

# Inclusive Innovation for Inclusive growth: A strategic perspective for India

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**Abstract**— India has witnessed a rapid growth in the recent past but it has not been accompanied by a just and equitable distribution of wealth among all sections of the population. Today India is the 4th largest economy in the world but paradoxically it also has a huge backlog of needs to be met – in education, health, water, sanitation, public transportation, etc. The current approaches to solve these problems have not delivered adequately, and therefore, innovations are necessary in addressing these challenges by creating new delivery mechanisms, along with innovations in products, services and processes. This paper delves into definition and conceptualization of Inclusive Innovation while arguing for the need and strategy for Inclusive Innovation leading to Inclusive growth in India.

**Key words:** Inclusive innovation, inclusive growth, Bottom of Pyramid, Innovation strategy.

## I. INCLUSIVE INNOVATION

In its essence inclusive innovation takes a different view of development from conventional views of innovation. Conventional views of innovation (often implicitly) understand development as generalized economic growth. By contrast, inclusive innovation explicitly conceives development in terms of active inclusion of those who are excluded from the mainstream of development. Differing in its foundational view of development, inclusive innovation therefore refers to the inclusion within some aspect of innovation of groups who are currently marginalized. This in turn triggers the question that which marginalized or excluded group is to be the focus for attention of inclusive innovation? That varies from source to source. For example, women, youth, the disabled and ethnic minorities have been the target of concern for inclusive innovation. However, dominant attention has been on “the poor”, those on lowest incomes which may typically be defined as some small number of US dollars – US\$1, US\$1.25, US\$2, US\$2.50, etc. – per day. These people are academically grouped into the category of “Bottom of the pyramid” or BoP. These people are those who lack access to basic necessities of life—safe water, sanitation services, housing, quality education, basic health care, electricity, phones, roads, financial services,

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they have limited access to reliable markets to buy and sell their goods and services and they do not benefit from the integration of global or national markets.

## II. INCLUSIVE INNOVATION FOR INCLUSIVE GROWTH: A THEORETICAL APPROACH

Theoretically arguing, Inclusive innovation leads to inclusive growth in the following ways

**Objective:** Inclusive innovation leads to inclusive growth if the objective of that innovation is to address the needs or wants or problems of the excluded group. This does not relate to any concrete activity but merely the abstract motivation behind the innovation.

**Consumption:** Inclusive innovation leads to inclusive growth if innovation is adopted and used by the excluded group. This requires that innovation be developed into concrete goods or services, that these can be accessed and afforded by the excluded group, and that it has the motivation and capabilities to absorb the innovation.

**Effect:** Inclusive innovation leads to inclusive growth if it has a positive effect on the livelihoods of the excluded group. That positive effect may be understood in different ways. More quantitative, economic perspectives would define this in terms of greater productivity and/or greater welfare/utility (e.g. greater ability to consume). Other perspectives would define the effect of innovation in terms of wellbeing, livelihood assets, capabilities, or many other foundational understandings of what development is.

**Process of development:** Inclusive innovation leads to inclusive growth if the excluded group is involved in the process of development of the innovation. It is highly unlikely that the entire group could be involved so this immediately shrinks down to “members of the excluded group.”

**Structure:** Inclusive innovation leads to inclusive growth if it is created within a structure that is itself inclusive. The argument here is that inclusive processes may be temporary or shallow in what they achieve. Deep inclusion requires that the underlying institutions, organizations and relations that make up an innovation system are inclusive. This might require either significant structural reform of existing innovation systems, or the creation of alternative innovation systems.

### III. NEED OF INCLUSIVE INNOVATION FOR INDIA'S INCLUSIVE GROWTH

Recognizing the importance of innovation, the President of India has declared this decade as the 'Decade of innovation', with a focus on inclusive growth. Innovation can be a critical driver not only for increasing productivity and competitiveness, but for poverty alleviation through collaborative approaches and inclusive growth. More than this, innovation has always been the way people solved the significant challenges facing society. The world is increasingly facing the prospect of depleting resources and demand outstripping supply. The global food system is struggling to meet rising demands, yet the World Bank projects a rise of 50 per cent in global demand for food by 2030. Similar gaps will be seen in water supply, and increasing energy consumption will create huge strains on the system. Asia's share of energy consumption alone is projected to double over the next 20 years – to about 48 per cent for oil and 22 per cent for natural gas. Such significant challenges can only be addressed through innovative solutions. Today, innovations in diverse areas such as science to politics, education to business, can enable us to engineer solutions in food, water, healthcare access, education and affordable housing; find environmentally-friendly energy sources; and, expand access to knowledge that can enable a more secure future. These solutions which benefit a critical mass of people will be crucial if India is to bridge its widening disparity. In this context, the strategies and actions initiated by governments, educational institutions, industry, communities, regions and nations, especially based on innovative thinking, will become critical.

India's R&D expenditure as per cent of GDP is about 0.8 (156 researchers/m population), China 1.2 (500 researchers/m), and USA 2.8 (4700/m). Total researchers in India are about 1.5 Lakh as compared to China's 8-10 Lakh and India produces fewer patents in relation to the size of its economy than other countries. Due to these statistics international comparisons rank India very low on the Innovation index. While we do need to increase R&D investment and efforts, this view of innovation is based on a myopic perception that restricts it to the confines of formal R&D, while as mentioned above, innovations are increasingly going beyond R&D and patentable technologies. In the Indian context they are increasingly relevant for addressing needs of the people at the bottom of the pyramid and can be visible in processes, institutional changes and in new ways of doing things and providing better services to people. India needs innovation, especially innovation that goes beyond the competitive index, to accelerate its growth and to create a more inclusive model of development which is also environmentally sustainable.

### IV. STRATEGY TOWARDS INCLUSIVE INNOVATION LEADING TO INCLUSIVE GROWTH

To create a comprehensive strategy towards Inclusive innovation leading to Inclusive growth in India, innovation must be addressed through a focus on: platform, inclusion, eco system, drivers and discourse.

**1. Platform:** A broader platform for innovations implies that

it can re-define innovation to mean new and unique applications of old technologies, using design to develop new products and services, new processes and structures to improve performance in diverse areas, organizational creativity, and public sector initiatives to enhance delivery of services. These widespread innovations in products, services, processes and across verticals collectively create a strong and robust innovation society. Innovation should be widely distributed over the whole spectrum of economic activity, that is, across sectors (not just "high tech"), types of innovations (not just formal R&D projects). A broader platform for innovations will include

- Products
- Services
- Organizations & Innovations
- Processes
- Research and Development
- Science & Technology
- Governance
- Social and Cultural
- Mindset
- National/ State/ Sectorial Councils

Focus should especially be on creating policies at the Government level which can have a cascading effect on the innovation economy by facilitating innovations at the right points, as well as easing service delivery. Such disruptive innovations in public policy should analyze process re-engineering for service delivery, accountability initiatives, and the HR strategy of the Government.

**2. Inclusion:** India has unique needs and challenges. On the one hand the country's GDP is growing at an average of 6 to 8 % per year, and on the other hand there are almost 300 million people living below the poverty line with insufficient access to services such as food, health, education, etc. for a substantial section of the population. This inequality is likely to worsen unless special efforts are made to address the problems of the bottom of the pyramid. To bridge this divide our innovation strategies need to generate inclusive growth and sustainable and quality solutions for the bottom of the pyramid. The core of India's strategy should focus on using innovation as a tool to eliminate disparity and meet the needs of the many in the best possible manner. India needs more 'frugal innovation' that produces more 'frugal cost' products and services that are affordable by people at low levels of incomes without compromising the safety, efficiency, and utility of the products. Further, efforts have to be undertaken to scale grass roots innovations to create sustainable livelihoods and ignite innovative capabilities. The innovative abilities of people at low income groups are constrained by insufficiently developed skills, inadequate public services, and an inability to access markets and assets on fair terms and handle associated risks. The focus on innovation aimed at inclusive growth can enable India to be a rich source of solutions for developing nations across the globe.

This focus on Inclusive innovations requires:

- Awareness

- Access
- Affordability
- Availability
- Scalability
- Sustainability
- Quality
- Pervasive Growth
- Innovations for/by the people
- Innovations for the Bottom of the Pyramid

**3. Eco-system:** A strong innovation eco-system is critical for creating an innovation society. An innovative eco-system must facilitate the birth of new ideas and also provide platforms for the successful exploitation of these ideas. It is a dynamic system shaped by the interactions within and across multiple players such as Government, firms, schools/education and research institutions, finance, individual innovators, customers/users, NGOs and media. This horizontal layer interacts with and influences the innovation activity across verticals such as health, education, urban sustainability etc. Understanding the innovation eco-system is important to capture the knowledge flows within an economy, identify gaps, and propose policies and practices that can overcome these constraints. India's innovation eco-system must be challenged and inspired to respond to aspirational goals that will enable the country to meet its inclusive and ecologically sustainable growth agenda. For instance with 550 million below the age of 25 there are huge demands on the education system to provide quality education to a large percentage of population if we are to ensure our demographic dividend does not become a liability. But, currently quality supply of education lags far behind demand. Bridging this gap will require innovative thinking in pedagogy, education delivery, using technology for teacher training to bring about a paradigm shift in the education sector, and all this in turn will require challenging the eco-system. Stimulating the innovation eco-system will require thinking on:

- Incentives & Awards
- Innovation Clusters at Universities
- Innovative Business Clusters
- Innovation in MSMEs
- Organizational autonomy & flexibility
- Policies & Programs
- New Institutions & Infrastructure
- Risk/ Venture Capital
- IPR/ Patents
- Web & ICT tools

**4. Drivers:** To successfully carve out an innovation strategy that benefits the needs and challenges of the Indian system it has to be driven by some key ideas and goals. It should be multidisciplinary and collaborative to meet the needs of the new information and knowledge economy which is increasingly expanding the actors involved in innovation within and across national boundaries. The innovation strategy should be driven by a focus on Generational Change vs. Incremental Change to create a paradigm shift in innovation capacity and delivery; it

should be based on the premise of supporting durability as opposed to disposability to make the most frugal use of resources; it should sufficiently address the needs vs. demand dichotomy, especially the needs of people at the bottom of the pyramid and not just demand for high-tech products by industry and business.

The innovation strategy should also focus on creating environmentally sustainable solutions that view nature as a source of nurture and not as an inexhaustible resource to be used indiscriminately. The innovation strategy should also focus on creating locally relevant solutions, but which are globally competitive and use global resources as well. This requires new ways of thinking about innovation, where global resources can be employed to satisfy the needs of one. Finally, attention must be given to the edge of economic activity where most of the breakthrough innovations are generated as opposed to the core. So, to the key drivers of the innovation strategy are:

- Multidisciplinary
- Collaborative
- Disruptive
- Generational Change vs. Incremental Change
- Durability vs. Disposability
- Need vs. Demand
- Nature as Nurture
- Locally Relevant
- Globally Connected & Competitive
- Focus at the Edge

**5. Discourse:** Lastly, our Innovation strategy should aim to expand the discourse of innovation to give room to alternative dialogue, which often creates bypasses in the system to improve the current way of doing things. The aim should be to involve many divergent voices, views, mode of doing things to impact the end result qualitatively and quantitatively. The room for divergent discourse is especially critical in Government and organizational processes. There should be an effort to expand the space for discourse on innovations through:

- Discussions
- Debates
- Seminars
- Conferences
- Best Practices
- Alternative Dialogue
- Re-thinking
- New Ideas
- Media
- Innovation Portal

The five-pronged focus outlined above will foster innovations by:

- Democratizing Information
- Identifying and empowering domain experts at National, State & District levels
- Ensuring institutional autonomy, freedom, flexibility, accountability and transparency
- Increasing community and public participation at all

levels through consultative exercises

- Improving Governance & Planning

#### V. CONCLUSION

The potential areas where India can apply inclusive innovation are: Access to health services: ultra-low cost diagnostics & technology, easy-to-understand information about disease, mobile health clinics, access to medical expertise, etc.; Access to affordable technology – mobile phones, computers, internet, etc.; Access to education – online training or distance learning, virtual libraries, remote access to classroom and lab facilities, collaboration with domestic and global institutions, etc.; Access to financial services – online and mobile banking, financial inclusion/ literacy training, delivery of micro-finance services, etc.; Farmer services – real-time information on crop patterns & prices, weather forecasts, crop & livestock insurance, etc.; Food security – improving crop yield, reducing post-harvest losses, integrating supply chains, expanding access to market demand and pricing information.

In a nutshell it can be said that innovations require not just inputs and capacity but also a political economy of reform. This involves creating a constituency for innovation where Government, academia, industry and the citizenry are all participants in the innovation movement. It is about creating an innovation eco-system not only concerned about creating high-tech products, but about enhancing the quality of life for everybody by creating sustainable solutions and changing processes and mindsets. The time is right for India to blaze its own trail by creating a model of Inclusive Innovation specific to the country's needs and development goals which would lead it to inclusive growth.

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