

Impact of Pandemic on Socio-Economic Dynamics of Modern India

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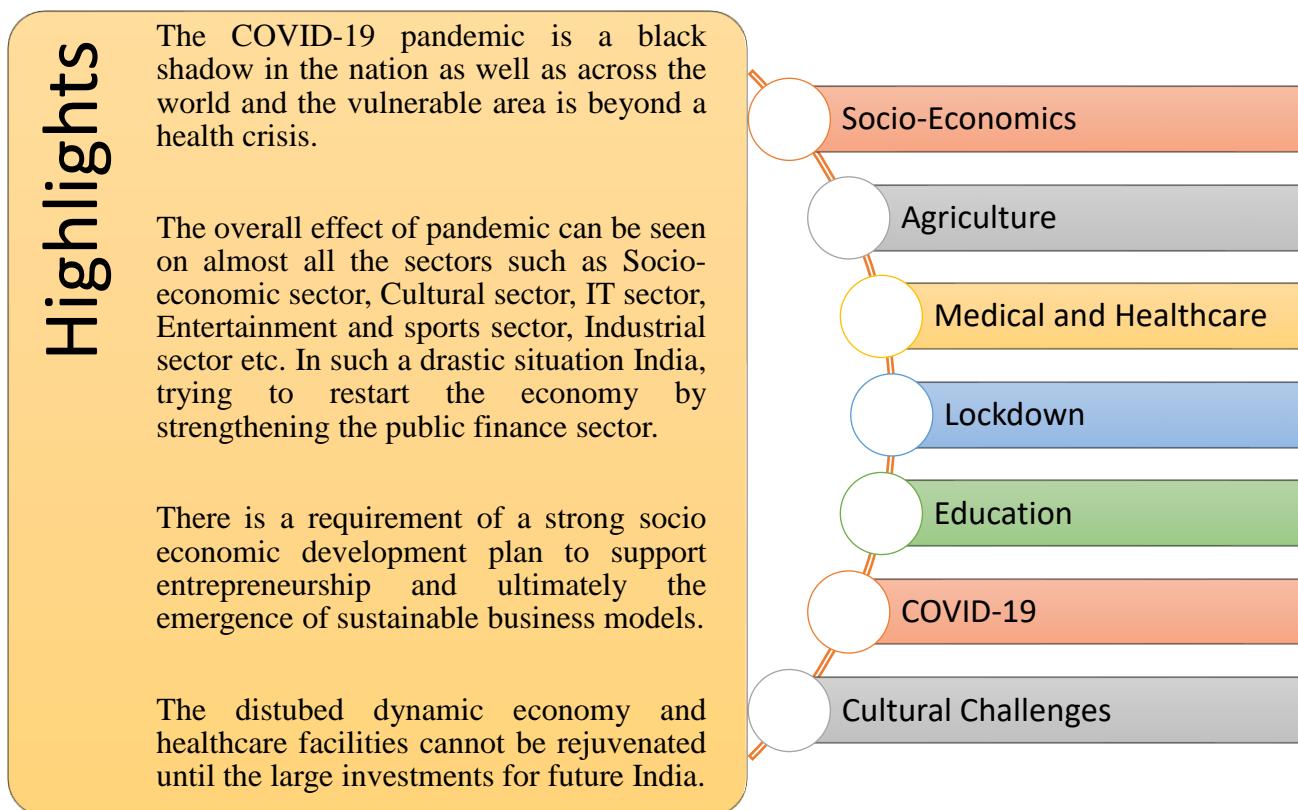
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Graphical Abstract



Introduction

The COVID-19 pandemic established an adverse link between economics, the environment, and human health. The economy is also affected due to a pandemic situation where the purchase of non-essential things has been temporarily paused during the lockdown. People can go shopping for only their basic needs. All the changing patterns can offer opportunities for the implementation of long-term sustainable changes. This Global crisis has changed the patterns of electricity consumption during this pandemic. Most individuals work from home and have more flexible schedules because the electricity required for a home is increased than the office place.

The Global system has faced several shocks during this pandemic situation there should be a requirement for reforms to strengthen the system and its fundamental organization. During the COVID-19 lockdown period diversity of aspects was created, for example, academic institutions with virtual platforms for online teaching financial sector emerged with better options for economic growth with work-from-home situations. Local entrepreneurs benefited from locking down and prohibiting interstate or international transport. The work-from-home option has revolutionized the need for fuel and the problem of pollution as well as traffic jams. This pandemic transformed India's traditional economy towards encouraging the digital economy. Several sectors such as digital businesses, pharmaceuticals, and home delivery services grow exponentially during the lockdown period (Goyal, 2020). Key noticeable points during lockdown are a hike in hygiene and healthcare needs. There is a drop in lifestyle categories of sales. The digital world is forced to establish it again in a fast-forward manner.

Small retailers are also using apps like PayTM and other apps for their business. The education sector is now completely established on digital platforms. The educational institutions are running their routine classes on various online platforms. Curriculums are now redesigned with a digital campus and new topics related to digital platforms. This pandemic revolutionized the significance of investing in newer technologies such as cybersecurity, cloud data, and e-governance (Mukherjee, 2020).

1. COVID19: A Socio-Economic Crisis

Assessment of real facts of COVID-19 was done to observe the socioeconomic status of India as well as the health status of Indian citizens. This resulted in a triple crisis i.e. sociology, economics, and medical aspects in India. Spontaneous lockdown creates unemployment in thousands of

people, some rendered homeless, far from families starving, and struggling phases (Wao and Wao, 2020). Labors get forced towards migration from cities to rural areas. The whole world as well as India is burdened with a depressed economy. It has created major inequality in society. All these situations are non-tolerable to the unorganized sector (94%) of India's workforce.

COVID-19 has a disruptive impact on the economy of the nation. Various sectors including agriculture have a drastic effect of lockdown and sudden drop rate in production rate. The major areas affected by COVID-19 are discussed below

- **Textile and Apparel Business**– The Lockdown in China had an impact on India because the raw materials for textile industries i.e. Buttons, Zippers, hangers, and synthetic fabric mainly brought from China. Meanwhile, Cotton prices have dropped in India due to a stoppage in cotton exports to China. In the apparel business, a few billion orders were canceled due to the closure of retail stores across the country.
- **Automobile Business** – The automobile sector already faces lavish demand in the previous year COVID-19 and the lockdown period and hands with problems. across the world, China accounts for 27 % of India's automobile part import business and Wuhan city is the major hub of the automobile part industry. the COVID-19 outbreak in Wuhan suddenly stopped Automobile parts production which adversely affected the supply chain of automobile parts in India.
- **Aviation Industry** – Lockdown due to COVID-19 and ban on international flights affect the aviation industry in India. All over the world global travel and tourism stopped leading to a drastic drop in this sector.
- **Hotels and Restaurants** – Lockdown and COVID-19 imposed hotels and restaurants closed or dropped by 70 percent
- **Poultry Industry** – Rumors regarding infection and transmission of COVID-19 through chicken, sales, and price of poultry items i. e. Meat and eggs. This sector faced an enormous loss in the economic aspects.
- **Electronic Appliances Industries**- Lack of demand reduced the economy of electronic appliances. The lockdown in China badly impacted this sector. It may take a longer time to re-establish the economy of this sector.

- **Entertainment and Sports Industry** – The closure of cinema halls and sports complexes impacted the entertainment sector. A loss of a few million occurs due to this situation. The release date of many grand movies was delayed with a huge loss. Delayed schedule shooting and transportation ban affected the movie-making.
- **Fast-moving consumer goods (FMCG)** – The lockdown announcement increases the demand for essentials i.e. FMCG products. But the supply chain of these consumables gets disturbed due to the ban on transport facilities.
- **Pharmaceutical Industry** – Indian manufacturing industries of pharmaceuticals are affected due to China. Pandemic situations rather create an increase in the demand for certain drugs and pharmaceuticals. The immunity consciousness of people in India also increased.
- **IT and E-commerce Industry** – the IT sector was raised during a pandemic situation because all types of mass communication activities have shifted to online platforms. The boom in the e-commerce sector is enhanced due to home delivery of all types of products and e-payment dependence. IT sector also played a significant role in healthcare services during the pandemic situation and helped the nation to face the challenges of COVID19 in minimum resources with maximum output. Figure 1 illustrates the role of digital technologies during COVID-19.

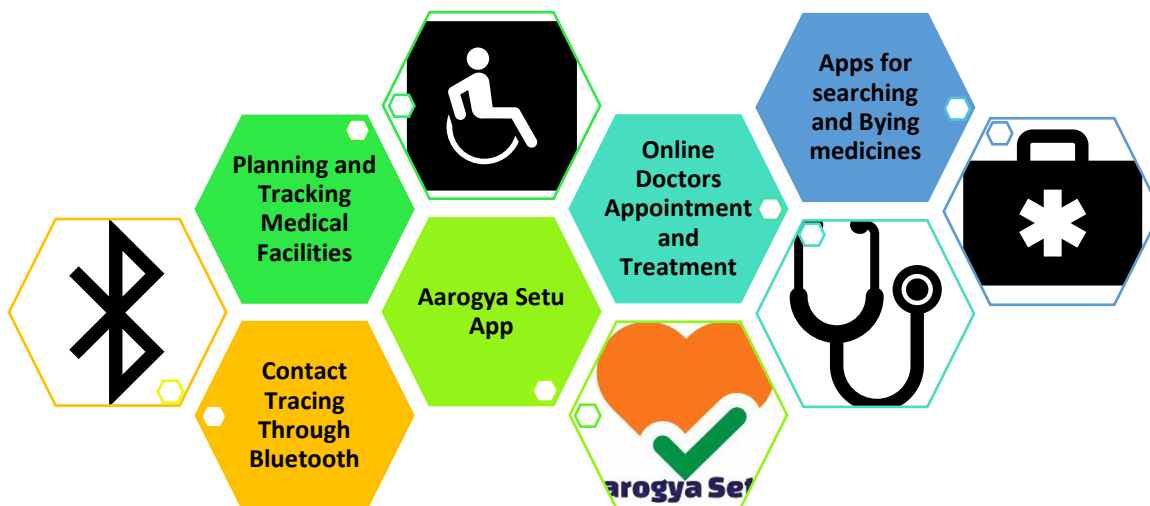


Figure 1: Indian Digital World Facing COVID-19 Challenges

2. Digital Technologies in the Educational Sector

The educational sector is the foundation of the future economy of any country, and the pandemic COVID-19 has significantly disrupted the overall education sector. Due to the pandemic situation, many educational institutions have to forcefully cancel all examinations, internships, and project schedules. The crisis badly affected the educational sector because no one is so familiar with online teaching-learning processes or virtual platforms. Later on, educational institutes built their virtual infrastructure to cope with the online teaching-learning process and trained their teachers and students to interact in virtual ways. Thus, the lockdown has taught new things in the educational sector. Virtual platforms give the best way to continue educational activities through an online model (Pravat, 2020). The lockdown has given a ray of hope for teachers and students to continue their educational activities online.

Despite many negative effects, COVID-19 poses lots of positive changes in the educational sector in India. These changes are mentioned already in the New Education Policy. However, it might take a long run to adopt such an online infrastructure in every educational institute. COVID-19 forcefully modulated every institution with enhanced and perfect online infrastructure for remote learning. COVID-19 provides an opportunity to transform the traditional educational system into an online teaching-learning system. These kinds of changes are the positive impacts of the COVID-19 situation. Some more positive impacts of COVID-19 are discussed below.

- **Initiation of Blended Learning:** Education delivered through digital technologies and blended learning technology is positively incorporated during lockdown periods of the COVID-19 pandemic. Online classes completely depend on technical ways of teaching, assessments, etc. This transformation creates a major change in teaching pedagogy.
- **Learning Management Systems in Educational Institutes:** During the COVID-19 pandemic, every educational institute demands a perfect learning management system that provides a great opportunity for the IT company to develop an efficient learning management system so that education can be monitored perfectly through online infrastructure (Misra, 2020).
- **Paperless work in Educational Institutes:** Online teaching-learning atmosphere enhances the use of soft copy teaching-learning material in a lockdown situation. Even the examination sector, also uses soft copies of the answer sheet and online evaluation process. Thus, the

demand for paper drastically decreased due to the COVID-19 situation and that is a very eco-friendly approach for the entire biosphere.

- **Collaborative work:** During the COVID-19 situation various online conference seminars and Technical workshops were organized virtually. This kind of online webinar emerges the collaborative work of different scientists and educationists, researcher scholars of a specific domain to discuss their research and provide the essential inputs. search online webinars accelerate the rate of research in the entire world. The online platform creates a global school for educationists as well as students.
- **Enhanced Digital Literacy:** Remote and online learning introduces the concept of digital literacy among all the educationists of different domains and different types of learners from urban to rural areas. Smartphones provide online learning platforms in different fields. Learning materials provided by educational institutes are shared through social media platforms among the groups of learners which increases the knowledge domain of all learners.
- **Better Time Management:** During the COVID-19 pandemic situation all the learners learn to manage their time more efficiently than in the traditional learning atmosphere.

These factors positively affect the education sector in India and accelerate the rate of the future economy by strengthening the education sector with digital learning platforms.

3. Challenges in Agriculture

Indian agriculture is badly affected by the COVID-19 crisis, as agriculture is the backbone of the Indian economy. All the financial sectors directly or indirectly depend on the agriculture sector. agriculture acts as the central pillar of the Indian economy. This sector provides for all citizens of the country but in the recent COVID-19 situation, this sector faced some drastic challenges during the lockdown period. Indian agricultural sector is actively engaged in the export of food throughout the world but during a pandemic situation due to restrictions on international travel, all the export materials cannot be transported resulting in a drastic loss in that sector.

- **Food Insecurity:** Indian agriculture provides sufficient food throughout the country but in a pandemic situation due to scarcity of labor and transport facilities the stable food security is disturbing and there may be problems and shortages of some kind of food materials.
- **Labor Scarcity:** Due to the pandemic situation, there is an immediate migration of laborers throughout the country. This adversely affected the agricultural sector in Punjab and Haryana.

These states mainly maintained agricultural activities by labor from East India. Labor scarcity problems are also faced by storage units concerned with the agricultural sector and milk processing plants.

- **Pause in the Transportation Sector:** Transport across state borders has been heavily restricted during the lockdown, which has blocked the supply chain of crops and their sale.
- **Maintenance Problem for Agricultural Equipment:** The migration of laborers and repairing mechanics imposes a problem in repairing and maintenance of agricultural equipment (Marwah, 2020).
- **Consciousness toward Healthier Diet:** The COVID-19 pandemic creates awareness about healthy food and consciousness among people regarding nutritious food. organic agriculture became popular during the lockdown period. The COVID-19 situation offers a unique opportunity to reorient the agriculture sector in an eco-friendly and organic manner rather than using chemical fertilizers which are hazardous for the entire biosphere.
- **Increased Demand for Green Vegetables:** For boosting immunity during pandemic situations everyone shifted towards the green vegetable diet and restricted themselves from fast food consumption. The increased demand for green vegetables boosts the agriculture sector with lots of benefits.

Ultimately, the Indian agriculture sector had a complex impact on the COVID-19 pandemic including positive as well as negative influences and future challenges. Being an agriculturally based country, the future economy can be sustained by strengthening the agricultural sector and its associated industries.

4. Environmental Rejuvenation

Air pollution in India is majorly caused by transport activities, industrial activities, power plants, construction activities, biomass burning, and residential activities in urban areas. The COVID-19 pandemic creates a long lockdown period in which all these activities get stopped. Various industries shut down in the lockdown period as well as shut down due to the Migration of labor from different parts of the country. Offices and Educational Institutes also stopped running due to this the majority of the population doesn't travel and all types of vehicle transport get stopped. All these changes positively affect the air quality of India in metro cities and everywhere. Shutdown

creates a very pleasant and aesthetic atmosphere as well as the environment. During the lockdown period, the environment got time to rejuvenate itself (Ram et.al., 2020).

Despite lots of adversity created by COVID-19, the lockdown has created eco-friendly factories. A decrease in pollution in water resources due to long-term decreases results in the strengthening of the aquatic ecosystem. It can be said that the coronavirus acts as an earth's vaccine, which protects the earth from all types of toxic pollution. There is a very poor condition of India's water resources due to industrial development, and wastewater is discharged into water resources through effluent pipelines. Approximately 40 million liters of wastewater are incorporated into rivers and other water bodies due to industrial activities. Textile Industries produce large amounts of wastewater. It is estimated that every day, almost 40 million liters of polluted water enter rivers and other water bodies. During the lockdown period, Ganga significantly improved. According to the Central Pollution Control Board (CPCB), the Ganga River has now average water quality of 27 points which is suitable for Aquatic life as well as household use of water. A sudden stop in industrial and traffic activities also fills the ozone layer, significantly.

5. Medical and Healthcare Sector

According to the World Economic Forum, the current COVID-19 pandemic situation forced Indian citizens toward the below-poverty line. The major gap in socio-economic inequalities directly affects health and nutrition. Compromise in health-related precautions such as the availability of masks, social distancing, and medical facilities increased the infected patient count. All these adverse circumstances create a major long-term impact on health indicators in India. In the COVID-19 situation, major hospitals were dedicated to COVID-19 treatment which led to inadequate resources for the treatment of other diseases like cancer, diabetes, or any type of accidental injuries. It will result in a somewhat increased death rate all over India.

Lockdown-related circumstances include weight gain and obesity in people due to the closure of external activity and work-from-home options. Poor physical activity and increased consumption of calories caused complex medical problems (Ghosal et.al. 2020 and. Ghosh et.al., 2020).

Global medical supply of drugs and pharmaceuticals affected by the COVID-19 pandemic. There is a scarcity of some medicines like Paracetamol, Azithromycin, etc. India is one of the major global exporters of medicines providing 19 billion dollars of drugs and medicines to more than 200 countries across the world (Kumar et. al., 2020).

There is a very crucial role in health care service providers during pandemic situations. Despite having many personal as well as family aspects such as isolation from the family in case of COVID-19 duties or wearing PPE kits all the time and suffocating with it. Still, all the health workers do the best job and serve the population suffering from COVID-19. The role of healthcare providers During a pandemic situation is shown in Fig. 2 (Kretchy et.al., 2020).

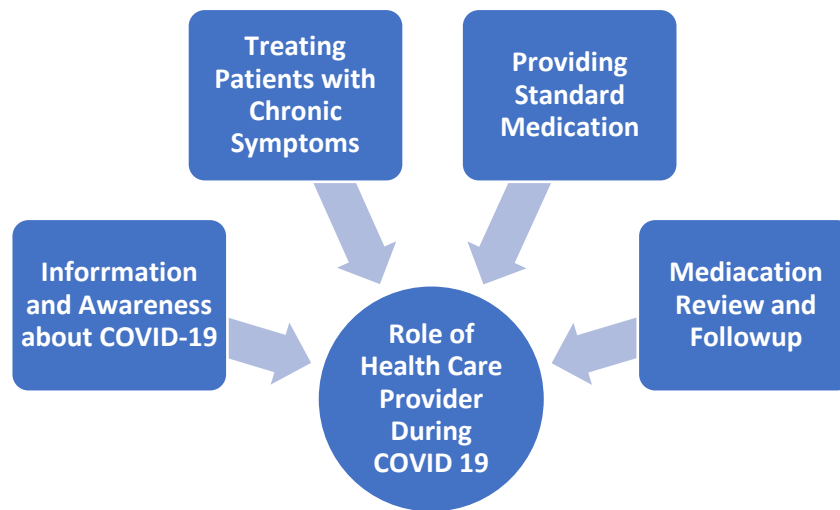


Figure 2: Role of Health Care Provider During COVID-19

6. Cultural Constraints

India represents a country of unity in diversity. This diversity is interconnected together with the help of many cultures as well as social events. Indian citizens seem to be very emotional within families, relatives, and friends circles. The festivals in India represent close physical interactions. The residential areas in India bear millions of citizens creating a situation of crowded housing. Despite the lockdown in a pandemic situation, a major part of cities of India reside in crowded places such as Delhi, Mumbai, etc. The situation harms the cultural sector in India (Jacobson, 2020; Singh and Mishra, 2020). COVID-19 pandemic situations adversely affect pilgrims and small retailers in the locality of any holy place. Even hotels and restaurants in these holy places suffered from cancellation of bulk bookings. Tour travelers and other transporting services were also affected by to lockdown.

7. Conclusion

This review paper summarizes the drastic problems and future challenges faced during the COVID-19 pandemic outbreak in India. It summarized all concerned sectors that form the

foundation of the Indian economy and social welfare such as education, medical and healthcare, environment, culture, etc. The socioeconomic fall down caused major adverse circumstances like unemployment, poverty, and malnutrition. The sudden announcement of a national lockdown affected the lives of daily wage workers and labor. Their migration to native places disturbed the economy of rural India. Immediately after the lockdown, there is a shortage of workers and laborers in the industrial sector, affecting the manufacturing process restart. The shutdown of economic activity and transport interrupted the supply chain of goods and raw materials in the country. Nevertheless, of all the adverse issues of the pandemic, the Indian government is trying to balance the fall of each route concerned with the economy, in terms of unemployment, health implications, poverty, and vulnerability. India will raise itself like the phoenix bird.

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