



# Management Discussion and Analysis



## World economy

The world economy grew by 6.1% in CY2021, according to the World Economic Outlook by IMF. The growth in 2021 was fuelled by increase in consumer spending and moderate growth in investment. However, during the end of 2021 the growth slowed in some major economies including China, USA, and the EU. The slow growth was majorly due to supply chain disruption and fading benefits of fiscal and monetary policies.

The recovery has been uneven with the advanced economies starting to show signs of recovery mainly due to increase in economic activity and investments, which

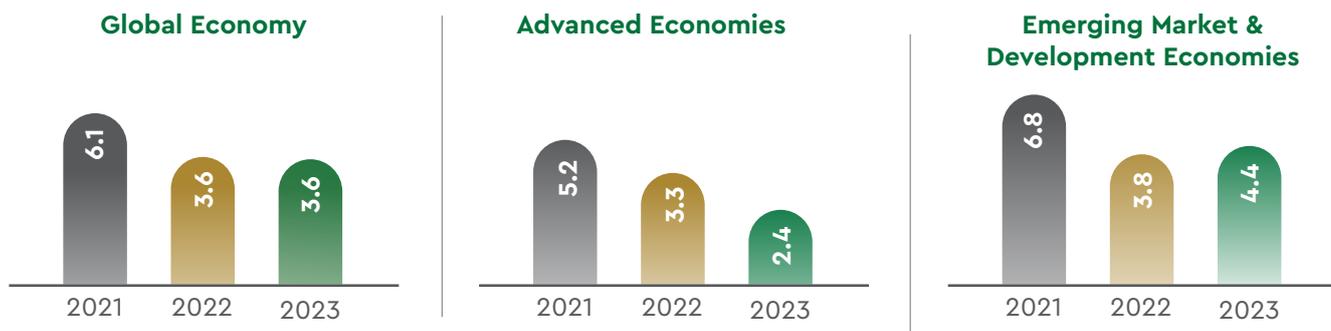
are expected to reach to their pre-pandemic levels. Whereas, Emerging Markets and Developing Economies have experienced a sluggish growth owing to the slower vaccine rollout, tighter economic policies, high unemployment and high inflation.<sup>1</sup>

### Outlook

Global growth is projected to decline to 3.6% in 2022 and 2023 and slow down to 3.3% after 2023 over the medium run. Advanced economies are expected to register growth of 3.3% in CY 2022 and 3.6% in CY 2023, while emerging economies are expected to register a growth of 3.8% and 4.4% respectively.<sup>1</sup>

## World Economic Outlook April 2022

### Growth Projections



Source: International Monetary Fund

<sup>1</sup> World Economic Outlook April 2022, IMF



Inflation is estimated to be at 5.7% in advanced economies and 8.7% in emerging markets and developing economies, owing to war-induced commodity price hikes and expanding pricing pressures.<sup>1</sup>

### Indian Economy

According to the second advance estimates of the National Statistical Office (NSO), India is expected to register a growth of 8.9% in FY2021-22, 1.8% higher than the pre-pandemic growth rate.<sup>2</sup> The pandemic has had only a moderate impact on agricultural and related businesses, which are expected to grow by 3.9% in FY2021-22 after growing by 3.6% the previous year.<sup>3</sup>

Headline Inflation in the Consumer Price Index (CPI) climbed to 6.0% in January 2022 and 6.1% in February, reaching the upper tolerance limit. The rising inflation is a result of high prices of food and energy, geopolitical conflicts, lockdowns due to Covid and supply chain disruptions.

### Outlook

In FY2022-23, India's GDP growth is estimated to be between 8%-8.5% and between 6.7%-7.1% in FY 2023-24.<sup>4</sup> Growth is expected to pick up in the second quarter of FY2022-23 as uncertainties decline. The geopolitical issues may result in capital outflows and a

fast devaluation of the currency but both are projected to recover by the end of 2023.

Overall economic indicators suggest that India is well prepared for the challenges in 2022-23. India's strategy with the policies focusing on supply side changes rather than complete dependence on demand control, has prepared the country for long time growth.

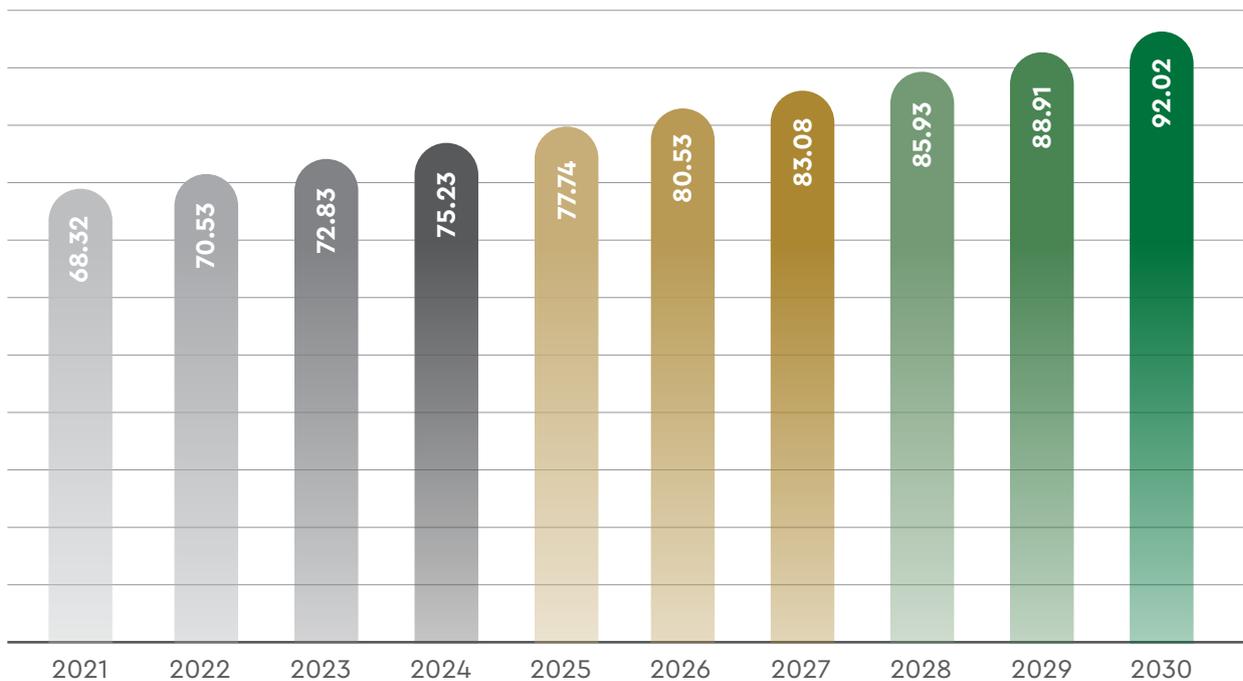
### Industry overview

#### Global Crop Protection Chemicals Industry

The market size of global crop protection market was US \$68.32 billion in 2021. It is estimated that the industry will reach size of US \$92.02 billion by 2030, registering CAGR of 3.4% between 2021-2026. Pest infestations, crop yields, and agriculturists' – levels of awareness and capacity to purchase products are all factors that influence market growth of this industry.

With strong expansion and shifting crop mix trends and environmental laws, the crop protection sector has evolved over time. Growing population, shrinking arable land, food security, vegetarian eating trends, and the need for increased agricultural productivity are all major drivers driving demand for more agricultural output, enhancing the crop protection industry's global expansion.

### CROP PROTECTION CHEMICALS MARKET SIZE, 2021 TO 2030 (USD BILLION)



Source: Crop Protection Chemicals Market Size, Trends, Report 2022-2030 (precedenceresearch.com)

<sup>2</sup> <https://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/PR103MPC81636A20CC4146AAA70682C8252B56DB.PDF>

<sup>3</sup> Economic Survey 2021-22

<sup>4</sup> <https://www2.deloitte.com/xe/en/insights/economy/asia-pacific/india-economic-outlook.html>





### Indian Agrochemical Industry

India's agrochemical industry is a vital element of the Indian economy. Agriculture generates 20.2% of India's total gross value added (GVA). Agriculture and related sectors employ approximately 54.6% of the population. During FY2021-22, the total production of all key fertilisers was 330.84 LMT.<sup>5</sup> The rapid increase of fertiliser production in the country has been assisted by a favourable policy environment that allows investments in the public, cooperative, and private sectors.

Over the last six years, India's agrochemical industry has grown at 7.6% annual pace. The Indian agrochemical market is predicted to grow at a 9.3% CAGR until 2025, with specialty chemicals rising at more than 12%.<sup>6</sup>

The Indian agrochemical industry has been recognized as one of the industries that has effectively fought the pandemic's wrath. Supply chain difficulties, demand pattern shifts, and the financial crisis are on the wane and a promising future seems unfolding for the Indian agrochemical industry. Agrochemicals have supported India's economic growth both directly and indirectly through industrial expansion and improvements in agricultural yield.

The production and export of agrochemicals have increased considerably in the last decade, and this trend is projected to continue. More and more Indian companies have decided to focus on integrating the industries' chain backwards and derive the corresponding benefits. Indian chemical firms, which were eyeing the key intermediates for the past few years, received a boost from the pandemic and the focus on localizing supply chains.

### Government Initiatives

- The Indian government has established a number of Petroleum, Chemical, and Petrochemical Investment Regions (PCPIR) across the country, complete with all necessary facilities and policy support to boost the production of various chemicals such as agrochemicals, petroleum, and petrochemical goods. Industry can use these facilities to design and commission units for the production of technical grade products with perfect backward integration, decreasing the need for imports.
- In keeping with the Make in India and Atmanirbhar Bharat programmes, the Indian government is focusing on research and innovation. The government and industry have begun investing heavily in research and development to produce new generation compounds, isomers and manufacturing processes, green chemistry products, innovative combinations, and solo formulations in order to make India a global hub for agrochemical product manufacturing.
- The Indian government is establishing a regulatory framework for agrochemicals in the country, including policy, norms, and regulations for pesticide applications using drones. The government has also begun working on methods for fast-tracking the registration of new crop protection compounds in the country.

### Opportunities

- Indian farmers are looking for more effective and environment friendly pesticides that can be used in lesser quantities per hectare. As the availability of these items is very low, there is a scope of developing more such products which will benefit all the stakeholders and help the agricultural exports grow.
- The intellectual property policy also encourages industry to develop new technology and goods by granting 20-year patent protection. Many companies have been able to invest in R&D operations in order to create novel technologies and products and obtain protection both in India and internationally via the PCT or Paris Convention pathways.
- Industry is increasingly focusing on digitization to drive better analytics, decision-making and traceability across the value chain. Digital tools such as farmer apps and dealer management systems are helping companies in undertaking tailor-made approaches for different market segments. The COVID-19 outbreak has further pushed an already growing trend of technology and internet usage in rural areas, thus creating a favourable digital environment.

<sup>5</sup> <https://fert.nic.in/sites/default/files/2020-082022-03/Final-AR-2022-DOF-22.pdf>

<sup>6</sup> FICCI (<https://ficci.in/sector-details.asp?sectorid=7>)



## Challenges

Complex supply chain- Due to the large number of end users in the market, the supply chain for agrochemical is complex and results in significant post-harvest losses for the farmers.

- Lack of knowledge among the farmers- Most farmers lack knowledge about the products available in the market and the way to use these products. Inappropriate use of these chemicals result in great losses for the farmers
- Counterfeit products - There are many counterfeit and sham products available in market which in turn affect revenues of the organised sector.
- High R&D costs- It takes about 9 years of R&D and \$180 million to develop a new agrochemical compound. Companies in India haven't typically concentrated on developing novel compounds and will have difficulties in establishing these capabilities, while maintaining cost competitiveness.

## Outlook

Despite enormous challenges, the agrochemical companies in India operated safely and reliably backed by their core strengths, innovating and adapting to the new normal as best as they could. The policy makers can leverage the opportunities available to work in the direction of newer technologies, novel molecules, efficacious combination and solo formulations, enhancing manufacturing infrastructure, creating a proper policy environment to help in improving productivity as well as foreign investment in the country in order to increase the share of agrochemicals in the country's GDP and exports.

## Company Overview

Bhagiradha Chemicals and Industries Limited is a Hyderabad based Public limited company manufacturing high quality pesticides, listed on the BSE and NSE with significant export sales over the years. The industry is located in Cheruvukommupalem, Ongole, Prakasam district, Andhra Pradesh at a distance of about 350 Km from the port city of Chennai in Tamilnadu and is connected by National Highway. The manufacturing facility has an aggregate installed capacity of 3250 MT per annum, spread across 29 hectares of land with three production blocks and 4 process lines and an effluent treatment plant with zero liquid discharge system. It has proven capabilities to manufacture technical grade Insecticides, Fungicides, Herbicides and other specialty intermediates complying with International standards.

The company's strength is through Innovation led product portfolio, well laid out manufacturing capacity, Strong in house Research and development, Diversified customer base across the globe and competent management bandwidth. The company's business development

strategy is mainly focused on Strong emphasis on developing new processes for the existing products to optimize costs and non-infringing processes for newly identified off-patent products.

## 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

The company has taken adequate measures for environment protection, safety and health of the employees. The industry has developed Zero Liquid Discharge system for effluent treatment and has also treatment facilities consisting of stripper, multi effect evaporator, Agitated Thin Film Dryer (ATFD), Biological ETP, RO system. Solid waste generated within the plant is sent to approved land fill.

Occupational health center is provided inside the company premises and working 24x7.

Safety infrastructure is provided and Fire hydrant system covered entire plant. New fire detection system and latest equipment are installed to face any emergency. Regular Drills, training programmes and planned audits are carried out on an ongoing basis.





## Research and Development

The R&D facility is recognized by the DSIR and located within the factory premises. It has a pilot plant facility, where the scale at which a product is manufactured is increased through a non-infringing process developed in the R&D facility prior to launching full scale commercial production.

## Human Resource

The company has focused on employee lifecycle for good human resource management. The company feels proud of the commitment, competence and dedication shown by its employees in all areas of business. The company also plans for structured induction and skill development program of the all the employees. Also BCIL is committed to nurturing, enhancing and retaining talent through superior learning and organization development.

## Company Outlook

Opportunities are knocking with the expansion of capacities to cater the rising demand from domestic as well as overseas for the Indian specialty chemicals and also as the global companies seek to de-risk their supply chains which are dependent on China. The scope for capacity expansion is limited in the existing plant which is located in a non-industrial zone. During the year its Subsidiary, Bheema Fine Chemicals Pvt Ltd received environmental clearance from the MoEF &CC, Government of India, for manufacture of pesticides of 9002 MT per annum. The Karnataka State Pollution Control Board has accorded its Consent for Establishment recently. The Company is making sincere efforts for early implementation of the project to augment its much needed capacities.

