

## Follies of allocation

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**It is obvious that spending on education can yield major economic returns. India must invest in this sector as it guarantees an all-round spinoff**

Subsidies are often part of public policy but in several cases can be used for helping vested interests and often result in misallocation of resources. A recent report clearly shows the major distortions that exist at the global level in respect of subsidies on fossil fuels. As it happens, these, in the case of the US, turn out to be 10 times more than the expenditure on education.

The recent publication referred to shows that the [International Monetary Fund](#) (IMF) estimates that \$5.2 trillion was spent globally on fossil fuel subsidies in 2017. This represents the equivalent of 6.5 per cent of the global Gross Domestic Product (GDP) in that particular year, representing half a trillion increase since 2015, when apparently China was responsible for subsidies of \$1.4 trillion, the US for \$649 billion and Russia for \$551 billion. These apparently were the largest subsidisers of fossil fuels.

What is particularly significant is the fact that in the Paris Agreement on climate change, carbon dioxide emissions were required to go down significantly through the implementation of renewable energy programmes,

which are a substitute for fossil fuels. However, with the subsidies in place now, there would be little incentive for renewables to replace fossil energy. The IMF report explains that fossil fuels account for 85 per cent of all global subsidies and that they remain largely attached to policies that are formulated at the domestic level. It also estimates that had nations reduced subsidies in a manner that would create efficient fossil fuel pricing in 2015, this would have lowered carbon emissions by 28 per cent, fossil fuel air pollution deaths by 46 per cent and increased Government revenue by 3.8 per cent of the GDP.

With a new budget being formulated in India, it would be important to look at how perhaps some subsidies, which might have pernicious impacts on the economy and particularly on the disparity of income between rich and poor, could be tapped and utilised for generating resources that essentially lead to a much higher level of human welfare. In the case of the US, the \$649 billion subsidies in 2015 were more than the country's defence budget and happened to be 10 times the federal spending for education. Of course, this becomes even more significant when it is shown that 80 per cent of the US could, in fact, have been powered by renewable energy if the amount spent on fossil fuel subsidies would have been removed and used for investments in renewable sources of energy.

The case of education is particularly relevant because it has been found that education is by far, particularly in a developing country, the most attractive means of investments by which human society could benefit. It was actually way back in the 1960s when a researcher by the name of Nalla Gounden carried out a detailed study in which it was estimated that net education capital formation during the period 1950-51 to 1960-61 actually provided an extremely attractive form of investment when compared with physical capital. And within the education system itself, it was found that primary education is the most attractive, providing a significantly higher return on capital invested than physical capital itself. The study, therefore, suggested a diversion of resources, which, perhaps, should take into account the levels of return that would be available from different levels of education as well as those for physical capital.

It is difficult to understand and certainly irrational as a form of overall macro policy that when it comes to impacts, for instance, on natural resources and the ecosystem services that human society and other species generally depend on, that we do not regard these as important. Similar concerns are also valid in the case of education policy. It is obvious that education has multiple benefits. It was found, for instance, in a detailed study that a 10 per cent increase in female primary education can be expected to decrease infant mortality by 4.1 deaths per thousand.

It is also significant that in the case of fertility, there is a direct link between the provision of health services and rising levels of maternal education, resulting in benefits both in respect of fertility as well as infant mortality. Studies have found that the influence of parental schooling operates through various medical services and changes in household behaviour as far as health is concerned, such as washing hands and using boiled water for drinking purposes. The study found that returns to investment in women's education far exceed those for men's, particularly for those women who obtain employment. When an addition is made to the health and fertility benefits in terms of externalities, the case for educating girls becomes substantially stronger.

Overall, there are various benefits that have been estimated through a set of detailed empirical studies, which can be attributed to expenditures and the activities related to education. It is obvious that spending on education is an investment with major economic returns. The empirical literature generally counts hundreds of studies that have estimated the economic return to investments in education and human capital formation as very attractive. Nevertheless, this is a subject on which considerable research has to be done in locations that define the context of socio-economic and other characteristics in any society. The impact of the quality of human capital is also particularly important, quite apart from the quantity which can be measured. This is where major reform in provision of education will be extremely important because mere expenditure by itself will not necessarily result in an improvement in the quality of education that is provided. There are also various empirical studies that show the link of education with economic growth.

Further, as mentioned above, education also reduces infant mortality. Finally, the more educated the parents, particularly the mother, the lower is maternal mortality. The influence of parental education is particularly significant for any generation and the benefits it derives are not only confined to that generation itself, but also

previous generations representing the level of education of parents. In a country like India, where education levels have remained pathetically low after seven decades, we need to allocate resources to this sector perhaps far beyond those for other investment options. And, subsidies, which often continue year in and year out, require evaluation both in respect of the social benefits they provide and the opportunity costs they carry.

*(The writer is former chairman, Intergovernmental Panel on Climate Change, 2002-15)*