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## The Education Deficit

The steady deterioration in India's economic growth indicators should not really surprise anyone. What is, however, surprising is the complete lack of understanding of the most fundamental growth drivers from the political leadership and those entrusted with the responsibility of planning for India's future, and the sheer magnitude of effort and resources that are required to be mobilized to provide growth thrust to the (currently) 1.25 billion inhabitant's nation.

Beyond the fiscal deficits, lending rates, and taxation slabs, India's future is and would continue to be determined by how the nation grapples with rising deficits in 12 major areas that include education, healthcare, water, energy, food, land, housing, sanitation, non-industrial waste handling, mass rapid transport system for its rapidly growing million+ population cities, intra-country transport, and internal security.

With the 21<sup>st</sup> century world widely claimed to be a "knowledge" and increasingly, more "technology" driven one, a very sharp focus on education (primary, secondary, higher, and vocational) would have been one of the top priorities of all governments (center and state) and cut across all ideological and party lines. Yet, the gap in absolute terms has continued to increase since 1951, and has actually increased the most since 1991. India had about 12.1 million primary education seats in 1951 against the requirement of about 45 million (to achieve 100% school enrolment). In 1991, the number of seats had increased to about 44 million but the required capacity had shot up to 116 million i.e. a deficit of almost 72 million. In 2001, the deficit increased to about 74 million. In 2011, government's own data shows a deficit of about 60 million even though many rural (and urban) schools effectively exist only on paper with missing teachers, buildings, and teaching aids. The seat gap has hardly budged in absolute numbers - at around 60 million seats - since 1981 at middle and high school levels. Using CBSE norms, this translates to a requirement of about additional 7.75 million teachers, about 900 million square feet of additional building space, about US\$ 250 billion in additional capital expenditure, and about US\$ 75 billion in annual operating budget by 2021.

The situation is bleaker when it comes to higher education. At about 12% (about 17 million enrolment), India currently has amongst the lowest Gross Enrolment Ratio not only compared with the developed nations but even the major developing ones (though Government has recently tried to change its own definition of GER and claim that it is closer to 18%). In a knowledge and specific skills driven world, India should be aspiring to come closer to 40% but even if it were to first target a GER of 30% by 2021, an additional 36 million more seats would have to be created. Put another way, India will have to add more than 200% of its entire current higher education capacity, at about US\$ 350 billion in capital expenditure, in the next 8 years!

The bleakest situation of all relates to skills development and vocational education infrastructure. Against a working-age population of over 550 million in 2011, the total (annual) skills development capacity (not considering any qualitative aspect at all) stood at less than 4.3 million. Worse, India stands at an extremely critical point in this particular generation when seen the context of the last 4,000 years. Perhaps for the first time since the Vedic period, India would see a rapid dismantling of the caste system and with that, the caste-determined vocation system. On the positive side of this change, it is absolutely equitable and desirable that the children of the leather tanners, cobblers, carpenters, bricklayers, masons, barbers, myriad handicrafts workers including weavers etc. etc. should be going to school and many, if not all, will get this opportunity. The only downside is that this decade and the next may also see a complete breakdown of the "apprentice" system that has been in place in India for the last 4 millenniums leaving in its wake a nation with hundreds of millions of semi-literate, unemployable and unskilled people who would be unable to make a living even as daily-wage workers and self-employed micro-entrepreneurs. India needs to spend over US\$ 100 billion in capital expenditure alone in the next 8 years, and create an additional 6 million trainers if even 65% of the 725+ million in the workforce by then have to be provided with some value-creating vocational skills.

With the current annual spending (both public and private) on education (all sectors) of less than US\$ 100 billion, and of which over 80% is spent on just the operating expenses alone, the current annual deficit between the required capital expenditure for additional capacity creation and the actual available funding may be as much as US\$ 80 billion (or over Rs 450,000 Crores). Since it is impossible to generate this quantum of resources, India has to think completely beyond the conventional and look very aggressively at technology & mass electronic communication based solutions that can mitigate the need for physical schools, colleges, and universities, and the need for teachers and even trainers. The consequences of not doing so are too dire to even think about.

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