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EXECUTIVE SUMMARY

2nd largest agricultural land

- At 157.35 million hectares, India holds the second largest agricultural land in the world

Favourable climatic conditions

- With 20 agri-climatic regions, all 15 major climates in the world exist in India. The country also possesses 46 of the 60 soil types in the world

Record production of food grains

- Total food grains production in India reached an all-time high of 252.68 million tonnes in FY15*. As on August 17, 2015, Rice and wheat production in the country stood at 104.84 and 88.94 million tonnes, respectively

Largest producer of major agricultural and horticulture crops

- India is the largest producer of spices, pulses, milk, tea, cashew and jute; and the second largest producer of wheat, rice, fruits and vegetables, sugarcane, cotton and oilseeds

Increasing farm mechanisation

- India is one of the largest manufacturers of various farm equipments like tractors, harvesters and tillers. India manufactures one-third of tractors in the world; the number of tractors in the country is estimated to reach 16 million by 2030 from 6 million in 2014

Source: Ministry of Agriculture, Government of India, TechSci Research
Note: * - 4th Advance Estimates.
Robust demand
- A large population is the key driver of demand for agricultural products
- Rising urban and rural incomes have also aided demand growth
- External demand has also been growing especially from key markets like the Middle East

Competitive advantages
- High proportion of agricultural land (157 million hectares)
- Leading producer of spices, jute, pulses; second-largest producer of wheat, paddy, fruits and vegetables

Attractive opportunities
- Increasing demand for agricultural inputs such as hybrid seeds and fertilisers
- Promising opportunities in storage facilities; potential storage capacity expansion of 35 million tonnes under the 12th Five Year Plan

Policy support
- Schemes like Paramparagat Krishi Vikas Yojana (PKVY) helps in developing organic clusters and make available chemical free inputs to farmers.
- Other steps include Pradhanmantri Gram Sinchai Yojana that ensures improved access to irrigation; creation of an unified national agricultural market which would help boost the incomes of farmers.
- 100 per cent FDI under automatic route for development of seeds

Source: Ministry of Agriculture, World Bank, FAOSTAT, TechSci Research

Food grain production:
- 2014-15: 251.12 million tonnes
- 2020-21: 280.6 million tonnes
EVOLUTION OF AGRICULTURE IN INDIA

- Stagnation in agriculture
- Low growth in crop and grain production (0.4 and 0.1 per cent p.a.)
- Food grain production of 59.2 MT in 1952–53, with a yield of 579.8 kg/ha
- Pioneering work of agricultural scientists and efforts of farmers led to Green Revolution
- High Yield Variety (HYV) of seeds, increased use of fertilizers and irrigation resulted in a significant spike in production
- Attained food security and reduced import of food grains
- Expanding cereal production
- Economic reforms introduced; greater encouragement to exports
- Surplus of production of agricultural commodities over domestic demand
- India emerges as a net exporter of agricultural products
- Increase in population and strong income growth
- 50% increase in seed subsidy
- Additional financial assistance for horticulture crops
- Schemes like Pradhan Mantri Krishi Sinchai Yojana that accords high priority to water security
- Creation of Price Stabilization Fund (PSF) by the Department of Agriculture and Cooperation as a price control measure to dampen the impact on consumers
- Allocation of USD830 million for the development of micro irrigation, watershed and Pradhan Mantri Krishi Sinchai Yojana
- The Indian agricultural services and agricultural machinery have cumulatively attracted USD2,211.17 million from April 2000 to September 2015

Source: Ministry of External Affairs, RBI, Ministry of Agriculture, TechSci Research
Notes: MT - Metric Tonnes, P.A. - Per Annum
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SCHEMES INITIATED BY THE GOVERNMENT

Agricultural Technology Management Agency (ATMA)
- This technique facilitates retrieval of data and data entry from the internet based web portals without actually having internet by using a simple mobile phone.
- More than a dozen of services of innovative technology like USSD are being operationalized for farmers and other stakeholders.

Pradhan Mantri Krishi Sinchai Yojana
- Allocation of USD830 million for the development of micro irrigation, watershed and Pradhan Mantri Krishi Sinchai Yojana
- State government are compelled to fund the agriculture sector, take appropriate measures to achieve the targeted growth rate and address issues of farmers

Small Farmers Agribusiness Consortium (SFAC)
- Focused on creating wider linkages for FPOs to reduce transaction costs, improve access to technology and services and ultimately link them to better market opportunities for higher returns.
- An ICT backed platform has been provided that would electronically network all the FPOs in the country and leverage their collective bargaining power.

Paramparagat Krishi Vikas Yojana (PKVY)
- This scheme ensures the promotion of organic farming
- Adoption of farming will promote the balanced use of chemical fertilizers and enhance the quality of farm produce

Source: Deptt. of Agriculture and Cooperation, Ministry of Agriculture, FAOSTAT, TechSci Research
GDP of agriculture and allied sectors in India was recorded at USD259.23 billion in FY15

According to the advanced estimates of Central Statistical Organisation, agriculture and allied sector recorded a growth of 8.3 per cent in FY15

Agriculture is the primary source of livelihood for about 58 per cent of India’s population

GDP by value added – size of agriculture and allied activities (USD billion)

Source: Ministry of Agriculture, Print Release, RBI, TechSci Research
Notes: GDP – Gross Domestic Product, CSO – Central Statistical Organisation
As per Union Budget 2015-16, there is a need to create a National Agriculture Market for the benefit of farmers, which will also have the incidental benefit of moderating price rises. Government to work with the States, in NITI, for the creation of a Unified National Agriculture Market.

Under the Union Budget 2015 – 16, allocation of USD879 million for Pradhanmantri Gram Sinchai Yojana which envisages to support micro-irrigation, ensures watershed development. This scheme is to provide enhanced water efficiency through ‘Per Drop More Crop’

A special scheme has been launched in North – Eastern Region with allocation of USD20.73 million for the promotion of organic farming and export of organic produce.

Source: Ministry of Agriculture, TechSci Research
Note: RKVY is a central government scheme providing funds to state governments to spend on agriculture.
There are two major agricultural seasons in India: Kharif and Rabi.

- Kharif season lasts from April to September (summer); rice (paddy) is the season’s main crop.
- Rabi season lasts from October to March (winter); wheat is the season’s main crop.
- Total food grains production in India reached an all-time high of 257 million tonnes in FY14.
- According to the 4th advance estimates for FY15 by "Ministry of Agriculture", the total food grains production is estimated to be around 252.68 million tonnes.

Production of food grains (million tonnes) in Kharif and Rabi seasons

CAGR: 1.30%

Source: Finance Ministry, Ministry of Agriculture, TechSci Research
Note: * 4th Advance Estimates
Area Sown in FY16* (lakh hectares)

**Rabi**
- Wheat: 0.02
- Pulses: 1.2
- Oil Seeds: 20.65
- Cereals: 9.43
- Rice: 27.04

**Kharif**
- Wheat: 48.84
- Pulses: 185.15
- Oil Seeds: 117.09
- Cereals: 7.8
- Rice: 378.24
- Coarse Cereals: 186.07
- Oilseeds: 115.62
- Sugarcane: 38.84
- Cotton: 17.12
- Jute & Mesta: 0.02

*Source: Ministry of Finance, Ministry of Agriculture, TechSci Research
* - Data is till October 2015
During the last five years, production as well as yields of both major crops - rice and wheat - increased significantly.

Production of wheat and rice reached an all-time high in 2013-14. However, according to the third advance estimates for 2014-15, the production of rice and wheat is estimated to be lower by 4.11 million tonnes and 5.07 million tonnes respectively than previous years production.

In 2014 – 15, production of wheat according to the fourth advance estimates is 88.94 million tonnes, and that of rice is 104.84 million tonnes.

The yield of rice reached 2.39 tonnes/hectare in FY15*

*Source: Ministry of Agriculture, TechSci Research
Note: * 4th Advance Estimates
FRUIT AND VEGETABLE PRODUCTION CONTINUES TO INCREASE

- India ranks 2nd in global production of fruits and vegetables, and is the largest producer of mango and banana, and has the highest productivity of grapes in the world.

- National Horticulture Mission, National Horticulture Board, Technology Mission for Integrated Development of Horticulture in North-East are some of the initiatives taken by the Government of India to boost the horticulture sector in the country.

- The National Horticulture Board has launched a new capital investment subsidy scheme for construction and expansion of cold storages and storages of horticulture products.

- India's horticulture production rose at a CAGR of 6 per cent during FY05-15.

![Indian horticulture area and production diagram](image)

![Fruit and vegetable production of top four countries (2013)](image)

**Source:** National Horticulture Board, Assorted Articles, FAO Stat, TechSci Research

**Note:** ** - CAGR Mentioned is for Production, * - Figure as of 2015

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India is among the 15 leading exporters of agricultural products in the world.

Total agricultural exports from India grew at a CAGR of 27.9 per cent over FY10-15 to reach USD38.70 billion in FY15.

The contribution of agriculture to total export has increased from 13.08 per cent in 2008–09 to 14.17 per cent in 2013–14.

Agricultural exports has increased from USD24.7 billion in 2011–12 to USD38.70 billion in 2014-15 projecting a growth of 16.14%.

In FY16 (April-September 2015), agricultural exports from India reached USD8.06 billion.

Notes: CAGR - Compound Annual Growth Rate
* - Data is for April-September 2015
SURGE IN DEMAND OF INDIAN AGRICULTURAL PRODUCTS … (2/2)

- India exported rice worth USD3.17 billion in 2015-16*, accounting for nearly 39.33 per cent of total agricultural exports
- Livestock Products and Fruits & Vegetables are the next largest export items in terms of value; they accounted for 26.8 per cent and 6.8 per cent, respectively, of total agricultural exports in 2015-16*
- Guargum meal emerged as major export commodity; the value of exports rose at a staggering CAGR of 45.3 per cent over FY10 -15
- Agricultural exports are expected to rise up to USD45 billion in FY15

Key agricultural and allied sector exports from India in 2015-16* (USD billion)

<table>
<thead>
<tr>
<th></th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>3.17</td>
<td>0.29</td>
<td>2.17</td>
<td>0.28</td>
<td>0.43</td>
<td>0.55</td>
<td>0.33</td>
</tr>
<tr>
<td>Guargum Meal</td>
<td>0.29</td>
<td>0.28</td>
<td>0.43</td>
<td>0.55</td>
<td>0.33</td>
<td></td>
<td></td>
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<tr>
<td>Livestock Products</td>
<td>0.43</td>
<td>0.55</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Oil Meals</td>
<td>0.28</td>
<td>0.43</td>
<td>0.55</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar</td>
<td>0.28</td>
<td>0.43</td>
<td>0.55</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruits and Vegetables</td>
<td>0.28</td>
<td>0.43</td>
<td>0.55</td>
<td>0.33</td>
<td></td>
<td></td>
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<tr>
<td>Cashew</td>
<td>0.28</td>
<td>0.43</td>
<td>0.55</td>
<td>0.33</td>
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</tr>
</tbody>
</table>

Exports of guargum meal (USD Million)

Source: Ministry of Agriculture, APEDA, TechSci Research
*Data is for April-September 2015

For updated information, please visit www.ibef.org
KEY AGRICULTURAL STATES AND THEIR CONTRIBUTIONS

Punjab and Haryana were the key states of green revolution. Punjab is one of the largest producers of food grains.

Gujarat – largest producer of cotton (*12.5 million bales)

Maharashtra – largest producer of Jowar, Tobacco and Safflower

Karnataka – largest producer of Sunflower seed, Maize, Ragi, Coffee and Cardamom

Uttar Pradesh – largest producer of wheat (30.00 million tonnes)

West Bengal – largest producer of rice (15.80 million tonnes)

Assam - largest producer of tea

Madhya Pradesh – largest producer of soybean, pulses, Linseed

Source: Department of Agriculture & Cooperation,
Notes: All figures as of 2015,
* Projected for 2014 - 15
GROWTH DRIVERS OF INDIAN AGRICULTURE

Demand-side drivers
- Population and income growth
- Increasing exports
- Favourable demographics

Supply-side drivers
- Hybrid and genetically modified seeds
- Mechanisation
- Irrigational facilities
- Green Revolution in Eastern India

Policy support
- Growing institutional credit
- Increasing MSP
- Introduction of new schemes like Paramparagat Krishi Vikas Yojana, Pradhanmantri Gram Sinchai Yojana, Sansad Adarsh Gram Yojana
- Opening up of exports of wheat and rice

Note: MSP - Minimum Support Price
India, the second-most populated country in the world, has to meet food consumption needs of around 1.276 million people.

- India’s population reached 1.28 billion in FY15 compared to 1.26 billion in FY14.
- Population is a key demand driver of agricultural growth in the country.
- India’s consumption expenditure is likely to reach USD3.6 trillion by 2020, up from an estimated USD0.2 trillion in 2015.
- India’s population is expected to reach 1.3 billion by FY16.

Domestic demand for agricultural and allied products has not only been rising due to rising population, but also as a result of greater consumption by a wealthier population.

Over FY07-14, India’s per capita income increased at a CAGR of 0.26 per cent to USD662.

Consumption expenditure in India is likely to reach USD3.6 trillion by 2020, up from an estimated USD0.2 trillion in 2015.

Indian agriculture has also benefitted from rising external demand and the sector’s wider participation in the global economy.
India’s irrigation potential has steadily increased over the years. In FY13 it stood at 139.5 million hectares compared to 90 million hectares in 1995 and 22.6 million hectares in 1951.

The Government of India has launched a new scheme, Pradhan Mantri Krishi Sinchai Yojana, that provides end-to-end solutions in irrigation supply chain and focuses on creating sources of assured irrigation, per drop more crop, and harnessing rain water at micro-level through Jal-Sanchay and Jal-Sinchan.

The two major lift irrigation projects in Kohlapur; Tembhu and Takari Mhaisal-have received USD19 million and USD15 million by the Union Government.
Gross irrigated area under food grains is estimated to have grown to 61.632 million hectares in FY13.

Of the wide variety of crops in India, rice and wheat are the most irrigated.

With growing investments in irrigation, the dependence on monsoons has declined considerably over the years.

Mechanisation helps in raising farm income by increasing productivity and limiting post-harvest losses.

The Government of India has released a new subsidy for the establishment of 988 Farm Machinery Banks during 2014-15 under Sub-Mission on Agricultural Mechanisation.

Allocation of USD223 million has been made for the establishment of Farm Machinery Banks and distribution of farm machinery and tools to farmers in various states.

India is the largest manufacturer of tractors in the world, accounting for about one-third of global production.

The availability of farm power increased from 0.36 kilowatts per hectare in 1971 to 1.4 kilowatt per hectare in 2006, while the share of animated labour (that includes animal and human labour) to farm power dropped from 60 per cent to less than 14 per cent during this period.

The Government of India focuses on increasing its reach of farm mechanisation to the regions where availability of farm power is low and to small and marginal farmers.
**INCREASING MECHANISATION OF FARMING … (2/2)**

- Sale of tillers increased at a CAGR of 8.6 per cent to 48,000 units over FY07-15
- About 20 per cent of world’s tractor production is carried out in India. Domestic tractor market contracted by 2.4 per cent YoY during the first five months of FY15, while export volumes grew by 16.9 per cent during the same period
- In FY14, domestic sales of tractors recorded 350,000 units annually while exports reached 60,000 units
- The government has set up a number of Farm Machinery Training and Testing Institutes to train farmers on the operation and maintenance of agricultural equipment
- DAC proposes to initiate National Mission on Agricultural Mechanisation (NMAM) to spread the benefits of mechanisation among all levels of farmers especially small and marginal ones

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**Number of tillers sold**

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</tr>
</thead>
<tbody>
<tr>
<td>FY07</td>
<td>24791</td>
<td>26135</td>
<td>35294</td>
<td>38794</td>
<td>55000</td>
<td>60000</td>
<td>56000</td>
<td>48000</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Department of Agriculture and Cooperation, A report on ‘Indian Tractor Industry’ by ICRA, TechSci Research

DAC - Dept. of Agriculture and Cooperation
In FY15, production of foundation seeds reached 157,616 tonnes from 79,654 tonnes in FY07.

There has been strong growth in the use of hybrid seeds due to their high yield and resistance.

Usage of hybrid seeds has been more prevalent in cash crops than food crops.

In FY15, production of certified seeds increased to 3.5 million tonnes from 1.27 million tonnes in FY07.

Source: Ministry of Agriculture, TechSci Research
Usage of hybrid seeds has boosted the yield of food grains to 2,070 kg/hectare in FY15 from 1,756 kg/hectare in FY07.

The government has been playing a proactive role in promoting greater use of hybrid seeds; it encourages private seed companies by providing a subsidy of 25 per cent of the capital cost subject to a maximum of USD50,000 per unit.

Institutional credit to the agriculture sector increased at a CAGR of 12.8 per cent during FY07–14

Farmers are allowed to avail crop loans at an interest of 7 per cent

In FY15, institutional credit to the agricultural sector was USD18.07 billion from Regional Rural Banks

Source: Ministry of Agriculture, RBI, National Sample Survey Organisation (NSSO), TechSci Research
The MSP is announced well ahead of the sowing season so that the farmers can take informed decisions on cropping.

The Indian government increases MSPs regularly to incentivise farmers to enhance production of crops and ensure there is adequate supply.

The MSP for rice was raised from USD44 per quintal in FY14 to USD45.80 per quintal in FY15 at YoY growth of 4.1 per cent.

MSP for rice reached USD21.92 per quintal in FY16 (till September 2015).

MSP of rice (USD per quintal)

Source: Ministry of Agriculture, TechSci Research
Note: MSP is Minimum Support Price
*: Data is till September 2015

CAGR: 16.8%
Government has increased the MSP of pulses significantly in the past three years to encourage production and thereby reduce the supply shortage.

MSP for Arhar increased from USD31.2 per quintal in FY07 to USD75.02 per quintal in FY16.

Source: Ministry of Agriculture, TechSci Research
FAVOURABLE POLICIES ARE SUPPORTING THE SECTOR GROWTH … (1/2)

**Paramparagat Krishi Vikas Yojana (PKVY)**
- This scheme ensures the promotion of organic farming. Rs 300 crore has been allocated for the scheme during the year 2015-16.
- Adoption of farming will promote the balanced use of chemical fertilizers and enhance the quality of farm produce.

**Foreign Direct Investment (FDI)**
- 100 per cent Foreign Direct Investment (FDI) is allowed under automatic route in storage and ware housing including cold storages.
- FDI policy for agriculture was amended to allow 100 per cent FDI under automatic route for development of seeds.

**Pradhan Mantri Krishi Sinchai Yojana (PMKSY)**
- The scheme ensures access to the means of irrigation to all agricultural farms in the country to produce ‘per drop more crop’, thus bringing much desired rural prosperity.
- To increase agricultural production and productivity by increasing availability of water and its efficient use.

Source: Ministry of Agriculture, Union Budget, TechSci Research
Note: RKVY - Rashtriya Krishi Vikas Yojana
<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulses villages</td>
<td>Government has launched an initiative to spend USD65.1 million to promote 60,000 'pulses villages' in rain fed areas for increasing crop productivity and strengthening market linkages.</td>
</tr>
<tr>
<td>Incentivising agricultural research</td>
<td>Realising that scientific and technical breakthroughs are critical to increasing agricultural productivity, the government, in its FY16 budget, allocated USD612.31 million to incentivise farm research. Budget 2015 – 16 aims at expanding R&amp;D in the agricultural sector to improve its productivity by enhancing crop yields.</td>
</tr>
<tr>
<td>Regional Rural Bank Credit Refinance Fund</td>
<td>The government plans to set up a Regional Rural Bank Credit Refinance Fund with a capital of USD2.1 billion to enhance the capacity of RRBs to disburse short term crop loans to small and marginal farmers. In budget for FY16, the government raised the target for agricultural credit from USD26.04 billion to USD132 billion.</td>
</tr>
<tr>
<td>Integrated Scheme of Oilseeds, Pulses, Oil palm and Maize (ISOPOM)</td>
<td>ISOPOM scheme was launched in 2004 to provide flexibility and promote crop diversification; under ISOPOM, states can utilise the allotted funds to develop a crop of their choice.</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture, Union Budget, TechSci Research
Notes: RRB – Regional Rural Bank, ISOPOM - Integrated Scheme of Oilseeds, Pulses, Oil palm and Maize
Agriculture GDP

- Agriculture GDP growth for the current year is estimated at 4.6 per cent compared to 4.0 per cent in the last four years
- A sustainable growth of 4 per cent is to be achieved each year

Agricultural center for excellence

- Announcement of plans to establish centers of excellence in agriculture in Assam and Jharkhand, agriculture universities in Andhra Pradesh and Rajasthan, and horticulture universities in Telangana and Haryana

Food grain production is 251.12 MMT

- Food grain production is 252.68 million tonnes in 2014-15 compared to 257 million tonnes in 2013-14
- MSP for every agriculture produce increased significantly
- Food grain production will reach 280.6 million tonnes by 2020-21

Agricultural exports estimated to increase

- Agricultural exports likely to cross USD45 billion by 2019 – 20 higher than USD38.7 billion in the year 2014-15
- During FY16 (April-September 2015), agricultural exports stood at USD8.06 billion

Funds Allocated

- Allocation of USD4.14 billion to the corpus of Rural Infrastructure Development Fund (RIDF) in 2015 – 16
- USD2.48 billion have been allocated for Long Term Rural Credit Fund
- Allocation of USD7.46 billion for Short Term Co – operative Rural Credit Refinance Fund
- Government have funded an amount of USD830 million to support micro – irrigation, watershed development and Pradhan Mantri Krishi Sinchai Yojana

Source: Union Budget, Ministry of Agriculture * - 4th Advance estimates, TechSci Research
AGRICULTURE

OPPORTUNITIES

JANUARY 2016
## Opportunities

### Farm management services
- New agri business, which provides inputs such as seeds, fertilizers along with providing advice and training farmers on latest agricultural practices
- It introduces efficiencies into the whole gamut of agri practices
- Provides assistance to sell products at appropriate prices

### Agricultural inputs
- Limited arable land against growing population makes agricultural inputs crucial
- Huge opportunity exists for agri input segments like seeds and plant growth nutrients
- In India, commercial seeds only account for minor percentage (25 per cent) and huge demand is expected for quality branded seeds

### Logistics
- The 12th Five Year Plan estimated a potential storage capacity expansion of 35 million tonnes
- Cold storage capacity needs to grow rapidly from the current level of 24 million tonnes
- Private warehouse operators are supported by multiple income streams, subsidy and available of credit
- It is expected that 4 per cent growth in the food grain storage capacity would restructure agricultural sector over the next few years

Source: Ministry of Agriculture, TechSci Research
For updated information, please visit www.ibef.org

INITIATIVES THAT WILL FURTHER PROP UP THE SECTOR

### Foreign Direct Investment (FDI)
- Foreign Direct Investment into India grew to USD 44.877 million for the financial year 2014 - 15
- Cumulative FDI from April 2000 to September 2015 in agriculture services and agricultural machinery is USD 2,211.17 million
- The highest FDI came in services, followed by construction Development, telecommunications, computer softwares and hardware, automobiles in 2014 – 15 (April 2014 – May 2015)

### MOUs/ Agreements
- MOUs/Agreements has been signed with 52 countries
- Number of partnerships with other countries have reached 63
- Provides better agricultural facilities in areas such as R & D, capacity building, germ – plasm exchange, post – harvest management, value addition/food processing, plant protection, animal husbandry, dairy and fisheries
- Helps in improving Bilateral ties as well

Source: Ministry of Agriculture, DIPP, TechSci Research
GOVERNMENT INITIATIVES THAT WILL FURTHER PROP UP THE SECTOR

- Allocation of USD3.9 billion for RFID, USD234 million for long – term rural credit fund, USD7.03 billion for short – term cooperative rural credit finance fund, USD3.9 billion for short – term RRB refinance fund
- Target of USD132 billion agricultural credit during 2015 – 16
- The Ministry of Food Processing Industries have taken few initiatives for developing the food – processing sector that would enhance the exports of agro and processed foods and income of farmers
- Government is planning to invest USD8 billion so as to revive 4 fertilizer plants and setting up 2 plants to produce farm nutrients
- In 2014, USD682.31 million has been allocated for the development of first phase of farm loan waiver scheme by the Government of Telangana. The scheme is expected to benefit 3.6 million farmers who have taken a loan of approx. USD1600 or below before March 31, 2014
- Financial Outlay of USD35.47 million has been announced under the National Dairy Development Board(NDDB) to boost milk output and per animal production of milk
- Israel have strengthened its bilateral ties with India by helping the farmers to choose the right crops or vegetables and multiplying income of farmers

Source: Ministry of Agriculture, DIPP, TechSci Research
Note: RFID – Radio Frequency Identification
CONTINUE READING... (1/3)

The Government of India’s National Agriculture Policy envisages that “Private sector participation will be promoted through contract farming and land leasing arrangements to allow accelerated technology transfer, capital inflow and assured market for crop production especially of oilseeds, cotton and horticultural crops”

### Foreign companies practicing contract farming in India

<table>
<thead>
<tr>
<th>Company</th>
<th>State</th>
<th>Crop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargill India Pvt Ltd</td>
<td>Madhya Pradesh</td>
<td>Wheat, Maize and Soya bean</td>
</tr>
<tr>
<td>Hindustan Lever Ltd</td>
<td>Madhya Pradesh</td>
<td>Wheat</td>
</tr>
<tr>
<td>ITC - IBD</td>
<td>Madhya Pradesh</td>
<td>Soybean</td>
</tr>
<tr>
<td>Appachi</td>
<td>Tamil Nadu</td>
<td>Cotton</td>
</tr>
<tr>
<td>Nestle India Ltd</td>
<td>Punjab</td>
<td>Milk</td>
</tr>
<tr>
<td>Pepsi Foods Pvt Ltd</td>
<td>Punjab, TN</td>
<td>Chillies, Groundnut, Seaweed, Tomato and Basmati Rice</td>
</tr>
</tbody>
</table>

Source: Company reports, Assorted articles, TechSci Research
At present among successful contract farming practices undertaken in Gujarat:

**Pepsi India, Arvind mills, Jojoba Oil Industries Ltd**
- These are some companies who have approached the govt. and shown keen interest in doing research and contract farming in Agro-products in Gujarat under their backward integration projects.

**Godrej Agrovat Ltd.**
- Is also planning to grow high quality oil palm under contract farming in south Gujarat region by providing imported tissue culture plants and farming technology to the contract farmers.

**Agrocell Corporation Ltd.**
- It is doing contract farming of organic cotton and sesame seeds covering about 5000 acres in Kutch and Surendranagar district of Gujarat since last 8 years.
- The farmers get 7-8 % more price than ordinary cotton in current market and concession in certain services from the company.

**Atreyas Agro Organic Pvt. Ltd.**
- Plans to grow Jetrophs Curcas by contract farming. They have target of covering more than 50,000 acres of irrigated & non-irrigated land of Gujarat.

*Source: Company reports, Assorted articles, TechSci Research*
CONTRACT FARMING: CHANGING THE FARM DYNAMICS … (3/3)

- Contract farming agreement with farmers in Punjab
- PMG technology sourced from China

Pepsi Co

- Company supported farmers in R&D and other farm activities
- Farmer started to grow two crops in one year

Groundnut

- Yields increased to 3-4 tonnes per hectare, much above national average of 1 tonne per hectare

Model extended to other states

- Created procurement centers to procure Barley in Rajasthan

SAB Miller

- Provide higher-quality certified seeds and training to 5,600 farmers in Rajasthan

Barley

- Increase in yields from 1.9 tons a hectare to 3.8 tonnes a hectare within the space of one year

Others followed the model

Source: Company reports, Assorted articles, TechSci Research
Note: PMG - Plastic Mulch Groundnut

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### Salient characteristics

- Rallis is a leading player in the agricultural inputs business and one of the largest player in agri chemical business
- Crop protection is the major segment for the company and it plans to expand its presence in seeds and PGN
- As part of the above mentioned plans, Rallis acquired a research-led seeds company ‘MetaHelix’ and launched a PGN product in the name of ‘Ralligold’
- Rallis India has set up Rallis Farm Management services to undertake contract farming
- Rallis Research Centre has won the prestigious New Millennium Indian Technological Leadership Initiative award for a molecule discovery
- Launched GeoGreen which has established itself as a brand for soil conditioner. It improves the soil health to enhance the productivity
- Programmes like MoPu – More Pulses, Samrudh Krishi have been initiated to drive the productivity of various agri services

### Major business segments

- **Crop protection**
- **Agri services**
- **Contract farming**
- **Seeds and PGN**

**Note:** PGN - Plant Growth Nutrients
Net sales (USD million)

Profit before taxes (USD million)

Source: Company website, TechSci Research

* - Revenue is for six months ended September 2015
INDUSTRY ASSOCIATIONS … (1/2)

Autonomous Bodies

- **National Institute of Agricultural Extension Management**
  Rajendranagar, Hyderabad–500 030, Andhra Pradesh
  Phone: 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

Boards

- **Central Insecticides Board and Registration Committee**
  Machinary 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
INDUSTRY ASSOCIATIONS ... (2/2)

- **National Dairy Development Board (NDDB)**
  PB No 40, Anand–388 001
  Phone: 02692-260148/260149/260160
  Fax: 02692-260157

- **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
  Phone: 91-11-25846010

For updated information, please visit [www.ibef.org](http://www.ibef.org)
GLOSSARY ...

- **AIBP**: Accelerated Irrigation Benefit Programme
- **Breeder seeds**: Seeds move from germ-plasm (research) stage to breeder stage
- **CAGR**: Compound Annual Growth Rate
- **Certified/quality seeds**: Foundation seeds are further multiplied to get certified seeds, which are sold to farmers
- **FMTTI**: Farm Machinery Training and Testing Institutes
- **Foundation seeds**: Breeder seeds are multiplied as foundation seeds
- **FY**: Indian Financial Year (April to March) – FY12 implies April 2011 to March 2012
- **KCC**: Kisan Credit Card
- **MSP**: Minimum Support Prices
- **NFSM**: National Food Security Mission
- **NMAM**: National Mission on Agricultural Mechanisation
- **PGN**: Plant Growth Nutrients
**RKVY**: Rashtriya Krushi Vikas Yojana is a central government scheme providing funds to state governments to spend on agriculture

**Wherever applicable, numbers have been rounded off to the nearest whole number**
## Exchange Rates

### Exchange rates (Fiscal Year)

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<tr>
<th>Year</th>
<th>INR equivalent of one USD</th>
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<td>2004–05</td>
<td>44.81</td>
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<tr>
<td>2005–06</td>
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<tr>
<td>2015-16(Expected)</td>
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</table>

### Exchange rates (Calendar Year)

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<tr>
<td>2014</td>
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<tr>
<td>2015(Expected)</td>
<td>63.72</td>
</tr>
</tbody>
</table>

Source: Reserve bank of India, Average for the year

For updated information, please visit [www.ibef.org](http://www.ibef.org)
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