RALLIS INDIA LIMITED

Corporate Identity No. L36992MH1948PLC014083

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Tel 91 22 6776 1657 Fax 91 22 6776 1775 email pmeherhomji@rallis.co.in

Mrs P S Meherhomji
Company Secretary

22nd February, 2017

The General Manager
Corporate Relationship Dept.
BSE Limited
Phiroze Jeejeebhoy Towers
Dalal Street
Mumbai 400 001

Asst. Vice President
National Stock Exchange of India Ltd.
Exchange Plaza, 5th Floor
Plot No. C/1, G Block
Bandra - Kurla Complex, Bandra (E)
Mumbai 400 051

Dear Sir,

With regard to the IIFl's 8th Enterprising India Global Investors' Conference held on 21st February, 2017 and pursuant to Regulation 30 read with Schedule III Part A Para A of SEBI (Listing Obligations and Disclosure Requirements) Regulation, 2015, we are enclosing the presentation made at the aforesaid conference for your reference and records.

Thanking you,

Yours faithfully,
RALLIS INDIA LIMITED

(P. S. MEHERHOMJI)

Encl: a/a

Developments & Opportunities in Indian Agri-Inputs Industry

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KR Venkatadri

Chief Operating Officer

Agriculture in India

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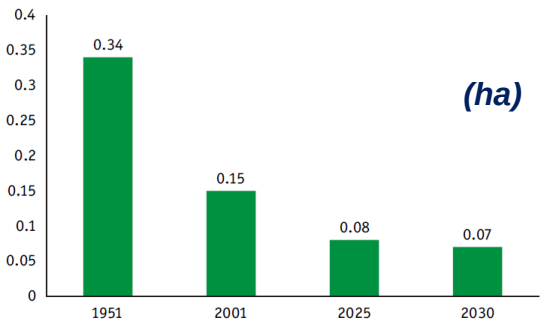
Importance of Agriculture in India

- About 75% people are living in rural areas and are still dependent on Agriculture.
- About 43% of India's geographical area is used for agricultural activity.
- Agriculture continues to play a major role in Indian Economy.
- Provides food to more than 1 billion people
- Produces 51 major crops
- Contributes to 1/6th of the Export Earnings

Changing Scenario…

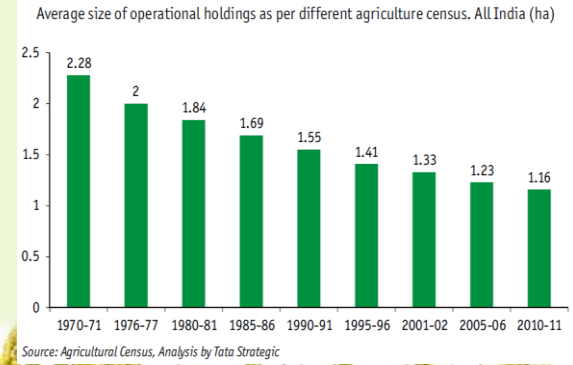


Reduction in arable land

This has put immense pressure on the current available arable land for the food and nutritional needs of the population

Decreasing farm sizes

While the average size of landholding is decreasing (also fragmenting) the number of operational holdings is increasing leading to no.of challenges.



Source: FICCI report, Rallis Internal Analysis

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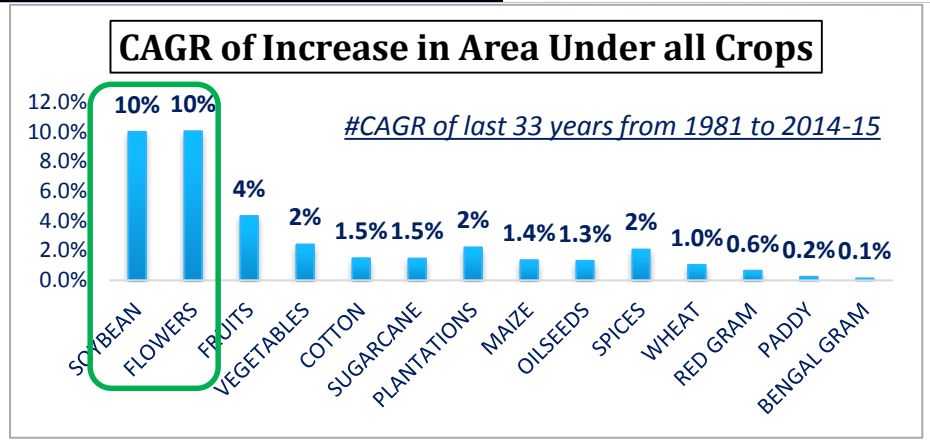
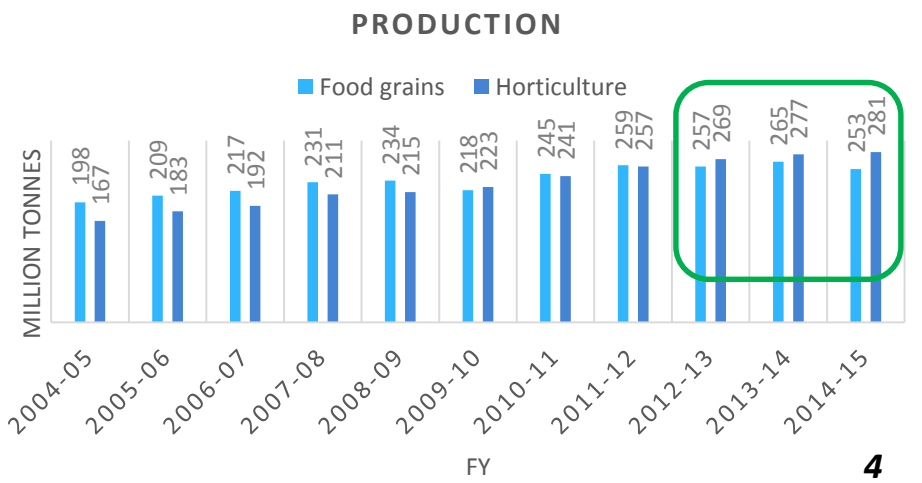
.....Paving a New Era of Growth Opportunities

- India ranks **Second** in fruits and vegetables production in the world, after China.
- The area under cultivation of fruits stood at **6.110 million hectares** while vegetables were cultivated at **9.542 million hectares**.
- India is the **largest producer** of Ginger and Okra amongst vegetables
- India ranks **Second in** production of potatoes, onions, cauliflowers, brinjal, Cabbages, etc.
- Amongst fruits, the **country ranks First** in production of Bananas (22.94%), Papayas (44.03%) and Mangoes (including mango steens and guavas) (37.57%).
- During 2015-16, India exported fruits and vegetables worth Rs. 8,391.41 crores which comprised of fruits worth Rs. 3,524.50 crores and vegetables worth Rs. 4,866.91 crores.





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F&V Segment & Opportunities

Observations:

- Highest increase in Acreages & Production has happened in Flowers, Fruits & vegetables after Soybean.
- Contribution of fresh & processed Fruits & Vegetables in overall export is 2nd highest after Cereals.
- The growth of Horticulture production is higher than that of Foodgrain production over last 10 years
- However, the increase in Productivity (Yield/Acre) of F&V compared to other crops is very low: Vegetables (2.5%), Fruits (1%)

Losses due to High Infestation of Pest & Diseases

Still Considered as a Secondary crop

Limited to Domestic Focus

Low Penetration of Safer Molecules

Low Usage of Agrochemicals

Knowledge Dissemination- PoP

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World Food Production needs (2020 and beyond)

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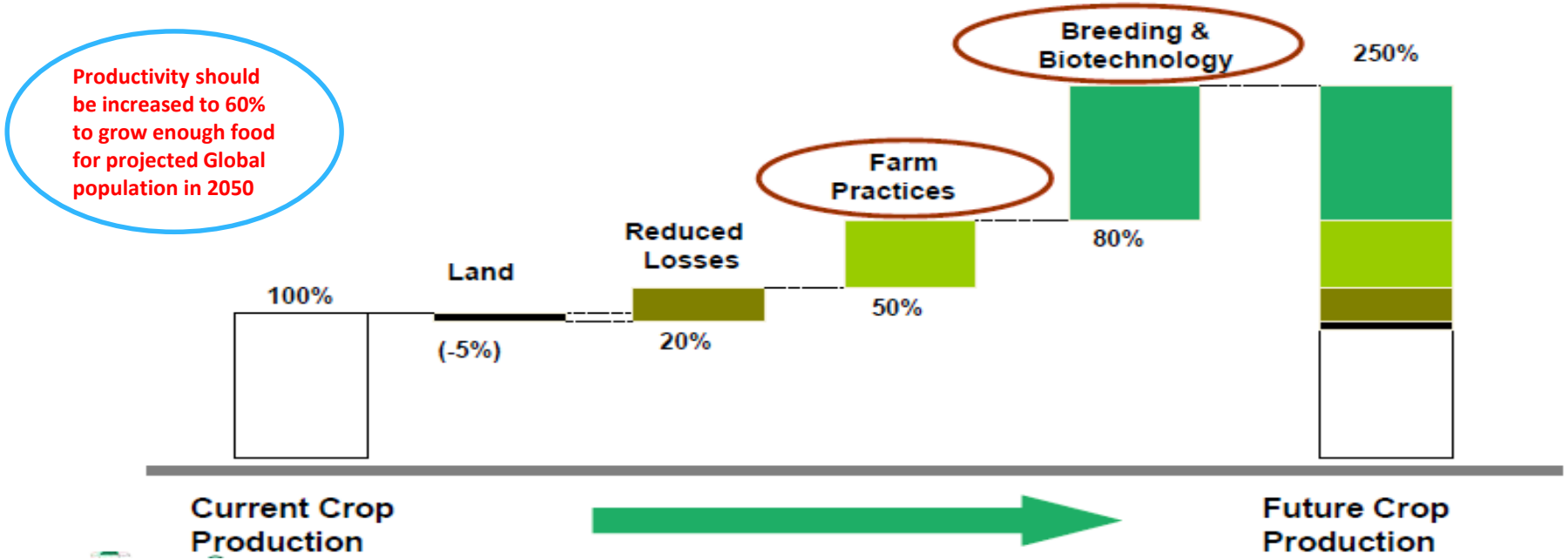
- ❑ *Global Population will reach USD 9 Billion by 2050 requiring twice the food to be produced from constant land area*
- ❑ *Need for productivity and increasing pressure on profit is putting pressure on sustainability*

If world were to produce 2.5 times of current food, this is how the contributors will be



Source: Progression of Indian Seed Industry

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More production from less land can be accomplished only with combination of...

Quality Seeds + Quality Inputs + Farm Practices

- *Improved quality seeds*
- *Improved Seed replacement ratio: Shift from farm saved seeds to hybrids – increase productivity*
- *Combination traits to mitigate multiple stress factors : e.g. resilience to climate change*
- *Combining planting materials with "Traits" and technologies*

- *Increased input efficiency- Nutrients and water*
- *Increased Agrochemicals usage for crop protection*
- *Increased nitrogen use efficiency with reduced carbon footprint*

- *Improved farming practices - mechanization, land preparation, crop care and harvesting.*
- *Increased pre & Post harvest care*

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Agribusiness Opportunities in India

1) Provide Food Security

- Improving Productivity
  - Seeds
  - Nutrients
  - Crop Protection
  - Technology

- Go for upside farming
  - Corporate farming
  - Area specific

2) Leveraging Trends in Agriculture

- Labour shortage
  - Inputs : Herbicides, New Technologies, etc
  - Equipments

- Water Stress
  - Seeds / Bio tech
  - Irrigation
  - Precision Agriculture

3) Value addition in Agriculture

- Eliminating Wastages
  - Post harvest / Warehousing / Cold chains
  - Processing

- Value enhancement
  - Grading, Sorting, Branding
  - Processing
  - Retailing
  - Exporting

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Developments & Opportunities – Agri -Input Industry

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Indian Seed Industry

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Indian Seed Market- Size

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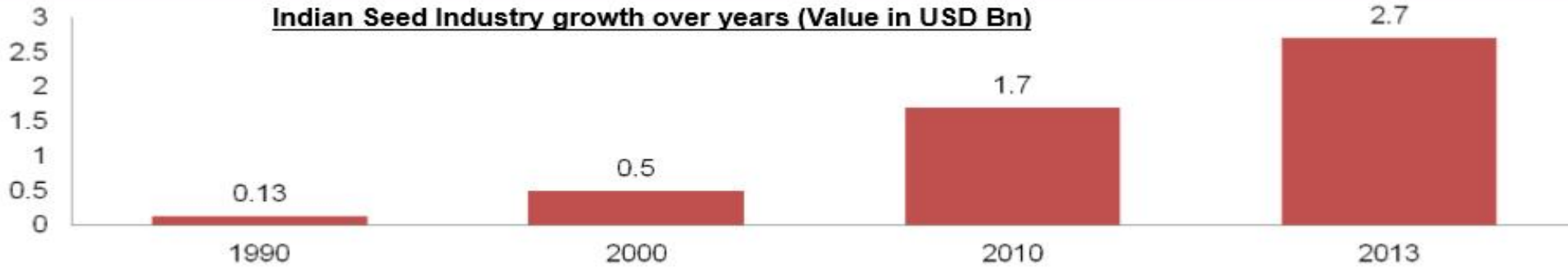
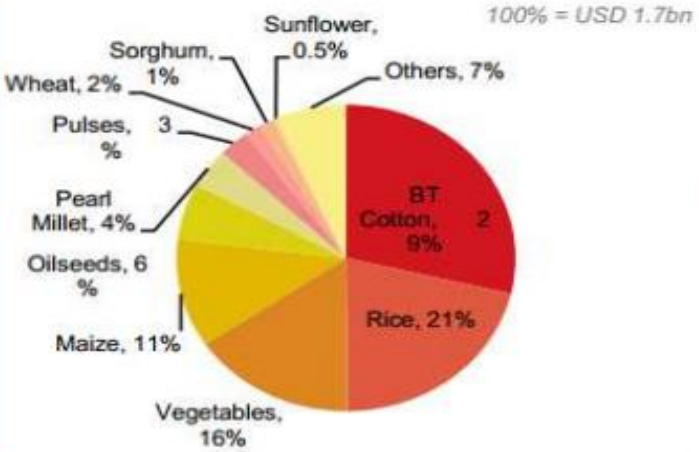
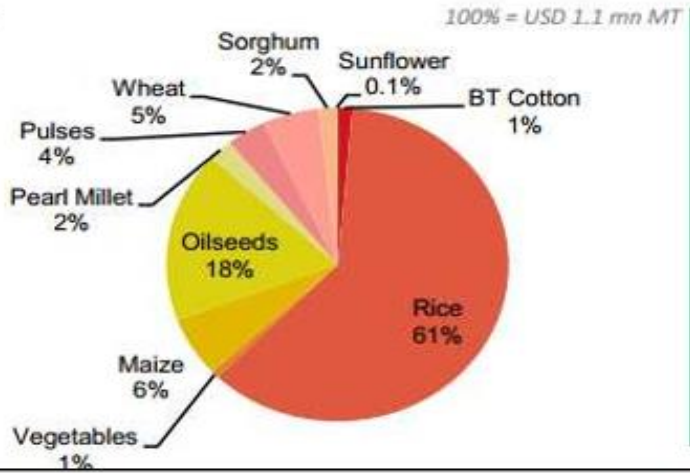


Indian Seeds Market by Value (2010)



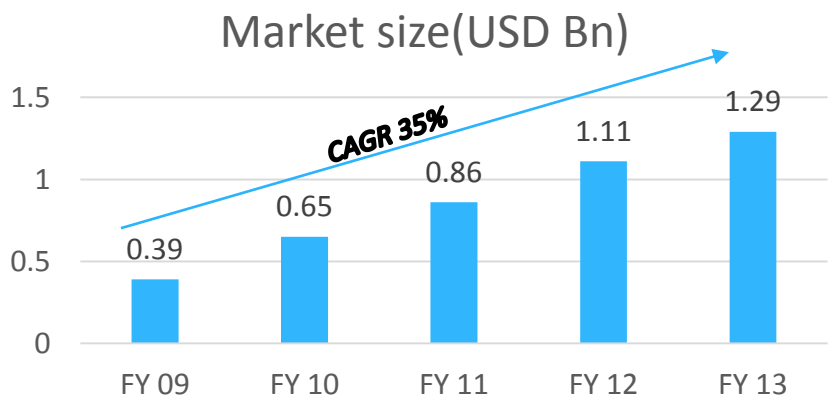


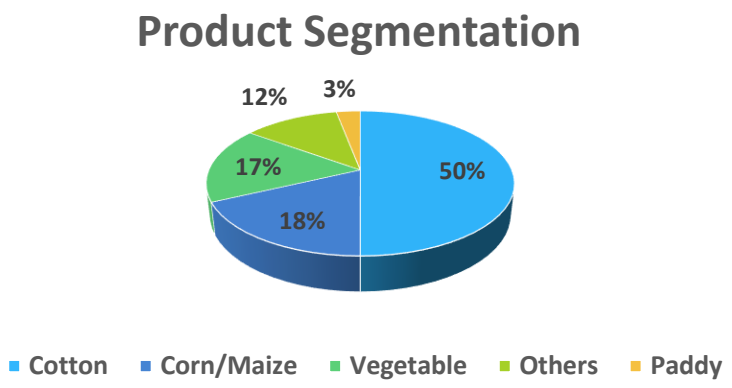
Indian Seeds Market by Volume (2010)

Farm saved seed:75% /Commercial Seed:25%
Public bred hybrids:11%,OP Varieties:61%,Proprietary hybrid:21% of market value

***Source: Avendus Capital Study**

Hybrid Seed Industry in India





- *Hybrid Seed Industry expected to reach INR 153 billion by FY2018 growing at a CAGR of 17% from FY2014-FY2018*
- *Single dominant factor for the growth of Hybrid Seed Industry is technological up gradation in Biotechnological methods and transgenic seeds*

- *BT Cotton contributed 50% of hybrid seed market followed by Maize*
- *Vegetables were the 3rd largest contributor and play a major role due to their higher productivity, shorter maturity cycle, and higher realizable value resulting in higher income to farmers*

***Source: Indian Seed Industry,Outlook by Ken Research**

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Indian Seed Market :Growth over years and growth drivers

Regulatory framework	• Enactment of suitable legislations • Market liberalization to increase availability of quality seeds • Relaxation of norms for export to overseas country
Research and Technology	• Sharing of germplasm and breeder seeds of public-breeder varieties • Investment by public /private players • Acceptance and commercialization of new seed technology,GM traits, use of biotechnology
Foreign Investment	• Technical and financial assistances in the early stages of development from foreign aid agencies-USAID • Entry of multinational corporations into Indian seed business through equity participation
Environment	• Public-private partnerships • Special schemes for upgrading quality of farm saved seed and improving Seed Replacement Rate • Introduction of the Seed Technology subject at graduate and Post graduate level

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Indian Agrochemical Industry

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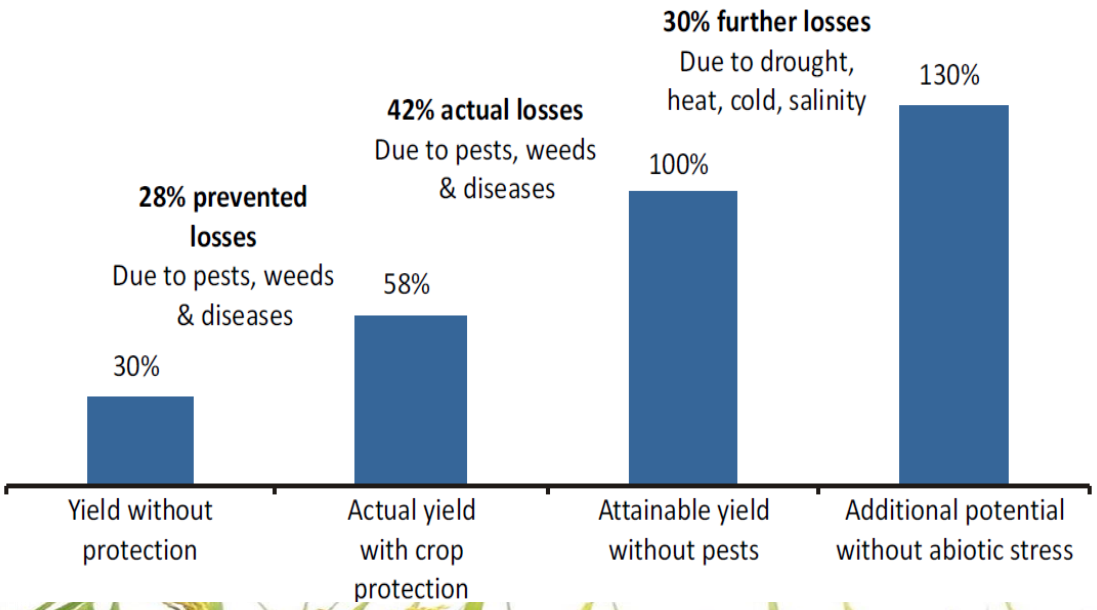
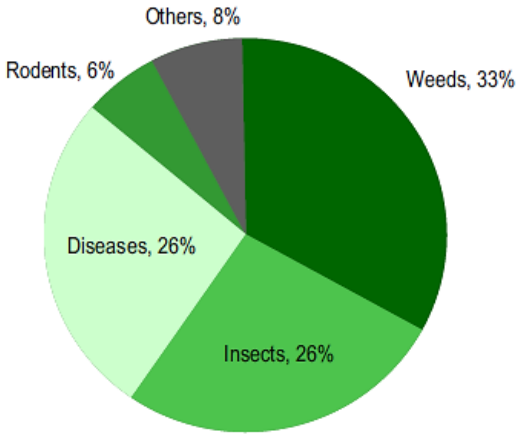
Yield improvement potential percentage for Crop Production



Losses caused by diff. pests in India



Source: Industry Reports, Analysis by Tata Strategic

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Per hectare yield in India lower than the rest of the world:

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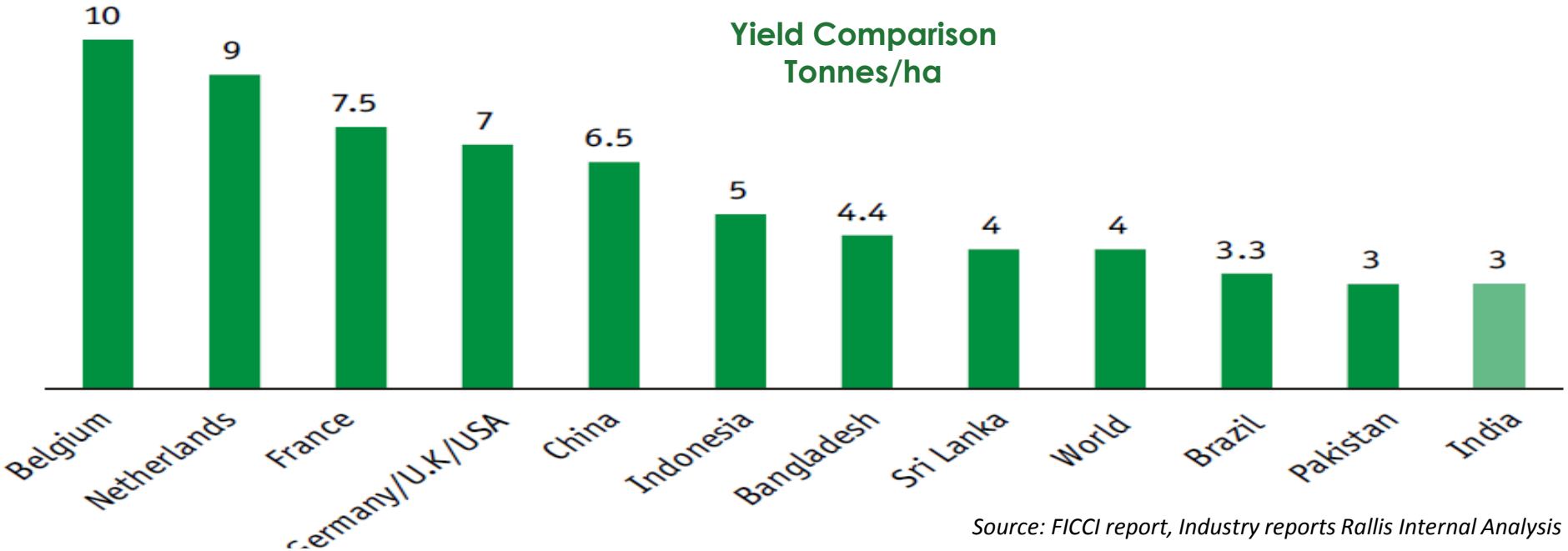

Source: FICCI report, Industry reports Rallis Internal Analysis

As workforce in agriculture in India reduces, all stakeholders need to look at increasing yields to be able to meet growing demand which will require better farming practices

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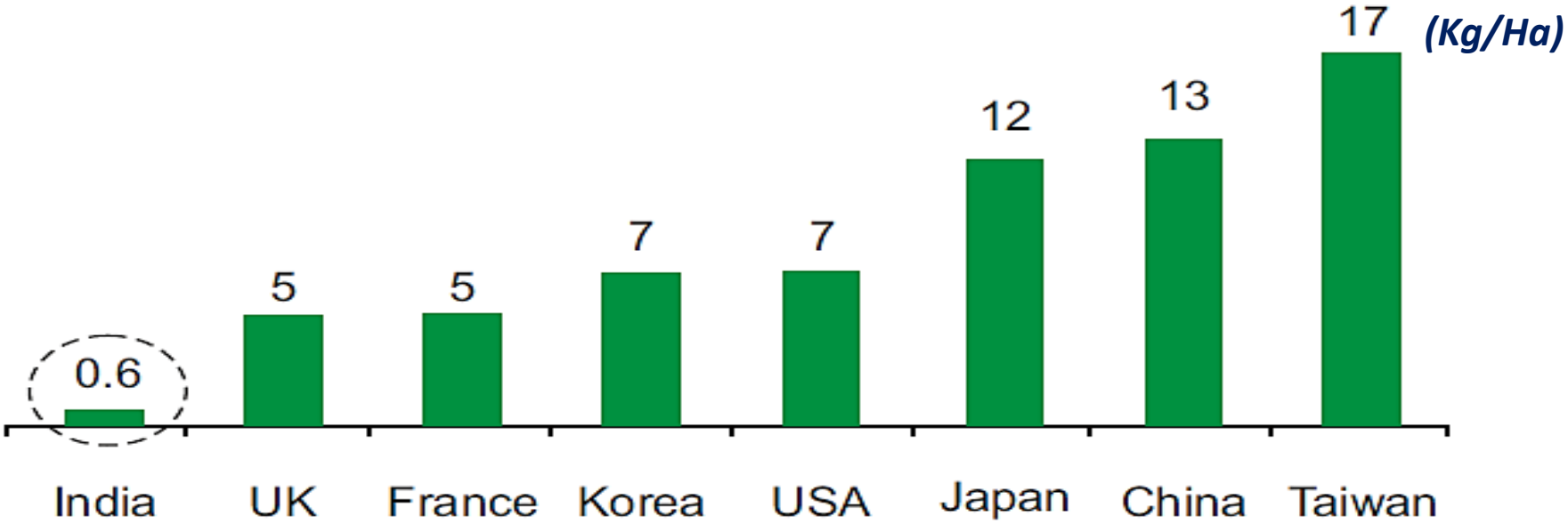
Per capita consumption of Agrochemicals is Lowest in India



Consumption of crop protection products in India is amongst the lowest in the world.

Source: FICCI report, Industry reports Rallis Internal Analysis

Some of the important reasons for low consumption-

- ***Low purchasing power of farmers***
- ***Lack of awareness among farmers***
- ***Limited reach and lower accessibility of products***

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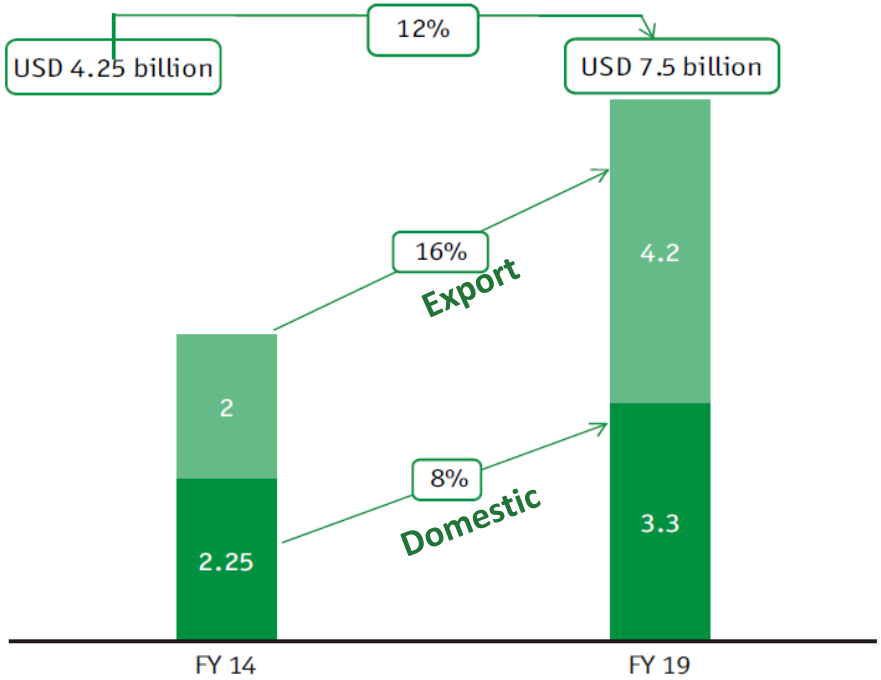
Indian Crop Protection Market (USD Bn)



Source: Industry Analysis by Tata Strategic

- The Indian CP industry is estimated at USD 4.25Bn in FY14 and is expected to grow at a CAGR of 12% to reach USD 7.5Bn by FY19.
- The exports currently constitute almost 50% of industry and are expected to grow at a CAGR of 16% to reach USD 4.2Bn by FY19, resulting in 60% share.
- Domestic market on the other hand would however grow at 8% CAGR, as it is predominantly monsoon dependent, to reach USD 3.3Bn by FY19.

Source: FICCI report, Industry reports Rallis Internal Analysis

Globally, India is fourth largest producer of crop protection chemicals, after United States, Japan and China

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India in Contract Manufacturing

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- ✓ *Asia share in the global chemical industry is at 45% share.*
- ✓ *With Asia's growing contribution to the global chemical industry, China and India emerge as one of the focus destination.*
- ✓ *Make in India concept mooted by Government of India along with initiatives by Indian industry bodies would result in Indian chemical industry to grow at 11% p.a.*
- ✓ *High end use demand, improved export competitiveness could lead to a growth rate of 15% and size of USD 290 billion by 2017. (Global industry is 6%)*
- ✓ *India has tremendous potential yet to be leveraged.*

Opportunity for Manufacturers

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Change in Regulatory Norms

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CIB RC 371

Registration Committee (RC) has proposed the following policy change to reduce imports and give thrust to indigenous manufacturing

- Molecules registered under indigenous manufacturing category, no certificate of registration of that molecule for imports shall be granted
- Those companies possessing manufacturing Certificate for Indigenous manufacturing of that pesticides shall not be permitted for import category registration
- To improve local manufacturing facilities and guidelines shall be relaxed in favor of local manufacturers
- Imports permits (Certificate of Registration) does not containing validity period shall need to be notified and shall be examined again

Expected Outcome

- Reduction in illegal imports
- Stability in generics prices
- Increases in branded sales

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Impact of change in Regulation on Seed Industry

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- 2015 – 16 the MRP of Bt Cotton is ₹ 930 / packet
  - ✓ ₹184 – Trait Fee
- 2016 – 17 the MRP has been reduced to ₹ 800 / packet
  - ✓ ₹49 – Trait Fee
  - ✓ Trait fee to be reduced by 10% every year till it becomes Zero.

Expected Outcomes

- ➢ End user is benefited
- ➢ Concern for the new technology innovators

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Impact of change in Regulation on Pesticide Industry

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- As per RC 371 Bio-stimulants have to be included under CIB or PMB
  - ✓ Genuine Bio-stimulant manufacturers will approach CIB or PMB for approval
  - ✓ Spurious Bio-stimulant manufacturers will be forced to exit creating a vacuum for Pesticide players
  - ✓ Increased Pesticide consumption(currently Bio-stimulants are being recommended for multiple pest)

Expected Outcomes

➢This will fuel the demand of quality pesticides

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Government Thrust in Agriculture

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Impact of Union Budget on Industry

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Key Highlights

- Increased agriculture credit
- Digitization of PACS
- Increased coverage of Fasal Bhima Yojna
- Extra budget allocation to have focus on micro irrigation
- Thrust on rural employment & MGNREGA

Impact

- Enhanced purchasing capacity of the farmer
- Real time & accurate data
- Protect farmers and their incomes against production and price risks
- Assured crop acreages
- Labour scarcity – leading to farm mechanization

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Shift from Agriculture to Agribusiness

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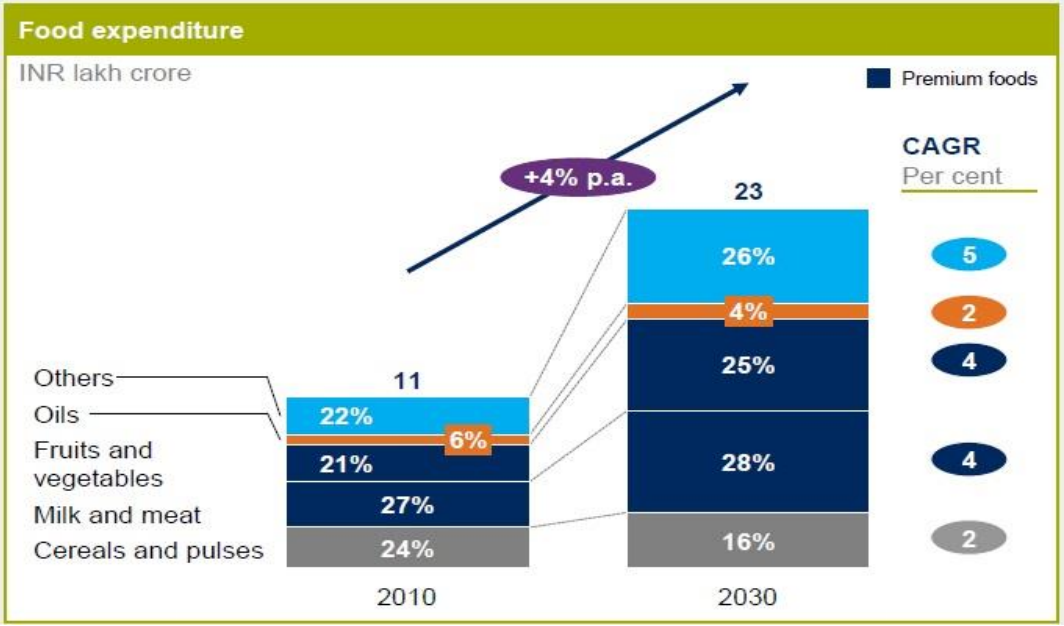
India's consumption basket is expected to move towards premium foods

Consumption has been shifting from plant based proteins such as cereals pulses, to animal-based protein such as milk and meat.

Expected increasing demand of Milk & Meat and Fruits and Vegetables



Changing consumption is leading to change in agricultural production

Data source: McKinsey Survey

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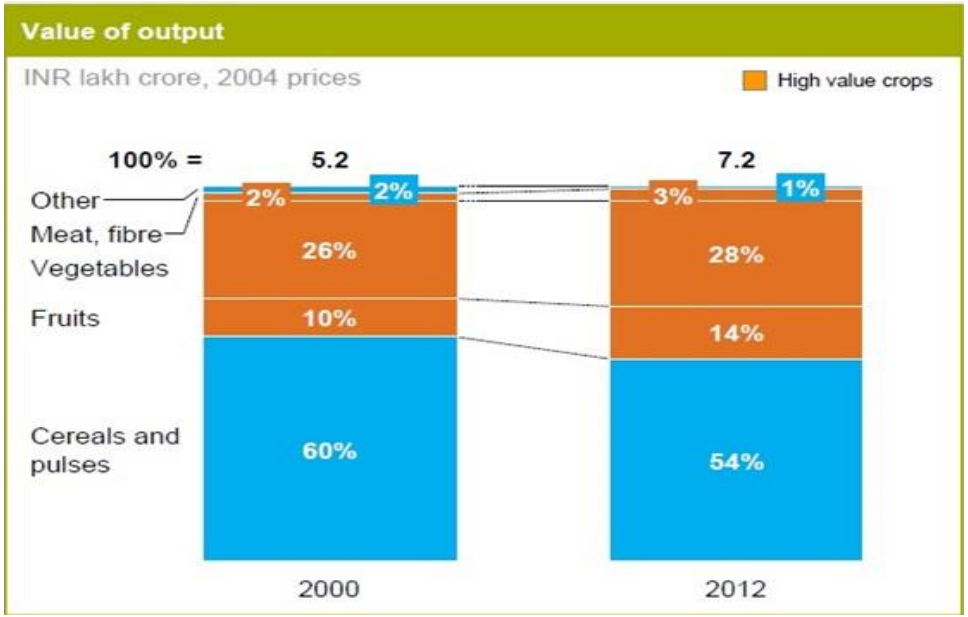
Production has shifted from food grains to high value crops

Cereals and pulses are likely to grow at 2 per cent per annum, lower than the overall growth, while milk (3 per cent per annum), meat (including seafood, at 5 per cent per annum), and fruits and vegetables (4 per cent per annum) will contribute to the overall agricultural growth.



Indians are expected to consume 90 kg of fruit in 2030 as compared to 62 kg in 2010.

Data source: RBI – Handbook of Statistics, McKinsey Survey

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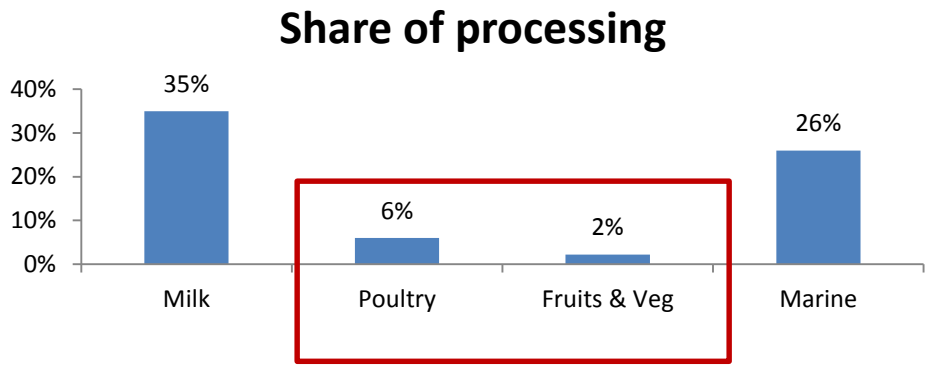
Food Processing and Exports



Less than 10% of agri produce undergoes processing in India.

With government support and SME to increase, post processing in rural markets expected to rise.

Agricultural Exports – Unfulfilled potential

- ✓ India ranks 3rd in agricultural production in the world, but ranks 10th in exports

With government interventions and private investments increasing in this space, will led to more exports.

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Changing Needs and Trends in Agriculture

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How the Farmer needs would change in next 5 years in India

Current Needs

- Information on Crops, Pest/Disease, Soil, Market Rates
- Whom to connect in case of problems
- Timely supply of products at right prices
- Collaborate with friends and peers
- Information on farm implements, Insurance & Financial Services
- Get market information and market linkages

Future Needs

- Require Predictive Information for preventive actions
- Require information at finger tips
- Information, services and products should be personalized
- Doorstep delivery of products and services
- Ability to collaborate globally

Agro Industry globally is moving from Product Industry to Service Industry

Factors Aiding the Shift

- Trends in India
  - ✓ Thrust on modernization
  - ✓ Digital Bharat - Rapid penetration of internet
  - ✓ Exponential growth of smartphones in rural
  - ✓ Increased mobile literacy
  - ✓ Reduction in cost of sensors and satellite image procurement
- Countries like USA, Canada, etc. have majorly moved to Precision Agriculture - India to follow suit

Trends are showing Agriculture Going Digital towards Precision Agriculture

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Precision Farming Is Here To Disrupt Traditional Farming Practices

BIDNESS ETC

Benefits:

- Increased farm productivity
- Better integration of the agriculture value chain
- More accurate future outlook
- Rapid product development initiatives from involved companies

Headwinds:

- High upfront investment
- Low awareness levels among farmers
- Adoption rates remain poor among developing economies

Precision Farming Growth:

(CAGR) of

13.4%

from 2013 to 2018

Summary of Opportunities in Indian Agri -Input Industry

Agri Productivity	• Agriculture productivity should be increased to 60% to grow enough food for projected Global population in 2050
Seed Industry	• Hybrid Seed Industry expected to reach INR 153 billion by FY2018 growing at a CAGR of 17% from FY2014-FY2018
Crop Protection	• Indian CP industry is estimated at USD 4.25Bn in FY14 and is expected to grow at a CAGR of 12% to reach USD 7.5Bn by FY19
Fruits and Vegetables	• India exported fruits and vegetables worth Rs. 8,391.41 crores 2015-16
Agri business	• Less than 10% of Agri produce undergoes processing huge opportunity for growth
Precision agriculture	• Precision farming growth with a CAGR of 13.4% from 2013-2018

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