WHERE do children go after class eight was the question that haunted us while running the Hoshangabad Science Teaching Programme (HSTP) over thirty years (1972-2002) in rural government middle schools of Madhya Pradesh. Since the programme ran in a substantial number of schools – about 2000 – at the time (it was inexplicably withdrawn in 2002 by the Madhya Pradesh government) and the class eight test was a board examination, the issue was anything but minor.

Our concern was more pedagogical than developmental, though the two are inextricably interwoven. Specifically, the predicament was whether to assume that the class eight children would enter class nine in a secondary school, or was it more sensible to assume that she would not be pursuing education anymore and class eight ought to be assumed as the terminal stage of her education? The answer was critical in deciding the content and process of the middle-board stage – whether it should have substantial linkages with the secondary stage, or alternatively, stress a pedagogy more supportive to a child seeking some form of livelihood, assuming that she would effectively drop-off from the formal education system at this stage.

The prevailing situation was of course contradictory. The official syllabus, content and process was based on the assumption that each child would not only enter the secondary stage, but continue into higher education. But in actual fact, the drop-off rate by class eight in Madhya Pradesh at that time was above 70% (it is not much lower now). Of a hundred children admitted to class one, one could safely assume that seventy would not pursue secondary education. The question was – where do these seventy children go, and what and how should they learn?

What was true of HSTP in Madhya Pradesh then is obviously true for the entire country, then and now, though with degrees of variation between states. Nationally, only around 5% of our children in the 6-14 age-group, numbering around 200 million, enter the higher education stage, and presumably find vocations and livelihoods commensurate with their educational attainments. What then is the relationship between education and livelihoods for the staggering 95% children who do not participate in higher education?

The restricted nature of such a query that seeks to explore links between education and livelihoods, could justifiably provoke a counter question – isn’t the purpose of education larger than merely preparing children for the job market? If so, how does it matter at which stage they terminate their education, so long as at each stage they receive a liberal education of adequate quality that moulds their creative potential and shapes qualities of good citizenship, a viewpoint closely resembling that held by Tagore.

Admittedly, this larger purpose of education should never escape our vision, but it is equally important to keep in mind that the aspiration of every child in school, and of their parents, is that not only will education make a child ‘siyana’ (worldly-wise) but also help them find a decent livelihood. Whereas it would be improper to reduce the purpose of education to mere livelihoods, it would be equally wrong to assert that education has nothing to do with acquiring knowledge and skills suitable for a vocation and livelihood. Since Gandhi’s vision of education for a new India, in particular the nai talim formulations, stressed on linking education with work as a means for social transformation, the inherent difference between his and Tagore’s
approaches, exemplified by nai talim schools and Shantiniketan, led to a vigorous debate between these giants which ought to be cherished as a great intellectual heritage of our country.

Unfortunately, intellectual heritage rarely shapes our bureaucratic processes. Many years ago, it appeared that the powers that be chose to jettison Tagore and opt for Gandhi by dumping the term education from the concerned ministry and replacing it with ‘Human Resource Development’. In bureaucratic terms it only meant an inconvenience, like having to reprint different letterheads, but in educational and intellectual terms this was a significant departure, implying that henceforth, education would have the reduced purpose of linking it to the production of human resources for the labour market. Even though the move remains intriguing and questionable, unfortunately the opportunity it provided to experiment with Gandhian ideas linking work and livelihoods to education never materialized, rendering the entire exercise as merely cosmetic. Nor, as will be subsequently argued, did it result in ensuring that a majority of children become ‘educated’ human resources for development.

In order to uncover the massive exclusion in the education ladder, and hence to decent vocations, let us examine the relevant data from the primary to the higher levels. The 86th amendment of the Constitution makes education a fundamental right for children between the age groups 6 to 14. In other words, it is now mandatory for the state to provide eight years of education, free of charge, to all children of the country. Under the directive principle contained in the original Article 45 of the Constitution, this should have been achieved by 1960, since the Constitution directed that this objective be achieved within ten years from the date it became operative, which was 1950. (One cannot omit to mention, with a sense of anguish and anger, that the 86th amendment through the new Article 21A denies the child population of 0-6 years the fundamental right to Early Child Care and Education, ECCE).

So what is the situation 46 years after this deadline expired? The population of 6 to 14 year olds in the country, as mentioned earlier, is around 20 crore. Of these: the number of children in primary schools is around 12.2 crore; in middle schools it is around 4.7 crore.

That makes a total of around 17 crore children in the 6-14 age group who interact with the school. One says interact because the drop-off rate from class 1-5 at the primary, and class 1-8 at middle levels is 35.9 and 52% respectively, implying that of the 17 crore children enrolled in classes 1-8, over 8.5 crore drop-off. The conclusion is obvious; of the 20 crore children in the 6-14 age group, around three crore remain unenrolled and about 8.5 crore drop-off. Taken together, we have the staggering fact that more than half the children, around 11.5 crore, in the age group covered by the fundamental right to eight years of free education as enjoined by the Constitution, do not enjoy that right. That the excluded mainly belong to the socially marginalized communities like dalits, adivasis, OBCs and girls, as also the poor ought to be self-evident.

Such a major exclusion at the very base of the education ladder is the chief malady affecting the entire education system, tainting its higher forms. We are aware that millions of children in India are either not allowed to be born through foeticide, particularly the girl child, or die at an early age. Of those who are allowed to live, numbering 20 crore in the 6-14 age group, one can say that around three crore suffer
educational foeticide (as never enrolled) and nearly 8.5 crore are victims of educational infanticide (as drop-outs). This constitutes a demographic and educational catastrophe whose magnitude exceeds that of sub-Saharan Africa.

The situation obviously replicates itself as we go up the educational ladder:

* The number of students at the class 9 and 10 level in schools numbers 2.2 crore.
* At class 11 and 12, this number reduces by half to 1.1 crore.
* At graduate and post graduate level, the enrolment is around 76 lakh.
* Engineering/Technology/Architecture account for around seven lakh.
* Medicine has an enrolment of a mere three lakh students.
* Agriculture and Forestry together have about 55,000 students.

The filters on the way up on the education ladder therefore exclude the following numbers at each stage:

* From primary to middle level, of the 12.2 crore enrolled, about 7.5 crore are eliminated.
* From middle (class 8) to class 10, of 4.7 crore around 2.5 crore children are eliminated.
* Most astonishingly, of the 2.2 crore children in class 10, half of them, 1.1 crore children are filtered out by class 12! This should give us some idea about the degree of failure at the class 10 board examination, and the accompanying trauma for the sixteen year adolescents.
* It would appear that of the slightly over one crore students at class 12 level, a majority migrate to some kind of higher education, the general three year degree being the most dominant (nearly half). Taking all forms of post-class 12 courses, the total number, however, constitutes only about 7% of children that enroll at the primary level, and only around 5% of the total population of 6-14 year olds.

The conclusion is inescapable – of 100 children in the 6-14 age group, three never enroll, about 24 reach the middle school level, around 11 the class 10 level, around six the class 12 level, around four the graduate and post graduate level, and one-half enter technical areas like engineering, technology, architecture and medicine.

That means around 90 children out of 100, or around 18 crore children out of the total 6-14 population of 20 crore, are out of the education scene by class eight. Which brings us back to our original question – where do they go? What kind of livelihoods do they engage in? And what are the pedagogical implications of such massive exclusion? If only around five children out of 100 move into a graduate degree and above, what kind of knowledge and pedagogical links should each stage of education have with each other? Does it make sense to first determine the content of knowledge at the post-graduate level and then work backwards to what a child should learn at each stage? If 95 out of 100 children do not go beyond class 12, how should the content and pedagogy be determined up to class eight and class 12 levels? And what are the implications of this massive exclusion on manpower planning?

Before we examine the above questions, let us assume that in order to fulfill some basic norms of social justice, as also to ensure the availability of adequate, educated and competent workforce at each level, at least 25% of children in primary schools should move into higher education. What are the conditions required for that to happen? Given that the 6-14 population is around 20 crore, the movement of 25% amongst them would mean that instead of about one crore currently able to make their way into higher education around five crore should be able to do so.
Many factors would determine the movement of around 25% children to higher education, but here we shall limit ourselves to the question of finances. Though institutional capacity, governance systems, socio-cultural factors and academic considerations are significant in determining the progress in the educational ladder, public spending on education is obviously a key determining factor in deciding what kind of opportunities the marginalized sections would have in pursuing education at higher levels.

Beginning with the specific recommendation of the Kothari Commission in 1966, that the responsibility of the state should be to invest at least 6% of GDP in education, this figure has since guided discussion on the quantum of public funding in education. It is worth recollecting that the figure emerged from evidence the world over, that educationally sound countries have invested a minimum of 6% of GDP or more of public funds in education, irrespective of the kind of political system they operated under, capitalist or socialist.

To fast track this well-known debate about the public under-funding of Indian education, let us focus on the commitment in the National Common Minimum Programme of the present UPA government; that public funding on education will be raised to 6% of the GDP in a ‘phased manner’. The curious fact is that state funding on education has in fact reduced from 3.81% in the year 2003-04 to 3.52% of the GDP in the year 2004-05! It stood highest since independence in the year 2000-01 at 4.40% of the GDP, and has steadily declined since.

In terms of actual money, the budgeted estimate of expenditure of 3.52% for the previous year works out to around Rs 99937 crore. Of this amount, the inter-sectoral expenditure was the following – Elementary, Rs 40587 crore; Secondary, Rs 24990 crore and Higher, Rs 10383 crore (general, 9563 crore, technical, 820 crore); the rest for other purposes.

Various committees of the Central Advisory Board for Education set up by the UPA government in 2004 have recommended the following break-up of the 6% GDP allocation for inter-sectoral expenditure – Elementary 3%, Secondary 1.5%, higher general 1% and technical 0.5%. In 2004-05, elementary education received 1.43% of GDP, secondary 0.88%, higher general 0.34 and technical education 0.03% of the GDP, which together constitute a staggering under-spending compared to the minimum requirements.

At the post middle school level (age 14+), the institutional capacity (number of educational institutions) at present is the following:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Higher Secondary schools</td>
<td>1,37,654</td>
</tr>
<tr>
<td>Undergraduate colleges</td>
<td>9,166</td>
</tr>
<tr>
<td>Universities</td>
<td>304</td>
</tr>
<tr>
<td>Research Institutions</td>
<td>81</td>
</tr>
<tr>
<td>Engineering/Tech/Architecture</td>
<td>978</td>
</tr>
<tr>
<td>Medicine</td>
<td>759</td>
</tr>
<tr>
<td>Law/Management/IT etc</td>
<td>1,982</td>
</tr>
<tr>
<td>Teacher's Training</td>
<td>873</td>
</tr>
</tbody>
</table>

Leaving apart high and higher secondary schools, these institutions are able to accommodate just under one crore students, with the quality of education fairly mediocre in most of the undergraduate colleges and many universities. It is evident
that such an institutional capacity is woefully inadequate if around five crore students are allowed to participate in higher education. What kind of investments would that entail?

If the total expenditure on education were to be raised to 6% of the GDP in the coming year 2006-07, then based on GDP estimates the projected total amount available would be around Rs 1,94,960, instead of Rs 99,937 crore as indicated in budget estimates for the year 2004-05. If the inter-sectoral allocations follow the CABE recommendations, this would mean that elementary education would get around Rs 97,480 crore, secondary Rs 48,740 crore, higher general Rs 32,168 crore and technical around Rs 16,572 crore. It is curious that the projected figure for allocation to elementary education at 6% GDP is slightly higher than the financial estimates for the draft Right to Education Bill worked out by a CABE committee! And yet the bill is not being introduced in Parliament.

The impact on higher education would in fact be quite dramatic. With a population of billion plus, India has a mere 304 universities. In comparison, with around one-fourth of the population, USA has over 3000 universities. The higher general allocation would triple but the increase in the higher technical allocation would be dramatic, a twenty fold increase compared to the estimated expenditure for the year 2004-05. Taken together, this means that the number of universities could be increased to more than 500, and medical and engineering colleges, with added quality and infrastructure improvement in the existing ones, could potentially increase ten fold, to over 5000 each.

One can easily visualize the salutary impact this might have on the fierce competition for admission to these institutions, which lies at the heart of the raging controversy regarding OBC reservations to these institutions. Of course one must realise that mere availability of funds is not the only factor that would determine the expansion of institutional capacity, particularly in higher education; maintaining academic excellence in research and teaching involves many other complex contributing factors. This would nevertheless result in improving the prospects of a decent job for millions of youth.

Having examined the educational exclusion at different levels, and how it could be checked if only the present UPA government were to adhere to the NCMP promise to raise the education budget in a phased manner over the next three years of its term to 6% of GDP, let us finally examine the job market itself to get an idea where the youth at present find their livelihoods, and where more among them are likely to find employment once opportunities for higher education are opened up for a considerably larger youth population.

We come back to the original question: where do children go after class eight? As we noted at the beginning, around 2.5 crore do not go to secondary, and another 1.1 crore do not cross over from class 10 to 12. So a total of around 3.6 crore are out of the higher school system, with around 11.5 crore having already been eliminated by the middle level.

What about vocational and apprentice education? In 2001, around 15.5 lakh (157650) people were under-going training as apprentices in various forms of trade. Additionally, about 4877 Industrial Training Institutes could hold just over seven lakh trainees (710874). The enrolment capacity in National and Regional Vocational Training Institutes (NVTI/RVTI) and 6800 schools offering vocational trainings is
about 2360 and 979950 respectively. The Khadi and Village Industries Commission has a training intake of about 31310 persons. The combined intake, adding up all the above, works out to just over 18 lakh people (18,82,144).

This is just a fraction of the number of children not moving beyond class eight. Where else could they be predominantly going for a livelihood? We turn our attention to enterprises now. It is estimated that there are over three crore enterprises in the country (30348800). Of these over two crore (21375700) are personally owned and nearly ninety lakh belong to establishments. On an average a self-enterprise is assumed to employ 1.5 persons and an established enterprise around 5.7 persons. Which means over three crore people live from self-enterprises and over five crore people from established enterprises. Additionally, over 61 lakh (6163500) people find employment in nearly 14 lakh (1374174) working small scale industries.

All together total up to nearly nine crore people. Add to this those non-literates that remain linked to land as agricultural labour, or who go back to it after a few years of schooling or after class eight, and we account for nearly all the working labour of the country, including the lucky ones in the formal sector. It is, therefore, best to underline that in 2001 while the number of people employed in the formal sector was about 2.8 crore, those in the unorganized sector were a staggering 38.4 crore.

It should be obvious that all those in the formal sector would have had education beyond class eight. With about one crore children at class 12 level and another crore beyond class 12 level, plus those in ITIs and some of the apprentice trainees, a formal sector of around 2.8 crore seems a plausible number. For the rest who are out of or marginal to the educational system, livelihood means a struggle in some form of unorganized labour, and hence insecure livelihoods, which would include many artisanal forms in addition to agriculture.

The prime question is: if more youth are given an opportunity for higher education, as the increase of educational expenditure to 6% or more of GDP can ensure, is it guaranteed that they would find employment in the formal sector? A big hype has been created in the country that the high end service sector, particularly linked to the Information and Computer Technologies has opened up unimaginable vistas for the youth of the country, particularly in the private sector. This would imply that a corresponding increase in the appropriate educational institutions would prepare a larger resource pool for such jobs. Is this really true at the macro level? There might of course be more opportunities in some areas at a point of time, but taken together, have the total number of jobs in the formal sector increased overall? The following table reveals facts to the contrary; jobs in the formal sector have in fact decreased in the past seven years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>195.59</td>
<td>86.86</td>
<td>282.45</td>
</tr>
<tr>
<td>1998</td>
<td>194.18</td>
<td>87.48</td>
<td>281.66</td>
</tr>
<tr>
<td>1999</td>
<td>194.15</td>
<td>86.98</td>
<td>281.13</td>
</tr>
<tr>
<td>2000</td>
<td>193.14</td>
<td>86.46</td>
<td>279.60</td>
</tr>
<tr>
<td>2001</td>
<td>191.38</td>
<td>86.52</td>
<td>277.89</td>
</tr>
<tr>
<td>2002</td>
<td>187.74</td>
<td>84.32</td>
<td>272.06</td>
</tr>
<tr>
<td>2003</td>
<td>184.49</td>
<td>85.34</td>
<td>269.83</td>
</tr>
</tbody>
</table>
The declining trend is most visible in the public sector, but apparent in the private sector too. The period under review coincides with what is characterized as the ‘boom’ time for economic liberalization and privatization in the country. Yet the employment figures fail to match the hype about the Indian economic revival. The reasons for such a declining trend are many, but outside the purview of this article. It is however worth reflecting as to why the UPA government had to accede to the demand to introduce the Rural Employment Guarantee Scheme. The implications for increasing the intake in higher education, as linked to employment, are therefore enormous.

In the corresponding period, unorganized labour has increased from around 35.4 crore to 39 crore. The stagnation and declining trend in the organized labour and the increase of unorganized labour would suggest that corresponding changes in the education system must reflect the absorptive nature of the latter sector, and hence focus on the skills and knowledge to increase the productivity and human quality in this sector, at present absent in the current content, process and institutional framework of education.

So, while there may be need for a larger number of IITs IIMs, medical colleges and universities to meet the aspirations of the increasingly richer middle class population (with many of them aspiring to enter the labour market of countries other than India), there is greater need to increase the capacity of appropriate agricultural institutions, small scale industry training centres, ITIs for appropriate technologies and other low end service sector areas, which are providing some form of employment, even though insecure, to a much larger populace.

Likewise, the existing higher education institutions would require to get linked with those areas of employment that are available to most, and that seems to be the unorganized sector at present, unless massive economic changes are initiated to increase the formal sector, particularly its public component. Appropriate changes in the school curriculum might go a long way in arresting the non-participation, through the phenomenon of dropping-off of a majority of children at the middle and secondary levels, which is a grim reminder that the majority of children do not find the usual kind of education relevant to their lives and livelihoods.

As to changes in the curriculum, it is strange that the ‘discarded’ notions of Gandhi, which formed the basis of the nai talim formulations, should now seem so meaningful that the NCERT in formulating the National Curriculum Framework 2005 thought of revisiting them. Like the following: ‘…whatever may be true of other countries, in India at any rate where 80% of the population is agricultural and another 10% industrial, it is a crime to make education merely literary, and to make unfit boys and girls for manual work in after-life. Indeed I hold that as the larger part of our time is devoted to labour for earning our bread, our children must from their infancy be taught the dignity of such labour. Our children should not be so taught as to despise labour… It is a sad thing that our school boys look upon manual labour with disfavour, if not contempt’ (Collected Works 21:38-9).

One cannot end without pointing out that despite (or because of) such an exclusionary education system, the country was recently seized by the problem of a few thousand medical students opposing reservations, without sparing any thought for the millions from marginalized communities that are eliminated at the basic education stage itself, and hence can have no claims to seats at the higher level. Just
as an aborted female foetus has no claim to the mid-day meal scheme, a non-enrolled or drop-out child has no claim to the IIT-JEE exam or a post-graduate medical seat. The aborted foetus is dead and gone; it cannot feel or express anger. But the excluded child is alive, becomes an adult and requires a livelihood. The country better beware of the anger of such deprived youth. In sheer numbers the media supported medical students’ anti-reservation stir would appear inconsequential.

* The data used in this article comes from a variety of sources, like Selected Education Statistics, MHRD, 2003, Census 2001, UGC, Ministry of Labour etc, which have been compiled in the Manpower Profile – India Yearbook 2004, published for the Institute of Applied Manpower Research by Concept Publication, 2005.

Data related to expenditure on education, has been taken from the ‘Report of the Committee on CMP Program’s Commitment of 6% of GDP to Education’, NIEPA, November 2005.

(Reprinted from Seminar 563, July 2006)