

# Management and Discussion Analysis

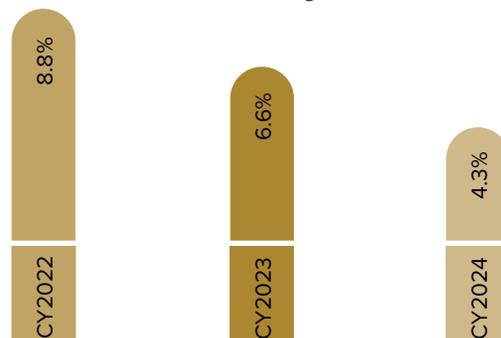


## Global economy

In CY 2023, the world's economies faced major economic challenges as a result of the geopolitical crisis in Europe and mounting inflationary pressures across the globe. Persistent inflation has resulted in a synchronised tightening of monetary policies and the counter measures taken by Central Banks and governments for containing inflation are limiting the economy's growth.

Owing to high volatility in the major economies of the world, including the US, Europe and China, the risks of a global recession loom large. However, appropriate regulation of monetary policies, resolution of geopolitical conflicts and supply-chain disruptions, as well as effective management of the lingering effects of the COVID are expected to restore the pre-pandemic growth levels of the global economy. In the course of 2023, though inflation has receded with central banks raising interest rates, underlying price pressures are proving sticky, with labor markets being tight in several economies. Going forward, global inflation is expected to decelerate from 8.8% in CY2022 to 6.6% in CY2023 and 4.3% in CY2024. It is likely that the world's emerging and developing economies will contribute significantly to accelerating global economic growth in the years ahead.

## Gradual decline of global inflation



## Outlook

In its report of April 2023, the IMF predicts uncertain outlook amid financial sector turmoil, high inflation, ongoing effects of Russia-Ukraine war and three years of Covid. The baseline forecast is for growth to fall from 3.4 percent in 2022 to 2.8 percent in 2023, before settling at 3.0 percent in 2024. Advanced economies are expected to see an especially pronounced growth slowdown, from 2.7 percent in 2022 to 1.3 percent in 2023. In a plausible alternative scenario with further financial sector stress, global growth declines to about 2.5 percent in 2023 with advanced

1 <https://www.imf.org/en/Publications/WEO/Issues/2023/01/31/world-economic-outlook-update-january-2023>



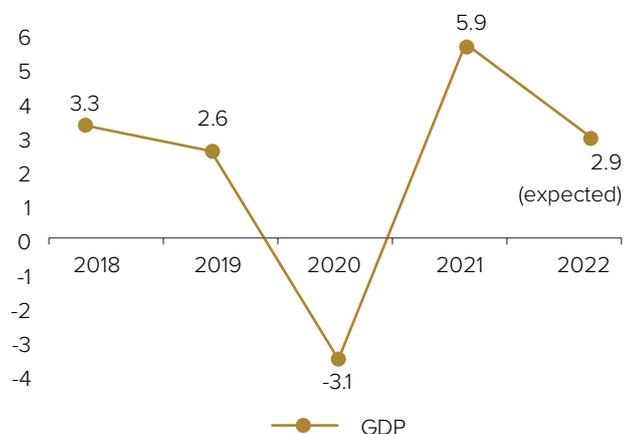
economy growth falling below 1 percent. Global headline inflation in the baseline is set to fall from 8.7 percent in 2022 to 7.0 percent in 2023 on the back of lower commodity prices but underlying (core) inflation is likely to decline more slowly. Inflation's return to target is unlikely before 2025 in most cases.

Global growth is anticipated to touch 2.9% in CY2023 before peaking at 3.1% in CY2024. According to the IMF, India and China will account for more than half of global growth in CY2023. As per the latest projections, Emerging Markets and Developed Economies (EMDEs) are expected to grow by 5.3% in CY2023, demonstrating the fading impact of economic headwinds in the Asia Pacific region. Leveraging the pent-up demand, economic strength is likely to be bolstered in the near future and is expected to create more opportunities of growth.



According to the IMF, India and China will contribute more than half of the world's growth in CY2023, with the rest of Asia adding a further quarter. The IMF predicted that in CY2023, the EMDEs would grow by 5.3%, demonstrating the fact that the economic headwinds in the Asia and Pacific region have begun to ease.

Global GDP growth for the last 5 years <sup>3</sup>



### Indian economy

India's growth continues to be resilient despite some signs of moderation in growth, says the World Bank in its latest India Development Update, the World Bank India's biannual flagship publication. "The Indian economy continues to show strong resilience to external shocks," said Auguste Tano Kouame, World Bank's Country Director in India. "Notwithstanding external pressures, India's service exports have continued to increase, and the current-account deficit is narrowing.

The Update notes that although significant challenges remain in the global environment, India was one of the fastest growing economies in the world. The overall growth remains robust and is estimated to be 6.9 percent for the full year with real GDP growing 7.7 percent year-on-year during the first three quarters of fiscal year 2022/23. There were some signs of moderation in the second half of FY 22/23. Growth was underpinned by strong investment activity bolstered by the government's capex push and buoyant private consumption, particularly among higher income earners. Inflation remained high, averaging around 6.7 percent in FY22/23 but the current-account deficit narrowed in Q3 on the back of strong growth in service exports and easing global commodity prices.

The World Bank has revised its FY23/24 GDP forecast to 6.3 percent from 6.6 percent (December 2022). Growth is expected to be constrained by slower consumption growth and challenging external conditions. Rising borrowing costs and slower income growth will weigh on private consumption growth, and government consumption is projected to grow at a slower pace due to the withdrawal of pandemic-related fiscal support measures.

Despite global economic unrest, India maintained its position as one of the fastest-growing economies in the world, recording a significant growth of 8.7% in FY22. But the rapid tightening of monetary policies in advanced economies has resulted in the depreciation of the Indian rupee against the US dollar. The Indian economy expanded significantly in FY22, and as the nation marked its 75th year of independence, it became the sixth-largest economy in the world. Nominal gross domestic product (GDP) growth is projected to be 15.4% in FY23, far higher than the 11.1% assumed in the Union Budget.

### Outlook

The Indian economy is on track to grow by 7% of GDP in FY2022-23, notwithstanding the prevalence of high inflationary trends. The higher volume of e-way invoices generated, increased electronic toll collections and a sustained rise in GST Collections, all demonstrate a positive trend. Manufacturing activity continues to expand gradually, as shown by indicators such as the PMI for manufacturing, the Index of Industrial Production and the Index of Core Industries (ICI). Services sector indices (UPI transactions, high credit demand) also point to continued growth.

India is expected to be a USD 3.5 trillion economy by the end of FY2022-2023 as per the economic survey report tabled in the Parliament and is anticipated to touch USD 7 trillion within the next seven years. Favourable policies continue to support economic recovery and have also improved investor sentiment.

<sup>2</sup><https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2021&start=2014>

<sup>3</sup><https://timesofindia.indiatimes.com/business/india-business/indias-economy-expands-8-7-in-fy22-q4-growth-at-4-1/articleshow/91918744.cms>

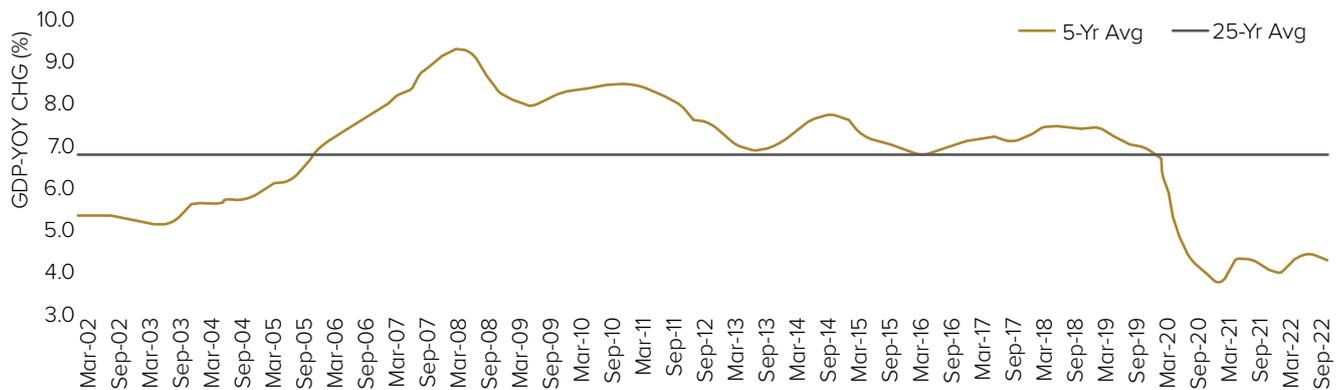
<sup>4</sup>Economic Times Delhi 10/01/2023

However, monetary and fiscal tightening over the forecast horizon is anticipated to be less prominent in India than in the rest of the South Asian region.

Overall, India's demand outlook continues to be favourable for sustaining economic growth. India is in a sweet spot to step into the current fiscal year backed by underlying and overall macroeconomic stability. However, India remains vigilant about geopolitical and geo-economic concerns.

### Long-term trend in India's GDP growth

(Source: RBI, MOSPI)



## Industry overview

### Global crop protection chemical industry

In CY2022, the global crop protection chemical market was worth USD 88 billion. The market is expected to reach USD 116.5 billion by CY2028, with a 4.28% CAGR from CY2023 to CY2028. Crop protection products are used to prevent pest and disease-caused crop output losses and keep crops healthy. These can be made using both synthetic and biological compounds and are primarily classified as insecticides, fungicides and herbicides. Currently, a variety of pesticides are available to protect crops from bacteria, rodents, insects and birds. As the world's population is expanding, the application of crop protection chemicals is on the increase to safeguard crops against pests and diseases while increasing agricultural yields.

With the rapid adoption of digital technologies in agriculture, such as precision farming, precision agriculture and precision pesticide application, the market is likely to expand. The Asia-Pacific region has a growing population and increasing food consumption levels as a consequence. These factors are favourable for positioning the region as a leader in this segment.

### India's agrochemical industry

India's agrochemicals market is projected to grow at an 8% CAGR and reach USD 4.7 billion by FY25. India is a leading producer of agrochemicals and is considered the ideal location for export-oriented agrochemical production. To develop better farming solutions that are more efficient and comply with international standards, the crop protection industry in India is increasingly leveraging its R&D resources. The Government has published

an SOP (Standard Operating Procedure) for the use of drones to spray pesticides, favouring the agricultural industry. Drone-assisted agrochemical application is a fantastic step towards ensuring greater precision in Indian agriculture. There is a growing demand for agrochemical R&D investment in the chemical and biological sectors, as it will not only strengthen the crop protection and nutrition sectors in India but also provide a way to advance towards sustainable agriculture.

The Indian government recognises the agrochemical sector as one of its top 12 industries that would help it achieve global leadership and grow at 8% to 10% through FY2025, according to the Federation of Indian Chambers of Commerce and Industry. As long as exports remain strong and domestic demand is stable, India's agrochemicals sector is expected to continue its strong double-digit growth of 15–17% in FY23, following an increase of 23% in the previous fiscal.



<sup>5</sup><https://www.imarcgroup.com/crop-protection-chemicals-market>

<sup>6</sup><https://www.investindia.gov.in/sector/chemicals>

<sup>7</sup> <https://www.agribusinessglobal.com/agrochemicals/why-is-indias-agrochemical-market-growing-so-fast/>

<sup>4</sup><https://www.crisilratings.com/en/home/newsroom/press-releases/2022/01/agrochem-players-to-log-double-digit-growth-next-fiscal-too.html>



## Government initiatives

- Based on the Union Budget for 2023, over the next three years, the Government will assist 1 crore (10 million) farmers switch to natural (or chemically-balanced) farming. The PM Program for Restoration, Awareness, Nutrition and Improvement of Mother Earth (PM PRANAM) will be implemented to encourage states and union territories to promote alternative fertilisers and the balanced use of chemical fertilisers.
- Kisan drones for crop assessment, agrochemical spraying and land record digitisation were initiated by the Government. The establishment of the digital public infrastructure supported Indian agriculture and boosted the digital ecosystem for agriculture.
- To increase the production of different chemicals, such as agrochemicals, petroleum and petrochemical goods, the Indian government has established a number of Petroleum, Chemical and Petrochemical Investment Regions (PCPIR) throughout the nation. These PCPIRs are equipped with all necessary facilities and enjoy policy support.

## Opportunities

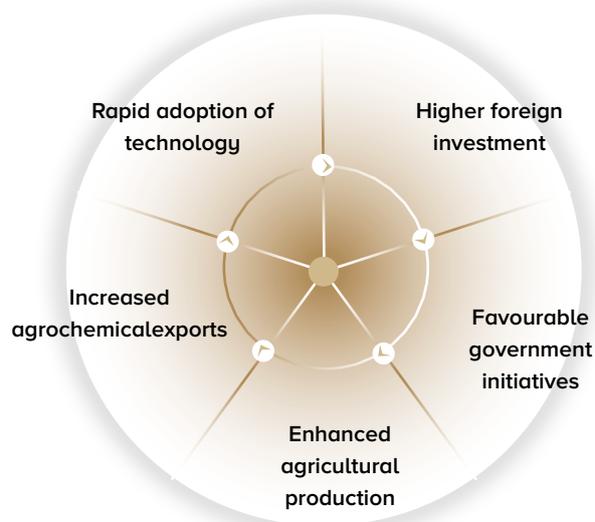
**Increased agrochemical exports** - India exported agrochemicals worth about ₹ 24,045 billion in FY22, while its total export value was ₹ 52.34 lakh billion. The domestic agrochemicals industry makes a small contribution, but it has the potential to do more if government policies and assistance from the private sector enable India to become a global hub for agrochemical production on a global scale.

**Enhanced agricultural production** – India has a limited amount of agricultural land and it has been shrinking over time. By using fertilisers, irrigation facilities and seed varieties with early maturities and high yields, crop productivity can be improved. Agrochemical application boosts output while reducing damage from pests.

**Favourable government initiatives** - As part of its regulatory framework for agrochemicals in the country, the Indian government is implementing guidelines, standards and laws for the use of drones to apply pesticides. Additionally, the Government has begun accelerating the registration of novel crop protection molecules in the nation and is creating the necessary frameworks.

**Higher foreign investment** – The agrochemical industry has seen a consistent inflow of foreign capital, largely as a result of measures taken to promote the expansion of agriculture. Apart from assisting regional and small enterprises, it has given Indian businesses access to superior manufacturing facilities.

**Rapid adoption of technology** - Higher-quality products can now be produced and trade channels can now be more diverse thanks to the employment of the latest technology, a broader client base and the adoption of digital information dissemination techniques. It has also contributed to raising awareness of the products' more recent uses.



## Challenges

**Increased reliance on generic molecules** - Agrochemical manufacturers are introducing new and improved molecules, but the adoption is slow and requires substantial marketing and promotion expenditures. The high R&D expenses related to agrochemicals and a difficult registration process have both slowed down businesses' introduction of new compounds to the market.

**Inadequate awareness and non-scientific application**- Retailers of agricultural inputs and other farmers may have an influence on a farmer's choice to purchase seeds, fertilisers, or agrochemicals. In many cases, this leads to improper application, underuse, overuse, or non-scientific usage. As a result, agricultural input products perform worse, and yields are lower than expected.

**Minimal use of agrochemicals** - While nations like Brazil, China and the US use agrochemicals 10–20 times more than India, India uses only 0.31 kg/ha of them. Inappropriate application, lower usage in less commercialised and subsistence crops as well as a lack of funding for agrochemical investments are some of the major concerns.

**Rising demand for eco-friendly pesticides** - Lack of resources and technology to meet the rising demand for eco-friendly pesticides would pose a challenge for the industry. R&D expenses for new product development would be high.

## Outlook

The Indian government recognizes its agrochemical industry as one of its top 12 industries to achieve global leadership growing at 8% to 10% through 2025, according to the Federation of Indian Chambers of Commerce and Industry. Products worth \$4.2 billion are expected to go off patent by 2023, and that will present opportunity for manufacturing a good number of active ingredients as generic molecules for some of the R&D based agrochemical manufacturers in the country.

According to the report published by McKinsey & Co in March 23, the Agrochemicals in India is currently a USD 5.5 billion market, growing at a CAGR of 8.3 percent and enjoys cost leadership globally. By 2040, it is expected to account for almost 40 percent of India's overall chemicals exports and nearly 13 percent of the global agrochemical market.

<sup>9</sup>[https://www.en.krishakjagat.org/wp-content/uploads/2022/06/Krishak-Jagat-copy\\_Policy\\_Landscape\\_flourishing\\_agrochemicals.pdf](https://www.en.krishakjagat.org/wp-content/uploads/2022/06/Krishak-Jagat-copy_Policy_Landscape_flourishing_agrochemicals.pdf)



### Risk management

Type of Risks	Description	Mitigation
<b>Operational Risk</b> <b>Market risk</b>	The fierce competition in the agrochemical industry may pose a threat to business growth.	The Company closely observes the strengths and weaknesses of its competitors as well as the dynamics of the market. Effective measures are continuously taken to lower the cost of production, including budgetary controls and other management control systems.
<b>Financial Risk</b> <b>Credit Risk</b>	Risks in the settlement of dues by customers can have an impact on the Company's financial performance.	The Company has systems in place to assess the creditworthiness of customers. Realization of receivables is closely monitored and adequate Provision for bad and doubtful debts is made in the books of accounts on a realistic basis. A proper recovery management and follow-up mechanism are in place.
<b>Foreign Exchange Risk</b>	Foreign currency exposure for sales in other countries and purchases from overseas suppliers in US dollars expose the Company to significant risks due to currency fluctuations in global foreign exchange markets, which can affect profitability.	The objective of the Company's risk management policy is to reduce risks from adverse currency fluctuations by managing the uncertainty and volatility of foreign exchange through a Board approved forex hedging policy.
<b>Talent acquisition and retention Risk</b>	To retain high-performing employees and implement business strategies effectively, talent retention and engagement are essential.	The Company has an appropriate recruitment strategy in place for employing people at all levels of the organization. It ensures that the right people are placed in the right positions to achieve organisational excellence while also ensuring career growth for the personnel
<b>Environmental Risk</b>	There is a risk of Pollutants being released into the environment, endangering the ecosystem and harming the Company's reputation.	The Company operates its own Effluent Treatment Plant comprising agitated thin film dryers, Multiple Effect Evaporators, Scrubbers etc besides a Sewage Treatment Plant and ensures zero liquid discharge. Green belt is developed all around the manufacturing plant to strictly comply with regulatory norms. Solid effluent is sent to government approved agencies for incineration.

<sup>10</sup>[https://www.en.krishakjagat.org/wp-content/uploads/2022/06/Krishak-Jagat-copy\\_Policy\\_landscape\\_flourishing\\_agrochemicals.pdf](https://www.en.krishakjagat.org/wp-content/uploads/2022/06/Krishak-Jagat-copy_Policy_landscape_flourishing_agrochemicals.pdf)



## Company overview

Bhagiradha Chemicals and Industries Limited (BCIL) is a professionally run public limited company headquartered in Hyderabad, India. The Company focuses on producing premium pesticides, including various technical-grade insecticides, herbicides and fungicides at a capacity of 3250 tonnes per year. Beginning modestly in Cheruvukommupalem village, in Prakasam District of Andhra Pradesh three decades back, company has grown from strength to strength providing direct and stable employment to about 700 personnel. During the year, the company crossed ₹ 500 Cr sales turnover, about 10 % of which are exports. The noble objectives of its founder, late Sri S Koteswara Rao, for building a sustainable organization that caters for the community and customers and creates value for its stakeholders, are being pursued by his successors in all earnestness.

To meet the rising demands for providing quality products, the Company's R&D team is consistently working to build a robust scientific base. To make it easier for these products to be registered in the countries where they will be imported, the Company has also produced authentic chemical and toxicological data for some of its flagship products.

# 3250

tons capacity per annum

## Quality control

The company has a complete in-house quality control laboratory with modern analytical equipment and well documented procedures and an established quality assurance system manned by experienced and qualified personnel.

## Environmental, health and safety

Protecting the environment as well as ensuring employee safety and health are all priorities of the Company. For the waste water treatment process, the Company implemented a Zero Liquid Discharge (ZLD) system. Treatment facilities include strippers, multiple-effect evaporators, agitated thin film dryers, biological electro-thermal purification system and a RO system. For cooling tower makeup, treated wastewater is used. A fire hydrant system that covers the entire plant is part of the Company's safety infrastructure. Efficient fire detection system with modern apparatus is in place. To enhance process safety, nitrogen blanketing is provided to create protective atmosphere and reduce hazards. Periodical training is imparted to employees and regular safety audits and drills are conducted. On-site occupational health centre (OHC) is available and staffed round-the-clock. The centre has the required medical infrastructure and qualified medical professionals. Both medical and occupational health checks are conducted on a regular basis.

## Research and development

The R&D unit situated within the factory premises is one of the key strengths of the company and serves as an enabler of the Company's business model. It is well equipped with contemporary instruments and machines. A highly talented and experienced R&D team committed to developing non-infringing and commercially viable processes up to pilot scale functions under the guidance of the Managing Director and assists the production division in case of glitches during commercial production. The processes for all those products that have been commercially produced so far by the company were developed in-house. Developing new processes apart, the R&D team constantly works on process modification to achieve cost optimization for the existing products which is vital to cope with competition.



## CAPEX

During the year under review, the Company has allocated CAPEX on various technologies which resulted in cost optimisation, process improvement and closed handling. Process optimization was done in one of the key intermediates, resulting in increase of product yield and reduction of waste. Powder handling systems, sample valves were provided for closed handling to improve the safety of reactor operations. Nitrogen blanketing was provided for storage tanks and reactors handling flammable material to create an inert atmosphere.

## Human resources

The employee life cycle has been recognised by the Company as part of efficient human resource management. The Company is especially proud of the commitment, talent and dedication shown by its people in all business-related endeavours. The Company believes in recognizing and rewarding talent through an efficient appraisal system put in place. In line with the policies of the government, majority of employees are drawn from local areas only.

## Financial overview

Particulars	Standalone		Consolidated	
	FY 2022-23	FY2021-22	FY 2022-23	FY2021-22
Total Income (₹ in Lakhs)	50,393.50	43,653.81	50,335.03	43,651.68
EBITDA (₹ in Lakhs)	7,968.73	6,919.00	7,858.42	6,912.65
PBT (₹ in Lakhs)	6,504.15	5,146.31	6,378.31	5,130.83
PAT (₹ in Lakhs)	4,640.99	3,590.26	4,515.16	3,574.78
PAT Margin (%)	9.21%	8.22%	8.97%	8.19%
Total Assets (₹ in Lakhs)	44,635.45	34,200.22	44,691.41	34,202.30
EPS (in ₹)	45.58	43.21	44.35	43.02
Current Ratio (in times)	2.30	1.31	2.27	1.31
Debt Equity Ratio (in times)	0.16	0.42	0.16	0.42
Return on Net Worth (in %)	14.74%	18.88%	14.41%	18.83%
Interest Coverage Ratio (in times)	14.06	6.67	13.77	6.65

## Company outlook

Having crossed a sales turnover of ₹ 500 Cr during the year under review, the company is aspiring to enter the top rung in the agrochemical manufacturing space of the country with suitable plans. It is focusing on new registrations in the domestic as well as overseas arenas for certain existing and products in its pipeline. These initiatives are expected to translate into accelerated revenue streams in the coming years. The construction of its subsidiary's manufacturing plant in Kadechur, Yadgir District, Karnataka is progressing after obtaining the necessary regulatory clearances. Early commercial launch of its operations holds the key to Bhagiradha's growth plans.

Raw material prices for agrochemicals have been in a downward trajectory for the last few months, led primarily by adverse weather conditions in certain key geographies like the US and Europe - resulting in lower demand and also due to better availability of raw materials, with China opening up after COVID-19 related lockdowns.

In the current context, it is to be noted that the agrochemical industry is facing a pile-up of high-cost inventory due to oversupply situations in the marketplace. This will certainly put pressure on the revenue as well as margins on most of the companies including ours. But we are confident that we will navigate these challenges and remain committed to our long-term growth strategy.

