

Management Discussion and Analysis

Indian Economy

The real GDP of the Indian economy shrank by -7.3% during the fiscal year 2020-21 due to the covid-19 pandemic which affected lives and livelihoods across the world. The supply chain disruption due to the lockdown, enforced to curb the spread of the virus, in the April quarter adversely impacted the industrial and services sector, while agriculture remained less impacted.

An observation of the quarterly GDP trend reveals the positive impact of the pent-up demand along with higher degree of economic activity post unlocking the economy since June 2020. The quarterly real GDP, having endured a recession in the initial two quarters, crossed the inflection point in the third quarter and further recorded sequential growth in the last quarter on year. A broad-based recovery was recorded across sectors aided by increase in manufacturing and construction activities, agriculture and real estate, among others. However, people aggregating services sectors such as hospitality, travel and tourism continued to battle against the covid 19 associated headwinds.

The Reserve Bank of India maintained a consistent 4% repo rate since May 2020 despite CPI based inflation hovering above 6% mark for nearly three quarters. The liquidity measures and asset by back along with forbearance measures helped lower the cost of borrowing which is likely to have spurred the economic activities observed during H2FY21.

The Government followed an expansionary fiscal policy, recording a high fiscal deficit of 9.2% during FY21 to increase aggregate demand, provide social security and spur investments. The budget for FY22 reflected the Government's commitment for an infrastructure-led USD 5 trillion economy by 2025 aided by policies such as Make in India, Atmanirbhar Bharat, New Farm laws among others.

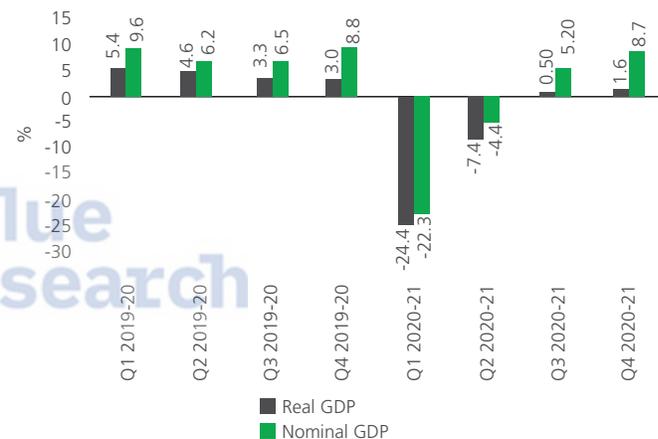
Outlook

According to IMF's upward revision of growth forecast in April 2021, the Indian GDP growth was likely to be 12.5% in FY22 due to low base effect and availability of vaccines in the country since January 2021. However, the exemplary performance of the Indian economy in the last two quarters of fiscal year 2020-21 has been marred by an overcast of uncertainty due to the severe second wave of infections since mid-April 2021. The attendant localised lockdowns and crisis in

public health infrastructure further affected industries and services which are inching towards the contraction zone.

The rural economy which shouldered the Indian economy during the fiscal year 2020-21 backed by good harvests and timely government procurement, suffers risk from the contagion making inroads during the second wave. Inflationary trends are expected to take charge due to interplay amongst global and domestic factors such as commodity price increase, international food prices, geopolitical tensions and supply chain distortions.

Quarterly GDP growth (year on year)



Source: MOSPI

Agriculture Industry Overview

According to UN, the world population is expected to increase by nearly 26% to 9.7 billion by 2050 from a population of 7.7 billion people in 2018-20. As a consequence of the rising population and dietary changes of consumers, it is estimated that the global agriculture output will need to double to accommodate the rising demand from crop food and livestock feed, besides industrial demand. However, significant challenges lie in land availability and mitigating the effects of climate change, constrained by the ever-increasing demand for crop calories. This has led to focus on addressing the yield gap through use of innovative and technology intensive farming techniques accompanied by usage of agrochemicals to protect, nourish and increase the yield of the farmers.

¹IHS Markitt PMI manufacturing and services released in June 2021

²<https://www.imarcgroup.com/agriculture-industry-in-india>

³<https://tradingeconomics.com/india/employment-in-agriculture-percent-of-total-employment-wb-data.html>

⁴Provisional estimates of Annual National Income 2020-21, NSO dated 31st May 2021

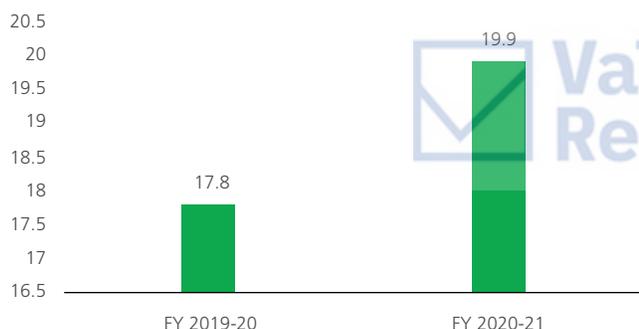
⁵Economic Survey 2020-21, Volume 2; Down to Earth article dated 29th January 2021

Indian Agriculture Industry

The Indian Agriculture industry is estimated to be valued at INR 63,506 billion in FY2020-21. It is an important component of Indian economy both in terms of its contribution to the GDP as well as a source of employment for a majority of the country's population. According to World Bank, the agriculture industry provided employment to 41.49% of India's population in FY 2020-21. Increasing saturation in the organized sector, growth in contract farming, increased mechanization in agriculture, easy loan facilities, rising exports, use of agrochemicals and high yielding seeds, and an increasing role of the private sector in processing, branding and marketing have brought about remarkable changes in this sector.

During the fiscal year 2020-21, while the Core GVA (excluding agriculture and public administration) contracted by -8.5%, the GVA for agriculture, forestry and fishing increased to 3.6%, year on year due to the constant supply of agricultural commodities including rice, wheat, pulses etc. The share of agriculture in GDP of India is most likely to cross the 20% mark after 17 years for the fiscal year 2020-21 from 17.8% in FY 2019-20.

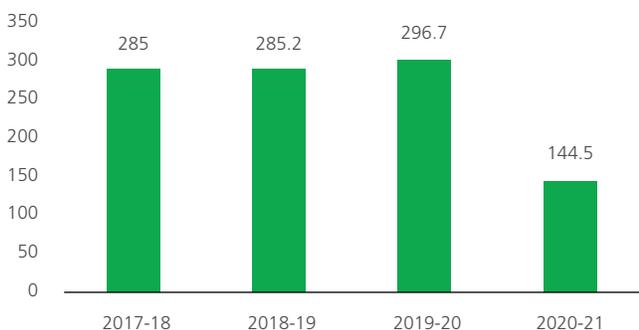
Share of Agriculture in GDP (%)



Source: Economic Survey 2020-21

[FY21 estimate Of 19.9 was based on 3.4% increase in agriculture which as per latest estimate reached 3.6%, thereby share of agriculture should be nearly 20%]

Food grain production (in million tonnes)



Source: Economic Survey 2020-21

(2019-20* 4th advance estimates and 2020-21** 1st advance estimates)

Key Growth Drivers for Agriculture

- The Union Budget for FY22 has allocated INR 1.31 lakh crore to the Ministry of Agriculture and Farmers Welfare, a growth of 5.63% over FY20, with nearly half of the budgeted amount for fixed income support of INR 6000 for farmers under Prime Minister Kisan Samman Nidhi (PM-KISAN).
- Favourable demographics such as population and income growth, in addition to macroeconomic factors such as increasing exports augers well for the industry, which also serves as an important raw material supplier for downstream industries and services sector.
- The Government introduced a comprehensive Agriculture Export Policy in 2018, with an aim to diversify the export basket, promote organic agriculture and provide an institutional mechanism for market access. The policy also strives to double India's share in world agriculture exports by integrating with global value chains as also to enable farmers gain access to export markets.
- Hybrid and genetically modified seeds, favourable climate for agriculture and wide variety of crops, mechanisation, Irrigational facilities and green revolution in eastern India represent the supply side drivers.
- Growing institutional credit, Increasing MSP, Introduction of new schemes like Paramparagat Krishi Vikas Yojana, Pradhan Mantri Gram Sinchai Yojana, and Saansad Adarsh Gram Yojana and Opening exports of wheat and rice are some of the key policy support that will help propel the sector to new heights.
- Initiatives like Kisan Rath (mobile app for farmers, FPOs and traders), over 200 Kisan Rails and Krishi Udaan Scheme for transportation of agricultural produce, perishable cargo centres, cold storage facilities at Airports and Inland Container Depot as well as cargo terminals and warehouses has been initiated to bridge the infrastructure deficit for the agriculture industry.
- Farmer Producer Organization (FPO provides an efficient solution towards building scale and strengthening the livelihoods of small and marginal farmers. The Government's aim to form and set up 10000 new FPO's under Formation and Promotion of Farmer Produce Organisations (FPO) scheme has the potential to spearhead the aggregation phenomena in Indian agriculture.
- Leveraging advanced technology for making informed decisions at pre-production, production as well as post-production stages. The Government has already prioritized digitization of land records and a host of remote sensing and data-based analytics solutions are already making farming an insight driven occupation. Satellite imaging, remote sensing, artificial intelligence and IoT are being used to monitor weather patterns and prepare weather forecasts, in turn providing agricultural risk mitigation solutions. These solutions are also being leveraged to provide real-time insights to farmers, encompassing the entire crop cycle, to help them make informed decisions regarding crop protection, nutrition etc. Drones are being leveraged to collect

data for monitoring and analysing farms and generating insights to improve farm efficiencies.

Outlook

The Indian agriculture industry is projected to be valued at INR 125,350 billion by 2026, manifesting a CAGR of 12% during 2021-2026. The government is additionally planning to double farmer's income by 2022. The agriculture sector in India is projected to generate better momentum within few years due to magnified investment in agricultural infrastructure comprising of irrigation facilities, warehousing and cold storage. According to the Agriculture Export Policy released in 2018, India aims to double the agricultural exports to over US\$ 60 billion by 2022. Additionally, the growing use of genetically modified crops are likely to improve the yield of Indian farmers. Going forward, India is projected to be self-sufficient in the production in pulses due to the combined research and development efforts for developing early maturing varieties of pulses and the increase in minimum support price.

Seed Industry Overview

Seed is the most crucial input for sustainable agriculture. The reaction of other inputs depends on quality of seeds to a large extent. It is estimated that the direct contribution of quality seed alone to the total production is about 15 – 20% depending upon the crop and it can be further raised up to 45% with efficient management of other inputs. The global seed market is valued at US\$ 42.8 billion in FY 2020-21. Asia Pacific (APAC) is the fastest growing geographical segment in the Global Seed Market. China and India are the major countries included in APAC.

Indian Seed Industry

The Indian agricultural sector is highly dependent on the availability and quality of seeds for a productive harvest. Therefore, in order to increase the quantity and quality of produce, efforts are made to introduce enhanced varieties of seeds with the help of advance technology and modern agricultural methods. In India, agriculture is the dominant occupation, which secures abundant opportunities for the seed market in the region. The Indian Seed Industry is projected to be valued at US\$ 4.9 billion in FY 2020-21.

There has been an increase in hybrid seed penetration in multiple crops, in order to resolve the increasing food demand-supply mismatch in the world. Owing to stagnant growth observed in the arable land and a continually growing population, the per capita arable land has been declining. These factors, along with poor crop productivity, are likely to lead to pressure on food supply in the country. In India, hybrid seed penetration is high in cotton (90%),

corn (60%), and limited cereals including sorghum and pearl millet, and oilseeds including sunflower (hybridization 80%). However, saturation is still very low in wheat (5%).

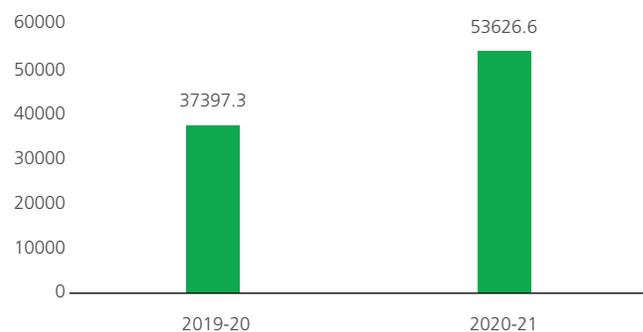
Key Growth Drivers for Seed Industry

- 1) Increasing Adoption of Hybrid Seeds- The adoption of hybrid seeds has gradually increased due to the increasing pressure for high crop production for food security. The hybrid seed sector observed a growth of 15-20% per year, over the past few years.
- 2) Increased investments- Public as well as private investments played a major role in enhancing the Indian seed industry as they contributed in the advancements of technology and infrastructure.
- 3) Government Initiatives- Unceasing developments in the National Seed Policy 2002, has led to the transformation of the seed industry in India.

Exports Scenarios

Despite the Covid-19 crisis, the export of essential agri-commodities increased by 43.4% from 37397.3 crores in Q1 of FY 2019-20 to 53626.6 crores in Q1 of FY 2020-21. The commodities that recorded positive export growth in during Q1 of FY 2020-21 are Groundnut (35%), Refined Sugar (104%), wheat (206%), Basmati Rice (13%) and Non-Basmati Rice (105%) etc. The Government of India has announced Agriculture Infra Fund of Rs 1 lakh crore to expand agri-business environment.

Export of Agri-commodities (in crore)



Source: Ministry of Agriculture & Farmers Welfare

Outlook

The Indian seed market was valued at USD 2.21 billion in 2018, and it is projected register a CAGR of 6.4% during the forecast period (2019-2024). The seed market in India is estimated to grow rapidly

⁶<https://www.imarcgroup.com/agriculture-industry-in-india#:~:text=Looking%20forward%2C%20IMARC%20Group%20expects,12%25%20during%202021%2D2026.&text=India%20is%20the%20second%2Dlargest,of%20the%20total%20world%20population.>

⁷PIB

⁸<https://www.imarcgroup.com/prefeasibility-report-seed-processing-plant>

⁹IMARC- Seed industry in India

¹⁰<https://www.mordorintelligence.com/industry-reports/indian-seed-sector-analysis>

due to the increasing commercialisation of agriculture and growing requirements of food grains to meet the needs of the growing population. As the awareness for hybrid seeds among the farmers is increasing, the demand for hybrid seeds is increasing. With the advanced technology, companies are coming up with a variety of seeds

Opportunities

- 1) Since arable land in India is limited and decreasing, agricultural output can be increased by either increasing the volume of output, i.e. increasing agricultural yields, or the value of output, i.e. increasing the production of high-value crops.
- 2) Awareness regarding hybrid seeds acts a catalyst as it can increase the demand for hybrid seeds.

Threats

- 1) Seed industry in India is not profitable for farmers as compared to other sectors as the selling prices are not that encouraging. Farmers shall be guided well while selling their produce.
- 2) Cold storage facilities are not available for all the crops.
- 3) There is a huge gap between supply and demand. As a result there are price fluctuations in the seed market.

Company Overview

Kaveri seeds is one of the leading agricultural Company in India specializing in hybrid seeds. The Company began its journey in 1976 to fuel India's Green revolution from a small production unit in Telangana. Over four decades, the Company has created a multi-product portfolio of hybrid seeds backed by a strong research and development infrastructure and brand recall.

The product portfolio of the Company consists of a range of high yielding seeds in field crops viz., maize, cotton, rice, pearl millet, mustard, wheat, sorghum, sunflower and a number of other vegetable crops.

The Company has a strong presence in the domestic market and has been recording increasing growth in the exports market which includes Pakistan, Sri Lanka, Bangladesh and Vietnam.

Recently, the Company achieved a rare feat of becoming the first seed producer in India with more than 100000 acres under seed production spread across different agro climatic regions. The Company is the second largest producer of hybrid cotton seeds in India and a huge maize cob drying facility of 4500 MT per cycle.

In term of storage, the Company has state-of -the-art warehouse capabilities with a combined storage space of around 10 lakh square

feet which stores the seeds under ambient conditions. The Company owns 7 modern seed processing and storage plants across key locations in India which adds value to the quality and longevity of the seeds. Furthermore, the Company's infrastructure is well equipped for ensuring biosafety including a range of green house facility for screening of pest and diseases as well as for BT Cotton containment facility.

The Research and Development team consists of a dedicated team of professionals and highly qualified scientists, who leverage the potential of biotechnology strength for increasing productivity and development of new hybrid seeds.

Our on-ground team of dealers and Company field staff continuously engages with our customers to enable them reap the benefits of high yielding seeds along with dissemination of latest farming technologies.

Maneuvering a market with spatial, physical and cultural diversity, the Company is guided by its strategy of multi crop portfolio, superior R&D, robust supply chain and a strong distribution network to help the farmers procure the best in quality seeds ultimately leading to increasing their income. A competent pool of human capital and strong financial position forms the backbone on which Kaveri Seeds have been delivering successful results year after year.

Core Strengths

- **In-house R&D**

Forming the core of the Company's business strategy, the R&D is manned by over 45 qualified scientists and team of dedicated professionals focusing on the development of quality hybrid seeds. The Company has a fully equipped State-of-the-art biotechnology laboratory along with satellite stations, strategically located for crop breeding. The team also works on developing frontier technologies particularly in molecular breeding to augment the Company's Germplasm which facilitates breeding programs. The Company is also equipped with state-of-the-art seed testing laboratory at Pamulaparthly. Seeds are checked for genetic and physical purity as well as germination, following the Indian Minimum Seed Certification Standards (IMSCS).

- **Infrastructure facilities**

The Company has over 170 Outreach trial centers along with a 4500 MT per cycle maize cob drying facility. The total average throughput across the seed production facilities is 115 Mt per hour and the corresponding value for the cotton delinting capacity is 18 Mt per day. The ginning capacity is 5 MT per day. The Company has 10 lakh square feet of cumulative warehouse space at multiple strategic locations across India and 15000 MT of total cold storage capacity. The Company delivers its product

¹¹[https://pib.gov.in/PressReleaseframePage.aspx?PRID=1663362#:~:text=Major%20commodity%20groups%20which%20have,Basmati%20Rice%20\(105%25\)%20etc.&text=2133%20during%20the%20same%20period%20in%202019.](https://pib.gov.in/PressReleaseframePage.aspx?PRID=1663362#:~:text=Major%20commodity%20groups%20which%20have,Basmati%20Rice%20(105%25)%20etc.&text=2133%20during%20the%20same%20period%20in%202019.)

¹²Market Watch India seed sector analysis dated 6th April 2021

to the end customers through an efficient network of 15000 customer touchpoints across 18 key states in India.

- **Growing market presence**

The Company has a strong distribution network across key markets in the country, which covers most of the states in India. The Company partners with 40,000 dealers and over 1 lakh farmers for producing, distributing and scaling hybrid seeds through farm engagement programs.

- **Wider Product Portfolio:**

The Company has multi product portfolio which consists of high yielding seeds in field crops and vegetables segment. In field crops, the Company offers hybrid/variety seeds for Maize, paddy, cotton, sunflower, mustard, sorghum, pulses, bajra and wheat. In vegetables the Company offers Tomatoes, Okra, Chillies, Watermelon, Gourds and Brinjal.

Opportunities for the Company

The Company continues to garner a healthy market share in India, backed by its continuous innovation and new product development. The growing demand for seeds in the export market presents a new chapter of growth, pivoted on the foundation of better quality and cost effectiveness. Favourable agro-climatic conditions in India also present the Company to develop various hybrid seeds that can withstand different crop diseases and provide a better yield. The core competencies of the Company position it well to capitalise on emerging trends in seed industry and drive sustainable growth.

Research and Development

Innovation is one of the Company's important strategic growth drivers. Our activities focus on innovative products based on our research and development (R&D) competencies supplemented with process and service innovations. Our innovations help us contribute to solving challenges in agriculture, thereby ensuring food security and income of farmers. In addition to the strong innovative capabilities of our employees throughout the Company, our efforts are driven by excellence in R&D and the use of new, ground-breaking technologies in biotech with a particular focus on molecular breeding.

In 2020, our research and development spend was INR 3013.02. At present, the Company has over 600 acres of dedicated research farms in and around Hyderabad and more than 300 acres long lease Agriculture land in satellite environment across the country for target breeding.

We have worked hard on protection concepts to ensure that our research and development activities can continue largely without interruption during the COVID-19 pandemic. The activities we pursue are aligned with the innovation strategies aimed at improving human and plant health and safeguarding stable harvests in agriculture.

Plant Variety Protection: To safeguard the Company's products, a number of hybrids developed in field and vegetable crops along with their parental lines have been applied for registration under the

Intellectual Property Rights. A number of genotypes were registered to comply with the Protection of Plant Varieties and Farmers Right Act (PPVFRA).

Germplasm: The Company owns a vast gene pool of diverse germplasm to design and develop seeds that can easily adapt to biotic and abiotic stress.

Central Varietal Release Committee: More than 20 hybrids were Released and Notified in the Central Varietal Release Committee (CVRC), Government of India, and a few are scheduled for release at a suitable time.

The Company has developed new hybrids in cotton, maize, rice, bajra and vegetables which has a significant impact on farm yield. The Company also has a strong pipeline of hybrids, tailored to ensure great yields in varied climatic conditions.

Collaborations

The Company collaborates with renowned national and international institutions, to augment its research and development capability to design and develop hybrid seed varieties which can easily adapt to different climatic conditions.

Crop Focus

Cotton

Cotton is one of the most important fibre and cash crops of India which plays a dominant role in the industrial and agricultural economy of the country. Cotton in India provides direct livelihood to 6 million farmers and about 40-50 million people are employed in cotton trade and its processing. Cotton textile industry contributes nearly 5% of the GDP and 17% to the country's export earnings. Cotton production in India during 2020-21 was 371 lakh bales of 170 kg each from 129 lakh hectares with a productivity of 487 kg lint/ha.

About 65% of the cotton growing area is under rain fed with low productivity. In India, there are ten major cotton growing states which are divided into three zones, viz. north zone, central zone and south zone. India is the largest country in world in terms of area under cotton is 133.50 lakh hectares which is 41% of the world cotton area.

The Company has developed short duration compact genotypes along with synchronized boll bursting to provide resistance from Pink Ball Worm (PBW) attack. The Company has established breeding and testing facilities in hot spot areas to screen climate resilient genotypes for biotic stress including sucking pest and CLCuD.

The cotton research priorities for the Company have been identified for medium and long term. In the medium term, focus is on identifying hybrids with high boll worms, moisture stress, yield and tolerance towards CLCuD across specific geographical regions in India. Further, the Company plans to establish systematic heterotic

pools for future line development programmes, shift to GMS method of seed production. For breeding technologies, focus is on Marker Assisted Selection (MAS) breeding for trait identification in early generations and reverse breeding in BGI lines to meet “Built in refuge” requirements.

In the long term the Company intends to develop HDPS hybrids, strengthening the sucking pest screening and QTL mapping for CICuD in NZ. Further, for enhancing breeding efficiency, the Company intends to streamline the biotech tools such as Genotyping by sequencing (GBS).

Rice

Rice is the most important cereal food crop of India, occupying one-fourth of the gross cropped area of the country. As the basic food crop, rice is cultivated in hot and humid climate. In the country, Rice crop is mainly grown as a Kharif crop in irrigated & rain fed areas that receive heavy annual rainfall. Rice-based farming is the main economic activity for hundreds of millions of poor rural farmers in the region.

Rice accounts 50% of Indian Agricultural GDP and supported by Government policies. Hybrid rice conversion is about 9% with 4.0-million-hectare acreage and still a long way to go. India's rice production during 2020/21 is estimated at a record 121 million metric tonnes, up 2% from last year. The rise in output came due to record yields and a slight increase in the field area. Favourable monsoon rains contributed significantly to the production. India is the world's leading rice exporter and higher output is expected to benefit several nations including parts of Africa and Asia that are facing food shortage during the pandemic. Indian rice export has increased from 12.6MMT in 2019-20 to 14.7 MMT in 2020-21. MSP procurement for 2020-21 has scaled new record and estimated at 38.75 MMT, a massive 22 percent increase over last year's procurement level during the same period.

The Rice crop research aims to produce varieties for Kharif and Rabi conditions to address the environmental and policy related impact on rice crops in different states of India. During the fiscal 2020-21, some new initiatives, such as enhanced focus on grain quality traits of parental lines through SSD breeding and pipeline products by emphasising on hulling and head rice recovery were developed.

Other initiatives included segment wise breeding locations at specific locations, disease screening at field level. For Blast and neck blast, BLB & BPH, artificial phenotype screening facilities were established. The Company also developed male sterility facilitated reservoir for population improvement program.

Maize

Maize is the third most important cereal crop after rice and wheat in India. Besides food crop, it is consumed more as feed, fodder and it is having large scale importance as an industrial crop. Worldwide maize is cultivated on over 185 million hectares in 170 countries with a productivity of 5.62 t/ha. USA and China contribute around 35 and 21 per cent of total global production, respectively. India ranks fourth

in area and sixth in production in the world. The productivity of maize in India (2.7 t/ha) is much lower than the world average. The low yielding situation calls for rapid promotion of hybrids for cultivation with improved technologies.

Currently India produces over 28 million MT of maize, of which roughly 60% is used as feed (poultry and animal feed), 14% for industrial purposes, around 13% for food, 7% as processed food and 6% for other purposes including seed. Maize is predominantly a rainy season (kharif) crop in India. Traditionally it used to be grown in the states of Punjab, Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh.

The crop research focuses on developing BLSB and PFSR resistant hybrids along with implementation of DH technology for enhancing the genetic improvement. For developing resistance against abiotic stress such as those from climate change, technology such as Integration of novel breeding tools, including genome wide association studies (GWAS), genomic selection (GS) and double haploid (DH) technology are being used to fast track the breeding pipeline.

Field-based precision phenomics for stress adaptive traits along with that of grain yield at several representative sites under managed stress screens are also being implemented. Besides mechanization of maize breeding, value addition of existing hybrids through QPM, dual purpose maize amongst others, for doubling farmers profitability are also practiced.

Pearl Millet

Pearl millet is cultivated in regions with characteristically low and erratic rainfall, high mean temperature, high potential evaporation and infertile, shallow soils with poor water holding capacity i.e. under the most adverse agro-climatic conditions where other major crops like maize and sorghum fail to produce economic yields. In spite of this, pearl millet has a remarkable ability to respond to favourable environments because of its short developmental stages and capacity for high growth rate, thus making it an excellent crop for short growing season and under improved crop management.

In India, pearl millet is the fourth most widely cultivated food crop after rice, wheat and maize. It occupies an area of 6.93 million ha with an average production of 8.61 million tones and productivity of 1243 kg/. Pearl millet is critically important for food and nutritional security as it possess several advantages such as early maturing, drought tolerance, require minimal of inputs and mostly free from biotic and abiotic stresses.

A strong product pipeline is the key driver for sustainable growth. We at Kaveri, have a well-defined and time-tested product advancement system that helps us in delivering superior products every year and creates sustainable value preposition for our customers in line with our Long-Look. Our products are clear winner in terms of yield for maturity in Kharif Millet portfolio. Also, we have advanced new hybrids for Summer High Management segment and also for Kharif Medium maturity market segment recently.

Amongst the new initiatives taken in the research program include fixed benchmark for promotion of products for rainy season and summer season, breeding and testing location expansions and diversification of MS line, A4 and A5 CMS system from A1 cytoplasm

Mustard

Concerted research efforts are in progress to breed the hybrids & varieties suitable for Mustard grown areas in the country. Kaveri Seeds research efforts have made considerable progress and significant breeding material have been developed. A number of potential entries are at different levels of testing in research trials. In the near term, suitable varieties and hybrids will be released as per the aspirations of the Mustard farmers. Furthermore, the Company is focusing on developing promising hybrids for high oil seed yield, wide adoptable and resistance to pest and diseases to increase the oil yield production in the Mustard growing areas of the country.

Wheat

Wheat is a major staple food crop of India and Kaveri Seed has focused its breeding initiatives to develop suitable varieties for wheat growing areas, in recent years. The Company directs its efforts towards developing rust resistance suitable inbred lines as per the need of different zones, farmer, consumer preference and looking the biotic and abiotic factors of Indian situation. The efforts have started bearing fruits as considerable amount of breeding materials are in various stages of testing in the evaluation trials.

Sunflower

Sunflower is unique photo-insensitive oil seed crop which facilitate to raise this crop round the year. In the recent years the area under sunflower has started dwindling due to various reasons such as pest and diseases, particularly necrosis. The previously developed promising and high yielding hybrids of Kaveri are still very popular among the farmers of sunflower growing states.

Vegetables

Hot Pepper

The hot pepper crop research program is aligned with the business with well-defined objectives in the short, medium and long term. The objective of the hot pepper crop research is to produce hybrids resistant to CLCV and Powdery mildew, the two most prominent viral disease affecting the production of the spice which is consumed globally.

The Company has taken new initiatives for CLCV resistance by introducing it in both parents with male sterility system to address hybrid seed production. Furthermore, the hybrid so developed has good yield, high dry matter content, good colour and colour-retention on cold storage in the red dry segment, particularly in small dry and medium dry sub-segments.

Okra

The okra unit works closely with the business unit and focuses on growth-oriented research and development. The Company's okra crop research focusses on addressing the critical issues of improving hybrid productivity by producing offspring with better genetic makeup for key performance in key areas. Our hybrids fill the gaps to achieve short internodal length and medium plant height, identify a suitable hybrid as a backup to existing commercials. For better hybridisation, research is carried on in sterility-based hybrid seed production (GMS) and establishing heterotic groups based on combining ability and Male sterility. A key objective is to develop parental lines for dual tolerance using appropriate donor, pyramiding for multi race tolerance and maintenance of commercial and elite lines with 100% genetic purity and eliminating residual susceptibility.

The Company's research aims towards developing dual virus tolerance against West Bengal, North and South India races and hybrids with higher combined tolerance for YUMV and ELCV than the competition.

Tomato

The tomato is a major vegetable crop which is produced across the globe in open fields and controlled environment. India tomato market divided into three major segments by size - round, oval and indeterminate. The tomato crop research objective at KSCL is to produce hybrids which are resistant to diseases such as Blights, Wilts and Tomato yellow Leaf Curl Virus (TyLCV). While developing diseases resistance, the tomato hybrids are ensured to have high fruit quality parameters including high firm fruit, non-cracking fruit, fruit weight. Furthermore, along with other hybrids developed by KSCL, the tomato hybrids are engineered for high yield and good transportability.

Gourds

The Company's gourd crop research is aligned with the business including well defined objectives for short, medium and long term. The gourd hybrid seeds developed by Kaveri Seeds provides productivity gains through high yield, better fruit quality and earliness.

The Company has initiated new projects to develop gynoeceous inbreds which helps in minimizing production cost through minimization of labour, while ensuring F1 seed quality and maintaining hybrid purity. Furthermore, the hybrids crops are resistant to pests and diseases such as Gemini virus, Powdery mildew, Downy mildew and Gummosis.

NEW VEGETABLES CROPS

The new vegetable crops viz., cabbage, beet root, carrot, sweet pepper, pumpkin, musk melon, and coriander were introduced into the research fold owing to its growing demand and future prospects.

The State-of-the-Art Biotechnology Laboratory

A detailed in evaluation is provided on page of 17 the Annual Report.

Human Resource Management

The Company's focus remains on building a workforce by creating a sense of involvement in achieving business goals and building capabilities to help the workforce adapt to changing technological environment. The Company intends to help each employee contribute to the larger organisational priorities through accomplishment of individual goals. In this respect, the Company promotes a culture of continuous improvement and innovation among its employees. Encouraging new ideas and thinking differently have become an integral part the Company's culture. The Company, with its over 40 years of experience, has put in place the right organisational structure across regions for sharper focus on diverse markets in India and international markets to ensure that its people are empowered in their roles. The roadmap is to have strong frontline teams that swiftly

make the right decisions for the customers. The Company's people strategy has a deep undertone of inspiring and engaging culture as an integral part of its growth journey. This is the way the Company has been able to come so far and continue to march ahead with greater agility to ensure collective success.

Outlook

The favourable regulatory reforms and increasing subsidies provided to farmers position the agriculture industry towards a sustained growth trajectory. Despite Covid-19, agriculture industry remained among the very few industries to deliver positive growth and contribute to GDP growth. Promoting use of favourable and eco-friendly chemicals will further aid in government's ambition to double farmers income. The Company's robust R&D and innovative processes are expected to meet the dynamic trends of agriculture sector and deliver high-yielding seeds across a diverse crop portfolio.

Financial Performance

(Figures ₹ in Lakhs)

	FY 2020-21	FY 2019-20	(%) Change
Revenue from Operations	98,698.07	88,325.60	11.74
EBITDA	33,488.90	28,608.73	17.06
PBT	31,318.38	26,156.21	19.73
PAT	30,531.00	25,126.69	21.51

Financial Ratios

Ratios	FY 2020-21	FY 2019-20	% Change
Inventory Turnover (in times)	0.66	0.70	-6.34
Current Ratio(in times)	2.36	2.14	10.47
Debt Equity Ratio (in times)	0.01	0.01	-
EBIDTA margin (%)	32.36	30.77	5.17
Return on Equity (%)	25.30	20.35	24.33
Net Profit Margin (%)	29.50	27.02	9.18
Earnings Per Share (IN INR)	50.61	40.14	26.08

The earnings per share increased beyond 25% due to higher profitability as a result of better operational efficiencies and improved cost controls.

Risk Management

Technological Risk

Concern

Not investing in transgenic technologies due to regulatory hurdles bans might leave the Company when compared to MNC's

Mitigation

- We are making investments towards non-transgenic traits to meet the customer requirements
- We are also exploring in-licensing opportunities for key crops as and when needed arises

Regulatory risks

Concern

Results from uncertainties surrounding Government Actions- Seed Act/ Biodiversity Act/ PPV&FR Act/ Destructive Insects and Pests Act/ Other Regulations might impact business operations

Mitigation

- We are maintaining diverse crop/product portfolio
- Our products are being regularly tested under ICAR/SAU system for all crops and included in Seed License
- We are working towards adhering with all compliance and regulations under the BD Act 2002 for germplasm access and use
- We attend regulatory workshops at regular intervals and take corrective action



IP Risk

Concern

Results from infringement by the competitor or legal action by the competitor may cause disruption in business sustainability

Mitigation

- All newly developed Hybrids/ Parental lines and Varieties are being protected under Protection of Plant Variety and Farmers Rights Act, 2001
- Product names/ Product Number Prefixes are being protected under the Trademark Act, 1999
- We are developing strong process and information management against each product to contest legal suits against the Company, if any
- Awareness sessions are conducted to make the team aware about the IP rights to report in case of any infringements

Germplasm Management Risks

Concern

Results due to seed management and misappropriation could result in loss of revenue and market share

Mitigation

- Seeds are produced under supervision of breeders, with germination and viability tested periodically. Further, high quality packing material ensure complete control of quality.
- All materials are coded with centralized access with seed access approved by President. All the seeds are stored in both Long Term Store (LTS) and Medium Term Store (MTS); to mitigate germplasm risk
- All commercial hybrid parental lines are protected under the PPV&FR Act, 2001.

Crop shifts risk

Concern

Continuous Environmental change or change in market demands/ Farmer preferences and Crop rotation scenario may affect the topline growth

Mitigation

- We possess a diverse crop portfolio to address any possible crop shifts.
- All possible market intelligence and competitor situation are being discussed with Sales and Marketing and R&D teams to keep abreast with changing market needs. Same is being used to design breeding strategies in timely manner
- We also conduct balanced research priority/investment approach for line development and product development to meet any crop shift demands from farmers



Crop-wise Product Life Cycle Management & Pipeline Risk

Concern

Inconsistent product pipeline can impact business sustainability

Mitigation

- Robust R&D process is established across the crop portfolio to deliver competitive and strong products to avoid gaps in product delivery.
- Every year new products in each segment are tested at Hybrid Advancement Trial (HAT) stage and Pre Commercial (PC Stage). If gaps are created in the commercial portfolio due to phasing out of old products, new product pipeline is always available.
- Products are extensively tested across all crop geographies for 4-5 years. For 2 years testing is conducted under farmer managed conditions with proper demo trials before launch to ensure delivery of stable product that is suitable for geographies with various climatic conditions.
- Farmer preferences also considered while making commercialization decisions.

Disease and Pest Epidemics (Environmental Risk)

Concern

Results from environmental changes/ introduction of new pest or disease strain/ same crop or genetics covering huge acreages may impact market share of key products

Mitigation

- We continue to acquire diverse germplasm from various National & International sources and incorporate the same into line development programme.
- Hot-spot breeding in target environment for line development and product evaluation are also regularly conducted
- Disease and pest strains used for artificial screening are maintained under the strict supervision of scientists, under contained conditions (poly-house)

Liquidity Risk

Concern

Increasing debt and inadequate cash flow could result in a stressed balance sheet

Mitigation

We maintain a cautious liquidity strategy with a positive cash balance throughout the year. Cash flows from operating activities provides funds to service the financial liabilities on a day-to-day basis.

Information and Technology risks

Concern

Unstructured and lack of investments in IT infrastructure could disrupt day-to-day operations

Mitigation

We ensure minimum human intervention within our processes. We have firewall with strong networks and antivirus systems deployed in our desktops, laptops and servers. However, some time despite all these, malware attacks do happen and then we isolate the affected system from network and reconfigure all the servers again. We are planning for a strong anti-virus and DR (Disaster Recovery) system for our SAP hosted on AWS.

Supply chain risks

Concern

Any disruption or delay in supply chain could result inefficient product delivery to farmers and loss of market share

Mitigation

- We work with reputed and reliable transporters through our robust Logistic framework
- All logistics are tracked with specific vehicle movement informed till the last mile
- Transit insurance for all shipments arranged to avoid any possible loss during transit

Internal Control systems and their adequacy

The Company has laid down a set of standards which enables implementation of internal financial controls across the organisation and ensures that the same are adequate and operating effectively. The Board periodically reviews the findings and recommendations of the statutory auditors, internal & secretarial auditors and suggests corrective actions whenever necessary. The Audit Committee of the Board of Directors is also actively reviewing the adequacy and effectiveness of the internal control systems and suggesting improvements to strengthen the same. The Audit Committee of the Board of Directors, Statutory Auditors and Finance heads are periodically apprised of the internal audit findings and corrective actions are taken.

The Internal Audit team prepares the annual audit plans based on risk assessment and conducts extensive reviews covering financial, operational and compliance controls. Audit plays a key role in providing assurance to the Board of Directors. Significant audit observations and corrective actions taken by the management are presented to the Audit Committee of the Board.

The Audit Committee monitors the performance of the Internal Audit team on a quarterly basis through a review of audit plans,

audit findings and speed of issue resolution through follow-ups. Each year, there are at least four meetings in which the Audit Committee reviews internal audit findings assurance and advisory function, responsible for evaluating and improving the effectiveness of risk management, control and governance processes. The internal audit team helps to enhance and protect organisational value by providing risk-based objective assurance, advice, and insight.

Cautionary Statement

This document contains statements about expected future events, financial and operating results of Kaveri Seeds, which are forward looking. By their nature, forward looking statements require the Company to make assumptions and are subject to inherent risks and uncertainties. There is a significant risk that the assumptions, predictions and other forward-looking statements will not prove to be accurate. Readers are cautioned not to place undue reliance on forward looking statements as a number of factors could cause assumptions, actual future results and events to differ materially from those expressed in the forward-looking statements. Accordingly, this document is subject to the disclaimer and qualified in its entirety by the assumptions, qualifications and risk factors referred to in the management's discussion and analysis of Kaveri Seed's Annual Report, 2020-21.

