

Review Article

Effect on Agriculture and Medical Field under COVID-19 in India

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A B S T R A C T

The ongoing health crisis of COVID-19 has affected almost all walks of life. Protecting the lives of people suffering from the disease and frontline health responders have been the priority of the nation. Governments have started actions in full swing since the Corona virus attack created an unprecedented situation. India declared a three-week nation-wide lockdown till mid-April in the initial phase, which was subsequently extended for achieving satisfactory containment of the virus spread.

Keywords: Farming, Medicine, COVID-19, Health Measures, COVID Warriors, India

Introduction

The COVID-19 crisis is temporary but the problems in Indian agriculture ecosystem are not new, but this pandemic has reinstated the need of focussed policy on rural development with agriculture and medicinal supply and rural population at its core. In long term, this pandemic will definitely going to be seen as turning point for positive changes in Indian agriculture and Pharma space, including strong supply chains and establishment of agri-enterprises and advance Pharmaceuticals in rural and semi-urban areas.

Effect on Agriculture

Agriculture Value Chain

There has been an adverse effect of the Lock-down due to COVID crisis in the Agricultural Value Chain in India.¹ The central pillar of the Indian economy The Agricultural Sector serves to the food consumption needs of the whole country, while also taking place among the top exporters

of agricultural produce in the world. This sector has been facing its share of challenges in the recent years, but few major have been as severe as the domestic and international travel restrictions during COVID-19 crisis.¹

Labour and Transportation Factors

When India's nationwide lockdown was announced in March, the knee-jerk reaction was a mass exodus of migrant labor back to rural hometowns, as workers moved to wait out the lockdown while at home. There was a complete off balance, of the Harvesting process which usually starts in mid-April, resulting in major liquidity issues. The June crop is among those that has been particularly hard hit.¹

Then there is the transportation sector. Movement across state borders has been heavily restricted, which has blocked the movement of crops and consequently their sale. Add to this a lack of machine repairs mechanics and other such support staff, and one gets the picture of a sector in trouble.¹

Impact on Medical Sector

The (COVID-19) novel coronavirus disease 2019 was characterized as a global pandemic by the WHO on March 11th, 2020. This pandemic had major effects on the health market, the pharmaceutical sector, and was associated with considerable impacts; which may appear in short and long-term time-horizon and need identification and appropriate planning to reduce their socio- economic burden.³

Current short communication study assessed the pharma market crisis during the COVID-19 era; discussing short and long-term impacts of the pandemic on the pharmaceutical sector.³

Short Term Impact

We have seen an immediate short-term effect in the medical sector during the time of COVID in India as each individual was now more cautious towards their health for long run.³

- Demand change, A tremendous demand was seen for all types of medicines during this pandemic period
- Supply shortages, Since the demand was high there was a shortage in the supply of any good demands for medicines
- Panic buying and Stocking, As people were afraid for loss of life, they started panic buying medicines even when not needed and also many people started to stock it for future
- Regulation changes and shift of communication and promotions to remote interactions through technology
- Research and development (R&D) process changes can be seen as short-term impacts of COVID-19 on the health market

Long term Effects

There is now being seen a long term effect of COVID on these medical sectors as there has become more complexity in decision making for non COVID-19 related medicines.³

- Approval delays, Delayed approvals for non- COVID-19 related pharmaceutical products; as all countries are being under pressure of the crisis and their priority is COVID-19 management, approval delays may be seen due to several month of application review postponements
- Moving towards self-sufficiency in pharma industry; potential shortages due to export bans in India and China, who are main suppliers of API and generics, made the governments of many countries to consider that, self-sufficiency in supply chain is to be monitored and made available accordingly and they have also announced regulations to avoid shortage of critical supplies in the time of crisis
- Pharmaceutical industry growth slow-down; Corona

virus pandemic resulted in economical slow-downs for many countries and this will possibly lead to pharma industry growth slow-down

- Consumption trend changes in health-related products: Changing habits related to consumption and refilling prescriptions, especially in chronic disease therapeutic areas, might happen; and may also be further affected by the emerging tele-medicine

The short-term and long-term effects discussed in this paper can be seen in many reported trends around the world, and in countries in other regions, such as Africa, these effects will be predictable with increasing the COVID-19 prevalence.³

Statistical Analysis

After a deep research so stats that we found are more accurate and relatable to the current scenario are as shown below:

FAO Food Price Index

The FAO Food Price Index (FFPI) has averaged 107.5 points in December 2020, up 2.3 points (2.2 percent) from November, marking it as the seventh month of consecutive increase.² Here except for the sugar, all sub-indices of the FFPI registered modest gains in December, with the sub-index of vegetable oil again rising the most, followed by that of the dairy, meat and cereals. For 2020 as a whole, the FFPI averaged a three-year high of 97.9 points, 2.9 points (3.1 percent) higher than in 2019, but still well below its peak of 131.9 points registered in 2011.^{2,6}

Pharma Stats

While most are still struggling to increase their sales in the US, there is momentum and is being aided by their new drug launches. For instance, in the first quarter of this financial year (FY21), Dr Reddy's, whose US sales contribute the most at 39% (sales in India were at 14%) of total sales, saw a year-on-year growth of 6% in revenues from the region along with new product launches in the US. Others too like Lupin and Cipla have also launched new products.⁴

"The external environment is quite facilitating now and the demand environment is less hostile and it is up to the companies now to tune their supply and cost engine appropriately to leverage this, as we have done with our product launch in April in the respiratory segment and by now gained a good market share," said Kedar Upadhye, global CFO at Cipla, an over Rs 17,000 crore company that has a strong presence in the Indian market too.^{4,3}

To him the biggest shift is the migration to the digital medium, which has speeded up response time and reduced costs. The COVID-19 disease has upended all that, one sector has built itself on medical representatives are seeking doctor connect and the business executives are busy in

face-to-face meetings with suppliers and distributors for adopting the new normal as a part of life.⁴

“Simple things like payments by our stockists in India has moved from cheque payments to online bank transfers, which makes it not just convenient for the stockists but also helps us track collections better,” he said.

Conclusion

The government in India should focus on following points to make agriculture and Pharma more resilient and shockproof:

1. Establishing more agri-entrepreneurs and support local value addition.
2. Investments in agri-infrastructure including storage, logistics, transport, etc.
3. Utilize Information Technology in agriculture and Pharmaceutical sector to reach unreached and get hold of real time data.
4. Shortening supply chains to make it useful for farmers as well as medium and large pharmaceutical enterprises.
5. Strengthening the community-based enterprises like Ayurvedic Medicine Practicing companies, immunity boosting healthcare products, producer groups, farmer producer companies, federation etc. to utilise larger base.
6. Create space for innovation in agriculture sector, whether it is farm practice or IT based or something related to logistics.

Table 1.A comparative analysis of healthcare in India and the World

Indicator	India		World
	In absolute terms	Ratio	
Physicians per 1000 population	10,44,420	0.78	1.50
Nurses and Midwives per 1000 population	28,11,900	2.10	3.42
Hospitals Beds per 1000 population	8,75,000	0.7	2.7

Note: Data taken for the latest year available,

Source: World Development Indicators Dataset, World Bank

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