.33 million tonnes. According to the second advanced estimates of the Agricultural Statistics division, production of food grains in 2009–2010 is estimated to be 216.85 million tonnes.

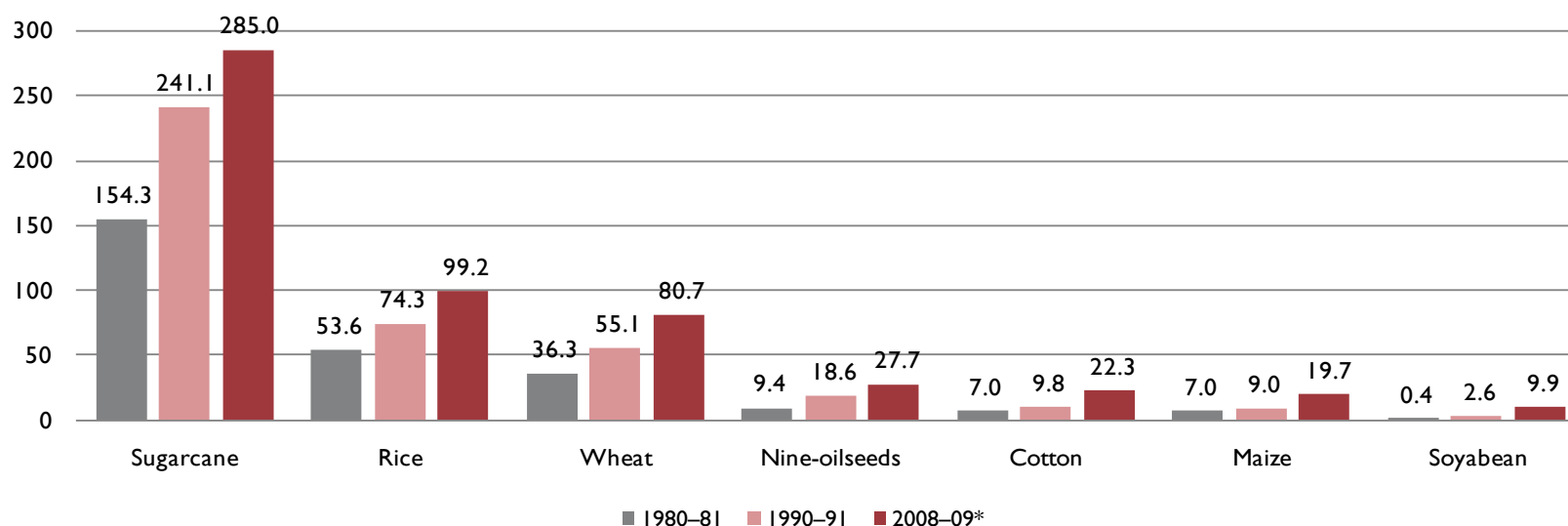
*Sources:* “First Advance Estimates of Production of Food grains for 2009–10,” Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; “Second Advance Estimates of Production of Foodgrains for 2009–2010,” [http://dacnet.nic.in/eands/Advance\\_Estimate/2ndAdvance\\_Estimates\\_2009-10\(English\).pdf](http://dacnet.nic.in/eands/Advance_Estimate/2ndAdvance_Estimates_2009-10(English).pdf) accessed 08 March 2010

\*Final estimate

## Market overview ... (5/11)

### Key crop varieties in India

Production (million tonnes)



- Over the 50-year period, i.e., from 1950-51 to 2008-09, India's production of rice and wheat has grown at a CAGR of approximately 2.7 per cent and 4.4 per cent, respectively. The country's production of maize and cotton has grown at a CAGR of 4.3 per cent and 3.5 per cent, respectively, over the same period.

Sources: "Area, Production and Yield of Principal Crops," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; "Second Advance Estimates of Production of Foodgrains for 2009-10," [http://dacnet.nic.in/eands/Advance\\_Estimate/2ndAdvance\\_Estimates\\_2009-10\(English\).pdf](http://dacnet.nic.in/eands/Advance_Estimate/2ndAdvance_Estimates_2009-10(English).pdf) accessed 08 March 2010; "Handbook of Statistics on the Indian Economy 2008-09," Reserve Bank of India website, [www.rbi.org.in](http://www.rbi.org.in)

\*Final Estimates FY09 as released on 12 February 2010; Note: For cotton production is in million bales of 170 kg each

## Market overview ... (6/11)

### Key crop varieties in India

- The yield of crops has witnessed significant growth since the Green Revolution. From 1950–51 to 2008–09, the country's yield of rice and wheat has grown by 3.3 and 4.4 times, to reach 2,186 kg/ha and 2,891 kg/ha, respectively. The yield of sugarcane has doubled since 1950–51 to reach about 62,000 kg/ha in 2008–09.

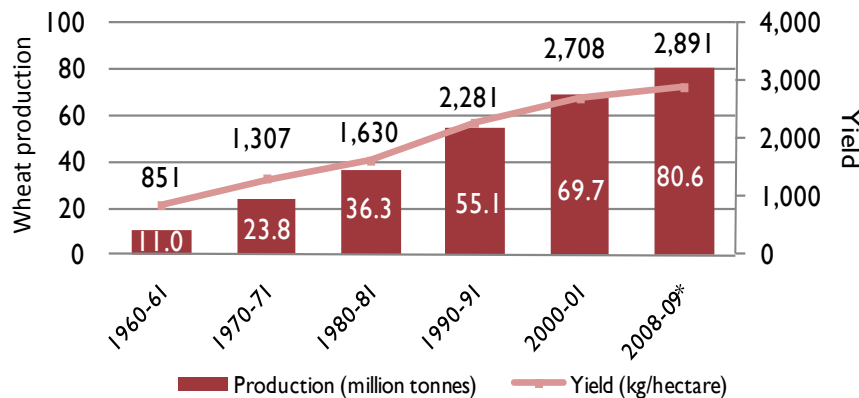
Sources: "Area, Production and Yield of Principal Crops," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; "Second Advance Estimates of Production of Foodgrains for 2009-10," [http://dacnet.nic.in/eands/Advance\\_Estimate/2ndAdvance\\_Estimates\\_2009-10\(English\).pdf](http://dacnet.nic.in/eands/Advance_Estimate/2ndAdvance_Estimates_2009-10(English).pdf) accessed 08 March 2010; "Handbook of Statistics on the Indian Economy 2008-09," Reserve Bank of India website, [www.rbi.org.in](http://www.rbi.org.in)

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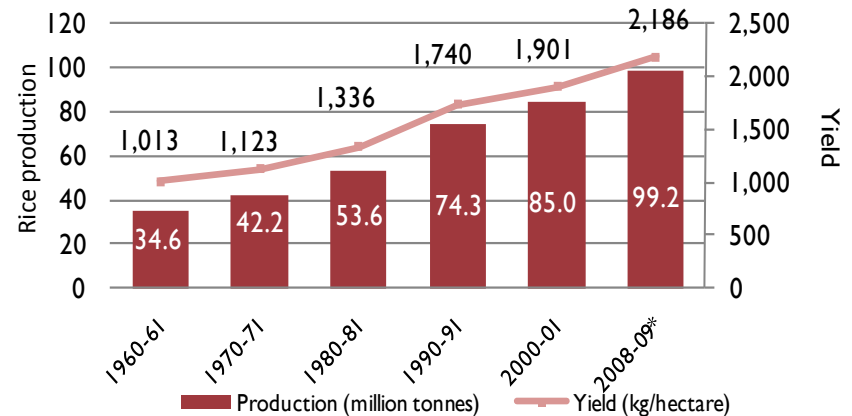
# Market overview ... (7/11)

## Key crop varieties in India

Wheat production and yield



Rice production and yield



- The principal crops in India are rice, wheat, jowar, bajra, maize, pulses, nine oilseeds, soya bean, sunflower, cotton, jute, mesta and sugarcane.

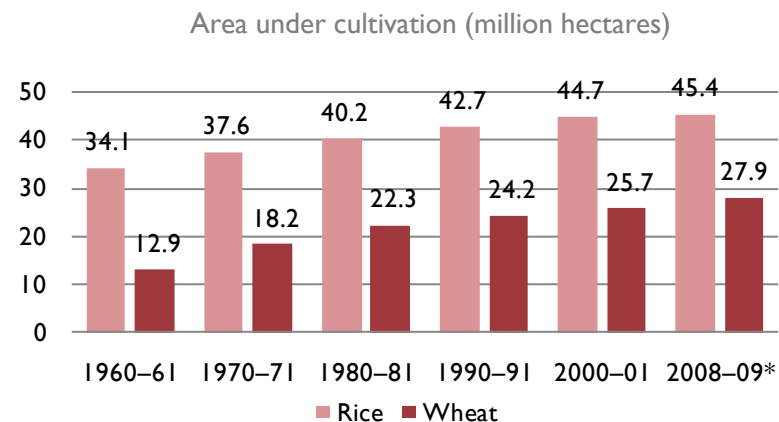
Sources: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; "Agriculture and Food Management," Economic Survey 2009-10, Government of India: Union Budget and Economic Survey, <http://indiabudget.nic.in/es2009-10/esmain.htm> accessed 08 March 2010

\* Fourth Advance estimates

## Market overview ... (8/11)

### Key crop varieties in India

- The growth in production has been primarily due to the introduction of high yielding varieties (HYVs) of crops.

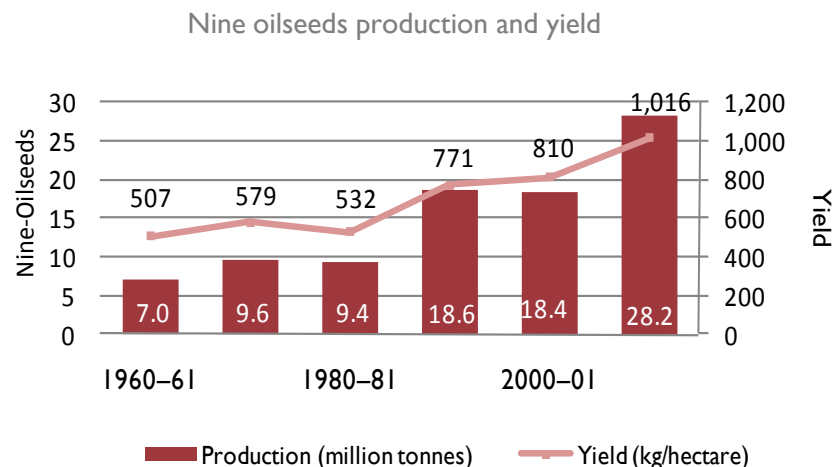
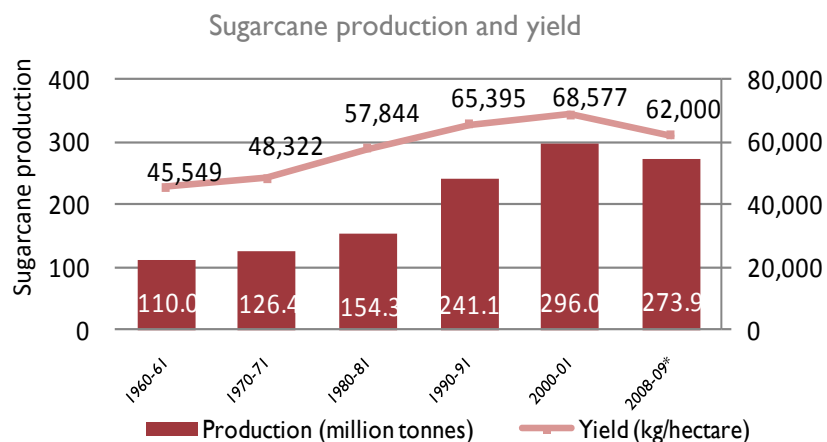


Sources: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; "Agriculture and Food Management," Economic Survey 2009-10, Government of India: Union Budget and Economic Survey, <http://indiabudget.nic.in/es2009-10/esmain.htm> accessed 08 March 2010

\* Fourth Advance estimates

# Market overview ... (9/11)

## Key crop varieties in India



Source: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; Agriculture and Food Management," Economic Survey 2009-10, Government of India: Union Budget and Economic Survey, <http://indiabudget.nic.in/es2009-10/esmain.htm> accessed 08 March 2010

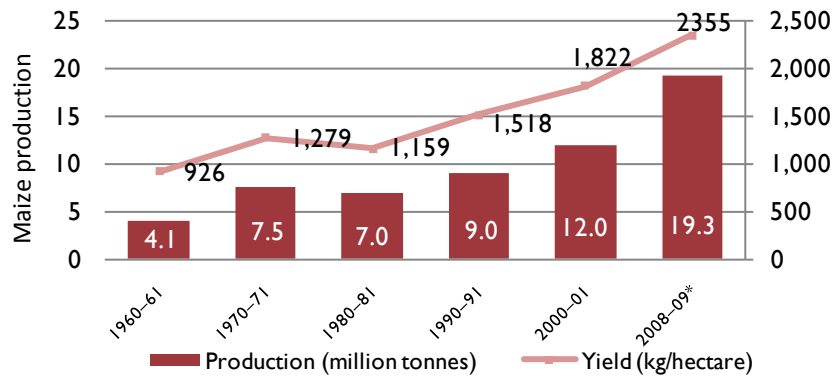
\* Fourth Advance estimates

Note: For cotton, production is in million bales of 170 kg each

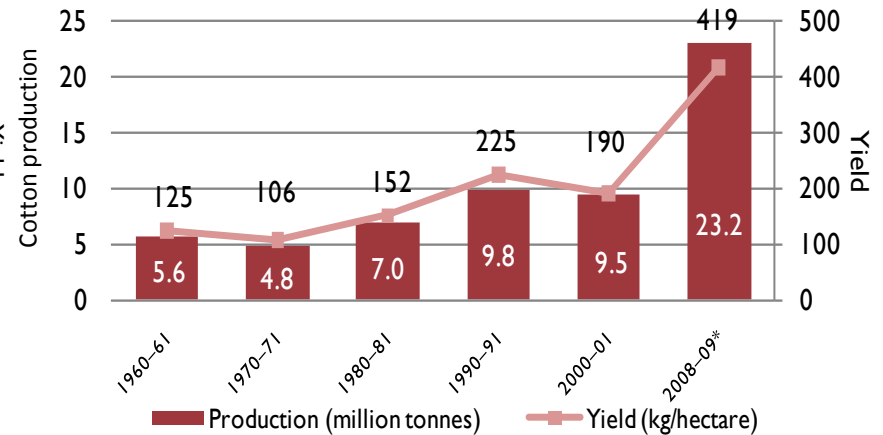
# Market overview ... (10/11)

## Key crop varieties in India

Maize production and yield



Cotton production and yield



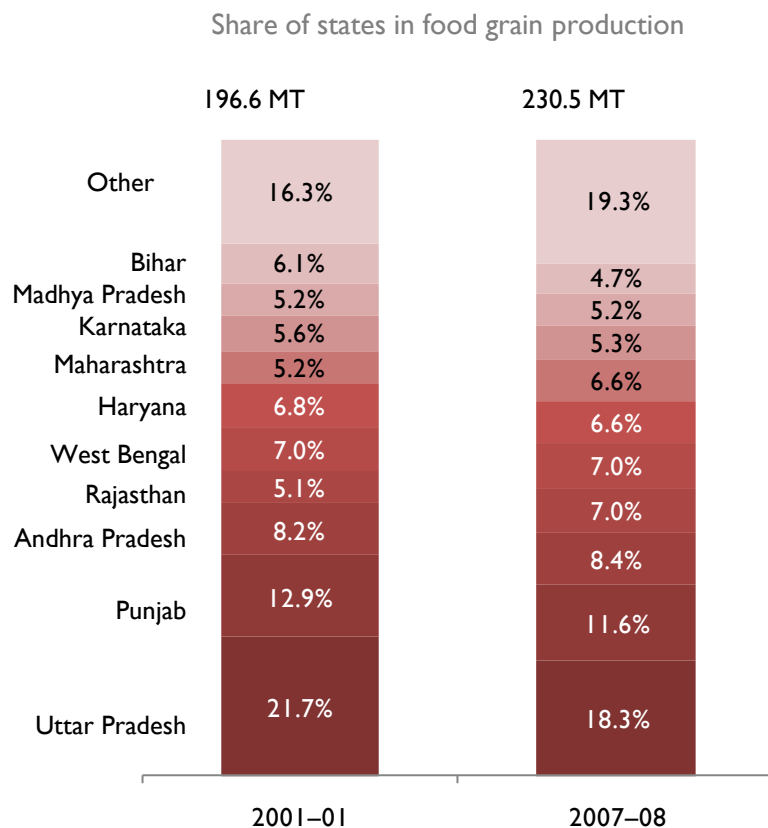
Source: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; Agriculture and Food Management, "Economic Survey 2009-10, Government of India: Union Budget and Economic Survey, <http://indiabudget.nic.in/es2009-10/esmain.htm> accessed 08 March 2010

\* Fourth Advance estimates

Note: For cotton, production is in million bales of 170 kg each

## Market overview ... (11/11)

### Leading food grain-producing states in India



- In India, 10 states account for approximately 80 per cent of the country's total food grain production.
- In 2007-08, West Bengal was the leading producer of rice in India, accounting for about 15.2 per cent of the total production, followed by Andhra Pradesh, Uttar Pradesh, Punjab and Orissa.
- In 2007-08, Uttar Pradesh was the leading producer of wheat, accounting for 32.7 per cent of the total wheat production, followed by Punjab, Haryana, Rajasthan, Madhya Pradesh and Bihar.
- In 2007-08, Uttar Pradesh was the leading producer of sugarcane in the country, accounting for 35.8 per cent of the total production, followed by Maharashtra, Tamil Nadu, Karnataka, Andhra Pradesh and Gujarat.

Source: "Handbook of Statistics on the Indian Economy 2008-09," Reserve Bank of India website, <http://www.rbi.org.in/home.aspx> accessed 18 January 2010

Note: Total production does not include production in Union Territories

## EXIM scenario ... (1/4)

- Over the period 1990–91 to 2007–08, the value of India’s agricultural imports and exports has grown at a CAGR of 20.8 per cent and 16.3 per cent, to reach US\$ 6.2 billion (INR 297.8 billion) and US\$ 16.2 billion (INR 777.7 billion), respectively.

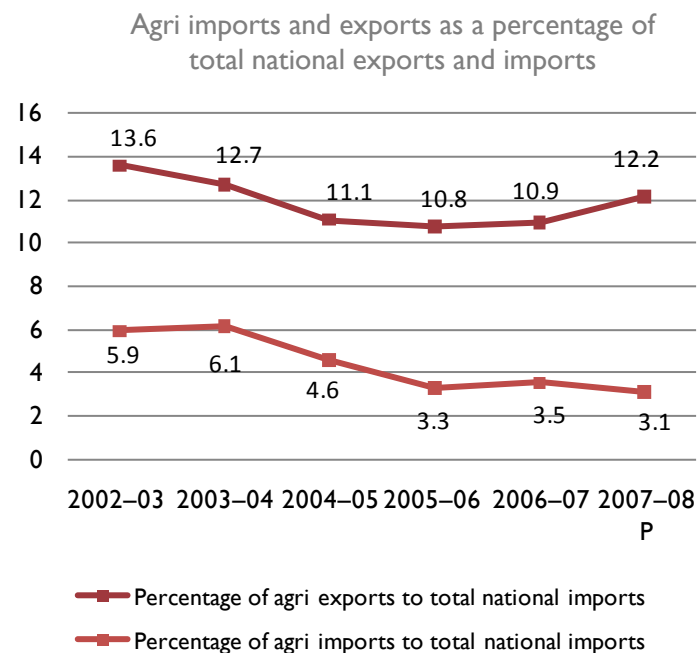
India’s agri imports and exports (US\$ billion)



Source: “Agricultural Statistics At a Glance 2008,” Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010  
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## EXIM scenario ... (2/4)

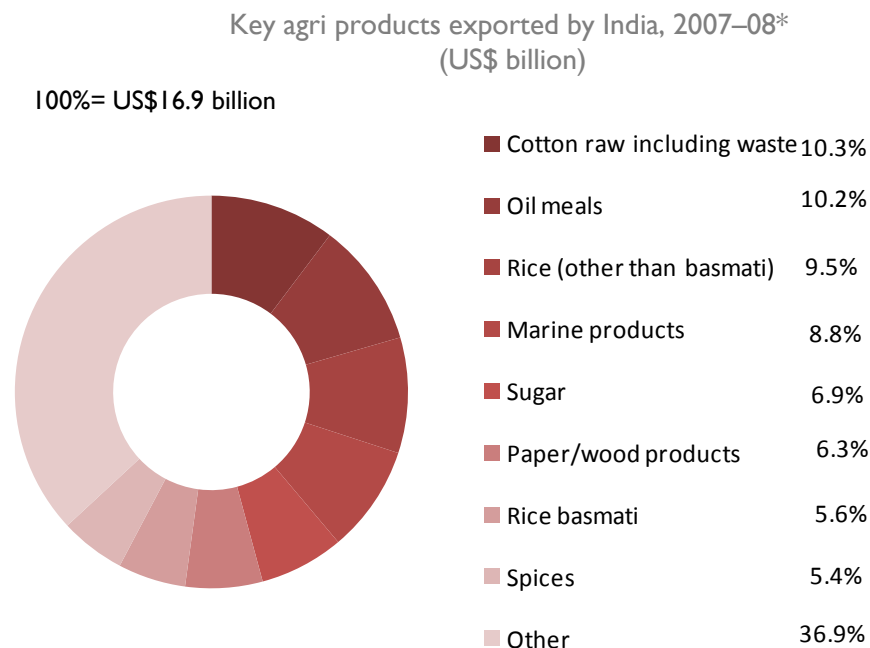
- India is a net exporter of agricultural products. However, it faces challenges related to trade-distorting subsidies, tariffs and trade barriers.



Source: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010  
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## EXIM scenario ... (3/4)

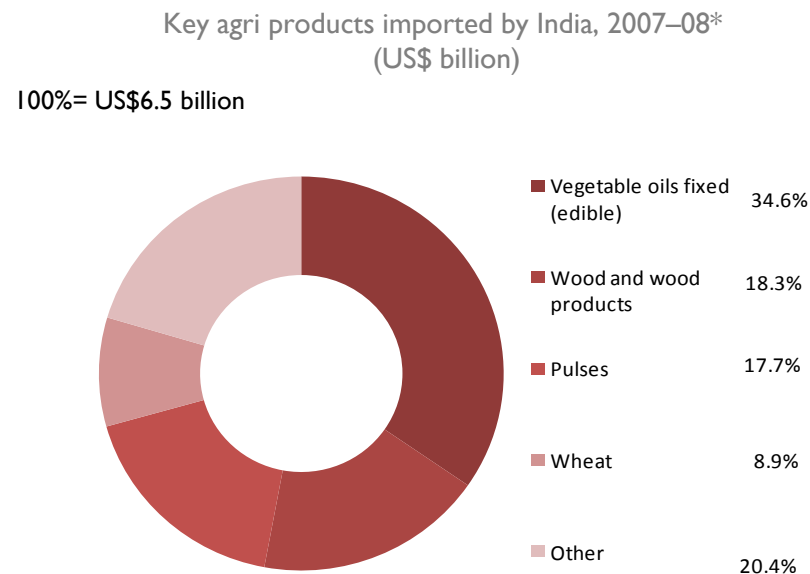
- In 2008–09, India’s export of cereals amounted to US\$ 3.29 billion, with Saudi Arabia, the UAE, and Malaysia being its leading export destinations. Rice (basmati and non-basmati) and other cereals were the leading cereals exported from the country.



Source: “Agricultural Statistics At a Glance 2008,” Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010

## EXIM scenario ... (4/4)

- Vegetable oil is a leading agricultural product imported by India from developing countries such as Malaysia and Indonesia.



Source: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010

## Growth drivers ... (1/2)

<p>Growth in population and wealth</p>	<p>With a population of more than a billion, India has a huge domestic demand for agri products. Although food deficit declined from 290 kcal/person/day in 1990–92 to 260 kcal/person/day in 2004–06, there is a challenge with respect to meeting the total demand for food. India’s economic growth has, however, put into motion factors such as increasing private final consumption expenditure and disposable incomes, which have driven the agricultural sector.</p>
<p>Land and irrigation</p>	<p>Land under cultivation in India has continued to rise since the 1950s, and more than 50 per cent of the country’s workforce is engaged in agriculture and allied activities. In 2005–06, its gross irrigated area stood at 82.6 million hectares, as compared to 28.0 million hectares in 1960–61.</p>
<p>Fertilisers</p>	<p>Fertilisers comprise a key agri input, which has resulted in higher production of crops and yield. Fertiliser consumption per hectare has grown by leaps and bounds, with consumption increasing from 0.55 kg/ha in 1950 to more than 125 kg/ha in 2009.</p>

## Growth drivers ... (2/2)

### Mechanisation

The Indian farmer has adopted modern agricultural techniques, such as the use of tractors and tillers. The farm power used in India has grown by five times to 1.502 kW/ha in 2005–06 from 0.0295 kW/ha in 1971–72, decreasing the contribution of human power from 15 per cent in 1971–72 to 5.8 per cent in 2005–06.

### Seeds

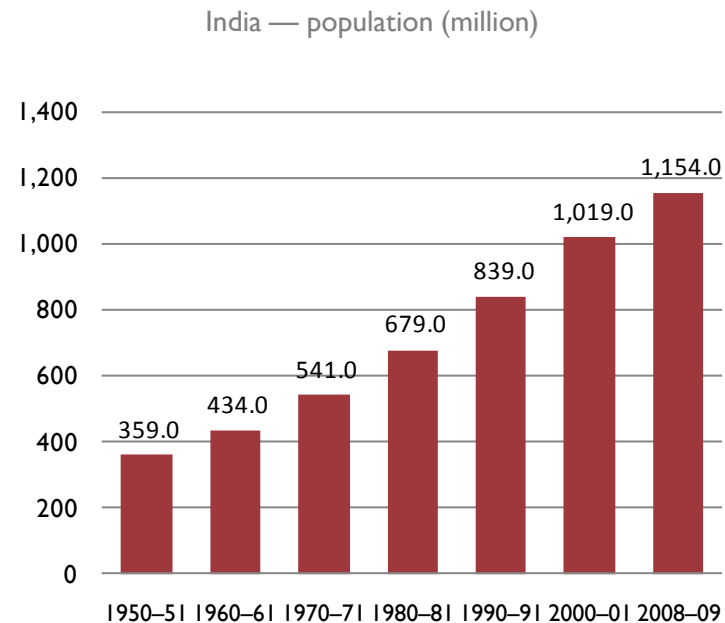
HYV seeds and an organised seed sector have been instrumental in driving agricultural productivity across the country. The area under certified seed cultivation in India has grown from less than 500 hectares in 1962–63 to more than 0.5 million hectares in 1999–2000, boosting the productivity of agri products.

### Institutional credit

Institutional credit has reduced the role of traditional money lenders in the Indian agricultural sector, thereby creating an organised credit market. The share of institutional credit, which stood at approximately 7 per cent in 1951, grew to more than 60 per cent in 2002, while that of non-institutional credit, which primarily comprises money lenders, declined to approximately 40 per cent in 2002 from 92.7 per cent in 1951.

## Growth drivers — population and wealth ... (1/2)

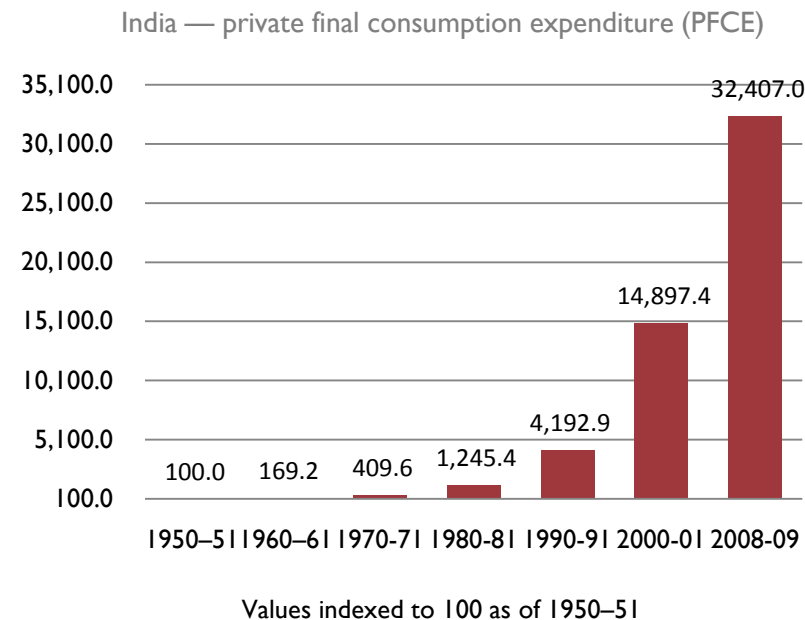
- India has the second-highest population in the world, accounting for more than one-sixth of the world's population. The need to feed more than a billion people is a driving force for domestic agriculture.



Source: "Handbook of Statistics on the Indian Economy 2008-09," Reserve Bank of India website, <http://www.rbi.org.in/home.aspx>, accessed 18 January 2010

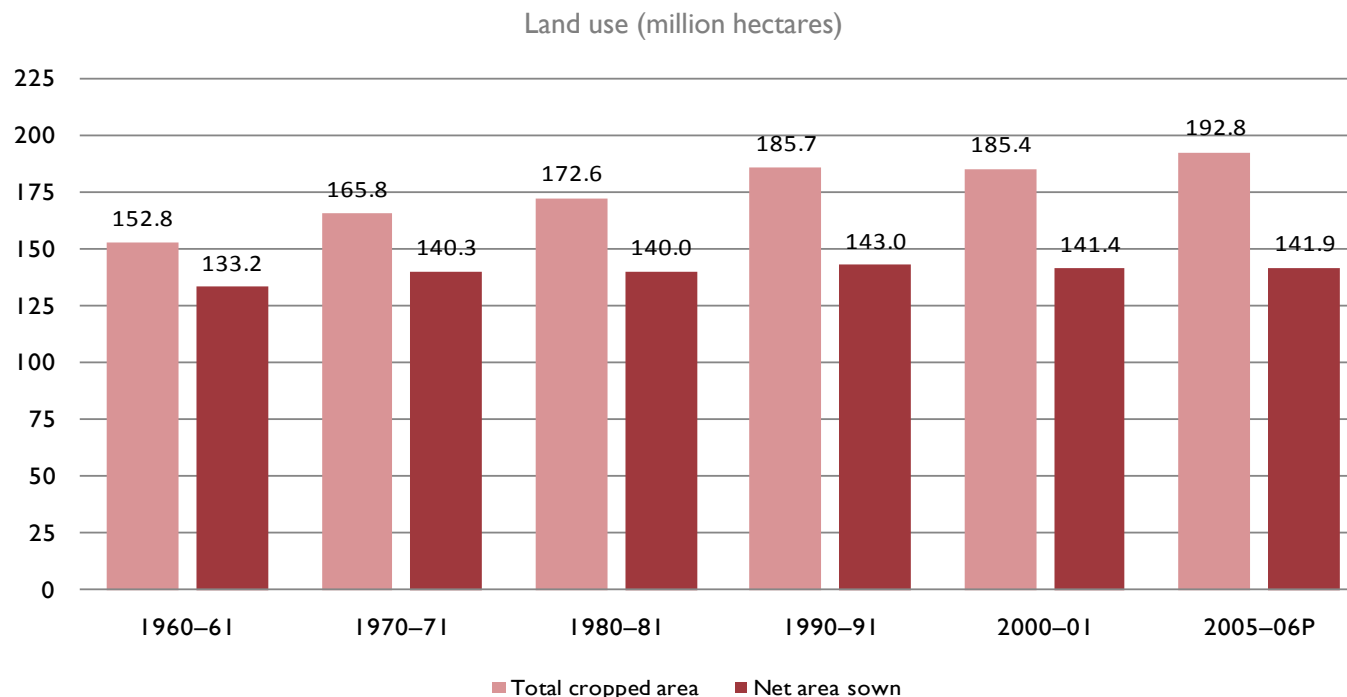
## Growth drivers — population and wealth ... (2/2)

- India's PFCE has been boosted by economic reforms, which began in the 1990s. The growth in its PFCE has resulted in the growth of its agriculture sector.



Source: "Handbook of Statistics on the Indian Economy 2008-09," Reserve Bank of India website, <http://www.rbi.org.in/home.aspx>, accessed 18 January 2010

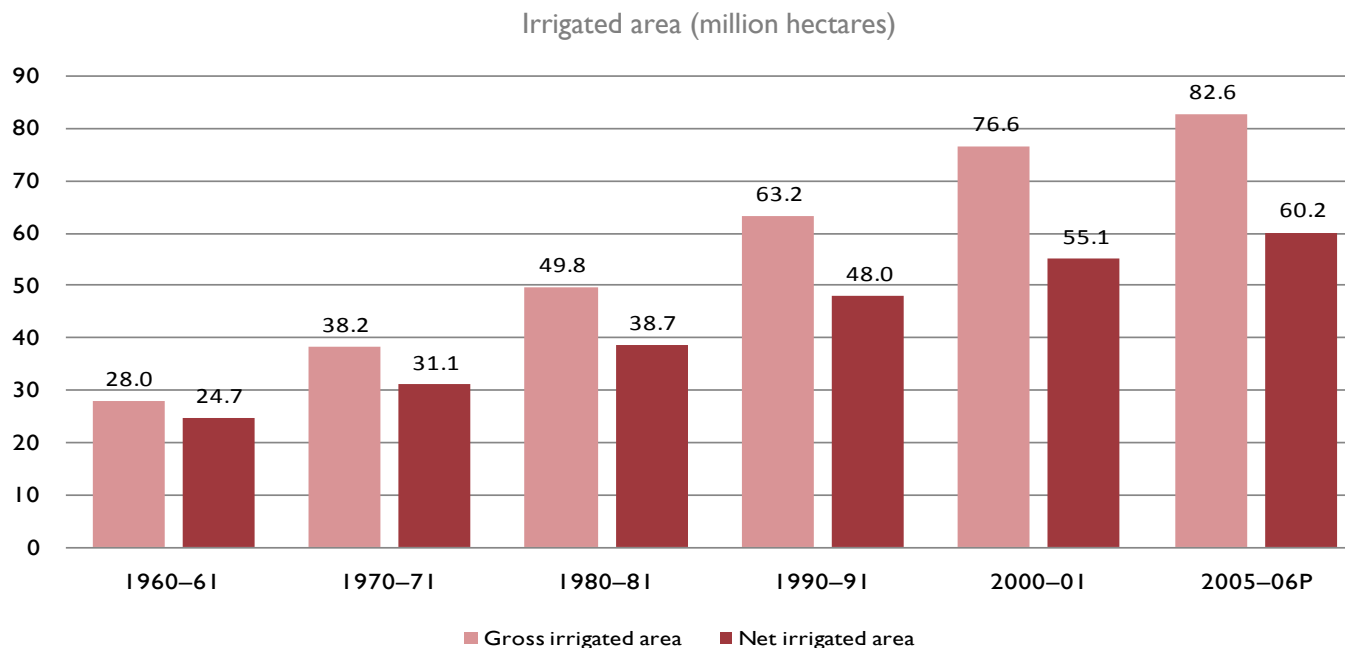
## Growth drivers — agricultural land in India



- India ranks seventh in the world in terms of its total geographic area. In 2005, agricultural land as a percentage of total land in the country stood at 57.1 per cent, in comparison to the world average of 11.9 per cent. India's irrigated area has grown at a steady pace since the Green Revolution, with ground water irrigating approximately 64 per cent of the net irrigated area in 2003-04.

Sources: "Agricultural Statistics At a Glance 2008," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/latest\\_2006.htm](http://dacnet.nic.in/eands/latest_2006.htm) accessed 18 January 2010; P.Kataria and A.S.Joshi, "Energy Use in Indian Agriculture," Department of Economics, Punjab Agricultural University, Ludhiana, India  
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## Growth drivers — improved irrigation facilities in India

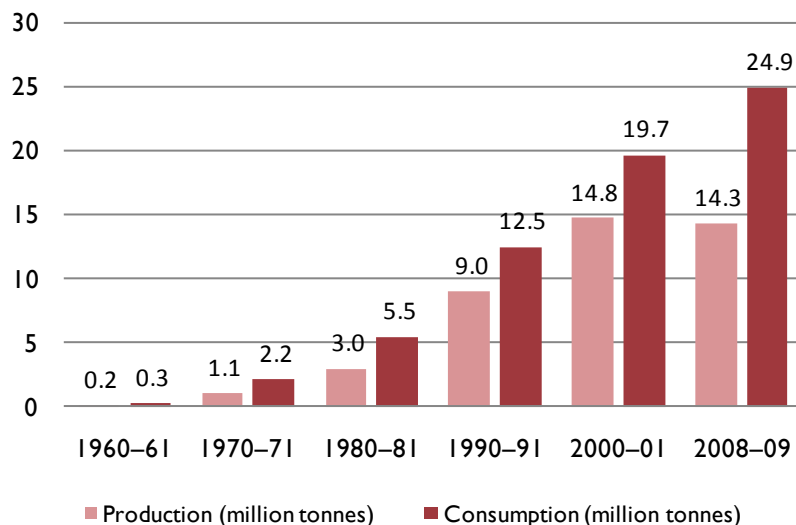


- The government has taken several initiatives through its Five Year Plans to improve irrigation facilities in India. The Working Group on Water Resources for the Eleventh Plan has proposed the creation of irrigation potential for 16 million hectares during the Eleventh Plan period. The total arable land in the country grew from 81.1 million hectares in 1991-92 to 102.77 million hectares in March 2007.

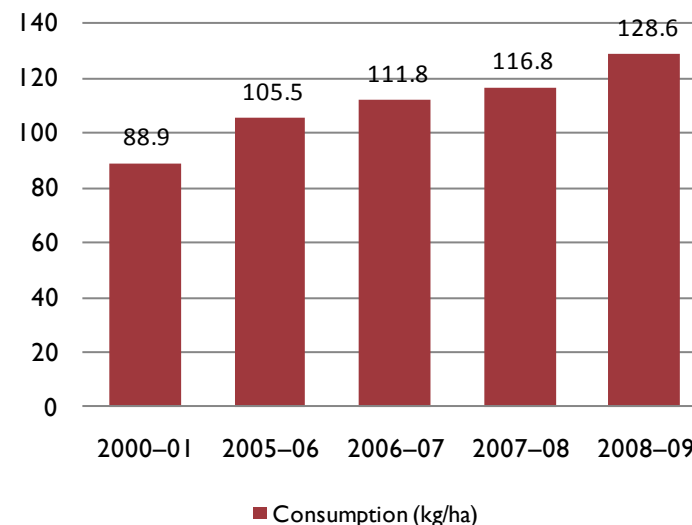
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## Growth drivers — increasing role of fertilisers

Fertilisers — production and consumption



Fertiliser consumption per hectare

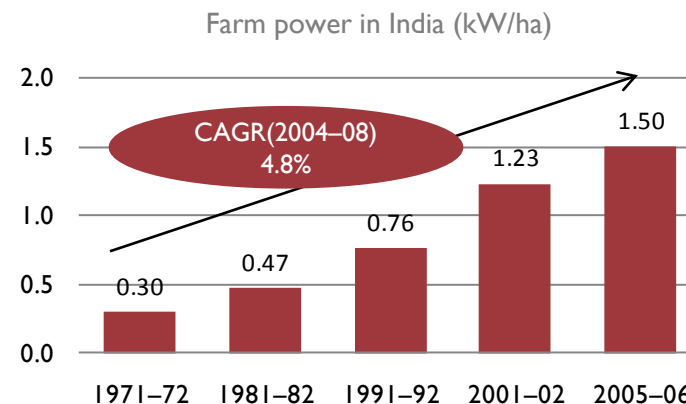


- In 1950, per hectare use of fertilisers in India was 0.55 kg. However, backed by the government’s policies and initiatives, consumption grew to more than 125 kg/ha by 2009.
- The government has taken various policy initiatives for the fertiliser sector, such as a pricing policy for indigenous urea, new investments in the urea sector, nutrient-based pricing, production and availability of fortified and coated fertilisers, a uniform freight subsidy on all fertilisers under the fertiliser subsidy regime, a concession scheme for decontrolled phosphatic and potassic fertilisers, etc.

Sources: “Agriculture and Food Management,” Economic Survey 2009-10, Government of India: Union Budget and Economic Survey, <http://indiabudget.nic.in/es2009-10/esmain.htm> accessed 08 March 2010; Industry Analysis Service(IAS), CMIE

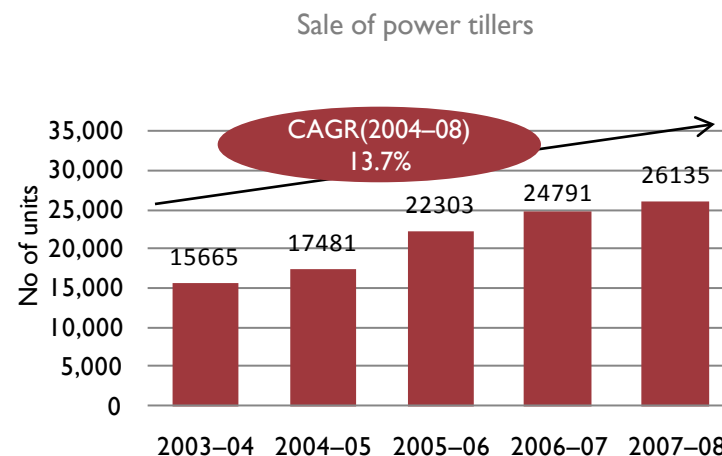
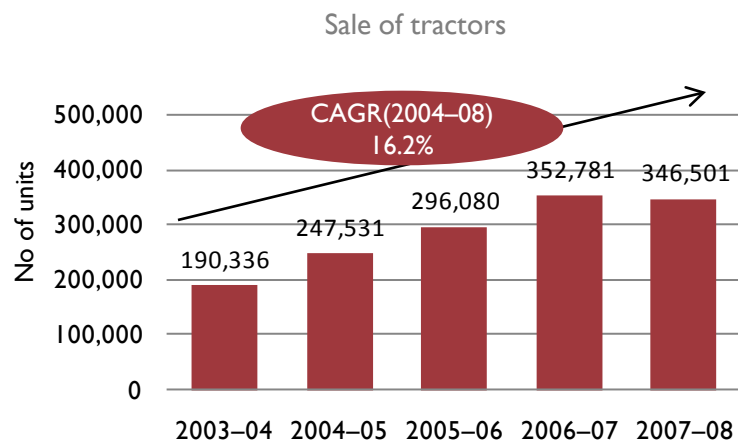
## Growth drivers — mechanisation of Indian agriculture ... (1/2)

- The country has witnessed a surge in the sale of tractors and power tillers. In 2005, India was ranked second in the world, and was next to the US in terms of tractor usage.



Sources: "Annual Report 2008-09," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, <http://agricoop.nic.in/AnnualReport08-09/Agriculture%20English%20book.pdf> accessed 18 January 2010; P.Kataria and A.S.Joshi, "Energy Use in Indian Agriculture," Department of Economics, Punjab Agricultural University, Ludhiana, India

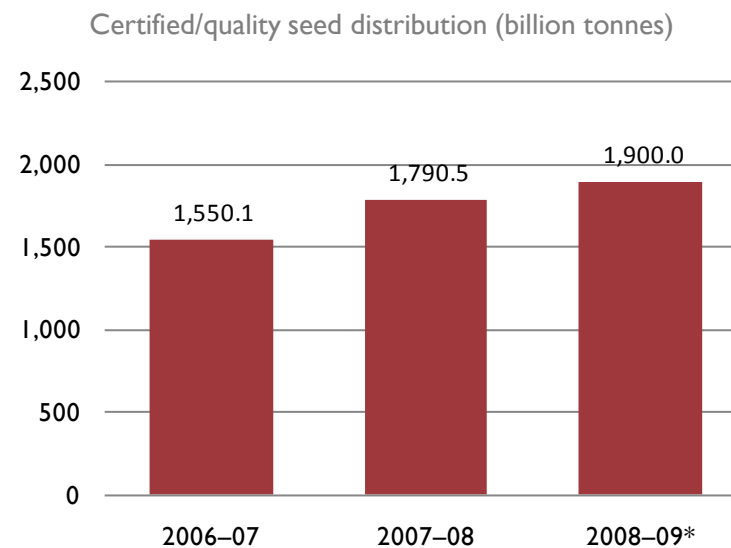
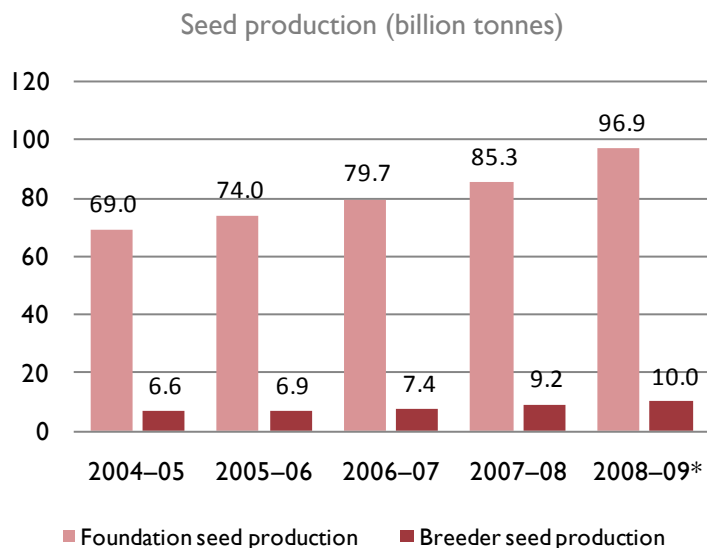
## Growth drivers — mechanisation of Indian agriculture ... (2/2)



- Indian agriculture has moved towards mechanisation after the success of the Green Revolution.
- Farm power used in India increased by five times to 1.502 kW/ha in 2005-06 from 0.0295 kW/ha in 1971-72, decreasing the contribution of human power from 15 per cent in 1971-72 to 5.8 per cent in 2005-06.

Sources: "Annual Report 2008-09," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, <http://agricoop.nic.in/AnnualReport08-09/Agriculture%20English%20book.pdf> accessed 18 January 2010; P.Kataria and A.S.Joshi, "Energy Use in Indian Agriculture," Department of Economics, Punjab Agricultural University, Ludhiana, India

## Growth drivers — role of seeds in Indian agriculture



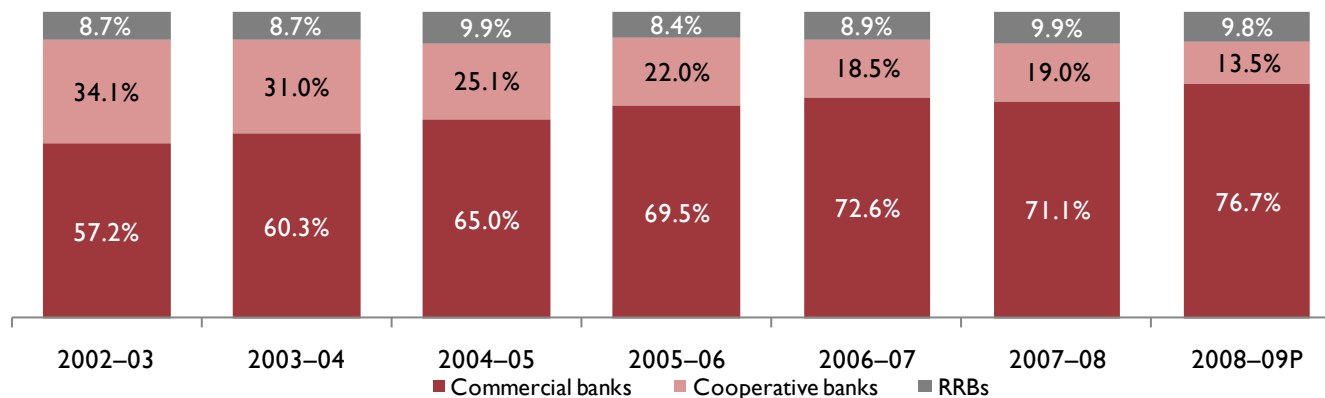
- HYV seeds have played a prominent role in the growth of the Indian agriculture sector, resulting in higher production of foodgrains. During the Green Revolution, the Indian Council for Agricultural Research (ICAR) developed new strains of HYV seeds and focussed mainly on wheat and rice.
- The Seeds Act, 1966, and the New Policy on Seeds Development, 1988, form the basis for the promotion and regulation of the Indian seed industry. The objective of the National Seeds Policy is to create a favourable climate for the seed industry, safeguard the interests of Indian farmers and conserve agro-biodiversity.

Source: "Annual Report 2008-09," Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, <http://agricoop.nic.in/AnnualReport08-09/Agriculture%20English%20book.pdf> accessed 18 January 2010; National Seeds Policy

\*Anticipated

## Growth drivers — improved agricultural credit

Flow of institutional credit to agriculture and allied activities (US\$ billion)



100%= US\$ billion	15.1	18.9	27.2	39.2	49.9	55.4	57.5
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- Institutional credit from commercial banks, cooperative societies and banks, as well as regional rural banks, has grown at a CAGR of about 25 per cent between 2002–03 and 2008–09.
- In 2008–09, the amount disbursed by all banks (including cooperative and regional rural banks) for agriculture and allied activities stood at US\$ 55.09 billion (INR 2,644.6 billion), with commercial banks accounting for approximately three-fourth of the amount disbursed.

Sources: “Flow of institutional credit to agriculture and allied activities,” Economic Survey 2008–09; Ramesh Golait, Current Issues in Agriculture Credit in India: An Assessment,” Summer 2007, Reserve Bank of India Occasional Papers, RBI website, <http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/82933.pdf>, accessed 18 January 2010

P – Provisional

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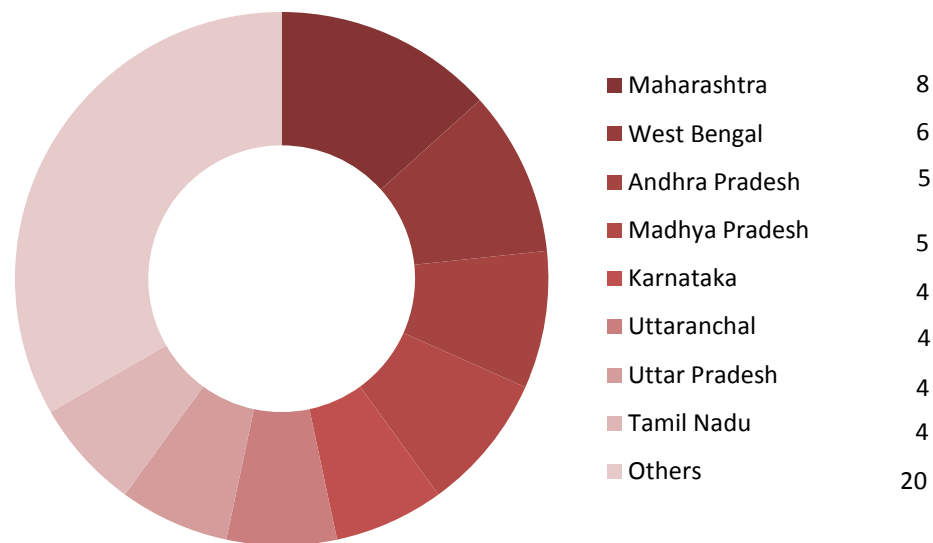
## Industry infrastructure — Agriculture Export Zones (AEZs) ... (1/2)

State	AEZ Focus Products
Andhra Pradesh	Mango pulp, fresh vegetables, grapes, mangoes, gherkins, chillies
Assam	Fresh and processed ginger
Bihar	Litchis
Gujarat	Mangoes, vegetables, dehydrated onions, sesame seeds
Himachal Pradesh	Apples
Jammu & Kashmir	Apples and walnuts
Jharkhand	Vegetables
Karnataka	Gherkins, rose onions, flowers, vanilla
Kerala	Horticulture products, medicinal plants
Madhya Pradesh	Potatoes, onions, garlic, seed spices, wheat, lentils, grams, oranges
Maharashtra	Grapes and grape wine, mangoes including Kesar mango, flowers, onions, pomegranate, banana, oranges
Orissa	Ginger and turmeric

State	AEZ Focus Products
Punjab	Vegetables, potatoes, basmati rice
Rajasthan	Coriander, cumin
Sikkim	Ginger, flowers (orchids) and cherry pepper
Tamil Nadu	Flowers, mangoes, cashew nuts
Tripura	Pineapples
Uttar Pradesh	Potatoes, mangoes, vegetables, basmati rice
Uttaranchal	Basmati rice, litchis, flowers, medicinal and aromatic plants
West Bengal	Pineapples, litchis, potatoes, mangoes, vegetables, Darjeeling tea

# Industry infrastructure — Agriculture Export Zones (AEZs) ... (2/2)

Distribution of AEZs among states



**Total number of  
AEZs in India is  
60**

Source: "Agri Export Zones of India," APEDA website, www.apeda.com, accessed 29 December 2009

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## Investments ... (1/3)

- The sector has transformed from pure agriculture to agribusiness, providing value to each stakeholder in the farm-to-fork value chain. In the recent past, the sector has witnessed investments from the corporate sector in the form of organic and contract farming, and set up of hubs for procurement of farm produce.

### Investment by private players

- In July 2007, Cadbury India Ltd and the Tamil Nadu Horticulture Department entered an agreement to promote cocoa farming. The five-year agreement aims to bring 50,000 acres under cocoa farming, which will provide coconut farmers an additional income of US\$ 1.66 million (INR 80 million) a year.
- In August 2006, Reliance Retail entered an agreement with the Punjab government for agricultural and retail projects entailing an initial investment of US\$ 104.16 million (INR 5.0 billion). The company plans to set up rural hubs for procurement of vegetables, fruits, pulses and other farm produces.

## Investments ... (2/3)

Key state-wise contract farming initiatives by private sector			
State	Crop	Company/Corporate	Area (Hectares)
Maharashtra	Soyabean	Tinna Oils and Chemicals Ltd	134,800
Madhya Pradesh	Wheat	Hindustan Lever Ltd	15,000
Punjab	Rice (basmati)	Satnam Overseas Ltd, DD Intenational Inc, Amira Foods India Ltd (Escorts Ltd & Grain Tech)	14,700
Punjab	Rice (basmati), groundnut and potato, tomato, chilli)	PepsiCo India Ltd	6,000
Karnataka	Marigold and Caprica chili	AVT Natural Products Ltd	4,000
Punjab	Rice (basmati), maize	Satnam Overseas	4,000
Punjab	Barley	United Breweries Ltd	2,270

Source: Ministry of Food Processing Industries; “Flow of institutional credit to agriculture and allied activities,” Economic Survey 2008–09; “Cadbury India in pact with TN Horticulture Dept,” 2 July 2007, Business Line (The Hindu); “Reliance Retail inks MoU with Punjab govt for agri project,” 1 August 2006, The Press Trust of India Limited; “Punjab, Mahindras sign farm pact – One lakh hectares to be brought under crop diversification,” 14 March 2003, Business Line (The Hindu); “Reliance Retail inks MoU with Punjab govt for agri projects,” 02 August 2006, The Financial Express

## Investments ... (3/3)

- Total investment in the agriculture and allied sectors in 2008–09 amounted to US\$ 28.87 billion (INR 1,386 billion), of which the private sector accounted for 82 per cent (US\$ 23.78 billion).

Source: Socio Economic Survey, 2009–2010

Cumulative FDI inflows	
Period: April 2000 to January 2010	
Sector	Amount of FDI inflows (US\$ million)
Agriculture services	1,496.76
Fermentation industries	767.72
Agricultural machinery	149.31
Vegetable oils and 'vanaspati'	129.82
Tea and coffee	89.14
Sugar	41.68

Source: "Fact Sheet On Foreign Direct Investment (FDI)", Department of Industrial Policy and Promotion, www.dipp.nic.in,, accessed 29 April 2010

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## Policy and regulatory framework ... (1/6)

The various ministries within the Government of India and other agencies responsible for the development of the agricultural sector include

- Ministry of Food Processing Industries
- Department of Agriculture & Cooperation (National Horticulture Board)
- Department of Animal Husbandry, Dairying and Fisheries
- Ministry of Commerce and Industry (commodity boards for rubber, coffee, tea and spices)
- National Dairy Development Board (NDDB)

## Policy and regulatory framework ... (2/6)

### The major acts and rules pertaining to the agro industry:

- Agriculture Produce (Grading & Marking) Act, 1937
- Fruit Products Order, 1955
- Coconut Development Board Act, 1979
- National Cooperative Development Corporation (NCDC Act), 1962
- Seed Act, 1966
- Seeds Control Order, 1983

## Policy and regulatory framework ... (3/6)

### FDI policy

- 100 per cent FDI is allowed under the automatic route in floriculture, horticulture, development of seeds, cultivation of vegetables and mushrooms under uncontrolled conditions and services related to the agriculture and allied sectors.
- 100 per cent FDI is allowed in the tea sector, including tea plantations, under the government route, subject to the following conditions:
  - Compulsory divestment of 26 per cent equity of the company in favour of an Indian partner/the public within a period of five years.
  - Prior approval of the state government, in the event of any future land use change.

## Policy and regulatory framework ... (4/6)

### Government initiatives

#### **I. Vishesh Krishi Gram Udyog Yojana (VKGUY)** — special agriculture and village industry scheme

The objective of this scheme is to promote exports in the following areas

- Agricultural produce and its value-added products
- Minor forest produce and its value-added variants
- *Gram udyog* products
- Forest-based products
- Other products

## Policy and regulatory framework ... (5/6)

### Government initiatives

#### 2. Rashtriya Krishi Vikas Yojana (RKVY)

RKVY was launched in 2007 to achieve the objective of attaining 4 per cent growth in the agricultural sector during the Eleventh Plan Period.

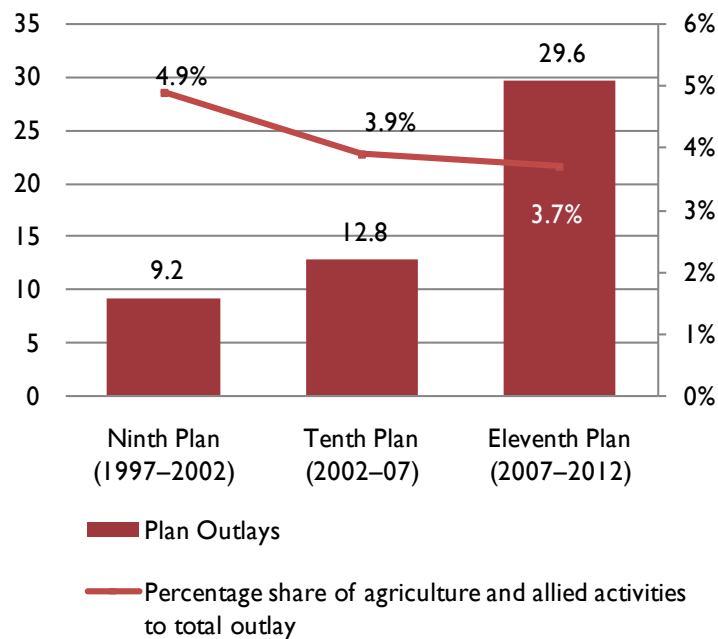
The key objectives of the scheme include

- To incentivise states to increase public investment in agriculture and allied sectors
- To ensure the preparation of agriculture plans in the districts and states, based on agro-climatic conditions, and the availability of technology and natural resources
- To maximise returns to farmers engaged in the agriculture and allied sectors
- To bring about quantifiable changes in the production and productivity of various components of agriculture and allied sectors by addressing them in a holistic manner

Sources: Department of Agriculture and Cooperation, Department of Industrial Policy and Promotion

## Policy and regulatory framework ... (6/6)

Public sector outlays and expenditure under agriculture and allied activities (US\$ billion)



- India aims at achieving food self-sufficiency, with a focus on expanding its cultivated and irrigated area, implementing land reforms, adopting HYV crops, promoting increased use of chemical fertilisers and pesticides, and restructuring rural credit institutions, and community development.
- In 2000, the government announced its first comprehensive agricultural policy statement — the National Agricultural Policy (NAP). The NAP aims to achieve an annual growth rate of 4 per cent in the agricultural sector over the next two decades.

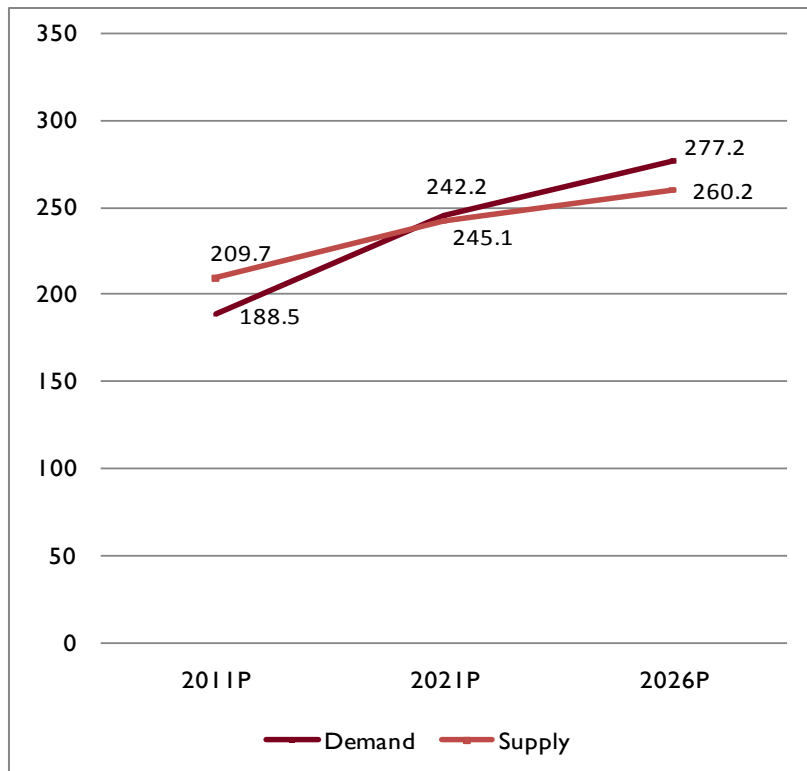
Source: “Share of Public Sector Outlays and Expenditure under Agriculture and Allied Activities during Ninth Plan, Tenth Plan, and Eleventh Plan,” Department of Agriculture & Cooperation, Ministry of Agriculture, Government of India, [http://dacnet.nic.in/eands/At\\_Glance\\_2008/Agriculture\\_new.html](http://dacnet.nic.in/eands/At_Glance_2008/Agriculture_new.html) accessed 18 January 2010

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# Opportunities

Demand–supply gap of cereals in India (MT)



## Opportunities

- India’s population is projected to reach approximately 1.6 billion in 2050, creating a huge domestic demand for agricultural products.
- Agriculture is expected to be a focal point for the private sector in the country, since several private players are expected to venture into organic and contract farming, and set up hubs to procure farm produce.
- Significant investments are expected in supply chain technology and cold storage facilities.
- Contract farming is expected to gain ground. This is an agreement between the food processor (contractor), typically a large organised player, and the farmer, whereby the latter is contracted to plant and produce the former’s crop on his land.

Source: “Working Paper No 209: Demand-Supply Trends and Projections of Food in India,” Indian Council For Research on International Economic Relations (ICRIER), <http://www.icrier.org> accessed 22 January 2010

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## Industry associations ... (1/3)

### **Autonomous Bodies**

- National Institute of Agricultural Extension Management (MANAGE)  
Rajendranagar, Hyderabad–500 030, Andhra Pradesh  
Phones: 040-24016702 to 706  
Fax: 040-24015388
- National Institute of Agricultural Marketing (NIAM)  
Bambala, Kota Road  
Jaipur–302033, Rajasthan  
Phone: 0141-2770027  
Fax: 0141-2771938, 2770027

## Industry associations ... (2/3)

### Boards

- Central Insecticides Board and Registration Committee  
Machinery Store Building,  
N.H.IV Faridabad  
Phone: 0129 -2413002
- Coconut Development Board  
Kera Bhavan, SRVHS Road, Kochi  
Kerala-682011  
Phone: 0484-2376265, 2377267, 2376553  
Fax: 0484-2377902
- National Dairy Development Board (NDDB)  
PB No 40, Anand-388 001  
Phone: 02692-260148/260149/260160  
Fax: 02692-260157

## Industry associations ... (3/3)

### Boards

- National Horticulture Board (NHB)  
Ministry of Agriculture, Government of India  
85, Institutional Area, Sector-18  
Gurgaon-122015, Haryana
- National Oilseeds and Vegetable Oils Development Board (NOVOD)  
86, Institutional Area, Sector-18  
Gurgaon-122015, Haryana

### Councils

- Indian Council of Agricultural Research (ICAR)  
Krishi Bhavan, New Delhi 110 114

## Note

Wherever applicable, numbers in the report have been rounded off to the nearest whole number.

Conversion rate used: US\$ 1 = INR 48

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