<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>3</td>
</tr>
<tr>
<td>Advantage India</td>
<td>4</td>
</tr>
<tr>
<td>Market Overview – Agriculture</td>
<td>6</td>
</tr>
<tr>
<td>Market Overview – Food Processing</td>
<td>12</td>
</tr>
<tr>
<td>Recent Trends and Strategies</td>
<td>17</td>
</tr>
<tr>
<td>Growth Drivers</td>
<td>20</td>
</tr>
<tr>
<td>Opportunities</td>
<td>30</td>
</tr>
<tr>
<td>Key Industry Contacts</td>
<td>34</td>
</tr>
<tr>
<td>Appendix</td>
<td>36</td>
</tr>
</tbody>
</table>
Executive summary

1 Global standing

- 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.
- India is currently the world’s fourth-largest producer of agrochemicals.
- India had the largest livestock population of around 535.8 million, which translated to around 31% of the world’s livestock population in 2019.

2 Favourable conditions

- India has the second-largest arable land resources in the world. 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.
- Strategic geographic location and proximity to food importing nations favour India in terms of exporting processed foods.

3 Increasing farm mechanisations

- India is among the largest manufacturers of farm equipment like tractors, harvesters and tillers. India accounts for nearly one-third of the overall tractor production globally.
- To boost farmer incomes and growth of the agricultural economy, the Indian government released funds in June 2021 for farm mechanisation such as establishment of custom hiring centres, farm machinery bank and high-tech hubs in different states.

4 Rising consumption expenditure

- Consumer spending in India will return to growth in 2021 post the pandemic-led contraction, expanding by as much as 6.6%.
- Private consumption expenditure (at constant prices) was estimated at Rs. 83.25 lakh crore (US$ 1.18 trillion) in FY20# against Rs. 79.08 lakh crore (US$ 1.12 trillion) in FY19.

5 Record production of food grains

- In the 2020-21 crop year, food grain production reached a record of 305.4 million tonnes. For FY 2021-22, the government has set a target to increase production by 2%.
- As per first advance estimates released by the Ministry of Agriculture and Farmers Welfare, record food grain production of 150.50 million tonnes is likely in the 2021-22 kharif season.

Note: # - as per provisional estimate
**1 Robust demand**

- Large population and rising urban and rural income have added to growth in demand for agriculture products.
- Demand for processed food is rising with increase in disposable income, urbanisation, young population and nuclear families.
- Changing lifestyle and increasing expenditure on health and nutritional foods have also added to growth.

**2 Competitive advantage**

- India benefits from a large agriculture sector, abundant livestock and cost competitiveness.
- Lured by the size and returns of the Indian market, foreign firms have strengthened their presence in India.
- High proportion of agricultural land (157 million hectares) and diverse agro-climatic conditions encourage cultivation of different crops.

**3 Policy support**

- The govt. announced a PLI scheme for the food processing sector with an incentive outlay of Rs 10,900 crore (US$ 1,484 million) over a period of six years from FY22.
- Government of India is also aiming to double farmers’ income by 2022.
- Pradhan Mantri Fasal Bima Yojana aims to support sustainable production in agriculture by providing financial support to farmers who have incurred crop losses/damages.

**4 Attractive opportunities**

- Increase in demand for agricultural inputs such as hybrid seeds and fertilizers.
- India can be among the top five exporters of agro-commodities by shifting its focus on cultivation and effectively handholding farmers: World Trade Centre
- Investment opportunities to arise in agriculture, food infrastructure and contract farming.

*Source: DPIIT, JLL India*
Market Overview – Agriculture
Growth in agriculture

- In India, agriculture is the primary source of livelihood for ~54.6% of the population.
- The agriculture, forestry and fishing gross value added (GVA) growth is likely to be 3% in the second quarter of FY21.
- Agriculture and allied activities recorded a growth rate of 3.4% at constant prices in FY21.
- Gross Value Added by the agriculture sector increased by 4.5% in April 2021 to June 2021, compared with FY21.
- As per the Union Budget 2021-22, Rs. 1.33 lakh crore (US$ 18.41 billion) was allocated to the Ministry of Agriculture.
- Between April 2021 and August 2021, agricultural & processed food product exports stood at US$ 7.9 billion.
- Between April 2020 and June 2021, FDI in agriculture services stood at US$ 2.31 billion.
- According to Inc42, the Indian agricultural sector is predicted to increase to US$ 24 billion by 2025.
- The private sector’s share in seed production increased from 57.28% in 2017 to 64.46% in FY21.
- India’s palm oil imports in 2021-22 are projected to decline 9% from the previous year due to increased domestic supply, as farmers expanded the area planted with oilseeds in response to record high prices.

**Notes:** GDP - Gross Domestic Product, MOSPI – Ministry of Statistics and Programme Implementation; 
**Source:** Ministry of Agriculture, Print Release, RBI, MOSPI, Central Statistics Office (CSO), Union Budget 2021-22
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 and rabi season lasts from October to March (winter) - wheat is the season’s main crop.
- According to the Ministry of Agriculture, 44% of wheat and other rabi crops were harvested out of a total of 97 lakh hectares sown area in the 2020-21 rabi season.
- In the rabi marketing season 2021-22, the government purchased a record 43.33 MT of wheat.
- As of October 06, 2021, the total kharif area stood at 34.79 lakh hectares.
- As of April 2021, a total of 73.76 lakh hectares of kharif crops was sown in the kharif season; this was an increase from 60.67 lakh hectares in the previous year in the corresponding period.
- For FY 2021-22, the government has set a production target of 151.43 million tonnes for the kharif season and 155.88 million tonnes for the rabi season.

**Source:** Ministry of Agriculture and Farmers’ Welfare, Edelweiss’ Farm Facts Sector Update
Since 2010, production as well as yield of both major crops - rice and wheat have increased significantly. As per first advance estimates released by the Ministry of Agriculture and Farmers Welfare, production of rice was estimated at 102.36 million tonnes (MT), while production of food grains was estimated at 144.52 MT in the crop year 2020-21.

The government has set a target to buy 42.74 million tonnes from the central pool in 2021; this is 10% more than the quantity purchased in 2020.

For FY22, the government has set a record target for farmers to raise food grain production by 2% with 307.31 million tonnes of food grains. In FY21, production was recorded at 303.34 million tonnes against a target of 301 million tonnes

The Economic Survey of India 2020-21 report stated that in FY20, the total food grain production in the country was recorded at 296.65 million tonnes—up by 11.44 million tonnes compared with 285.21 million tonnes in FY19.

Note: * as per 4th revised estimate, ** as per 2nd advance estimate, *** as per 1st advance estimates, # as per final estimate
Source: Ministry of Agriculture and Farmers’ Welfare

<table>
<thead>
<tr>
<th>Crop</th>
<th>2018-19*</th>
<th>2019-20**</th>
<th>2020-21***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>116.48</td>
<td>117.94</td>
<td>102.36</td>
</tr>
<tr>
<td>Wheat</td>
<td>103.67</td>
<td>107.18</td>
<td>-</td>
</tr>
<tr>
<td>Total Cereals</td>
<td>263.14</td>
<td>272.66</td>
<td>135.21</td>
</tr>
<tr>
<td>Total Pulses</td>
<td>22.08</td>
<td>23.01</td>
<td>9.31</td>
</tr>
<tr>
<td>Total Foodgrains</td>
<td>285.21</td>
<td>295.67</td>
<td>144.52</td>
</tr>
<tr>
<td>Total Oilseeds</td>
<td>31.52</td>
<td>33.50</td>
<td>25.72</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>405.41</td>
<td>358.13</td>
<td>399.8</td>
</tr>
<tr>
<td>Cotton (million bales of 170 kg each)</td>
<td>28.04</td>
<td>36.04</td>
<td>37.11</td>
</tr>
<tr>
<td>Jute &amp; Metsa (million bales of 180 kg each)</td>
<td>9.82</td>
<td>9.92</td>
<td>9.17</td>
</tr>
</tbody>
</table>

Foodgrains and Commercial Crops Production (MT)

Source: Ministry of Agriculture and Farmers’ Welfare
Surge in demand of Indian agricultural products…(1/2)

- The total agricultural and allied products exports stood at US$ 41.25 billion in FY21.
- The principal commodities that posted significant positive growth in exports between FY20 and FY21 were the following:
  - Wheat and Other Cereals: 727% from Rs. 3,708 crore (US$ 505 million) to Rs. 5,860 crore (US$ 799 million)
  - Non-Basmati Rice: 132% from Rs. 13,130 crore (US$ 1,789) to Rs. 30,277 crore (US$ 4,126 million)
  - Soya Meal: 132% from Rs. 3,087 crore (US$ 421 million) to Rs. 7,224 crore (US$ 984 million)
  - Raw Cotton: 68% from Rs. 6,771 crore (US$ 923 million) to Rs. 11,373 crore (US$ 1,550 million)
  - Sugar: 39.6% from Rs. 12,226 crore (US$ 1,666 million) to Rs. 17,072 crore (US$ 2,327 million)
  - Spices: 11.5% from Rs. 23,562 crore (US$ 3,211 million) to Rs. 26,257 crore (US$ 3,578 million)
- In FY22, India's agricultural exports are likely to surpass US$ 40 billion, according to NABARD.
- Government aims to raise fishery export from India to Rs. 1 lakh crore (US$ 14.31 billion) by 2024-25.
- India's wheat exports in 2021 could four-fold from 2020 to the highest level and reach 4.2 million tonnes since last eight years as a march in global prices and higher freight costs make Indian wheat lucrative for Asian buyers.

Notes: CAGR is up to FY21, * From April 2021 to August 2021, ** It includes exports of agricultural and allied products in FY21
Source: World Trade Organisation, APEDA, DGCIS
Marine products, rice and spices are the largest agricultural export items in terms of value. Other major export items are buffalo meat, sugar, cotton, and oil products.

In FY21, exports of marine products stood at US$ 5.96 billion, followed by non-basmati rice at US$ 4.80 billion and basmati rice at US$ 4.02 billion.

In FY21, buffalo meat and sugar exports stood at US$ 3.17 billion and US$ 2.79 billion, respectively.

In October 2021, the first consignment of jackfruit, passion fruit and nutmeg (jaiphal) was shipped to Australia, paving the way for horticulture crop exports.

Key agricultural and allied sector exports from India in FY22*

<table>
<thead>
<tr>
<th>Crop</th>
<th>US$ billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>3.82</td>
</tr>
<tr>
<td>Marine Products</td>
<td>3.15</td>
</tr>
<tr>
<td>Spices</td>
<td>1.69</td>
</tr>
<tr>
<td>Buffalo Meat</td>
<td>1.29</td>
</tr>
<tr>
<td>Sugar</td>
<td>1.55</td>
</tr>
<tr>
<td>Cotton Raw including Waste</td>
<td>1.01</td>
</tr>
<tr>
<td>Oil Meal</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Notes: * From April 2021 until August 2021
Source: Ministry of Agriculture and Farmers’ Welfare, APEDA, Ministry of Commerce
Market Overview – Food Processing
Food processing industry in India...(1/2)

- Food and grocery market in India is the sixth-largest in the world. Food processing industry contributes 32% to this food market and is also one of the largest industries in the country, contributing 13% to total export and six% of industrial investment.

- The Indian food processing industry is expected to reach US$ 535 billion by 2025-26 on the back of government initiatives such as planned infrastructure worth US$ 1 trillion and Pradhan Mantri Kisan Sampada Yojna.

- The cold chain infrastructure created by 183 completed cold chain projects until December 31, 2019, were the following:
  - 6.19 lakh MT of Cold Storage, Controlled Atmosphere (CA)/Modified Atmosphere (MA) Storage and Deep Freezer.
  - 176.50 MT per hour of Individual Quick Freezing (IQF).
  - 78.61 Lakh Litres Per Day (LLPD) Milk Processing/Storage.
  - 990 reefer vehicles.

- Out of the total 39 mega food parks that were sanctioned, 22 mega food parks are operational, as of January 2021.

- In November 2020, the government inaugurated a mega food park in Punjab worth Rs. 107.83 crores (US$ 14.6 million) that will be spread across over 55 acres of land.

- Milk production in the country is expected to increase to 208 MT in FY21 from 198 MT in FY20, registering a growth of 10% y-o-y. Milk processing capacity is expected to double from 53.5 MMT to 108 MMT by 2025.

- The food processing industry employs about 1.77 million people.

- According to National Accounts Division, Ministry of Statistics and Programme Implementation, food processing units in India is growing at 7.68% annually.

- With a budget of US$ 1.46 billion, the ‘Production-Linked Incentive Scheme for Food Processing Industry (PLISFPI)' has been approved to develop global food manufacturing champions commensurate with India’s natural resource endowment and to support Indian food brands in international markets.

### Requirement of cold chain

<table>
<thead>
<tr>
<th>Component</th>
<th>Existing Capacity</th>
<th>Approximate Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Pack Houses</td>
<td>250 numbers</td>
<td>70,000 numbers</td>
</tr>
<tr>
<td>Reefer Trucks</td>
<td>&lt; 10,000 numbers</td>
<td>62,000 numbers</td>
</tr>
<tr>
<td>Cold store (Bulk &amp; distribution hubs)</td>
<td>32 million tonnes</td>
<td>35 million tonnes</td>
</tr>
<tr>
<td>Ripening Chambers</td>
<td>800 numbers</td>
<td>9000 numbers</td>
</tr>
</tbody>
</table>

Source: USDA - India’s Food Processing Sector Poised for Growth 2019, Ministry of Agriculture and Farmers’ Welfare, Ministry of Food Processing Industries, Crisil
Food processing industry in India...(2/2)

- Sales of processed food in the domestic market have been increasing at a faster pace. India’s food and beverage packaging industry is expected to reach US$ 122.78 billion by 2025.
- The food processing sector allows 100% FDI under the automatic route.
- The sector has also recorded a sharp increase in investments with cumulative FDI inflow of US$ 10.43 billion between April 2000 and June 2021.
- The processed food market in India is expected to grow to Rs. 3,451,352.5 crore (US$ 470 billion) by 2025, from Rs. 1,931,288.7 crore (US$ 263 billion) in FY20.
- In April 2021, the Government of India approved a PLI scheme for the food processing sector with an incentive outlay of Rs 10,900 crore (US$ 1,484 million) over a period of six years starting from FY22.
- In September 2021, PepsiCo commissioned its Rs. 814 crore (US$ 109.56 million) Kosi Kalan foods facility in Mathura, Uttar Pradesh; it is the company’s largest greenfield manufacturing investment in India.

Notes: * until June 2021
Source: DPIIT, Crisil
Between April 2020 and February 2021, the total value of processed food products exports was Rs. 43,798 crore (US$ 6.02 billion).

India exported key processed food products such as pulses, processed vegetables, processed fruits and juices, groundnuts, guar gum, cereal preparations, milled products, alcoholic beverages and oil meals.

In October 2021, Agricultural and Processed Food Products Export Development Authority (APEDA) signed a Memorandum of Understanding (MoU) with ICAR-Central Citrus Research Institute (ICAR-CCRI), Nagpur, for boosting exports of citrus and its value-added products.

In 2021, India witnessed growth in agriculture product exports:

- In June 2021, India exported 24 metric tonnes of groundnuts to Nepal from West Bengal, boosting groundnut exports from Eastern India.
- In FY21, India exported 1.91 lakh tonnes of banana worth Rs. 619 crore (US$ 82.90 million).

Notes: * From April 2020 to February 2021
Source: APEDA, Ministry of Commerce & Industry
Food processing segments and private players

1. Fruits, Vegetables and Processed Grains
   - Dabur
   - Godrej
   - ITC Limited

2. Milk and Milk Products
   - Vadilal
   - Nestle
   - Good Day

3. Meat, Poultry and Marine Products
   - Al Kabeer Group
   - HM Group

4. Consumer Food (Alcoholic Beverages, Soft Drinks, Packaged Drinking Water, Packaged Food)
   - Sula Vineyards
   - Coca-Cola
   - FritoLay
Recent Trends and Strategies
Rising demand of Indian products in international market

1 CHANGING CONSUMER TASTES

- Wide array of products, coupled with increasing global connectivity, has led to a change in the taste and preference of domestic consumers.

2 EXPANSION OF INTERNATIONAL COMPANIES

- Italian confectionery major, Ferrero, will invest Rs. 2,000 crore (US$ 310.3 million) by the end of 2021 to make India a hub for developing new products.

3 RISING DEMAND ON INDIAN PRODUCTS IN INTERNATIONAL MARKET

- In November 2019, Haldiram entered into an agreement for Amazon's global selling program to E-tail its delicacies in the United States.

4 EMPHASIS ON HEALTHIER INGREDIENTS

- Food processing companies are serving health and wellness as a new ingredient in processed food because of it being low on carbohydrates and cholesterol, for example, zero-% trans fat snacks and biscuits, slim milk, and whole wheat products, etc.

5 HIGHER CONSUMPTION OF HORTICULTURE CROPS

- There is a surge in demand for fruits and vegetables as a result of shift in consumption. Accordingly, Indian farmers are also shifting production.

6 PRODUCT INNOVATION AS THE KEY TO EXPANSION

- Heritage Foods, a Hyderabad-based company, has plans to add five more milk processing units in the next five years for an investment of US$ 22.31 million as part of its expansion plan to achieve US$ 1 billion turnover by 2022.

7 STRENGTHENING PROCUREMENT VIA DIRECT FARMER-FIRM LINKAGES

- Contract farming has helped both the processing companies, via increasing sales and therefore increasing their incomes, as well as Indian farmers by providing access to better technology and fetching better prices in the market.

8 HORTICULTURE OUTPUT/OUTLOOK

- Production of horticulture crops in India reached a record 329.85 million metric tonnes (MMT) in 2020-21*, an increase of 9.4 million metric tonnes over FY20.

Notes: * 2nd advance estimate
Source: News Article
1 Rising business and product innovation

- Companies have been moving up the value chain, for example, cooperatives are transitioning from being pure producers of milk to offering a wide range of dairy products.
- Both domestic and global firms have been focusing on product innovation to cater to domestic tastes while also introducing international flavours. For example, Ruchi Soya is innovating by entering into the ready-to-cook segment to meet the needs of people with significant time constraint and provide a rich source of protein in the breakfast category.

2 Research

- Crop protection, soil enhancement, and increased productivity are the major segments for the industry.
- As per the Union Budget 2021-22, Rs. 8,514 crore (US$ 1.17 billion) was allocated to the Department of Agricultural Research and Education.

3 Low-cost price strategy

- Low-cost price strategy is adopted so as to make the product affordable to consumers by guaranteeing them value for money. The main aim is to provide quality products to consumers at minimum cost like Amul Milk. Parle and Sunfeast have been working on their cost and pricing strategy to market economical products.

Source: Ministry of Agriculture and Farmers’ Welfare, Government of India, News Sources, Union Budget 2021-22
Growth Drivers
Growth drivers of Indian agriculture

2 Supply-side drivers
- Hybrid and genetically modified seeds
- Favourable climate for agriculture and wide variety of crops
- Mechanisation
- Irrigational facilities
- Green revolution in Eastern India

3 Policy support
- Growing institutional credit
- Increasing MSP
- Introduction of new schemes like Paramparagat Krishi Vikas Yojana, Pradhanmantri Gram Sinchai Yojana, and Sansad Adarsh Gram Yojana
- Opening exports of wheat and rice
- Approval of National Mission on Food Processing

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

Source: News Article
Growing area under irrigation

- Gross irrigated area under food grains was estimated to reach 64.8 million hectares in FY19.
- Of the wide variety of crops in India, rice and wheat are the most irrigated.
- With growing investments in irrigation, the dependence on monsoon has declined considerably over the years.
- As per Union Budget 2021-22, Rs. 4,000 crore (US$ 551.08 million) was allocated towards implementing Pradhan Mantri Krishi Sinchayee Yojana (PMKSYPDMC).
- A long-term irrigation fund has been set up under NABARD. A dedicated micro-irrigation fund will be set up under NABARD to achieve the goal, 'per drop more crop'. The government has allocated Rs. 5,000 crore (US$ 709.32 million) for the year 2020-21.
- During FY16-FY20, an area of 4.69 million hectare was covered under Micro Irrigation through PMKSY-PDMC.
- In May 2019, NABARD announced an investment of Rs. 700 crore (US$ 100 million) venture capital fund for equity investments in agriculture and rural-focused start-ups.
- In November 2020, Netafim India, a leading smart irrigation solutions provider, launched FlexNet, a revolutionary mainline and sub-mainline piping for above and below-ground drip irrigation systems for Indian farmers.

**Source:** Food and Agricultural Organisation US, Ministry of Agriculture, *Ministry of Agriculture and Farmers' Welfare Annual Report 2018-19*
Institutional credit and investments on a rise

- Agricultural credit target is set at Rs.16.5 lakh crore (US$ 226 billion) in FY22.
- Agricultural credit disbursal stood at Rs. 11.75 lakh crore (US$ 167 billion) in FY20 and Rs. 15 lakh crore (US$ 204) in FY21.
- In October 2019, Pioneering Ventures (PV) announced the launch of ‘Rural India Impact’ fund of US$ 70 million, targeted to make growth capital available to companies it has been backing so far.

Source: Ministry of Agriculture and Farmers’ Welfare, RBI, AgFunder
Rising income and growing middle class to drive demand for processed food

- Strong growth in per capita income has resulted in greater demand for food items.
- Per capita GDP of India is expected to reach US$ 3,277 in 2024 from US$ 2,036 in 2018.
- Packaged food industry in India is expected to cross US$ 65 billion by 2020 and become the third-largest market for packaged foods globally.
- The Ministry of Food Processing has been allocated Rs. 1,308.66 crore (US$ 180.26 million) in the Union Budget 2021-22.
- There has also been a shift in demand:
  - from carbohydrates to meat products (in line with the various phases of economic growth)
  - and to convenience foods, and organic and diet foods

**GDP per capita at current prices (US$)**

Source: International Monetary Fund, World Economic Outlook Database, April 2019, Euromonitor, Union Budget 2021-22
Competitive advantage

- India’s comparative advantage lies in its favourable climate, large agriculture sector and livestock base, long coastline and inland water resources.
- India also has an edge in cost of production compared to its competitors in Asia and the developed world.
- The Government of India targets production of 32 million tonnes of pulses by 2030.

<table>
<thead>
<tr>
<th>Product</th>
<th>Production in 2019-20 (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>208</td>
</tr>
<tr>
<td>Pulses</td>
<td>23.01</td>
</tr>
<tr>
<td>Meat</td>
<td>7.7</td>
</tr>
<tr>
<td>Banana</td>
<td>31.7</td>
</tr>
<tr>
<td>Mango</td>
<td>20.8</td>
</tr>
<tr>
<td>Tea (million kgs)</td>
<td>1350</td>
</tr>
<tr>
<td>Rice</td>
<td>117.94</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>358.13</td>
</tr>
<tr>
<td>Wheat</td>
<td>102.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units</th>
<th>Global Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arable land (million hectares)</td>
<td>161</td>
</tr>
<tr>
<td>Area under irrigation (million hectares)</td>
<td>55</td>
</tr>
<tr>
<td>Coastline ('000 kilometers)</td>
<td>7.5</td>
</tr>
<tr>
<td>Cattle (million)</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture and Farmers’ Welfare, Tea Board, Department of Animal Husbandry, Dairying & Fisheries
Favourable policies are supporting the sector growth … (1/3)

1. **Agriculture Export Policy, 2018**
   - New export policy was cleared by the Government of India in December 2018.
   - Targets increasing India’s agricultural export to over US$ 60 billion by 2022.

2. **Pradhan Mantri Kisan Samman Nidhi Yojana (PM-Kisan)**
   - Prime Minister of India launched the Pradhan Mantri Kisan Samman Nidhi Yojana (PM-Kisan) and transferred Rs. 2,021 crore (US$ 284.48 million) to bank accounts of more than 10 million beneficiaries on February 24, 2019. As per the Union Budget 2021-22, Rs. 65,000 crore (US$ 8.9 billion) was allocated to Pradhan Mantri Kisan Samman Nidhi (PM-Kisan).

3. **Pradhan Mantri Annadata Aay SanraksHan Abhiyan’ (PM-AASHA)**
   - Pradhan Mantri Annadata Aay SanraksHan Abhiyan’ (PM-AASHA) is an umbrella scheme to ensure minimum support price (MSP) to farmers. It comprises the previous price support scheme (PSS), with few modifications and introduction of new schemes, including price deficiency payment scheme (PDPS) and pilot of private procurement and stockist scheme (PPSS).

4. **Pradhan Mantri Krishi Sinchai Yojana (PMKSY)**
   - As per the Union Budget 2021-22, Rs. 11,588 crore (US$ 1.5 billion) was allocated to Pradhan Mantri Krishi Sinchai Yojana (PMKSY).

5. **Model Contract Farming & Services Act 2018**
   - In May 2018, the Government finalised the Model Contract Act to include all services in the agriculture value chain under its ambit along with contract farming activity. The act has laid special emphasis on protecting farmers’ rights in the country.

*Source: Ministry of Agriculture and Farmers’ Welfare, Union Budget 2021-22*
Favourable policies are supporting the sector growth … (2/3)

6 Pradhan Mantri Kisan Maan-Dhan Yojana (PM-KMY)
- A minimum fixed pension of Rs. 3,000 (US$ 42.92) will be provided to eligible small and marginal farmers on attaining the age of 60 years, subject to certain exclusion clauses.
- The beneficiary is required to make a monthly contribution between Rs. 55 to Rs. 200 (US$ 0.78 to 2.86) to the Pension Fund depending on the age of entry into the scheme and a provision of equal contribution by the Central Government.

7 National Animal Disease Control Programme for Foot and Mouth Disease and Brucellosis
- In order to eradicate the Foot & Mouth Disease (FMD) and Brucellosis amongst the livestock, the scheme was launched in September 2019.
- The scheme is aiming at ensuring 100% vaccination of cattle, buffalo, sheep, goat and pig.
- In May 2020, Rs. 13,343 crore (US$ 1.89 billion) was allocated to the scheme.

8 Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PM FME)
- Outlay of Rs. 10,000 crore (US$ 1.34 billion) over a period of five years from FY21 to FY25.
- The sector has been assigned a priority status for bank credit.
- Implemented in 707 districts for 35 states and union territories
- 60 Agri Export Zones (AEZ) have been set up across the country.
- 11 banks are official lending partners under this scheme

9 APMC farmers go cashless
- The Electronic National Agriculture Market (e-NAM), which was launched in April 2016 to create a unified national market for agricultural commodities by networking existing APMCs. It had 16.9 million farmers and 157,778 traders registered on its platform until February 2021. Over 1,000 mandis in India are already linked to e-NAM and 22,000 additional mandis are expected to be linked by 2021-22.

10 Digital Agriculture Mission
- The Indian government has initiated Digital Agriculture Mission for 2021-25 for agriculture projects based on new technologies such as artificial intelligence, block chain, remote sensing and GIS technology, drones, robots and others.

Source: Ministry of Agriculture & Farmers’ Welfare
Favourable policies are supporting the sector growth … (3/3)

11. Focus on R&D and modernisation
- Moreover, the Government plans to launch a programme named ‘SAMPADA’ for the food processing sector with investments worth US$ 892.46 million to integrate current with new schemes, and with an aim to reduce waste and double farmer’s income.

12. Focus on infrastructure
- The sector has been assigned a priority status for bank credit.
- 60 Agri Export Zones (AEZ) have been set up across the country.
- Between FY15-20, around 1303 cold storages with 45 lakh tonnes have been established.
- In May 2020, Government announced the launch of animal husbandry infrastructure development fund of Rs. 15,000 crore (US$ 2.13 billion).

13. National Mission on Food Processing
- Ministry of Food Processing Industries (MOFPI) launched a new centrally sponsored scheme (CSS), National Mission on Food Processing, to promote facilities for post-harvest operations, including setting up of food processing industries in India. In Union Budget 2019-20, the Government announced to spend Rs. 110 crore (US$ 15.74 million) in Union Territories only.

- Announced in December 2020.
- As of March 2021, a total of 582,114 farmers in Maharashtra have paid the arrears of agricultural pump electricity bills amounting to Rs. 511.26 crore (US$ 63.37 million).

15. Pradhan Mantri Fasal Bima Yojana (PMFBY)
- Aims to support sustainable production in agriculture by providing financial support to farmers who have incurred crop losses/damages due to unforeseen events. This will help stabilise the income of farmers, ensure continuance in farming, encourage them to adopt innovative and modern agricultural practices and ensure flow of credit to the agriculture sector.

Source: Ministry of Agriculture & Farmers’ Welfare
Highlights of Union Budget 2021-22

- The Budget identified agriculture sector as one of the key drivers of the economy.
- It ensured MSP at a minimum 1.5x the production cost across all commodities.
- SWAMITVA scheme will be extended to all states/UTs, 1.80 lakh property-owners in 1,241 villages have already been provided cards.
- For FY22, the agricultural credit target was enhanced to Rs. 16.5 lakh crore (US$ 226.29 billion), with animal husbandry, dairy and fisheries as the focus areas.
- The Rural Infrastructure Development Fund will be enhanced to Rs. 40,000 crore (US$ 5.49 billion) from Rs. 30,000 crore (US$ 4.11 billion).
- The ‘Micro Irrigation Fund’ will be doubled to Rs. 10,000 crore (US$ 1.37 billion).
- The ‘Operation Greens’ scheme will be extended to 22 perishable products to boost value-addition in agriculture and allied sectors.
- Through e-NAM (National Agriculture Market), ~1.68 crore farmers were registered and trade worth Rs. 1.14 lakh crore (US$ 15.63 billion) was carried out; 1,000 more mandis will be integrated to achieve transparency and bring competitiveness.
- Customs duty on cotton was increased from 0% to 10% and raw silk and silk yarn from 10% to 15%.
- Agriculture Infrastructure and Development Cess (AIDC) was added to numerous items.
- APMCs will be able to access the agriculture infrastructure funds to augment infrastructure facilities.

Source: Union Budget 2021-22
### Opportunities

**1 Supply chain infrastructure and contract farming**
- 1,303 cold storages with a capacity of 45 lakh MT have been established since 2015.
- Private warehouse operators are supported by multiple income streams, subsidy and availability of credit.
- It is expected that 4% growth in the food grain storage capacity would restructure agricultural sector over the next few years.
- Investment potential of US$ 22 billion in food processing infrastructure; 100% FDI in this area.
- The Government’s main focus is on supply chain-related infrastructures like cold storage, abattoirs and food parks.

**2 Potential global outsourcing hubs**
- Huge opportunity exists for agri input segments like seeds and plant growth nutrients.
- As of January 2021, out of the 37 approved mega food parks in the country, 22 were operational.
- In Sept 2019, the World Bank sanctioned Rs. 3,000 crore (US$ 429.25 million) to finance mini and mega food parks in the country.

**3 Farm management services**
- New agri business, which provides inputs such as seeds and fertilizers along with providing advice and training farmers on latest agricultural practices.
- In December 2019, the Department of Agriculture, Cooperation and Farmers Welfare created a task force to develop a complete farmers’ database for better planning, monitoring, strategy formulation and smooth implementation of schemes for the entire country.

*Source: News Article*
Government initiatives that will further prop up the sector ... (1/2)

- The present procurement operations as of 2021 have already benefited ~4.91 million farmers, with an MSP (minimum support price) of US$ 11.51 billion.

- The Indian government is planning to increase the number of primary agriculture cooperatives from 60,000 to 3 lakh until 2026.

- In October 2021, the Union Ministry of Agriculture and Farmers Welfare announced that 820,600 seed mini-kits will be distributed free of cost in 343 identified districts across 15 major producing states under a special programme. This programme is likely to boost production and productivity by speeding up the seed replacement rate and subsequently, help in increasing farmer's income.

- In September 2021, the Union Minister for Agriculture and Farmers' Welfare Mr. Narendra Singh Tomar launched 'Amul Honey – a product of Gujarat Cooperative Milk Marketing Federation Ltd. (GCMMF)' along with the 'National Bee Board (NBB)'.

- In September 2021, the Union Ministry of Agriculture and Farmers’ Welfare signed five MoUs with CISCO, Ninjacart, Jio Platforms Limited, ITC Limited and NCDEX e-Markets Limited. This MoU will have five pilot projects, which will help farmers make decisions on the kind of crops to grow, variety of seeds to use and best practices to adopt to maximise yield.

- In September 2021, Prime Minister Mr. Narendra Modi launched 35 crop varieties with special traits such as climate resilience and higher nutrient content.

- From 2017 to 2020, India received ~US$ 1 billion in agritech funding. With significant interest from the investors, India ranks third in terms of agritech funding and number of agritech start-ups. By 2025, Indian agritech companies are likely to witness investments worth US$ 30-35 billion. As of September 2021, agritech funding reached US$ 190 million.

- In March 2021, the Union Cabinet, chaired by Prime Minister Narendra Modi, approved a memorandum of understanding (MoU) between the Ministry of Agriculture and Farmers' Welfare of India and the Ministry of Agriculture of Fiji for co-operation in the field of agriculture and allied sectors.

- In the next five years, the central government will aim US$ 9 billion in investments in the fisheries sector under PM Matsya Sampada Yojana. The government is targeting to raise fish production to 220 lakh tonnes by 2024-25.

Source: Press Information Bureau, Ministry of Agriculture and Farmers’ Welfare, DIPP; Note: RFID - Radio Frequency Identification, News Sources, Edelweiss’ Farm Facts Sector Update
Government initiatives that will further prop up the sector … (2/2)

- In October 2020, the Tribal Cooperative Marketing Development Federation of India (TRIFED) included 100 new Forest Fresh Organic Products sourced from tribes across India on its e-marketplace (tribesindia.com).

- In October 2020, Agri-lender Nabard (National Bank for Agriculture and Rural Development) proposed plans to set up a subsidiary to provide guarantee for loans under agriculture and rural development.

- In October 2020, the government announced that it is putting up a common data infrastructure for farmers in the country. PMFBY (Pradhan Mantri Fasal Bima Yojana), PM-Kisan and the Soil Health Card will be integrated through a common database, along with land record details.

- In September 2020, National Cooperative Development Corporation (NCDC) sanctioned Rs.19,444 crore (US$ 2.7 billion), as first instalment, to Chhattisgarh, Haryana and Telangana for kharif paddy procurement under minimum support price (MSP) operations.

- In September 2020, the government launched the PM Matsya Sampada Yojana, e-Gopala App and several initiatives in fisheries production, dairy, animal husbandry and agriculture. Under this scheme, an investment of Rs. 20,000 crore (US$ 2.7 billion) will be made in the next 4-5 years in 21 states.

- In May 2020, the Government of India announced an infrastructure development fund of Rs. 15,000 crore (US$ 2.31 billion) to promote investments by private players and MSMEs in segments such as dairy, meat processing and animal feed plants.


- 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.

- The Government is planning to invest US$ 8 billion to revive four fertilizer plants and setting up two plants to produce farm nutrients.

Source: Ministry of Agriculture and Farmers’ Welfare, DIPP; Note: RFID - Radio Frequency Identification, News Sources
Key Industry Contacts
<table>
<thead>
<tr>
<th>Agency</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Institute of Agricultural Extension Management</td>
<td>Rajendranagar, Hyderabad-500 030, Andhra Pradesh  Phone: 91 -040-24594509  E-mail: <a href="mailto:helppline@manage.gov.in">helppline@manage.gov.in</a>  Website: <a href="https://www.manage.gov.in/">https://www.manage.gov.in/</a></td>
</tr>
<tr>
<td>National Institute of Agricultural Marketing (NIAM)</td>
<td>Bambala, Kota Road, Jaipur-302033, Rajasthan  Phone: 0141-2770027  Fax: 0141-2771938, 2770027  E-mail: <a href="mailto:dgccsniam@gmail.com">dgccsniam@gmail.com</a>  Website: <a href="https://www.ccsniam.gov.in/">https://www.ccsniam.gov.in/</a></td>
</tr>
<tr>
<td>Central Insecticides Board and Registration Committee</td>
<td>Machinery Store Building, N.H.IV Faridabad  Phone: 0129 -2413002</td>
</tr>
<tr>
<td>Coconut Development Board</td>
<td>Kera Bhavan, SRVHS Road, Kochi, Kerala-682011  Phone: 0484-2375216, 0484-2377737  Fax: 91 484-2377902  E-mail: <a href="mailto:kochi.cdb@gov.in">kochi.cdb@gov.in</a>  Website: <a href="https://www.coconutboard.nic.in/">https://www.coconutboard.nic.in/</a></td>
</tr>
<tr>
<td>National Dairy Development Board (NDDB)</td>
<td>PB No 40, Anand-388 001  Phone: 02692-260148/260149/260160  Fax: 02692-260157  E-mail: <a href="mailto:anand@nddb.coop">anand@nddb.coop</a>  Website: <a href="https://www.nddb.coop/">https://www.nddb.coop/</a></td>
</tr>
<tr>
<td>National Horticulture Board (NHB)</td>
<td>Ministry of Agriculture, Government of India, 85, Institutional Area, Sector-18  Phone: 91 0124-2342992, 2347441, 2342989-90  E-mail: <a href="mailto:md@nhb.gov.in">md@nhb.gov.in</a>  Website: <a href="http://nhb.gov.in/">http://nhb.gov.in/</a></td>
</tr>
<tr>
<td>National Oilseeds and Vegetable Oils</td>
<td>Krishi Bhavan, New Delhi 110 114  Phone: 91-11-25846010</td>
</tr>
<tr>
<td>Development Board (NOVOD)</td>
<td></td>
</tr>
</tbody>
</table>
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); So, 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)

<table>
<thead>
<tr>
<th>Year</th>
<th>Rs. Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>44.95</td>
</tr>
<tr>
<td>2005-06</td>
<td>44.28</td>
</tr>
<tr>
<td>2006-07</td>
<td>45.29</td>
</tr>
<tr>
<td>2007-08</td>
<td>40.24</td>
</tr>
<tr>
<td>2008-09</td>
<td>45.91</td>
</tr>
<tr>
<td>2009-10</td>
<td>47.42</td>
</tr>
<tr>
<td>2010-11</td>
<td>45.58</td>
</tr>
<tr>
<td>2011-12</td>
<td>47.95</td>
</tr>
<tr>
<td>2012-13</td>
<td>54.45</td>
</tr>
<tr>
<td>2013-14</td>
<td>60.50</td>
</tr>
<tr>
<td>2014-15</td>
<td>61.15</td>
</tr>
<tr>
<td>2015-16</td>
<td>65.46</td>
</tr>
<tr>
<td>2016-17</td>
<td>67.09</td>
</tr>
<tr>
<td>2017-18</td>
<td>64.45</td>
</tr>
<tr>
<td>2018-19</td>
<td>69.89</td>
</tr>
<tr>
<td>2019-20</td>
<td>70.49</td>
</tr>
<tr>
<td>2020-21</td>
<td>73.20</td>
</tr>
</tbody>
</table>

### Exchange Rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>Rs. Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>44.11</td>
</tr>
<tr>
<td>2006</td>
<td>45.33</td>
</tr>
<tr>
<td>2007</td>
<td>41.29</td>
</tr>
<tr>
<td>2008</td>
<td>43.42</td>
</tr>
<tr>
<td>2009</td>
<td>48.35</td>
</tr>
<tr>
<td>2010</td>
<td>45.74</td>
</tr>
<tr>
<td>2011</td>
<td>46.67</td>
</tr>
<tr>
<td>2012</td>
<td>53.49</td>
</tr>
<tr>
<td>2013</td>
<td>58.63</td>
</tr>
<tr>
<td>2014</td>
<td>61.03</td>
</tr>
<tr>
<td>2015</td>
<td>64.15</td>
</tr>
<tr>
<td>2016</td>
<td>67.21</td>
</tr>
<tr>
<td>2017</td>
<td>65.12</td>
</tr>
<tr>
<td>2018</td>
<td>68.36</td>
</tr>
<tr>
<td>2019</td>
<td>69.89</td>
</tr>
<tr>
<td>2020</td>
<td>74.18</td>
</tr>
<tr>
<td>2021*</td>
<td>75.37</td>
</tr>
</tbody>
</table>

**Note:** As of October 2021  
**Source:** Reserve Bank of India, Average for the year
Disclaimer

India Brand Equity Foundation (IBEF) engaged Sutherland Global Services Private Limited to prepare/update this presentation.

All rights reserved. All copyright in this presentation and related works is solely and exclusively owned by IBEF, delivered during the course of engagement under the Professional Service Agreement signed by the Parties. The same may not be reproduced, wholly or in part in any material form (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this presentation), modified or in any manner communicated to any third party except with the written approval of IBEF.

This presentation is for information purposes only. While due care has been taken during the compilation of this presentation to ensure that the information is accurate to the best of Sutherland Global Services' Private Limited and IBEF’s knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice.

Sutherland Global Services Private Limited and IBEF neither recommend nor endorse any specific products or services that may have been mentioned in this presentation and nor do they assume any liability, damages or responsibility for the outcome of decisions taken as a result of any reliance placed on this presentation.

Neither Sutherland Global Services Private Limited nor IBEF shall be liable for any special, direct, indirect or consequential damages that may arise due to any act or omission on the part of the user due to any reliance placed or guidance taken from any portion of this presentation.