Revisiting the Growth and Development Strategies in the Context of Environmental Issues

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The central question that the economic theories and models attempt to answer is: how development and growth materialise so as to uplift the living conditions of people at large. Indeed the pathway of growth and development is laid in accordance with the principles and theories that have been evolved over years thanks to illustrious descriptions of growth strategies by economists and the consequent academic discussions based on such theories. Broadly speaking, theories of growth and development formulated hitherto have been precisely premised on two theoretical foundations viz. Keynesian and Neo-classical frameworks, the former advocating the intervention of government policies while the latter reaffirming its faith in the automatic readjustment being brought about by the market forces. For instance, while the Harrod Model was premised on the Keynesian principle of demand management, Solow, on the other hand, was taking inspiration from the Neo-Classical idea of market clearing and the forces of market orienting and reorienting towards the equilibrium conditions. These poles-apart approaches and discussions surrounding such approaches have become partially redundant in recent times with the emergence of universal issues pertaining to sustainable development which takes into account environment as an indispensable thing to be factored into the growth models. Apart from this, the issues of inclusive growth aiming at an all-encompassing growth process and climate change induced natural disasters like the one which hit Kerala, the southern edge of India, have added to the necessity of evolving new strategies of growth and development. Against this backdrop, this paper attempts to look into the growth and development strategies that India has embraced so far, besides presenting the need to redesign the policies in accordance with the emerging requirements of economies.

Early Growth Theories

A glance at the early growth theories brings us two interesting things: that there were both optimists and pessimists with respect to the extent to which an economy can grow. The pioneering optimist

was, of course, none other than Adam Smith, the father of economics, who had strong and unquestionable faith in the increasing returns to scale that could happen especially in the industrial sector owing to what is normally called the division of labour. Smith was categorical in his emphasis on the efficacy and relevance of investment in accelerating the growth of an economy. He based investment on saving being generated out of profits by the enterprising class. Although profit drives up investment in an economy, Smith was aware of a falling rate of profit as competition tightened owing to unrestricted capital accumulation by the enterprising class. But newer investment and new technology could usher in a new positive wave of containing the imminent fall in investment, if not accelerating it to new highest. Further, it is interesting to note that increasing returns generally occur in the industrial sector while the agriculture sector is commonly subject to the diminishing returns. In fact, one of the basic reason for the poor-rich county divides lies here, that is the poor countries remain poor as they rely on farm sector where diminishing returns occur while the rich economies continues to rely more on the industrial activities where the increasing returns normally rule. India being agricultural centred especially in the early decades of her experiments with development process, she might have borne the brunt of being subject to the diminishing returns of the agricultural sector. However to some extent, she could prevent the spill over effects of such diminishing returns thanks to the stress laid on the heavy industrialization strategies of 50s, 60s and 70s at the behest of the interest of Jawaharlal Nehru, the architect of India's tryst with the industrialization strategy.

Turning to the pessimists, we see the pioneer, Thomas Malthus, a British Economist, who, in his work titled An Essay on the Principle of Population (1798), put a cautious note on the disastrous impact that population might produce on the growth stories of an economy. Along with population as a factor derailing development, he made reference to the possibility of dwindling rate of profit in the manufacturing sector caused by the operation of diminishing returns in the agriculture sector and raising cost of farm input. Malthus' fear of population prompted many economies to adopt 'preventive checks' on population as a policy input. Ironically, today, the Malthusian fear seems to have disappeared, and, instead, today countries like India boasts of having been benefited by the possibility of what is referred to as 'demographic dividend'. Assuming that by 2020, India will be the youngest country in the World, our strategy has been reoriented towards endowing the young people with necessary skills and quality to suit to the emerging requirements of the labour market.

Unsurprisingly, David Ricardo shared the same pessimist view of Malthus albeit differently, asserting that a capitalist economy would end up in a stationary state with signs of no growth. Karl Marx went to the extreme of saying that a capitalist economy would ultimately collapse owing to its inner contradictions. In Marxian view 'realization crisis would lead to the decline in the rate of profit of the capitalist and ultimately it would decay the system.

None of the early growth theories narrated above does not appear to be fully explaining the kind of growth and development necessities in India. Nonetheless, a critical analysis of some of the theories may have led us to conclude that pessimism could have darkened our growth accomplishments but for the timely intervention made by the Nehruvain and Mahalanobis strategy of growth which will be detailed later in this paper.

The Harrod-Domar Growth Model

Unfounded of the inherent capability of market forces to establish and re-establish, if distorted, the equilibrium, Keynes stood for necessary government intervention through aggregate demand management policies to ensure that growth process of an economy remains intact even under the conditions of minor deviations. Interestingly, sings of Keynesian strategy of growth and development could be read into the views of Malthus and Marx. Malthus used the concept of effective demand, and Keynes admitted himself that he had indebted to Malthus for the use of the term 'effective demand'. Marx also had not minced his words to argue that the 'realization crisis' could be easily rectified with the help of accelerating volume of

investment. Domar once opined that investment is a double edged sword as it fuels both the aggregate demand and supply, taking the economy to new heights. Perhaps because of its stress on investment and its leniency towards Keynesian framework those planners of India chose to embrace this model in the formulation of early development strategies. The heavy industry strategy being adopted in the Second Five Year Plan Period appears to have owed much to the Harrod-Domar Model of growth.

The Neo-Classic Counterpart

Robert Solow and Trevor Swan in 1956 laid foundation for the neo-classic growth model which works based on the assumption of diminishing returns to capital. Precisely, it could be argued that the premise of diminishing returns to capital led the model to end up the growth process with a long-run steady rate. Moreover, this premise of the model does not stress investment as key to determining the growth process, unlike in the case of Harrod-Domar model. The merit of this model, however, lies in its prediction regarding the convergence hypothesis about which much discussion has taken place in recent times. To Solow, the capital-scarce-labour-rich poor countries grow faster than the capital-rich-labour-scare rich countries which of course end up with the convergence of per capita income across different countries in the world. It may be reiterated here that this model did not find much favour with the Indian Planners as it laid insignificant emphasis on investment owing to the assumption of diminishing returns to capital.

New Growth Theories or Endogenous Growth Theories

These theories, developed by Robert Lucas and Paul Romer, attempt to rectify the damages caused by the assumption of diminishing returns to capital by redefining capital to encompass the human capital and inventions and innovations that happen through research and development, the R & D, thus ruling out the possibility of diminishing returns to capital to regain the lost importance of investment in the growth process of an economy. The crux of these theories lies in the assertion that marginal product of capital does not fall as more and more investment takes place. Having made growth process endogenous by way of making relaxation in the assumption of diminishing returns via education, training and R&D, this theory has made growth process endogenous.

Mahalanobis Model of Growth vs. Wage Good Model

P.C.Mahalanobis enunciated a strategy of development in late 50s emphasising the need of huge investment in heavy industries in India. This model built on the premise of the significance of investment on the lines of Harrod-Domer Model became the basis of India's second five year plan, and this continued to have its lasting impact even into the late 80s. Supporting this model, Nehru, the first prime minister of post-independent India, pointed out that industrialization meant development of heavy industries. But this capital-intensive model was viewed doubtfully by development economists of that time who were apparently more concerned with the very visible problems like poverty and unemployment that the Indian economy was confronting with. These doubts culminated into the framing of an alternative to the heavy industry model by two great Indian economists, C N Vakil and P R Brahamanda. Their model interestingly named as the 'Wage-Good Model' also came up for discussion before the planning commission although the Commission did favour the Mahalanobis Model citing the reason that this model would lay the foundation of long-term growth in India.

The LPG Model of 1990s vs. the Inclusive Growth Strategy of 2000s

India's tryst with the Heavy industry model laying emphasis on the public sector units based heavy industrialization ended up in 1991 when the economy was caught in a severe economic crisis forcing it to knock the doors of IMF and World Bank for necessary balance of payment adjustment and assistance for development initiatives. The tied aid promised by these international financial institutions forced the

nation to come out with 'neo-liberal strategies' of development emphasising the role of market and private sector. Since 1991, willingly or unwillingly, India has been confronting with the dictates of these IMF-WB conditionality put in the form of Liberalization, Privatization, and Globalization. Obviously, the LPG model did accelerate the GDP growth in India making it into the 6.5 percent figure from the so called Hindu Rate of Growth of 3.5 percent in the first three decades of India's independence. Apart from this, LPG model made balance of payment position comfortable for the Indian Economy making the economy self-reliant to a greater extent. Notwithstanding these bright aspects, the LPG model is said to have widened the 'gaps' in development in India viz. rich-poor divide and the north-south and east-west divides. The growing discontent with the LPG model forced policy makers to redefine the growth process along the lines pro-poor strategies without losing the market centric elements. This led to the beginning of Inclusive Growth Strategy in India, a strategy which encompasses the interest of all segments of population in a market centric framework.

Environment, Policy Framework, and the Growth Strategy

Before 1990s, economic considerations did not enter much into the formulation of environmental policies and its instruments. The Rio de Janerio Conference in 1992 organized under the stewardship of the United Nations Conference on Environment and Development (UNCED) made first concrete attempt to recognize the "patterns of production and consumption" as a factor to be considered in the degradation of environment. Interestingly, this Conference underlined the right of developing countries to continue their existing strategies of growth without causing much harm to the environment. The principle of 'Polluter Pays' was endorsed by this Conference. In India, three changes have led to the recognition of environment protection as a policy priority: the Bhopal Gas Tragedy in 1984, the Rio Conference and the increasing environmental awareness. Necessary legislation have been made from time to time and consequently, Central Pollution Control Boards and State Pollution Control Boards have been made responsible for the implementation of Acts pertaining to environmental protection. Notwithstanding these legislative attempts, little serious efforts have been made to design growth models in India in accordance with the principle of protecting environment.

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