


Envisaging a Post-Pandemic Industrial Strategy for Inclusive and Sustainable Manufacturing Transformation

#22-05
October 2022

ISID Policy Briefs

This policy brief is based on the 35th ISID Foundation Day Event on “Industrial Strategy for the Post-Pandemic Era: Scaling-up the Inclusive and Sustainable Manufacturing Transformation,” held on May 25, 2022 which featured a keynote address by Mr **Gerd Müller**, Director General, United Nations Industrial Development Organisation (UNIDO). The lecture was followed by discussions among eminent panellists: Ms **Sumita Dawra**, Special Secretary, Department for Promotion of Industry and Internal Trade, Dr **Naushad Forbes**, Co-Chairman, Forbes Marshall, and Mr **S K Mishra**, Chairperson, ISID. Prof **Nagesh Kumar** moderated the discussions. A YouTube video is available here. 

A good strategy for industrialisation today is one that works for everyone – benefits all sections of the society, balances growth across regions, and is sustainable for the environment and its people. The Covid pandemic that originated from a health crisis and quickly magnified to encompass multiple dimensions of human life has emphasized the need to be inclusive in development planning. Measures to contain the pandemic resulted in the adoption of lockdowns that restricted the movement of goods and people. The consequent disruptions in the operation of factories and interruptions in supply chains had detrimental consequences for workers from rural areas, typically urban migrants, with job-losses that further contributed to the lowering of demand for production. The pandemic and ensuing challenges have brought to the fore the pending challenge of inclusive growth while following the path to sustainable development. Although the pandemic is not yet passé, the recovery process from this once-in-a-century shock is marked with both opportunities and challenges.

Post-pandemic Industrial Strategy

The post pandemic industrial development landscape is evolving with three important

tenets with an overarching motto of progress by innovation.

The first of these is digitalization and industry 4.0 which helped economies respond and recover from the pandemic and increased the integration of digital technologies in business processes across the world, including the Indian economy.

The second tenant is industrial greening. The emphasis on green industrialization has emerged as a necessity to urgently address the triple man-made planetary crisis of climate change, loss of biodiversity, and pollution. With a substantial 80% fossil-based energy production the world over, deployment of technology for low carbon technology and carbon capture and investments for renewable technologies needs to be supported through active and effective interventions. India must leave no time to waste in making circular

The pandemic has brought to the fore the pending challenge of inclusive growth

economy a reality for zero carbon emissions. India's Perform Achieve and Trade (PAT) scheme for energy, the scaling up of solar, and other renewable energy production are efforts in the right direction. Efforts for deep decarbonisation of India's core manufacturing such as steel and cement depend on the adoption of green hydrogen technology. India has announced a green hydrogen initiative that is likely to show up through scalable pilot projects in near future.

The third is the need to rebalance supply and value chains through further development and diversification. Global value chains must contrive to be more resilient and aspire for fair trade. Moving towards fair value chains and fair world trade – a market condition where the price difference between the resource and the finished product is proportionate to value addition – is important to reduce poverty.

India Positioning a Transition

During the pandemic, India emerged as the 'vaccine capital of the world' to not only produce vaccines, manufacture ventilators, and PPE kits for its own people, but also for the world.

The post-pandemic measures taken by the government aimed to bring down the cost of doing business by reducing regulatory compliance and strengthening infrastructure. The PM's Gati Shakti is a \$1.4 trillion national masterplan plan to improve roads, railways, airports, ports, mass transport, waterways, and logistics infrastructure. The Indian government has focussed on reducing compliance burden, digitising, and simplifying processes through the National Single Window System (NSWS). Another advance has been made through the India Industrial Land Bank (IILB), a GIS based portal as a one stop repository of industrial land in the country, covering more than 4400 industrial parks.

Global value chains must contrive to be more resilient and aspire for fair trade

Industrial greening has emerged as a necessity to urgently address the triple man-made planetary crisis

Investor decisions are also being facilitated through transparent information based on an Industrial Park Rating System (IPRS) that takes into account the internal utility, external connectivity, business support system, and environmental and safety measures. The rating was jointly developed with the Asian Development Bank in October 2021.

A major push to unleash India's advantage in manufacturing has been the introduction of the Production Linked Incentive (PLI), a programme incentivizing domestic manufacturing. Aiming to encourage localization, the scheme provides an incentive of an average of 5% on incremental sales of products manufactured domestically. Additionally, a \$10 billion incentive plan has also been introduced through the Semicon India Program, to promote the establishment of fab display and chip manufacture in India. Other promising initiatives include Startup India to promote start-ups; Make in India to promote manufacturing and the holistic development of products under the One District One Product (ODOP) initiative.

The Prime Minister's vision for an *Aatmanirbhar* (self-reliant) India based on five pillars: intent, inclusion, innovation, infrastructure, and investment. India can achieve and expedite the socio-economic progress to meet sustainable development goals. Technology is the key to implementing solutions at a large scale. The idea is to innovate – in technology, politics, financing and partnerships – to create systems that go beyond the existing comfort zone. With technology, knowledge, and a strong political will of the political leaders, the lives and livelihoods of the poor and hungry can be improved.

Digitalisation and industry 4.0 helped economies respond and recover from the pandemic

Preparations and Roadmap for a Successful Industrial Strategy

We table four pathways for a successful inclusive and sustainable industrial strategy.

First, experience from the past informs that when the policy has indigenisation and production as the sole objective, the net result can be an uncompetitive industry structure. Foremost is the need to recognize that technology is at the heart of an industrial policy. History informs us that when the industrial policy has focussed on building technical capacity or long-run competitive capability, the results have been far more effective. For example, the PLI scheme will be successful if the legacy is not only production but the ability to compete in the long-run when the incentives run out in five years' time. Similarly, when protection through tariffs expires, a solid technical base through domestic R&D capacity would lead to long-run competitiveness. This has to be at the core of any industrial policy. For this, the Indian economy needs to scale investment in in-house R&D by a factor of five. For strengthening in-house technical capability, particularly in industries like pharmaceuticals, chemical, software, and auto engineering where India has a strong industrial presence, there is a need to scale up R&D spending. Investment in R&D is often not viewed as profitable as an investment in direct production. Encouraging firms to benchmark against international standards can elevate R&D expenditures. As firms compare their

R&D level, they acquire insights into the skill and scale of employment. In the process, they develop acumen on the range of products that can be produced. Consequently, the firms will gather insights on their potential with stronger R&D.

Second, inclusive manufacturing must create decent, well paid jobs. The biggest development opportunity that India has missed is due to a smaller footprint of labour-intensive industries than most other countries at our level of development. Lessons can be learnt from our immediate neighbourhood where a thriving garment industry in Bangladesh employs 30,000 to 50,000 employees, primarily women, in an average plant. In contrast, Indian garment units operate with an employment scale of one-tenth of that of Bangladesh. Women workers contribute to wider spread of earnings; something India

Inclusive manufacturing must create decent, well paid jobs

needs to pay attention to urgently. There is an urgent need to change the bias against large-scale labour employment. For the last 50 years, most industrialists do not believe that employing more people is a way to be successful. It requires enormous efforts over a period of time before Indian entrepreneurship starts to look at labour-intensive industries as an attractive opportunity for business, as much as the entrepreneurs in Bangladesh and Vietnam have done.

Third, achieving a balance in the labour market should be a top priority to create a flourishing labour-intensive industry that would capitalise India's rich labour endowments. Presently, the labour market is highly skewed with the informal sector accounting for 85% of the workforce in the economy with almost complete flexibility and near-absent social protection. The newly passed labour codes

Indian economy needs to scale investment in-house R&D by a factor of five

need to protect the informal workers to create inclusive growth.

Fourth, there is a significant role for a demonstration on new technology for sustainable manufacturing. For this, implementing technology in an effective, simple, and powerful manner would be the key. Technology diffusion is of utmost relevance as is energy conservation. A carbon tax can be used as an instrument to ensure that energy conservation technologies are adopted and the alternates to fossil fuels diffuse faster. Legislation of a carbon tax would favour a faster transition ensuring that some of the most inefficient and polluting coal-fired power plants are phased out more quickly.

A carbon tax can be used as an instrument to ensure that energy conservation technologies are adopted

A wholesome package of (i) creation of technical capability; (ii) inclusive growth from the lens of employment creation in labour-intensive manufacturing; (iii) creation of social protection for informal workers; and (iv) an effective carbon tax, could galvanise transition to greener technologies.

Acknowledgment: This Policy Brief has been prepared by Dr Sangeeta Ghosh and Dr Anjali Tandon, Members of ISID Faculty, based on the 35th ISID Foundation Day Event held on May 25, 2022.

ISID Policy Briefs

- **Enhancing Credit Flow for Accelerating the Recovery of MSMEs: Some Policy Lessons**, PBs #22-04, August 2022
- **Towards Green Industrialization in India: Challenges and Opportunities**, PB #22-03, June 2022
- **Financing for Development**, N K Singh, PB #22-02, March 2022
- **Special Economic Zones and India's Industrialisation: Opportunities, Challenges, and The Way Forward**, PB #22-01, January 2022
- **Harnessing Industry 4.0 for India's Development: Opportunities and Challenges**, PB #21-04, December 2021
- **Making the TRIPS Agreement Work Effectively for the Public Health Challenges**, PB #21-03, October 2021
- **Reigniting Sustainable Growth of MSMEs in the Aftermath of Covid-19 Pandemic**, PB #21-02, September 2021
- **Competitive Manufacturing as a Growth Driver: Some Policy Lessons for India**, R C Bhargawa, PB #21-01, June 2021