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Looking towards 2050

Nitin Desai lays out the key inflection points that will affect India's development in the decades to come

The present parlous state of the Indian economy and the global economy inevitably focuses attention on the short term. But this runs the risk of diverting attention from long-term problems for which we need action today. Hence this month and for the next few months this column will focus on asking whether we are ready for 2050.

Why 2050? Mainly because nearly 50 per cent of the people who will be around in 2050 in India are already born. On a more personal note, in 2050 my sons will be roughly the age I am now and there is, therefore, some personal interest in guessing how different their world will be from mine.

Forecasting the future is never easy and getting people to accept these forecasts is even more difficult, considering that we do not even agree always on what happened in the past. But one cannot think ahead without some notion of what the future holds. At the same time, the future is not just something that you predict. It is also something that you can influence.

The predictability of the future values of any economic or social variable of interest depends on the predictability of the underlying causes. Some of these factors, such as our geography, are beyond our control; but they are by and large predictable and may not change much in a half-century time frame. There is one factor that we have treated as an element of nature that is subject to predictable change in our time frame — this is the climate of the earth, which is changing because of human activities, and the pace of change is expected to be far greater than anything experienced in the past. Given the tardiness of the global response, we may face major adaptation challenges even in a 2050 time frame in agriculture, coastal zone management, water resources, disaster risks and so on.

A variable becomes a little more predictable if its future values are influenced by the past and the stretch of time over which such links subsist. One can think of this as the momentum built into the variable so that its rate of change does not adjust very quickly. The best example of this is population growth. Every year all those who were around in the previous year are one year older, except for a small proportion who have passed on. A small number of babies are born and added to the previous year's numbers. Hence a comparison of this year's population against last year's in terms of, say, age distribution will show very little change. Large changes will show up only when a comparison is made over decades rather than years.

But momentum is not just about low rates of change. It is also about slowness in the pace at which this rate of change can go up or down. The impact of changes in fertility takes time to show up in the numbers born, because that also depends on the changes in the number of women in the reproductive age group. Past population growth may mean this number is rising even while fertility is falling — and that means that population growth continues for some time because of past population growth. This momentum is what makes population growth a little more predictable than many other socio-economic variables and a little less malleable than other socio-economic variables.

In forecasters' jargon, climate and population can be thought of as exogenous variables. But in truth they are influenced by policy. This is even more true of two other factors commonly treated as exogenous: the state of the world outside and technology.

What happens outside our borders is beyond our control and does influence our options. Forecasting the shape of the global polity or economy over such a long time span is a hazardous business. Yet some view on how to prepare for and even influence changes in the distribution of global power has to be part of the process of being ready for 2050. We need to identify what we need to do now to ensure our place in the global power game.

The other major source of uncertainty is the likely evolution of technology. Some steady improvement in resource productivity is implicit in any reasonable view of the future. What could upset calculations is some extraordinary development that opens unforeseen opportunities for totally new activities or raises productivity in existing activities by an order of magnitude (say 10 times) or more. But given the time lags in the spread of technologies, it is probably safe to assume that most of what we will use in 2050 is already known or is in the pipeline of innovation. In fact looking at the future may tell us where we need to direct our research effort for greatest effect.

The real challenge is to identify what we need to do to cope with what we cannot influence and, at the same time, what we can do to enhance our influence wherever this is possible. This matters most when a variable is at an inflection point where it changes direction or the pace of growth.

The key inflection points for India in the next four decades are likely to be the following:

- The rural-urban balance will shift decisively and, in fact, the absolute size of the rural population will start declining by the middle of the next decade.
- The big bulge in the working-age population will be in North India and that is where non-agricultural jobs will have to be created,
- The high-saving households of the South will save less as the proportion of the aged increases sharply.
- The energy economy will be radically different from the present structure of centralised electricity and liquid fuel-based transport.
- The rise of China and the loss of dynamism in the West will shape our diplomacy, defence and international economic policy.
- New technologies that replace skilled labour with computer-controlled machines will dull the edge of comparative advantage that populous Asia enjoys.
- Resource constraints will put a huge premium on resource-saving technologies.

How ready are we for these inflection points? What do we need to do now to prepare for these shifts? Over the next few months, this column will try and answer these questions.

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