India Development Story 2040

Alternative Pathways

THOUGHT ARBITRAGE

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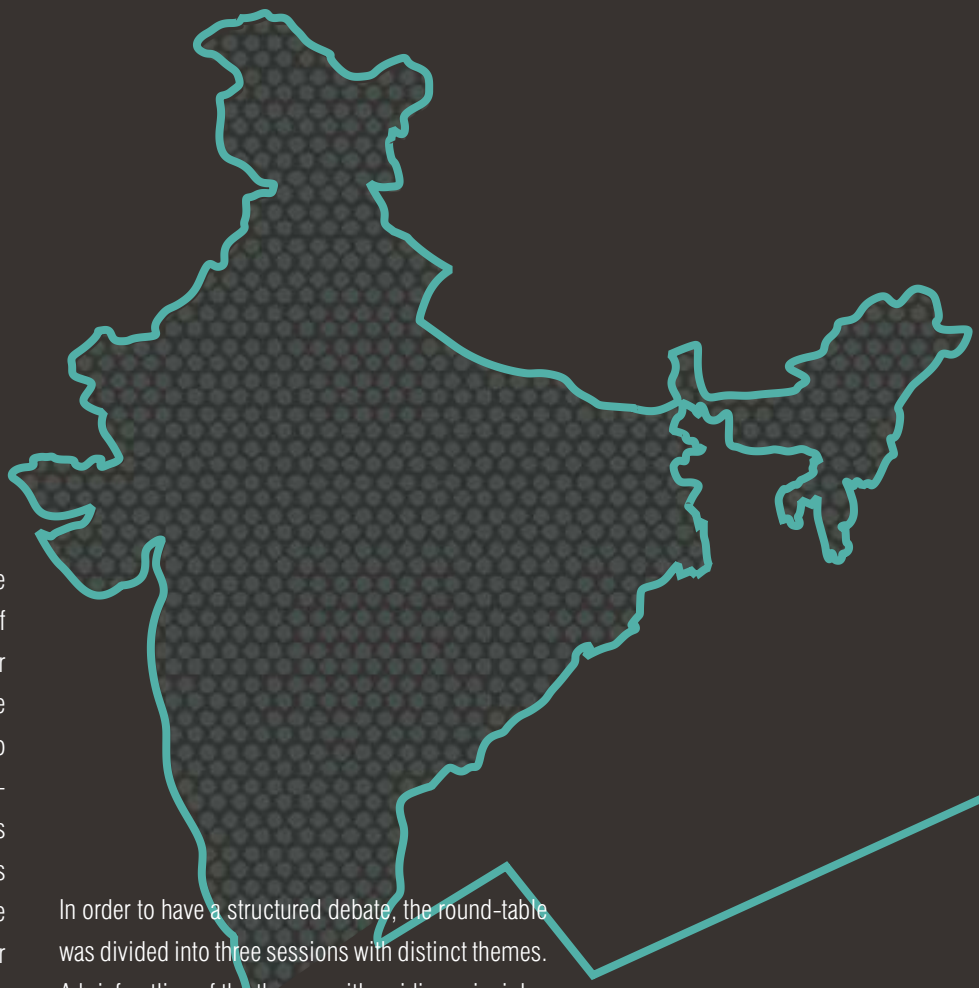


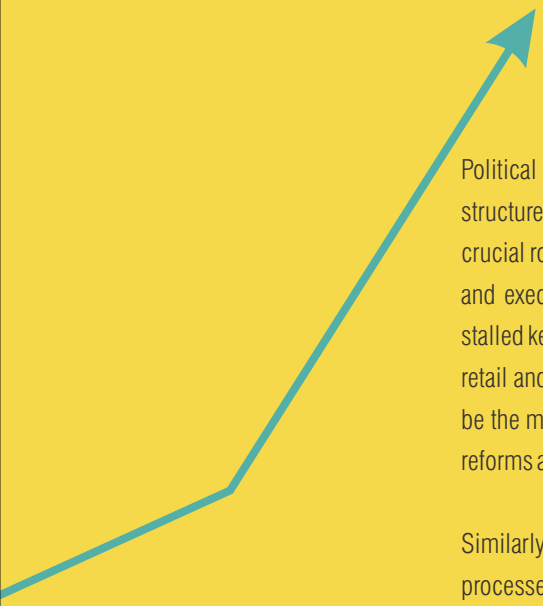
Recent development experience from across the world has highlighted the differentiated nature of paths available to nations as they move up to their potential growth profile. India's growth performance during the middle of the previous decade seemed to indicate that the country was on the verge of a take-off. However, more recent performance has underscored the remaining fragilities in achieving its potential. While the economic endowments of the country are well known the drivers and their compositions that would power sustained economic growth are not very clear. The exact role of the enabling factors, their acceptability and efficacy, particularly in terms of the nature of outcome, are also uncertain.

In view of the changing growth paradigms, Thought Arbitrage Research Institute (TARI), in collaboration with Rio Tinto (RT), organized a round-table on February 6, 2015, in New Delhi to understand the nature, composition and magnitude of economic growth that India will achieve over the next two decades and more. While the short term prospect is important, the real objective was to develop an insight into the longer term prospect. Given what is known about the development theories, the endeavour was to examine various aspects of the variables defined by these theories in light of the Indian development experience and resolve the uncertainty around these by generating development scenarios and narratives of India's development pathways.

In order to have a structured debate, the round-table was divided into three sessions with distinct themes. A brief outline of the themes with guiding principles and questions that would define them was circulated among the participants in advance to elicit appropriate responses. The themes were as follows:

I. Drivers of growth: What will drive India's long term growth?

Which are the fundamental drivers of growth from the longer term perspective of Indian economy from both supply and demand side? The attempt would be to identify the most defining and definitive constituents among savings, investments, labour, infrastructure, technology, fiscal and monetary health, institutions (facilitating business, enforcing contracts, resolving tax and other disputes etc.) and exports etc. with a view to assess their potential and determine the level of growth they can support. Different outcomes of these variables can deliver different structure for India's future trajectory. Could there be a surprise game changer or a silver bullet solution? If so, which would it be and why?



Key factors that will affect long term growth of Indian economy are: savings, investments, labour, infrastructure, technology, fiscal and monetary health, institutions, governance and policy reforms.

Political economy through evolution of institutional structure and Centre-State relationship can play a crucial role in defining how reforms will be perceived and executed in the future. Political flip-flops have stalled key economic reforms for years in India FDI in retail and insurance sector, GST and DTC. What can be the mark-up in growth we can achieve if pending reforms are expedited?

Similarly, governance of key legal and administrative processes is of considerable importance. For example, time lag in getting green clearances stall industrial projects and such clearances get caught in a myriad web of venality leading to protracted legal and regulatory battles and significant uncertainties whose outcome cannot be reasonably predicted. At times, lack of evidence based policy and decision making, along with lack of transparency, create development logjams in sectors like telecom and mining sectors which has a long term effect on overall development. If these and other issues like non-availability of land, multiplicity of taxes, poor energy and transportation, poor skilling and education of the workforce, poor access to investment and technology for MSMEs and entry barriers etc. are not addressed and overcome, all efforts to push growth will be futile.

The potential and possibilities of a manufacturing-led growth on the back of 'Make in India' initiative need to be examined. Is the idea of manufacturing take-off far-fetched? What are the major factors that will drive/stall the change? Could there be other possibilities, like financial sector-led growth or institutional reforms or infrastructure-led growth models? If yes, what could be the macroeconomic variables driving such growth models? How significant is the role of governance and institutions in charting the long term growth trajectory and how would international pressures to adhere to the climate change commitments impact India's energy and other infrastructural growth? These and other such questions need to be answered to build growth models.

II. Financing India's growth: What will finance India's growth?

The financial system banks, equity markets, bond markets and other financial institutions is critical for the country's growth in terms of facilitating investment and consumption growth. The ability to channelise domestic savings and foreign capital into productive investments, lower transaction costs and provide financial access and services to a vast majority of the unbanked will determine economic and social stability, growth and equity. If regulated properly with optimum governmental oversight to facilitate a smother development of certain markets (and prevent others from being overly competitive and counter efficient), then the financial sector can become a significant influencer of growth.

Of particular significance is banking sector reforms, as a slowdown in credit flow and public investment, growing NPAs etc. have constrained infrastructure and industrial growth. Indian government has initiated certain moves, like widening private participation in banking and is contemplating dilution of government stakes in nationalised banks to improve credit flow, thereby providing fresh stimulus to growth. The conference needs to debate the areas and other reforms that would be required to achieve higher growth.

A sound financial system and credit flow will also hold the key to stimulating investments, increase public spending and create more jobs, including making the 'Make in India' initiative work. The underlying idea behind 'Make in India' is to attract private and foreign investment (FDI and FII) and technology to make India a key manufacturing hub. The government's role is envisioned to be an 'enabler', rather than 'provider of first and last resort'. But given the chocked investment and credit flow, how sound is that approach? The PPPs have not yielded the desired result. On the contrary, PPPs seems to have increased indebtedness of the corporate entities and built up bad assets in banks. Is relying entirely on private and foreign investment a sustainable and sound economic policy to follow?

Some of the other questions that need to be answered are: Does mobilisation of domestic household savings provide a potential game changer for financing India's growth? What does India need: bank-based or market-based financial system? To what extent would initiatives like Jan Dhan Yojna, mobile banking etc. impact growth by channelising financial resources and lowering transaction costs? And how big a role public investment would play vis-à-vis private or foreign investment in driving India's economic growth?

III. Social and Demographic Dynamics of Growth: Are these our unique leverage for growth?

Improvement in demographics as measured by the declining age dependency has been one of the most important factors supportive of higher potential growth in India (through consumption and productive base). Favourable demographics, alongside policy reforms, have been a key factor in the emergence of Asia as an economic force in the past 50 years, following decades of development in the Western countries. The demographic factor alone is not sufficient for acceleration in GDP growth. It is important that the working age population is adequately skilled to participate in a globalized competitive environment. By 2025, India's working age population would have increased by 124 million, and of these, it is estimated, approximately 65 million would be seeking jobs.

Thus, a positive demographic trend may be a necessary condition for robust growth but it is not a sufficient one. This can create a serious social burden if not addressed through proper policy measures. This is also directly linked to convergence/divergence of rural versus urban economy, migration across states and government redistribution policies. The need is to understand how sensitive India's future growth is to its demographic dividend. Is it a demographic disaster waiting to happen? How will policy of redistribution and inclusive growth shape up with the evolving nature of Indian economy?

The debate between furthering economic growth and balancing equitable development of people makes the policy choices challenging. In the last two decades, economic growth has not resulted in superior results in our human development indices, leaving a large section of Indian population unaffected by economic growth. The public policy choices need to make economic growth and development more equitable and inclusive. What is the cost of having millions of Indians being left behind in a wave of economic growth which benefits a small minority?

Capital market reforms will play an accompanying role to achieving high growth rates through greater mobilization of financial resources, improvement in credit quality and greater financial access to all economic entities.

To aid economic growth, demographic advantage has to be supplemented with skill development and employment enhancement.

Inclusive economic growth is the key to sustainable development and socio-economic stability.

Keeping the objectives in mind, some of the finest minds in the field of economic, finance and social sciences were invited to participate and share their insights at the round-table. The response was overwhelming to say the least. There was an eclectic mix of academicians and practitioners many of whom had designed and put into practice policies and programmes that shaped India's development and growth in the past few decades.

A key note address was delivered by Dr Ashok Lahiri, former economic advisor to the Government of India, to set the tone for the discussions to follow. Dr Pronab Sen, Dr Saumitra Chaudhuri and Dr George Mathew led the discussions in the three sessions, respectively.

- Our gratitude and thanks to each participant in the round-table who have been named in the alphabetical order:
- Prof Amrit Srinivasan, Ex- Professor & HOD, Dept. of HSS, IIT Delhi;
- Mr Amit Chandra, senior manager, Centre for Civil Society;
- Dr Ashok Lahiri, former Chief economic advisor to the Government of India
- Prof Ashwini Deshpande, Delhi School of Economics;
- Dr AS Firoz, Chief Economist, Ministry of Steel;
- Prof BB Bhattacharya, Ex-VC of JNU;
- Prof BN Goldar, Institute of Economic Growth;
- Prof Biswajit Nag, Associate Prof., IIFT;
- Dr Bornali Bhandari, Fellow, NCAER;
- Mr Baladevan Rangaraju, Director, India Institute;
- Mr CM Vasudev, Chairman, HDFC Bank, ex-Finance Secy., GOI;
- Dr DK Srivastava, Former member, Finance Commission;
- Prof Debal K SinghaRoy, Social Studies and Human Development, IGNOU;
- Dr George Mathew, Chairman, Institute of Social Sciences (ISS);
- Prof Joseph Mathai, CEO of Think tank ASAE;
- Ms Meena Chaturvedi, CEO, Sahaj;
- Dr Partha Chatterjee, Head of Economics, Shiv Nadar University;
- Dr Pronab Sen, Ex-member Planning Commission, Chief, National Statistical Commission;
- Mr Ravi Oberoi, Principal Consultant, Dua Consultancy;
- Dr Reetika Khera, Associate Prof., IIT Delhi;
- Prof Rajesh Chakrabarti, Executive Director, Bharti Institute of Public Policy, Indian School of Business;
- Dr Ravi Sundar Muthukrishnan, Chief of Research, ICICI Securities;
- Dr Saumitra Chaudhuri, Former Member, Planning Commission and Economic Advisory Council to Prime Minister;
- Dr Shreekant Gupta, Associate Prof., Delhi School of Economics;
- Dr Subho Ray, President, IAMAI;
- Mr Sanjay Garg, Head of Infrastructure, KPMG and
- Mr Vinod Karki, Vice President, Strategic Research, ICICI securities.

Thanks are also in order for Dr Pronab Sen, Prof NR Bhanumurthy, Dr AS Firoz, Prof Biswajit Nag, Dr Partha Chatterjee and Mr Subhomoy Bhattacharjee (Deputy Editor, Indian Express) for going through our report and making valuable suggestions without which we couldn't have completed this exercise.

GROWTH DRIVERS:
WHAT WILL DRIVE INDIA'S LONG TERM GROWTH?

The round-table witnessed intense and engaging discussions and debates and threw up some of the most important long term growth drivers of Indian economy. Those drivers were identified as infrastructure, domestic savings, skills development, technology, land, productivity, innovation and R&D, governance and private sector. We have also supplemented the narrative with some independent secondary data and research, wherever needed to augment these reasoned opinions.

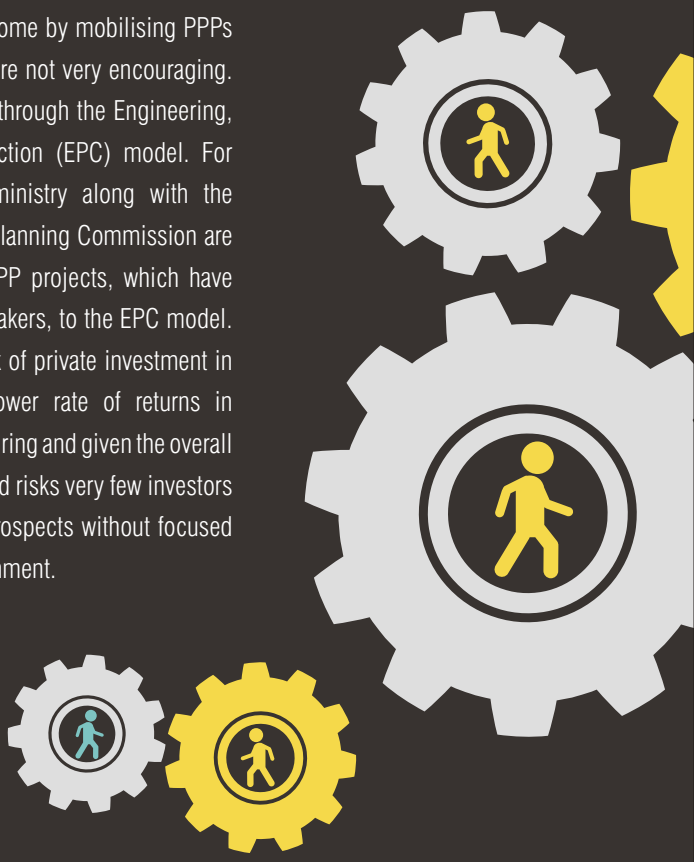
Physical Infrastructure

Physical infrastructure like roads, railways, airports, ports, water and energy are keys to deliver higher growth and need to be dramatically improved. How quickly India manages to ramp up this will determine how quickly growth picks up. Infrastructure contributes very little to GDP currently and it does take time to deliver assets and its related dividends in the case of roads and railways but telecommunications, ports and power give faster returns and have lesser time lags. According to one expert, a contribution of 10% to GDP takes an expenditure of 20% of GDP on infrastructure. Accordingly, India would have to calibrate its infrastructure expenditure to achieve a particular level of growth and this means balancing spend of both plan and non-plan items.

Given the huge fund requirement, a wide mix of financing is required to boost infrastructure. According to some participants, public investment will be the main driver of growth as private sector's ability to leverage their balance sheets for infrastructure projects is either already over extended or has very little headroom. At present, infrastructure spending is about 6% of GDP, which needs to be increased to 9% to make growth rates of 8% sustainable over a long term, felt one expert.

Another said the private savings, which were currently financing around 20% of infrastructure spending, needed to be increase to 30%, and the remaining 70% should come from public savings. Pensions and insurance funds could be channelized for this. Yet another expert said the resource constraints could be overcome by mobilising PPPs even though the results were not very encouraging. This is sought to be done through the Engineering, Procurement and Construction (EPC) model. For example, the highways ministry along with the Finance Ministry and the Planning Commission are shifting as many as 14 PPP projects, which have consistently failed to find takers, to the EPC model. One of the reasons for lack of private investment in infrastructure could be lower rate of returns in comparison with manufacturing and given the overall delays, policy morbidity and risks very few investors are looking at long term prospects without focused intervention from the government.

To attain high growth rates (**8%** and above), public spending on infrastructure must increase from the current **6%** of GDP to **9%**. Alternatively, share of private savings in infrastructure investment must rise from **20%** to **30%**.

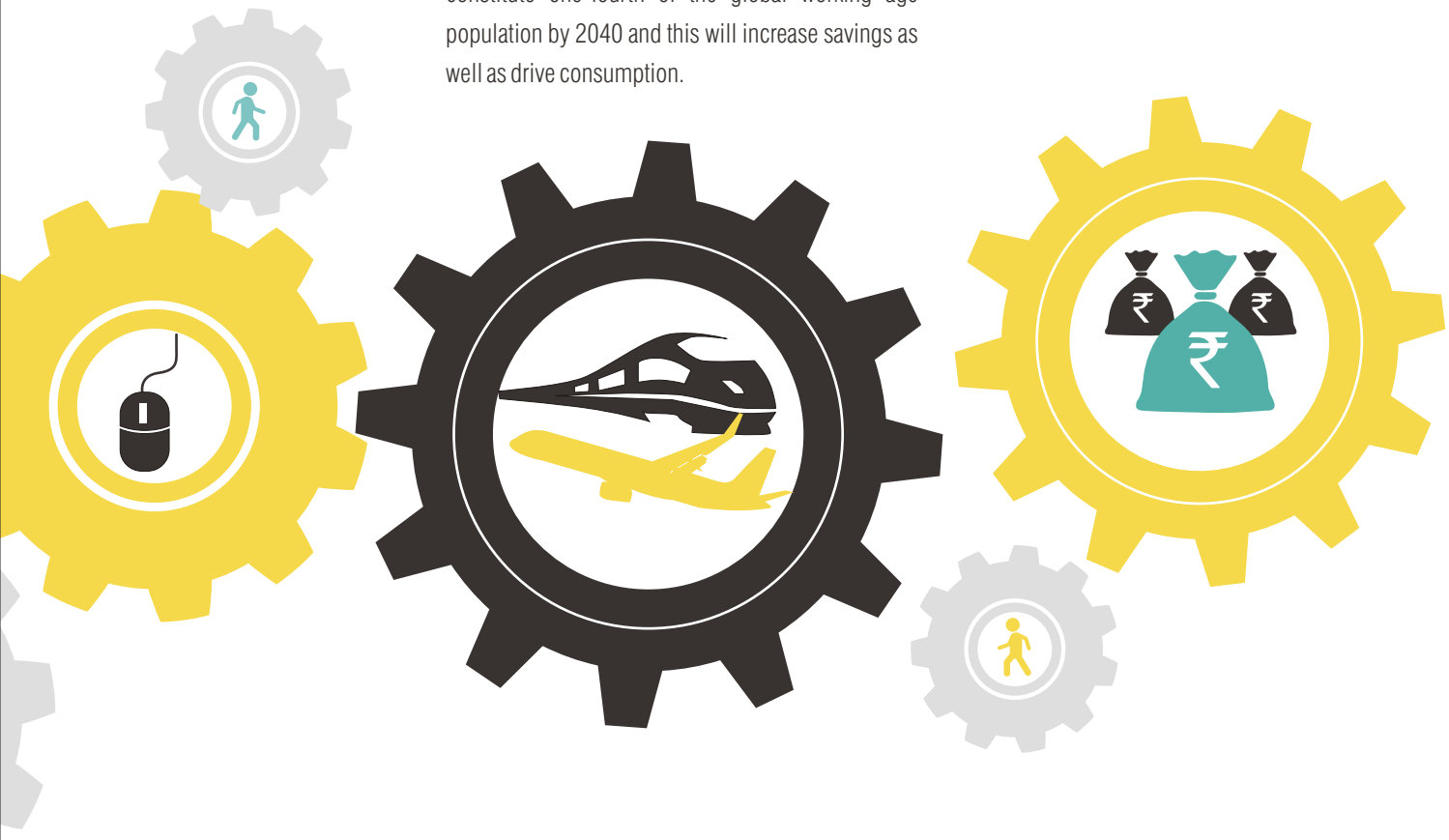


Rise in working age population will drive up the domestic savings rate and after adjusting for changing consumption pattern, savings rate of **30%** is projected in the long run.

Domestic Savings

Higher savings lead to higher growth. According to an expert, when gross domestic savings increased from 23-24% in 8th plan to 31-33% in 10th plan, the corresponding jump in growth was from 5.5% to 7.8%. China's higher growth too was marked by higher savings – China's savings rate being 52% as compared to India's 33.8% savings rate in 2009. Some felt, an increase in the working age population (people in 15-59 years) – which has increased from 55.4% in 1991 to 60.3% in 2011 – would lead to higher savings and this phenomenon would continue for the next few decades. India is expected to constitute one-fourth of the global working age population by 2040 and this will increase savings as well as drive consumption.

This assertion was, however, contested by another who said consumer behaviour had changed significantly in recent years. People were borrowing more to meet their aspirational needs and saving less because of which the gross saving was coming down. He said the private corporate savings was growing, and so was the case with government undertakings, statutory bodies but not the government 'proper'. Some believe that the average savings rate of 30% would persist over long period of time and investment might reach a maximum of 35% of GDP. On the lower side, OECD Economic Outlook forecasts the savings rate to be around 20% by 2040, much less than the current rate.



Employment Generation and Skills Development

A major factor in enabling high growth is employment generation. This is measured by the elasticity of employment with respect to GDP which has been falling in recent years (2004-05 to 2011-12). It declined for all sectors except construction. Rise in the wages of both rural and urban wages has been critical in declining the level of absolute poverty. A cause of concern is the small share of regular formal employment in total employment which was around 7.5% between 2004-05 and 2011-12. Those working in the unorganized informal sector are working at low wages and low working conditions. Therefore, this is a cause of concern since the demographic dividend can only be attained when the youth are well-educated and are provided secure and productive formal sector jobs.

According to one expert, the services sector has performed best because the concentration of skills is most in this sector. Manufacturing has seen moderate growth because of lower concentration of skills and agriculture has the lowest growth because it has the least amount of skills. India has done well in developing higher skills but developing key skills and then turning them into jobs will be one of India's biggest challenges. India will have nearly 1.06 million people entering the working age every month for the next decade, but the jobs that can absorb them are limited. Moreover, if agriculture gets more mechanized than the current levels, it will create more pressure on creating new jobs outside of agriculture. The current and the future levels of jobs expected to be created in 'Make in India' and other initiatives would absorb a relatively smaller labour force than the one entering the markets. This creates disequilibrium in demand and supply equations and if unattended, will create gross inequity and social imbalance.

The participants pointed out several constraints to skill development. In 2009-10 only 10% of the workforce in the age group of 15-59 years received some form of vocational training. In manufacturing, entrepreneurs are averse due to high capital investment and low returns. Smaller enterprises are beset with low skilled workers with low productivity. However, India has, compared to its peers, a very high capital/labour intensity ratio, which makes our industries more capital intensive and creates lesser labour absorption even in those industries which have a high labour intensity. This could be due to stringent labour laws, over capacity of industries, low productivity of unskilled and contract labour etc. and creates a significant challenge in creating new jobs and building sustainable skills.

Industry, especially the MSME sector complains that their effort at skilling goes waste as skilled manpower moves out quickly looking for better prospects. That is why some felt the government must play the main role in skilling but others said the government's efforts might not be sufficient. But to get the private sector on board the government must accommodate its 'for-profit' needs. Another view was that soft loans could be provided for skilling for which a tripod model could be tried. In this model, the risks are shared by the state, training school and bank equally and eventually passed on to the students after they get jobs.

Government is expected to support high job growth and development of skills. This will boost manufacturing sector and agriculture sector growth.

India's biggest challenge is the identification of skills which are required to ensure jobs along with job creation itself.

Poverty is another challenge to investing time for building skills. There is an opportunity cost as poor men and women have to forego income or household chores by taking out time for skilling. Scholarships and other such incentives could be tried to overcome this. Identifying what skills need to be imparted is yet another challenge. There were disagreements on who should determine what skills are needed – the state or market – but it was realised that skilling was absolutely necessary to ensure that a large number of labour coming out of agriculture was absorbed in productive activity in manufacturing and services. A failure to skilling would turn a demographic dividend into a demographic disaster.

Technology and Innovation

Technology will continue to drive growth worldwide in this century too. In India, sectors like biotechnology and pharmaceuticals have benefited from better technologies but there are huge gaps in other areas. There are constraints of accessing existing technology too, in absence of a market place for technologies. MSME sector in particular faces difficulty in scaling up operations in absence of technologies. One expert felt India should concentrate on green technologies as there will be a greater demand for such technologies in a world which has an excessive capacity to produce environmentally polluting products. But there is a down side to it; green technologies have high ICOR.

Technology & Innovation require immediate attention to ensure competitiveness of domestic products in world market along with higher profit margins.

Adoption of better technology is essential to improve TFP and keep ICOR low. But as much attention should be paid to the informal sector since this is where the rural farmers migrating to urban areas find employment. Unless the requirements of this sector are understood, the overall productivity of economy will continue to remain low. In the long run, however, the importance of the formal sector is indisputable and job generation in this sector is a must for sustainable growth.

FDI is a major source of technology transfer. Experts felt increase of FDI limit in defence manufacturing, from 26% to 49% is a positive development which would help increasing India's competitiveness and enhance technology adoption.

Innovation is another area of worry. Very little is spent on research and development. Businesses want the government to make appropriate technology available but no one has a defined road map on how this may be achieved. Not even the top industries, except for a couple of them, have any significant outlay to innovate and develop new technologies, unlike global market leaders, e.g., Samsung which spends $500 million on R&D on electronics. This is more than the combined public and private R&D spending in India.

Unfortunately, the research spending is not seen as an investment for long term development which is why India traditionally produces services or trade in products but rarely build brands. India has been filing much lower patents in the near past as compared to China and the development of intellectual property for global markets is rare. This will limit our ability to leverage growth that India could create through the arbitrage of intellectual capital. Without continuous up-gradation of technology and innovation India may see some growth by improving productivity but such a growth will soon bottom out with diminishing returns setting in quickly.

A major shortcoming of the technological revolution has been the brain drain of technocrats and scarcity of lucrative jobs to keep them in the country. Unless professionals and researchers are supported by state-of-the-art resources and autonomy of academic institutions respected, we will continue to face a dearth of teachers, IT professionals, researchers and intellectuals in the country.

Productivity of Land, Labour and Capital

Productivity increase at the lower income levels needs to bolster the purchasing power of a large population in order to realise the soaring dreams of millions of aspiring Indians. For this to happen, dependence on low-productive agriculture needs to be substituted with means of livelihood which provide higher income and productive engagements. Fragmented land, low skills and education levels reduces land and labour productivity. Low skills and lower level of education attainment also lead to lower productivity. Since productivity growth of labour and capital faces diminishing marginal returns in the long run, this imposes an obstacle to high growth. The total factor productivity (TFP) in agriculture has been low compared to other core sectors. The overall mechanization of agriculture has gone up to 40-45% during the last decade due to non-availability of labour or high cost of labour during peak sowing and harvesting seasons, yet it is still lower than U.S.A. (95%), Western Europe (95%), Russia (80%), Brazil (75%) and China (57%), according to the Trends of Agricultural Mechanization in India report of UN ESCAP, 2014.

Industry has its own sets of problems. The manufacturing sector has been stagnant with its share of GDP confined to 14-16% since 1978-79 and so the demand for skills is also stagnant. Besides, skill development is not balanced between different hierarchies of industries based on their size and complexity as a result of which unskilled workers are often engaged in semi-skilled work and due to their lack of formal training and skills, the attendant outputs have lower productivity. The industry has witnessed low capital productivity due to high ICOR in recent years and high capital intensity as manufacturers sought to replace labour with capital inputs. The overall productivity of the manufacturing sector is also low due to a significant presence of

A higher TFP along with low ICOR is required to attain an efficient and productive road to high economic growth.

low-productive unorganized sector which, though accounts for 81% employment contributes only 29% of value to manufacturing (based on 68th round of NSS).

As for capital productivity, one expert felt that since ICOR is very high, India needs capital investments to drive growth. Increase in TFP might not be enough to offset high ICOR. If India takes the manufacturing pathway through increase capital productivity, high ICOR will be an obstacle to growth. Alternatively, competing through labour productivity will also be difficult due to low quality of labour. Several experts emphasised on the need for bankruptcy law to unlock dead assets about which India has been mulling since 9th plan without being able to overcome the vested interests that prevent it.

Governance

India ranked **142** among **189** nations in World Bank Ease of Doing Business Report, 2015. There is a need to prove an enabling business environment while mitigating regulatory risk.

How we address the governance issues will determine the future course of India's pathways to development. One expert pointed out two aspects that would be critical: (i) making the business environment more favourable to the business through policies and (ii) the regulatory role of the state. Our ranking in Ease of Doing Business indices, in which India ranks poorly, at 142 among 189 countries (World Bank Doing Business 2015 report), is critical in determining how we fare against other nations chasing the same fungible capital as FDI to accelerate our economic growth . The impediment to ease of business can also draw local capital away from India and invested in countries with better business environment. Currently, there are heightened public policy risks, tax risks, regulatory risks and even judicial risks. How these risks play out is important for investment outcomes and development of industries. Another expert pointed out that though the number of enterprises has been climbing up, from 42 million non-agricultural enterprises in 2005 to 58 million in 2013, they are not able to grow by investing more due to higher risks arising out of poor governance and ineffective policy interventions.

As for the role of state, its scope continues to expand but its strength is weakening. Private sector, which has been the main driver in areas like IT, telecom, and automobiles etc. in post-1991, needs to play a bigger role. Therefore, the state needs to facilitate the private sector, rather than regulate it. Whether the government is able to encourage a private sector-led growth model will be important in determining growth.

Many felt the government should desist from making inappropriate policies. Some banks and firms are sitting on funds because of bad governance and no bankruptcy law to protect against bad debts. Urban governance needs more attention. The cities, which are growth engines and contributed 62-63% of GDP in 2009, are largely dysfunctional. In Mumbai, 60% of revenue comes from Octroi - a Roman-era tax. In Delhi, out of 15 lakh households, only 4.5 lakh households are under the tax net. Poorer Indians pay higher taxes as a proportion to their income in the form of indirect taxes on goods of consumption. This utilitarian paradox should be addressed.

Another view was that change in governance should begin from the grassroots. The grassroots level (local) governance institutions, like village councils or gram sabhas, need to be developed and

strengthened as epicentres of development. These would then act as the base on which the super-structure of development can be built, for which laws like PESA needs to be implemented to empower village councils/gram sabhas.

Land Acquisition and Social Conflicts

Land has been one of the major constraints for infrastructure and industrial growth in India because of lack of credibility in acquiring it. Some studies have shown difficulty in land acquisition to be the single most important factor leading to stalling of projects, followed by the delay in administrative clearances. The new land law, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act of 2013, is a step forward in protecting rights of the farmers. It provides better compensation and rehabilitation and resettlement rights to land owners and requires their consent before their land can be acquired. But the logjam continues because the industry is highly critical of it, saying that it would further delay the process of land acquisition and also make the land several times more costly.

The government's attempt to amend the law has been hamstrung by the protests from farmers and opposition parties who don't want any dilution to the land owners' rights and privileges. Since land is critical for infrastructural and industrial growth, experts felt there was a need for immediate steps to put in place a credible mechanism for making land available in critical development areas quickly without short-changing land owners. One expert cited the case of Bangalore-Mysore Infrastructure Corridor to highlight how delay in land acquisition was holding up growth and development. The project envisaged 111 km long highway of a 4 to 6 lanes between the two key cities of Karnataka. The project was cleared and tenders were invited way back in 1988. More than a quarter century later, the corridor is still under construction because land is not available.

Some suggested that India should go back to the basics like land reforms to address to the problems. A handful of states had started land reforms after independence but the rest didn't. Various social conflicts, many of which originate in the fight over land, have led to a development logjam in nearly 200 districts which also happen to be rich in natural resources. Developing and improving grassroots level governance and giving primacy to village councils in matters of development could prevent such logjams.

Natural Resources

India is rich in mineral resources, such as coal, iron ore, bauxite etc. which are critical for growth but these are turning more expensive at a time when the world is seeing an extraordinary abundance of the same and consequently low prices. The world is not unlikely to see major increases in energy and minerals prices for the coming decades. In such a situation, India's mineral based industries are uncompetitive in the global context.

Unless the mining industry in the country is made competitive and the minerals are economical, the end user industries will remain weak and find it hard to grow in strong global competition. In addition to minerals, water will also play a critical role. The

There is a need to revise Land Bill in order to ensure availability of land for infrastructure projects.

High mineral prices and water scarcity may hamper India's industrial development. The nature of industrial development will have to move to a higher end of the value chain to reduce its dependence on water.

India's dependence on crude oil will continue, which will have an adverse effect on economy. Much of country's economic growth will depend on how quickly the government and the private sector manage to raise and distribute coal output.

country's industrial dreams seem unrealistic in many places if one were to go by expert reports on the current and future availability of water in the country. If water is to remain a constraint, the nature of industrial development will have to be more in the higher end of the value chain which can reduce dependence on water.

Energy Sector

India is the fourth largest energy consumer in the world, with about 37% total primary energy consumption in 2013 coming from crude oil (29 percent) and natural gas (8%). The combination of rising global prices (until very recently) and continued government intervention in the oil and natural gas sectors has affected investment in these sectors. Large subsidies over the years have prevented the progress in the efficient use of energy. Since the dependence on imported crude oil is expected to continue, given the timid growth in domestic production, this along with rising global oil prices imposes risk to the economy.

Much of country's economic growth will depend on how quickly the government and the private sector manage to raise coal output, develop railway infrastructure to carry coal to power plants or other industries and put in place the power generation and distribution facilities. The new coal law will bring in private investment, initiatives and expertise to raise coal output and improve energy availability. Similar initiatives will have to be taken to ensure other minerals and mineral-based industries provide the growth impetus to India's economy.

FINANCING OF GROWTH:
WHAT WILL FINANCE INDIA'S GROWTH?

What will finance growth? Experts offered a variety of ideas and solutions. One thought it would depend largely on the choices India makes. If the focus is on manufacturing-led growth, which is the case with the Government of India with an emphasis on 'Make in India', India can achieve a 7% growth if it can manage to keep ICOR at not more than 5. That is because investments are expected to go up to 37-38% by 2040, and with the current account deficit of not more than 2.5% in the long run, India would have 40-42% of GDP to finance such growth.

For a higher growth of 8-9% with the same level of financing, India would have to think of services sector-led growth. Since ICOR in the financial sector is around 2 or 3, an aggregate ICOR of 5 will give India this level of growth. Thus, India may have to think of 'Serve in India' rather than 'Make in India'.

The Size of Government

Size of government, in terms of tax and non-tax revenue, fiscal deficit and tax to GDP ratio, matters a great deal, according to one expert. He said, higher the government size (a sum of all these elements) higher will be the growth. To achieve a 10% growth, India would need a much bigger government spending of around 30% of GDP, from the current level of 24% and for that to happen it should have, in the long run, a tax to GDP ratio of 16% + non-tax share of 2.5% + sustainable level of central and state fiscal deficit of 5.5%. So, tax revenue and non-tax revenue of correspondingly high magnitude would be required. At the same time, fiscal health needs to be maintained by reducing wasteful and misdirected subsidies, which benefit the better-off more than the poor as in the case of fuel and fertilizer subsidies.

Domestic Savings and Capital Market Reforms

Another expert said, for manufacturing-led growth the financial sector needed to grow at around 15-20%. Manufacturing will be highly capital intensive and hence, more financing will be needed. Additional funds can be mobilised through higher domestic savings and by reforming the financial sector.

However, India is significantly more capital intensive than comparable peers, which means we have lower labour absorption and lower capacity utilization for our output levels. The challenge will be on how to balance improvement of asset/capital utilization for existing infrastructure and simultaneously create new capacities with higher labour participation.

Higher domestic savings, as discussed earlier in this report, translates into higher growth. This was witnessed in case of both India and China. There were differing opinions about whether a higher working age population and rise in income will lead to higher domestic savings or not. Those expressing contrarian views pointed at the fact that the lifestyle

Demand & supply of finance will depend on the choice of the priority sector. Higher dependence on manufacturing sector-led growth will require greater supply of funds.

In order to achieve **10%** growth rate government size (Tax revenue+ Non-tax revenue+ Centre and states fiscal deficit) should rise to **30%** of GDP.

and consumption patterns have changed in India. For one, higher borrowings will be a means to fulfil aspirational needs due to which savings will be reduced.

Interestingly, the new GDP series with base year 2011-12 shows domestic savings declined from 33.9% to 30.6%, even while the growth estimates accelerated for the crisis years - 2012-13 (from 4.7% to 5.1%) and 2013-14 (from 5% to 6.9%) - indicating a massive productivity surge (Economic Survey 2014-15).

Financial sector reforms, bond market deepening, introduction of bankruptcy laws are required to achieve high growth rates of GDP.

Bank credit – to the tune of only 40% of GDP at present – needs to go up to 100% of GDP. This can be achieved by opening up financial sector, deepening the bond market. India needs to improve governance, remove barriers to growth and create more congenial environment to channelize financial savings into investment. Pension and insurance funds, for example, need to be channelized and the investment re-oriented. Revenue and fiscal deficits too have to improve. Failed debt market, inappropriate policies and bad regulatory work, especially in the financial sector, were leading to a decline in financial mobilisation.

There was a general agreement that due to poor governance and high risks a lot of funds were sitting idle with corporate bodies and government entities. In absence of bankruptcy law, NPAs have risen and India is unable to free dead assets.

Financial market needs to be opened up and the bond market deepened to fund growth. Unnecessary checks and balances for creating accounts and

access to credit must be done away with. The next fundamental step in financial reform could be the roll out of payments banks and small banks. These in the next 10 years can change allocation of credit to SMEs and make for higher velocity of money and also graduate India to a card-based economy. The reduced presence of cash in the next 10 years will fundamentally impact savings behaviour (lower it) but also create easier access to finance for start-ups.

PSUs and Disinvestment

The government's disinvestment policy acts as an active tool to reduce the burden of financing the PSUs, introduce competition and market discipline, encourage wider share of ownership, depoliticise non-essential services and also fund growth. Presently, the government has about Rs 200,000 crore locked up in PSUs. Disinvestment of the government stake is, thus, significant. The importance of disinvestment lies in utilisation of funds for financing an increasing fiscal deficit, financing large-scale infrastructure development and investing in the economy to encourage spending. The government is planning an ambitious disinvestment programme targeting to mop up a record Rs 45,000 crore by selling shares in blue chips public sector companies – Coal India, ONGC and National Hydroelectric Power Corporation (NHPC). This is a step in the right direction.

External Resources

FDI is also an important marker which will allow India to be part of the global value chain. Capital inflow will continue if the risks are managed well and high returns are guaranteed. The problem, however, is there is no exact estimate of how much 'real' FDI is coming in because a lot of it is circulating back into the economy and in such a scenario it would be difficult to create growth scenario. Nevertheless, experts agreed that FDI would play a major role,

External sources of funding like FDI, sale of carbon permits, foreign exchange through remittances and exports earnings will play an important role in financing growth.

Disinvestment in PSUs will reduce the burden of financing the PSUs, introduce competition and market discipline, encourage wider share of ownership, depoliticise non-essential services and also fund growth.

including facilitating technology transfer, in India's growth.

Another issue that needs to be kept in mind is climate change which will impose its own cost on growth. But sale of carbon permits can be a big source of financing growth, felt an expert. India has a large allocation of carbon permits since these are given on per capita basis. Carbon permits can be used to bring foreign reserves and channel them into investments.
In other words, financing India's future would be a real challenge. Our gross domestic savings are declining; corporate savings are not increasing either. High growth often gets associated with high inflation, which, coupled with supply side bottleneck, could make mobilisation of finances for development an ongoing challenge.

In sum, internal savings generation, along with FDI and forex earnings (through remittances and export earning) is essential to finance the growth. For this to happen, India needs to take several measures including income generation activities, export of goods and services and reduce rigidities in procedures for doing business in India. Clarity in policies and protection of intellectual rights would go a long way in attracting FDI and FII. Confusion over the government's policies on multi-brand retail, for example, has slowed down FDI inflows.

SOCIAL AND DEMOGRAPHIC DIVIDEND:
ARE THESE OUR UNIQUE LEVERAGE FOR GROWTH?

One of the key enabling factors for India's future growth is improvement in some of the human development indicators like low infant mortality rate down from 80 per thousand in 1990 to 50 per thousand in 2009 and lowering of total fertility rate down from 3.8 to 2.6 during the same period. The share of working age population has also increased from 55.4% in 1991 to 63% in 2011. According to one estimate, India would have 300 million working age people (15- 64 years) by 2040, contributing nearly one-fourth of world's working age population. This will fuel growth if it can be utilized through job market growth and skills development.

Human Capital Development

There was unanimity at the round-table that education, health and skill levels of India's population needed to be dramatically improved to reap the benefits of this spurt in the population. Indian government spends about 1.2% of its GDP on health, which is lower than its South Asian neighbours and for better health indicators and enhanced productivity, this has to be increased significantly to at least 4% of GDP and that would need new and innovative financing solutions. Similarly, on education our public spending is about 3.4% of GDP which needs to be increased to about 6% if the demographic dividend needs to be harnessed.

One expert observed that economists and social scientists needed to work together to develop a holistic approach to development which should not be seen in terms of GDP alone. Instead, economic growth indicators should be attached to human development index to get a clear picture of economic and social development. Concerns were expressed at the low government expenditure on health and education which impaired the ability of a large population to engage in productive work. It was recognised that education would lead to gender equality, better health and job creation. In addition, gender equality in employment, eradication of caste, class and ethnic discrimination were essential for growth.

Urbanisation

The aspiration levels of Indian youth have gone up. Urbanisation is growing rapidly as more and more people are moving out of agriculture to construction and other services sector in urban areas. Urban population has increased from 285 million in 2001 to 377.1 million in 2011, forming 31.16%. The percentage is expected to go up to 45% by 2040 (according to UN projections). Such movement of people needs to be tackled through planned development of cities.

Cities are engines of growth and yet Indian cities lack social and physical infrastructure and their finances are in a shambles. The cities need better revenue management to generate their own resources to meet the challenges of growing population.

To reap the benefits of demographic bulge, public spending on education should increase to **6%** of GDP, while on health it should rise to **4%**.

Improvements in skill levels of municipal cadre and larger draw on state finance and creation of municipal bond markets are big changes. The concomitant change needed is of governance structure of cities and that needs constitutional amendment. Improvements in indirect tax management will be needed to utilize the growth of non-agricultural sector.

Since a large number of people migrating from rural areas lack skills and find employment in the informal sector, policy makers need to understand the skill requirements of this sector and how technology can be used to overcome the shortcomings. The informal services sector is not large enough to provide adequate jobs to all and so, attempts to create employment should take this into account. On the other hand, there should be some knowledge-based additions to agricultural activities to ensure higher returns for those opting to stay back.

E-governance, Rights Protection and Rehabilitation

Emphasis was also placed on e-governance which has played a major role in improving accountability and reducing inequities. E-governance has improved transparency and accountability, reduced inequities and corruption. It has improved efficiency through e-procurement, digitization of land records. However, it was noted that the older systems of bureaucratic hurdles still exist in lending and borrowing in rural areas, which need to be overcome..

The importance of investment in social sector was also underlined by the fact that social conflicts had held up development in nearly 200 districts, some of which are very rich in natural resources like minerals and forests. Many of these social conflicts had roots in land acquisition and inadequate compensation and rehabilitation of farmers and tribals. Such conflicts have not only impeded development of these districts but also prevented natural resources from being put to optimal use. Corporates, governments, civil society and citizens have to work together to end such conflicts. Land reforms, minimum wages, grassroots level governance in which the locals have a greater say and play an active role in development are some of the measures suggested to overcome the problems.

Growing inequity is another area of concern which is blamed for social disquiet and dispersed growth. But while some suggested that growth must be accompanied by equity, others felt higher growth would improve overall income levels and so, the debate between growth and equity was 'sterile'. Those in favour of growth with equity advocated a higher spending on poverty alleviation, food security and employment guarantee programmes. They defended subsidies for the poor, saying that leakages had come down in recent years and that the poor should not suffer on account of badly designed subsidy regime which seemed to benefit the better off. There was general agreement that policy and governance failures need to be removed. Policies should be evidence based, some argued.

Women's empowerment and Equity

Views were also expressed in support of women empowerment, improvement of their participation in workforce through specific policy initiatives and providing safe work environment. According to an

As per UN projections, **45%** of Indian population will be living in urban centers by 2040. Proper planning is required to enjoy the benefits of this phenomenon, which if ignored, will put strain on resources and hence, growth.

Social unrest has hampered development in 200 natural resources rich districts. Government, civil societies and the corporate world should work together to address the issue.

With proper policy initiatives, Female Labour Force Participation can go up to **40%** by 2040

OECD report of 2014, the gender differences in health and education have narrowed but the gaps in economic participation remain high in spite of high economic growth in recent years. That is because the family status perceivably increases if women stay at home, household work become more attractive compared to poorly paid job outside if the family incomes rises and also because of safety concerns. However, high unemployment among educated women and their preference for work that surveys have revealed indicate that if conditions improve their participation in workforce will go up.

The work participation rates of women in India is around 28% which may increase to around 40% by 2040 (the global average rate is 48%) if certain policy initiatives are taken. These could include extending quota for women in legislature, modernizing labour laws to ensure equal work opportunity for women, improving implementation of gender-related laws and expanding secondary and higher education for women and skills training for women entrepreneurs.

The OECD report estimates that India's annual economic growth could be up to 2.4% higher if pro-growth and pro-gender policies are followed (Economic Survey (India), 2014). Social conflicts, including caste conflicts, religious clashes, gender disparities and ownership rights of natural resources would need to be addressed and resolved for economic growth to continue on a stable and secure future. Sen and Dreze note that though India has had success in growth, there is acute failure with regard to social indicators. For example, nearly 45% of Indian children suffer from malnutrition compared to 9% in China. Nearly half of the 1.2 billion population of India does not have toilets at home. Water and sanitation are important for the workers and farmers if they are to participate in the growth of the economy.

INDIA DEVELOPMENT PATHS:
WHAT ARE THE ALTERNATIVES?

What would be the future growth paths? Experts pointed to certain trends that need to be kept in mind. One is a change in economic geographies. Unlike developed economies, trade in India is shifting towards rural areas. Census of 2001 and 2011 showed large enterprises are moving to rural areas (presumably due to availability of natural resources like land and minerals) and smaller units are taking their place in urban areas (services sector). This development is new and a driver of growth during this period. We need to take this shift into account and consider if this is a viable mode going forward, cautioned one. Another expert talked about participatory and cooperative models of growth being witnessed in Gujarat which could be replicated elsewhere. About 1,000 villages in Gujarat are said to have benefited from such a trend.

Some felt shifting labour to manufacturing would not lead to higher growth as our policies were aimed at the organised sector while 80% of employment was generated in the unorganised manufacturing marked by low skills and low productivity. Others felt growth would depend on our approach to it – whether we want growth with equity or without equity.

A few growth scenarios were presented. One is 'Business as usual' in which skill level continues to be low as is the case now but productivity improves a bit. In such a scenario, there will be some growth but this growth can't be sustained over a long period as the law of diminishing returns would set in quickly in absence of continuous technological up-gradation and innovation. Second is 'High skill development' which would require high investment in health, education, skill formation and R&D. The growth thus generated would be sustainable over a longer period and produce higher level of growth. The third is 'Export-oriented growth' which may not lead to a higher growth in absence of adequate demand in the world economy.

Key Determinants

Taking all these inputs into consideration, we attempted to build long term development scenarios for India. We used three key elements for this:

- Sources of growth
- Funding the growth
- Social and demographic aspects

We used the Quadrant Scenario Matrix which was first introduced by van der Heijden in 2005 and populated the quadrants with elements based on their determining properties.

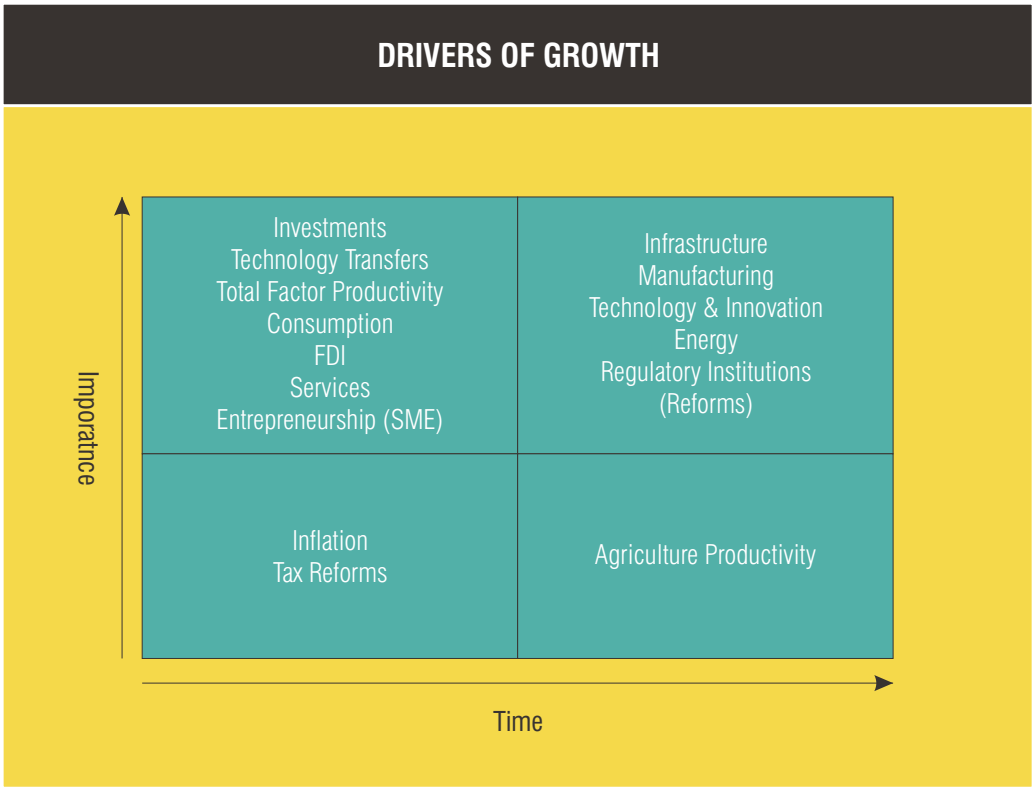
In this, the first quadrant (top right) represents the most important growth drivers that will take a longer time horizon within which it can be shocked to achieve high growth; the second (top left), most important drivers that can be shocked in short time to achieve high growth; the third (bottom left), less

Indian faces three growth scenarios: Business-as-usual, High skill-development and Export-oriented growth. Three elements that will play a key role in these scenarios are: Sources of growth, Funding the growth and Social and demographic aspects.

important drivers but can be shocked in less time and fourth (bottom right), less important and will take long time to drive high growth.

Based on these considerations, the following three growth drivers and their determinants have been set forth.

1. Drivers of Growth: The Next Leap Forward



The grid identifies the key drivers to achieve high growth based on a matrix of time and the relative importance of the factors. Investment, technology transfers, Total Factor Productivity (TFP), FDI, consumption, growth of the services sector and rising entrepreneurship especially in the SMEs, are the determining factors for driving growth in the shorter time frame.

Investment is not a major challenge in spite of low private sector participation because of the availability of other sources domestic savings and foreign funds. As Budget 2015-16 documents makes it clear, a sum of Rs 1.7 lakh crore has been set aside for public investment in infrastructure, in addition to setting up a National Investment and Infrastructure Fund, proposed infra bonds and

strategic sales in PSUs etc. to mobilise more funds going forward. As for foreign funds, next to China, India continues to be the most favoured investment destination among the BRICS and similar economies for FDI and FII inflows. These sources of funds can set the stage for the future participation of private sector.

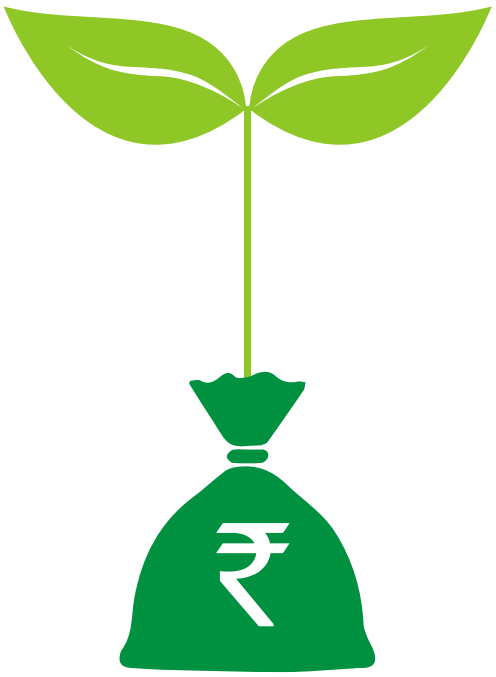
FDI can also be a source of technology transfers to drive growth and improve TFP. Growth in consumption levels will drive demand while growth in services sector will lead to higher employment, and hence, are the potential drivers of growth in the short run. Another key driver could be development of entrepreneurship and push to SMEs which will create huge employment opportunities.

From the long term perspective, infrastructure, manufacturing, technology and innovation (including R&D), energy and reforms in regulatory institutions are the key growth drivers. India's social and physical infrastructure remains inadequate and the constraints are many, including long clearance processes, regulatory issues, non-availability of land etc. Similarly, manufacturing has more or less stagnated since 1980. 'Make in India' initiative may provide a push that is needed but that is possible only in a longer time frame, given the infrastructure and other constraints. Technological development and innovation have been dismal to say the least because of poor investment in and attention to research and development, among other issues. Energy sector suffers from excessive controls and policy constraints adversely impacting manufacturing and other activities. Regulatory institutions, which are crucial for the ease of business and corporate governance, have been slow to respond to the requirements of modern economies.

Tax reforms and low inflation will play critical roles in the short run but are not considered as major drivers. Some experts though agree that tax reforms like GST is more than just reforms as it will unify India into one market and bring down the cost of doing business and hence, is a far more important driver (demanding a place in the second quadrant).

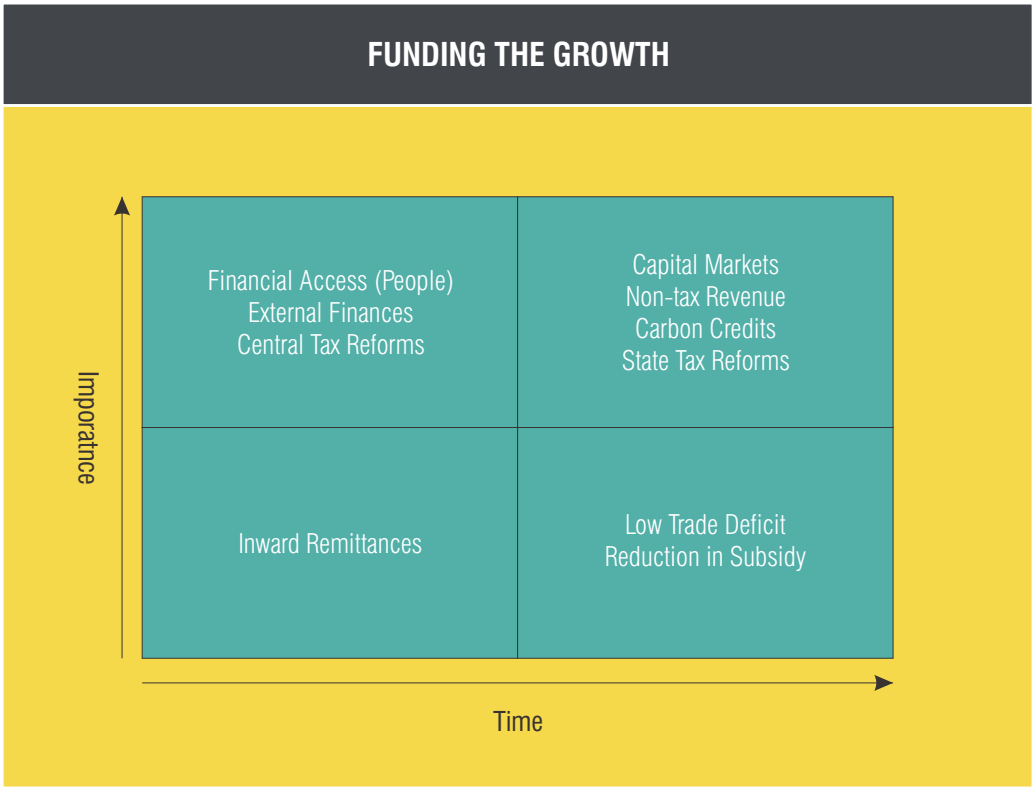
Similarly, agriculture productivity is essential and can be critical in the long run but is not a very significant driver given the shift towards industry and services. Low productivity and low investment have plagued agriculture for a long time, leading to distress migration. A turn around in this sector will be a daunting task which can't happen in a short frame of time but needs significant attention and investments of the government for innovative and sustainable solutions.

Infrastructure, manufacturing, technology and innovation (including R & D), energy and regulatory reforms are the chief growth drivers in the long run.



2. Funding Growth: The Source of Money

In the short run, financial access, FDIs, FIIs, ECBs, tax reforms will be facilitating India's growth while in the long run, carbon credits, disinvestment in PSUs, expansion of capital market will play a role.



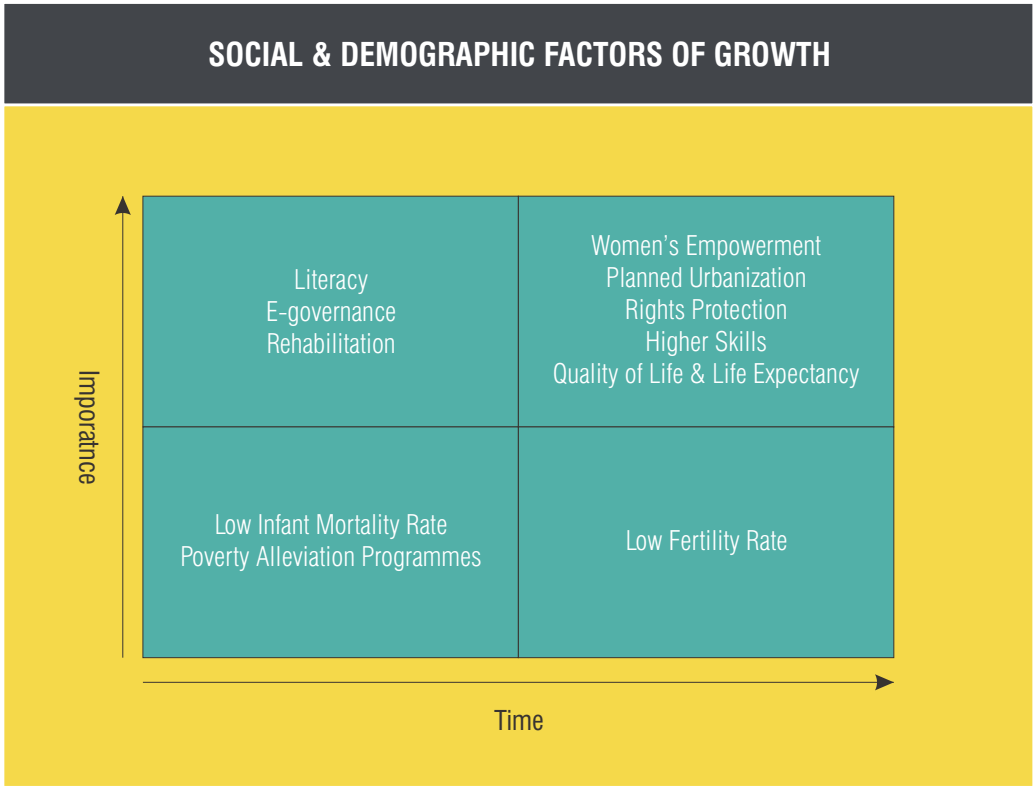
In short run, growth will be determined by investment, TFP (driven by technology transfers), FDI, consumption, services sector and entrepreneurship in SMEs.

In the short run, financial inclusion and access will play a key role in linking a large unbanked population through Jan Dhan Yojna, Aadhaar-linked cash transfers and mobile banking networks with formal financial system. This will lower transaction and leakage costs and channelise domestic savings into productive investment. External finances, including FDI, FII and commercial borrowings, are another source of funding. Central tax reforms like GST can rationalise taxes by removing distortions and cascading effects on goods and services to expand tax base and mobilise funds for growth. On the other hand, long term source of funding can be carbon credits, expansion of capital market, generation of non-tax revenue from disinvestment and other processes and state tax reforms, which can be a painfully slow process.

Some of the less important sources of funding are inward remittances, low trade deficit and reduction in wasteful and poorly targeted subsidies. While inward remittances can be an immediate source of funding, the other two can be availed in the long run. Initiatives like 'Make in India' might reduce dependence on imports and improve India's comparative advantage to reduce trade deficit but given the current scenario it will take time. Diversification of export base and improving quality of products, reducing burden of

fuel import by expanding renewable energy base and increasing defence production through FDI and technology transfer to cut down imports can turn the trade balance positive. The railway modernization can increase connectivity and improve transport in the sub-continent, giving a fillip to regional trade.

3. Social and Demographic Factors of Growth: Leveraging Advantages



Economists and planners consider India's increasing working age population as the most favourable driver of growth in a world which is ageing. A major constraint, however, is low level of skilling and social inequity. In the short run, the factors that will drive growth are literacy, e-governance and rehabilitation and resettlement of those displaced by land acquisition-linked development activities like mining, industrialisation and urbanisation. E-governance has improved transparency and accountability, reduced inequities and corruption. E-governance also helps efficiency through e-procurement, digitization of land records. All these factors reduce social distress, corruption and will

Social and demographic drivers of growth which will be affecting growth in short run are- literacy, e-governance and rehabilitation of displaced people while in the long run women empowerment, planned urbanization, skills, protection of rights, quality of life and life expectancy will affect growth.

provide equal employment opportunities and hence, facilitate growth.

On the other hand, most important but long term drivers of growth are women's empowerment, planned urbanisation, protection of rights, improvement in quality of life and higher skills. Less than one-third of working age women are participating in the workforce at present, which is half that of Brazil and is, in fact, declining since 2005. Studies show that pro-growth and pro-gender policies will improve India's annual growth by up to 2.4%. India is rapidly urbanizing but the civic and social infrastructure is inadequate to support it. Planned urbanisation, like building Smart Cities, development of industrial corridors, increasing connectivity through roads and railways, communication networks etc. can facilitate increasing needs of the growing economy and provide jobs to a large section of population and increase access to social security, thereby bringing distributive development. Protection of rights like human rights, consumer rights, intellectual property rights etc. will reduce social conflict and improve business environment. An effective and efficient enforcement of IPR rules will attract foreign investment. But for all these to happen, India needs to reform its bureaucratic processes and judicial system for faster resolutions.

Poverty reduction programmes and low infant mortality rate are equally important drivers but experts believe these will not play a major role. Low fertility rate is another driver which will come into force in the long run.

SUMMARY:
KEY TAKEAWAYS

I. Growth Drivers

Physical Infrastructure

- Physical infrastructure like roads, railways, ports, airports need significant public investment to support continued high growth. Investment on infrastructure needs to go up from 6% of GDP to 9%.
- Low return on investments and uncertainties over delayed projects is a big hurdle for private sector participation. Pensions and insurance funds, being long term investors, could be mobilized for infrastructure spending
- Though PPP model was not very successful in the past but would still remain a significant mode of implementation and their relevance needs to be re-visited as is being done through the Engineering, Procurement and Construction (EPC) model. For example, the highways ministry along with the Finance Ministry and Planning Commission are shifting as many as 14 PPP projects, which have consistently failed to find takers, to the EPC model.

Domestic Savings

- Savings rate could be between 30-35% of GDP in the long run which would stimulate growth but if it falls to 20%, as OECD predicts, then the growth rates could face a slowdown.
- An increase in the working age population – e.g. people in 15-59 years increased from 55.4% in 1991 to 60.3% in 2011 and similar growth of such populations will bolster savings and investments. If the aspiration of this section of young people are not met through effective employment or vocation, democratic dividend could turn into a curse in a short period of time.

Employment Generation and Skills Development

- A cause of concern is that the share of regular formal employment in total employment was only around 7.5% between 2004-05 and 2011-12 and those working in the unorganized informal sector are working at low wages and low working conditions.
- Private entrepreneurs in small and medium scale industries, who are the largest employers, are averse to invest in skilling since skilled workers move out to larger industries and they do not get adequate returns on their investments
- Government needs to play a major role in skilling and incentivise the industry participation in this. CSR spend could be channelize to act as a multiplier to such initiatives
- There is an opportunity cost for the poor when they go through unpaid skill building programmes and there needs to be a mechanism to compensate for such loss of earnings by way of scholarships

Technology and Innovation

- Technology and innovation will be a key

determinant for long term growth in India but our past record in scalable innovation and research has not been encouraging

- To bring about higher TFP and lower ICOR, the intervention through technology and innovation needs to be pervasive. This leverage using technology needs to be embraced and enhanced by MSMEs, industries using traditional, newer and green technology and across agriculture and other services sectors.
- The brain drain of technocrats and scarcity of lucrative jobs to keep them in the country has been a drawback of the technological revolution. Professionals and researchers need to be supported by state-of-the-art resources and autonomy of academic institutions respected.
- FDI is a major source of technology transfer. Increase of FDI limit in defense manufacturing, from 26% to 49%, and other measures to help India become a part of the global value chain are a positive development which would help in increasing India's competitiveness and enhance technology adoption.

Productivity of Land, Labour and Capital

- Fragmented land holdings have reduced land productivity. Increasing mechanization of agriculture and consolidation of land holdings will improve efficiency and productivity of agriculture.
- Low quality of human capital including poor levels of health, education and working conditions have reduced labour productivity. Greater spending on health and education as discussed above will have significant spillover effects on productivity.
- ICOR in recent times (2011-13) has been high around 8. An ICOR of 5 or above may not provide high growth trajectory, so it is critical to keep ICOR low in the long run.

Governance

- Though the number of enterprises has been climbing up, from 42 million non-agricultural enterprises in 2005 to 58 million in 2013, they are not able to grow by investing more due to various risks which include policy risks, tax risks, regulatory risks and even judicial risks.
- Some banks and firms are sitting on deployable funds because of bad governance and lack of effective bankruptcy laws which do not enable reallocation of assets from a non-productive deployment to an efficient one. Bankruptcy laws should be introduced to free 'dead' assets and mobilize capital.
- Change in governance should begin at grassroots-level institutions like Gram Sabha. This will improve governance at the local level and increase autonomy of the villages, thus ensuring better targeting of state funds and resources.

Land Acquisition and Social Conflicts

- Controversial land acquisition continues to slow down growth and use of land for industrial use, rehabilitation and compensation, thus leading to further delay of land acquisition and making land several times more costly. A credible mechanism is needed for making land available for industries and other development purposes.
- Various land disputes have led to a development logjam in nearly 200 districts which also happen to be rich in natural resources. Developing more fast track courts and improving governance and giving primacy to village councils in matters of development could prevent such logjams.

Natural Resources

- India is rich in mineral resources, such as coal, iron ore, bauxite etc. which are critical for growth but these are turning more expensive at a time when the world is seeing an extraordinary abundance of the same and consequently low prices, thus making mineral-based industries uncompetitive
- Much of country's economic growth will depend on how quickly the government and the private sector manage to raise coal output, develop railway infrastructure to carry coal to power plants or other industries and put in place the power generation and distribution facilities. New coal policy, which allows commercial mining, will bring private investment and improve efficiency.
- Availability of water will be critical for industrial development. If water is to remain a constraint, the nature of industrial development will have to be more in the higher end of the value chain which can reduce dependence on water.

Energy Sector

- India is the fourth largest energy consumer in the world, with about 37% total primary energy consumption in 2013 coming from crude oil (29 percent) and natural gas (8%). This imposes a big challenge for the economy to sustain its energy needs in the long run. We must look towards renewable sources of energy as an alternative to coal.
- Dependence on imported crude oil is expected to continue given the timid growth in domestic production, this along with rising global oil prices

imposes risk to the economy. Partial reforms either in the form of focusing on specific commodities and/or in a reduction rather than elimination of subsidies on fuels, is unlikely to aid in improving the fiscal position.

II. Financing the growth

Size of Government

- To fund higher growth, the size of government (tax + non-tax + fiscal deficit) must be large enough to meet the expenditure needs of the growing economy. The government size needs to go up from 24% to 30% of GDP to sustain this growth.
- The trade-off of a large government is high fiscal deficit (centre+states), which is expected to be at or below 5.5% in the long run.
- Wasteful and misdirected subsidies, which benefit the richer inequitably, should be reduced to improve fiscal health and enhance inclusion.

Domestic Savings and Capital Market Reforms

- Bank credit needs to go up from 40% GDP to 100% of GDP in the long run to widen financial access and to allow rechanneling of funds for investment.
- Financial market needs to be opened up and bond market deepened to fund growth. Unnecessary checks and balances for creating accounts and access to credit must be done away with.
- The next fundamental step in financial reform will be the roll out of payments banks and small banks. These in the next ten years can change allocation of credit to SMEs and make for higher velocity of money and also graduate India to a card-based economy. The reduced presence of cash in the next 10 years will fundamentally impact savings behaviour (lower it) and also create easier access to finance for start-ups.

PSUs and Disinvestment

- Disinvestment is an active tool to reduce the burden of financing the PSUs, introduce competition and market discipline, encourage wider share of ownership, depoliticise non-essential services and also fund growth.
- The government has about Rs 200,000 crore locked up in PSUs. The importance of disinvestment lies in utilizing this fund for financing large-scale infrastructure development and investment in the economy.
- The government's disinvestment plans to mop up Rs 45,000 crore by selling shares in Coal India, ONGC and National Hydroelectric Power Corporation (NHPC) is a step in the right direction.

External Resources

- FDI will be a major source of investment and technology transfer. 100% FDI in telecom and single brand retail are steps in the right direction.
- India has a large allocation of carbon permits since these are given on per capita basis. Therefore, we can raise foreign resources by selling carbon permits to other countries. Exports will grow from the current level of 24.4 % of GDP to 32 % of GDP in the long run but India is unlikely to be an export led economy.

III. Social factors and Demographic dividend

Human Capital Development

- Government spending on health needs to go up from 1.2% of GDP to 4% of GDP if quality and productivity of human capital has to improve.
- Government spending on education needs to go up from 3.4% of GDP to 6% of GDP, which along with the health expenditure will be crucial for tapping the demographic dividend.
- Pro-gender along with a pro-growth policy could boost India's annual growth by 2.4% in the medium term

Urbanisation

- Urban infrastructure needs to catch up with the rising demands of migrating population. The current urbanised population of 30% is expected to reach 45% by 2040, which will put immense pressure on the infrastructure but will also provide huge number of jobs to the aspiring young population especially in auxiliary manufacturing and services.
- Finances of cities are in a shambles due to archaic taxes and poor tax coverage. Improvements in skill levels of municipal cadre and larger draw on state finance and creation of municipal bond markets are big changes. The concomitant change needed is of governance structure of cities and that needs constitutional amendment. Improvements in indirect tax management will be needed to utilize the growth of non-agricultural sector.

E-governance, Rights Protection and Rehabilitation

- E-governance has improved accountability through greater transparency of transactions and bureaucratic processes. It also helps in increasing efficiency through e-procurement and digitization of land records.
- Protection of rights like human rights, consumer rights, intellectual property rights etc. will reduce social conflict and improve business environment.
- Those losing land to development need to be properly rehabilitated for conflict-free and inclusive growth and fair pricing models for valuation of land needs to be evolved.

Women's empowerment and Equity

- The work participation rate for women is around 28% which is expected to reach 40% by 2040 (the global average rate is 48%) if pro-gender policies like equal opportunities for women in work, safe working environment etc. are implemented.
- Though India has had success in growth, there is acute failure with regard to social indicators. For example, nearly 45% of Indian children suffer from malnutrition compared to 9% in China. Nearly half of the 1.2 billion population of India does not have toilets at home. Social exclusion on the basis of religion, gender, age and caste persist and these impinge growth and development.

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