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# Make in India and Challenges before Education Policy

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**Abstract**
Economic development, inclusive growth and high employability are significantly linked to education policy of a country. Beginning with Kothari Commission (1966) with its emphasis on science & technology and research to National Policy on Education (1986), several committees during the last decade have advocated for greater foreign collaboration, public private partnership and improvement in quality. The RTE Act 2002 has been a significant milestone in ensuring near universal enrolment. However there are constant laments about poor infrastructure, indifferent teaching and government schools being out performed by private schools. Make-In-India campaign seeks to significantly bolster India's manufacturing sinews and exports by fostering Ease of Doing Business. Its success, however, would critically hinge on how the leitmotif of education policy is etched in the promised new policy this year. If India wants to be the Asia power of 21st century, quality education at entry level will improve its total factor productivity, ramp up India Human Development Index (HDI) and be a significant conjoint to Public Private Partnership (PPP) and National Manufacturing Policy (NMP). The paper examines these policy options and suggests the way forward.
**Keywords:** RTE, HDI, PPP, NMP, Make-In-India

## INTRODUCTION

There is a distinct buzz about PM Modi's new campaign for Make-in-India. The thrust is to increase share of manufacturing from the current level of 15% of GDP to 25% and create additional employment opportunity for 100 million during the next decade. This has led a few cynics to observe that "there is a lot of sizzle but where is the steak?". The RBI Governor Rajan is of the view that the government should give primacy to bolstering domestic demand; i.e. "Make for India" rather than opting for export led growth. Columnist Debasis Basu is prescient to observe that the debate is all about "Cost of Doing Business in India" for which the quality of human resources and cost of capital are therefore would be the critical factors.

The quality of human resources critically hinge on education policy and allocational commitment of a country to bolster quality of primary and higher education. India has been inordinately late in introducing universal access to basic education as a fundamental right. However the RTE Act 2002 has acted as huge catalyst in reaching out to all segments of the society. The major concerns are essentially with regard to poor infrastructure facility, inept teaching and high dropout rates.

*This paper attempts to examine*

- Importance of Primary Education and RTE Act
- Impact of Universal Education on Access, Equity and Excellence
- Ideological Debates to improve Quality of Primary Education
- Make In India and Education Policy

## IMPORTANCE OF PRIMARY EDUCATION AND RTE ACT

The importance of higher education was emphasized by Bhartruhari in Neethishatakam way back in the First Century in the following words:

**"Education is the special manifestation of man; Education is the treasure which can be preserved without the fear of loss; Education secures material pleasure, happiness and fame; Education is the teacher of the teacher; Education secures honour at the hands of the State, not money".**

The Constitution did not include Right to Free and Compulsory Education as a Fundamental Right but as one of the directive principles of state policy (Article 45) which is non-justiceable. Accordingly close to 65% Indian population did not have the benefit of basic education as a matter of right.

The Supreme Court of India has played a stellar role though its historic judgment (J.P. Unni Krishnan Vs. State of Andhra Pradesh (1993)) wherein it brought out that right to education upto the age of 14 is an in alienable part of right to life as enshrined in Article 21 of the Indian constitution. The Government of India introduced the Right to Education Act 2002 and introduced as article 21A vide the 86th amendment as per which "The state shall provide free and compulsory education to all children of the age of six to fourteen years in such

manner as the state may, by law, determine". However, the responsibility of providing early childhood care and education to children below the age of 6 years has remained as a Directive Principle as Article 45. Given the fact that almost 44% of India's children are under nourished as per Human Development Report (2014) it is surprising that the responsibility for early childhood care has been disentangled from state responsibility. Prof. Muchkund Dubey rightly observes that two years of pre-primary education should be the state responsibility.

## IMPACT OF UNIVERSAL EDUCATION ON ACCESS, EQUITY AND EXCELLENCE

However the various studies on achievement of primary schools by India Human Development Survey, 2004-05, ASER Survey, 2011, PROBE Revisited, 2006, CORD-NEG Village studies, 2010-11, WIPRO-EI Quality Education Study 2011 reveal the following disquieting picture.

**Table-1 : Achievements in Primary School: Findings**

- Only half of all children aged 8-11 years enrolled in a government school are able to read a simple paragraph with three sentences.
- Less than half (43 %) of these children are able to subtract a two-digit number from another two-digit number
- More than one third (36%) are unable to write a simple sentence such as 'My mothers' name is Madhuben
- Only 58% of children enrolled in classes 3 to 5 can read a class-1 text.
- Less than half (47%) are able to do a simple two-digit subtraction
- In classes 5 to 8 only half of the children can use a calendar
- Only 37% of children enrolled in class 4 or 5 can read fluently
- Less than half (45%) are able to divide 20 by 5
- One third are unable to add with carry over
- Out of 110 children enrolled in class 4 or 5 only half were able to recognize a two-digit number
- Less than one fourth of these 110 children were able to subtract a two digit number from another two digit number
- Reading and Maths skills of class 4 pupils in India's top schools are below the international average
- Only 16% of class 4 pupils could master the measurement of the length of a pencil with a ruler
- Only 22% of class 6 pupils could understand that crumpling a paper does not alter its weight.

*Sources- India Human Development Survey, 2004-05, ASER Survey, 2011, PROBE Revisited, 2006, CORD-NEG Village studies, 2010-11, WIPRO-EI Quality Education Study 2011*

The UN Millennium Development Goals which are to expire this year are yet to be fully redeemed by India. The reasons are not far to seek. Broadly they can be categorized as Allocational Inadequacy, High Dropout Rates and Poor Quality. The details are given below.

### (a) Allocation Adequacy

**Table-2 : Allocation to School Education (Rs. Crore)**

| **Major Programmes** | **2012-2013** | **2013-2014 (BE)** | **2013-2014 (RE)** | **% Change of RE (13-14) over (12-13)** | **2014-2015 (BE)** | **% Change over BE (13-14)** |
|---|---|---|---|---|---|---|
| ***Total*** | ***45631*** | ***52701*** | ***50136*** | +9.8% | ***55115*** | +4.6% |
| ***(a) Elementary Education*** | ***35929*** | ***37150*** | ***35668*** | -0.8% | ***42696*** | +15% |
| 1. Sarva Sikshya Abhiyan (SSA) | 9842 | 8079 | 8079 | -18% | 9294 | +14.9% |
| 2. National Programme for Mid day meals in Schools | 4135 | 3918 | 3886 | -6% | 4418 | +13% |
| ***(b) Secondary Education*** | ***9241*** | ***10027*** | ***9335*** | +1% | ***6160*** | -39% |

*Source: India Budget: Demand No-59, 14-15, MHRD*

It would be seen from the above that (a) overall increase in allocation to primary education and secondary education is only 5% (b) there is a drastic reduction of (39%) in allocation for secondary education (c) endemic short fall in actual spending (5%) during 2013-14 compared to budget estimates. Colclough and Levin (1993) had made an assessment that for universalization of primary education 3.1% of GDP is required whereas the actual allocation was only 1.2%. In other words at-least 2% additional GDP needs to be allocated to provide basic infrastructural support for primary education. The state wise gaps were identified by them as under

**Table-3 : Gaps in Allocation to Education**

| State | Gaps in Allocation |
|---|---|
| Bihar | 5.7% |
| Kerala | 0.6% |
| Maharashtra | 1.5% |
| UP | 4.7% |
| TN | 1.2% |
| India | 1.9% |

*Source: Article on Investment Gaps in Primary Education-A State wise Study by VK Ramachandran, Vikas Rawal and Madhura Swaminathan in EPW, January 4-11, 1997*

It would be seen from the above where in case of Kerala the gap is only 0.6%, it is as high 5.7% and 4.7% in case of Bihar and UP.

**Table-4 : Literacy Rates: Trends**

| Literacy | 1981 | 1991 | 2001 | 2011 |
|---|---|---|---|---|
| All India (Rural) | 36.01 | 44.69 | 58.74 | 68.91 |
| All India (Urban) | 67.23 | 73.08 | 79.92 | 84.98 |
| SC | 21.38 | 37.41 | 54.69 | 56.49 |
| ST | 16.35 | 29.60 | 47.10 | 49.52 |

*Source: India Public Policy Report 2014*

**Table-5 : Dropout Rate Rates: Trends**

| All India/States/UTs | 1981-82 | 1992-93 | 2004-05 | 2010-11 |
|---|---|---|---|---|
| All India Class I-V | 53.5 | 45.0 | 29.0 | 27.0 |
| All India Class I-VIII | 72.1 | 61.1 | 50.8 | 40.6 |
| All India Class I-X | 82.3 | 72.9 | 61.9 | 49.3 |

*Source: India Public Policy Report 2014*

It would be seen from the above that the overall reduction in dropouts after 2004-05is not significant. Particularly disconcerting is the dropout percent in states like MP, Odisha and Bihar. The Kothari Commission (1966) had brought out that the dropouts were mainly attributable to poverty as nearly 50% were below poverty lines.. Recent studies, however, bring out the following disaggregated picture.

**Table-6 : Reasons for Dropout**

| Reason | Boys | Girls |
|---|---|---|
| Economic Reasons | 27% | 23% |
| Domestic Work | 24% | 24% |
| Lack of Interest in Studies | 21% | 20% |

It would be seen that while economic reasons and poverty still predominate, poor quality of teaching also contribute significantly to the dropout.

**Quality Concerns:**

The quality of education; both in primary and higher education remains at a very low ebb. In case of primary education the basic deficiency is in terms of basic infrastructure, teacher absenteeism and poor quality. Similarly in case of higher education the problem is largely in quality of teaching and near absence of proper research in most of the states and private sector universities.

The following table brings out a comparative picture in terms of research, patents and industry collaboration of India vis-à-vis developed countries like USA, South Korea and China.

**Table-7 : Global Competitive Index**

| Country | Quality of Research Institutions | Industry Collaboration | PCT Patents Granted (Million) |
|---|---|---|---|
| USA | 5.8 | 5.6 | 137.9 |
| South Korea | 4.9 | 4.7 | 161.1 |
| China | 4.2 | 4.4 | 6.5 |
| India | 4.4 | 3.8 | 1.2 |

It would be seen from the above that we are significantly lagging behind countries like South Korea which has been investing significantly in research and development and has become a major global manufacturing hub for automotives, electronics and ship building.

Further, educational quality indices as brought out in the following table, HDI and public spending as percent of GDP on education bring out the following trends.

**Table-8 : Education Quality Index: Global Comparison***

| Country | HDI | Public Spending | Reading | Math | Science | % Satisfied |
|---|---|---|---|---|---|---|
| USA | 0.937 | 5.4% | 500 | 487 | 502 | 62.8% |
| Germany | 0.92 | 4.6% | 497 | 513 | 520 | 65.6 |
| Japan | 0.912 | 3.8% | 520 | 529 | 539 | 54.6 |
| Korea | 0.909 | 5% | 542 | 546 | 538 | 50.5 |
| China | 0.7 | 3% | 556 | 600 | 575 | 62.6 |
| Russia | 0.788 | 4% | 459 | 468 | 478 | 38 |
| Brazil | 0.73 | 5.7% | 412 | 386 | 405 | 53.7 |
| India | 0.554 | 3.1% | - | - | - | - |

** 15years students in subject essential for participation in society*
*Source: Human Development Report 2013*

It would be seen that India, like many low HDI countries, **India does not have an Education Quality Index**. Besides public allocation to education is abysmally low with HDI displaying a dismal picture.

## IDEOLOGICAL DEBATES TO IMPROVE QUALITY OF PRIMARY EDUCATION

### *Perspectives on Primary Education & Recent Debates*

After independence the University Education Commission (1949) dealt largely with service conditions of teaching staff, standards of teaching, courses of study and research in arts and science. The Kothari Commission (1964-66) suggested establishment of more universities and espoused the theory of 'Concentration of Talent' i.e. creation of knowledge clusters. This attracted criticism as this policy would favour educational advancement of a few elite universities.

After liberalization in 1990s the private sector has come in a big way to set-up colleges and universities for technical and management education. The RTE Act has ensured that the enrolment in primary education is as high as 96.7% while attendance showing dip 71%. The recent debate veers around the advisability of large scale privatization vis-à-vis government assuming the over arching role in terms of funding and pre primary support.

Prof. Muchkund Dubey is of the view that the serious erosion in quality is mainly attributable to structural factors like inequality and discrimination characterizing the system. Some of the pertinent suggestions made by Prof. Dubey are (a) Introduction of Neighbor hood school concept as in Developed Countries (DCs) (b) Two years' of free and compulsory pre primary education (c) Ensuring a child's right to free education till the age of eighteen, as India is a signatory to United Nations Convention on Child Rights. Prof. Dubey strongly suggests for halting the endemic attempt to privatize education and its commercialization aspect and recommends strongly for state supported and state controlled common school system based on the concept of neighbor hood school system.

Prof. Arvind Panagariya, the new Vice Chairman of Niti Ayog on the other hand strongly pitches for a more affirmative role for private schools. Quoting study by Pratham (2006) he observes that in existing government school system only 6.6% students in the first grade are able to read Level-1 text. Further, based on a study by Muralidharan & Kremer (2006)s study of Schools in Delhi Sahadara area, he bring out how teacher availability was only 38% in government schools as against 72% in private schools. Further, based on tests private school scored 72% higher than the government schools. The private school are marked by lower teacher absence, with teachers relatively younger with most teachers having completed their graduation. Prof. Panagariya makes a strong case for opening the door further to the private sector and subject public sector to competition. He advocates issuance of education voucher of Rs. 2000.00 per child for those people who are below poverty line. In his assessment about 72.6million children belonging to poor family will benefit from education vouchers costing a measly 0.4% to GDP to the national exchequer.

Prof. A. Sen is skeptical of the whole concept of education voucher by asserting that privatization of primary education will lead the school to become "extractive money making machine with modest educational offer". Based on his study he finds that the private schools are not doing much better than government schools. His finding has also been corroborated in World Development Report (2014). What Prof. Sen strongly advocates for is universal coverage with good quality education backed by adequate state funding.

Adam Smith, the high priest of market economics, had observed that "Private pursuit of self interest would lead as if by an invisible hand to the well being of all". In the aftermath of the global financial crisis 2007 Prof. Joseph Stiglitz, the nobel laureate observed "What is germane to the debate is not the invisible hand of the market but the visible compassionate hand of the government". Education is a vital cog for a fast growing economy like India and it should transcended political and religious ideological mindset and the government

needs to invest handsomely in education and research and consider the whole gamut of education as a merit good and facilitate a synergy between reputed foreign universities, Indian academia and industry.

## MAKE IN INDIA AND EDUCATION POLICY

PM Modi's main concern is with the manufacturing sector which accounts for 14-16% of GDP with 85% of employment in unorganized sector, with a 'missing middle'. This is unlike manufacturing hubs in Korea, China, Germany and Japan where 50% of the firms are large with benefit of economy of scale and 20% are SEMs. Value addition in global value chain for India was only 1% in 2009 as against 9% by China and Germany. National manufacturing Zone (NMZ) 2011 policy is limping big time in the absence of Centre State synergy, tardy land acquisition and long drawn environmental clearance. Subir Gokran has rightly observed that increase in Incremental Capital Output Ratio (ICOR) from 3.1% (2005-2006) to 5.9% (2012-2013) is largely attributable to supply constraints like power-coal imbalance and in ordinate project delays.

For Improving a Country's Manufacturing Capability the quality of workforce would be critical. Prof. Solow, a Nobel Laureate, in his seminal paper had brought out the importance of Total Factor Productivity (TFP). His equation $Q=A * K^{\Delta} L^{\beta}$ where Q is the production function, A is the level of technology and scale, K & L are factors of production $\Delta$ & $\beta$ are factor efficiency has demonstrated how US has become the premier technological hegemon after the second world war. A case in point is the phenomenal growth in China from 1979 as would be evident from the following table. Almost 50% of the GDP growth is attributable to total factor productivity growth.

**Table-9 : Sources of Growth in China**

| Parameter | 1953-1978 | 1979-1994 |
|---|---|---|
| Output Growth | 5.8 | 9.3 |
| Capital Input Growth | 6.2 | 7.7 |
| Labour Input Growth | 2.5 | 2.7 |
| TFP Growth | 1.1 | 3.9 |
| Contribution of Production | 18.0 | 41.6 |

*Source: A.P. Thirlwall - Economics of Development-Theory and Evidence*

Besides the cost of capital in India is inordinately high compared to compare to the developed countries as the following table would demonstrate.

**Table-10 : Cost of Capital: Global Comparison**

| Country | 10 years Govt. Bond | Inflation (CPI) |
|---|---|---|
| USA | +2.16 | +1.7 |
| Japan | +0.41 | +2.7 |
| Euro Area | +0.68 | 0.5 |
| | | |
| Brazil | 12.5 | 6.3 |
| Russia | 12.44 | 7.6 |
| India | 7.91 | 7.3 |
| China | 3.67 | 2.1 |

*Source: The Economist-13th December, 2014*

## CONCLUDING THOUGHTS

Democracy thrives on in an open liberal environment and responsible dissent is the essence of democracy. The recent ideological debates are emblematic of the plurality of choices that we confront. However India needs to embark on new educational policy which is devoid of ideological fixation and foster industry academic interface, collaboration with reputed foreign universities with government playing a pivotal role both in pre & primary stage of education with adequate funding, for basic infrastructure and improve the quality of teachers and teaching. As John Maynard Keynes observes "The difficulty lies not in introducing new ideas but in replacing old ones". Hopefully the new education policy will abdicate obscurantism and Make India the super power of Asia through the Make-in-India campaign.

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