"India 2020. A Vision for the New Millennium", by A.P.J. Kalam with Y.S. Rajan, Viking, 1998, Rs. 395/-.

Delhi, circa 1998. The richest state and the capital of the republic of India. In the aftermath of the monsoon rains, the people of this megapolis are braving overflowing sewers, unsafe tap water, pot-holed roads. In addition to the regular summer scourges of dysentery and dengue, this year there was also dropsy. And this is the capital city. Much pampered and cited as a showcase. But never mind the dengue or dropsy; we must feel good because we have just exploded the Bomb and can now be counted in the world.

Cut to 2020. India has attained the position of the fourth largest economy in the world from the current fifteenth position. Poverty has been eliminated (or redefined statistically!), our literacy levels have reached those of China today and we are the world's leading producer of steel, aluminium, cement, automobiles, software etc. A 'developed' India, a literate and healthy India; a global power in short. This constitutes the Vision which India's most famous scientific personality has. Unfortunately, it is just that, a vision. And a pretty distorted one at that.

The book is largely based on the report of the Technology Vision 2020 Task Force set up by the Technology Information, Forecasting and Assessment Council. 500 experts with unique experience in industry, academia and administration prepared this blueprint for progress and presented it to the Prime Minister in 1996. The book starts with the premise that though India's GDP is only 1.31% of the total of the Big League Nations (those with a GDP greater than \$ 100 billion), it can become 4.1% by 2020. And how is this achieved? Simple, just postulate a growth rate of 7.5% for 1997-2001, 8% for 2002 to 2006 and a stupendous 13% for 2012-2020! Put in the numbers, assume average growth rates for the rest of the world to be in the range of 2-3.5%, and bingo, we have become developed! Unfortunately, this elementary mathematical exercise is not necessarily reality.

The book looks at several sectors of the economy and forecasts how they will change in the next two decades. Agriculture, materials, manufacturing, chemicals, services and strategic industries. In each of these, the authors first detail the existing scenario and then outline where we can be if only "we work hard with a long term vision". Unfortunately, the there seems to be little connection with reality in the projections. For instance, in the section on steel, it is mentioned that our present production is 17 million tonnes which will magically increase to 31 million tonnes by 2001 and 66 million tonnes by 2011! Now anyone who reads the newspapers will be aware of the kind of recession which steel (along with other infrastructural industries) are facing. In this scenario, you have to be either Rip Van Winkle or Houdini to even think of achieving such a scenario. (As an aside, there is a distinct sloppiness with figures in the book. On pg. 92 the current steel production is 17 million tonnes while on pg. 110 it becomes 24 million tonnes! Or that the population of Finland is reported to be 0.5 million when it is actually 5 million. These kinds of errors in a book which is heavy on projections and figures is unpardonable)

The whole vision is essentially technocratic in nature. Yes, technologies play a vital role in the development of a nation. But to think that technological advancement implies economic development is a fallacy which we can do without. One does not need to look far to see the affect of technology on the lives of a majority of the people in our country. This year, because of a variety of factors, large parts of India witnessed unprecedented floods. BY a crude estimate, some 15 crore people in UP, Bihar, West Bengal and Assam were affected. Several thousand lives and property worth thousands of crores were lost. What have we been able to do with all the supercomputers used for meteorological prediction or the remote sensing satellites to be able to forecast the floods? Leave alone the high tech, monitoring the flow of river waters at various points, regularly could be useful and could provide valuable and life saving advance warnings in some cases. Have we been able to do even this much?

Our achievements in health and education are even more shameful. In 1990, we spent 6% of our GDP on health while China spent only 3.5%. Yet infant mortality in China was less than half that of India while maternal mortality was about a sixth! In 1994, we spent 3.7% of our GDP on education as opposed to 1.9% of China and yet the literacy rate in China is 82% compared to our 52%. Even tiny Cuba has infant and maternal mortality rates which are a fraction of ours. The point is that it is not just technology or even the total amount of resources spent on such "public goods" which determine well-being. A visit to any primary health centre or a primary school in a village is enough to tell us what the problem is. On the other hand, superspeciality hospitals in the metros with the latest gizmos and institutes of information technology are proliferating. Whether it is the IITs or the research institutes or Navodya Vidyalas, the philosophy is to promote centres of excellence in a sea of degradation. Let the existing schools, health centres and universities rot and die. Never mind the colossal amount of resources already invested in them. What we need is to start afresh and build more ivory towers. This kind of pernicious thinking seems to proliferate in the government at all levels.

To be fair to the authors, they do point out at various places that growth without distributive justice is meaningless. They feel that the technological changes should bring prosperity and well being for all of our people. But apart from these homilies, there is precious little in the book which indicates how this is going to be achieved. To have a one point programme of successfully building missiles with a dedicated programme and huge amounts of resources (details of which even the parliament is not made aware of for security reasons!) is of course creditable and high profile. But to be able to provide safe drinking water to a majority of the population is unglamorous and in a sense much more challenging.

The nineties have been a decade of the demise of visions. The collapse of the Soviet Union and the growth of "rat catching socialism" in China have left the Left bereft of any utopia to look forward to. On the other hand, the recent East Asian crisis has pulled the rug from under the Bank-Fund types. What we do need is a vision which will drive people. Never mind if it is utopian. It will at least be a vision. But what we do not need is a pseudo-utopian vision which claims to be based on hard facts and analysis as this particular one does. One can only suggest to the authors: Get Real!