

Need to develop a national roadmap for science: CNR Rao

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Eminent scientist and Bharat Ratna awardee Dr CNR Rao turned 82 last month but his passion for science continues with the same enthusiasm. He still spends a lot of his time publishing papers, manages without mobile and travels for global science meets. In an interview with India Science News Service (Vigyan Prasar, DST initiative) Dr Rao speaks about the challenges that envelop Indian science and the roadmap that should be charted.



How do you see the current position of Indian science? Has it improved or deteriorated?

The current position of Indian science may be summarized as follows. There is not much significant change in the status of science in the last decade or so. There are individuals who have done very well in some areas, but the contributions of institutions, by and large, have roughly remained the same. In certain areas such as Nanoscience, India has shown much promise and we have been publishing a considerable number of papers in the last five to six years. I must, however, say that in the world of science, India is certainly not in the top five countries. Our objective should be to be in the top five in the world.

Why has India not been able to progress? What are the major challenges?

There are several reasons why we have not progressed. First of all, we have not invested enough in science, and our industry has to contribute significantly to this effort. Other than funding, it is important that our institutions as well as individuals take up challenging problems and work much harder. I believe that, on an average, we do not work as hard as scientists in neighbouring Asian countries.

There is need to develop a national road map for success in science.

What should be done to boost the research landscape of the country?

To boost the research landscape in the country, it is desirable that the Government of India increases the contribution to science to at least 1½ or 2 percent of the GDP in the next year or two. The scientific community has to decide on the priority areas in which they will make serious contributions.

It should be possible for the country to fund select institutions in a big way where there will be with little or no bureaucracy.

In addition to dedicated hard work by scientists and improved funding, it is necessary that the value system changes in such a way as to make science and scholarship important and crucial elements for progress of society. Right now, I do not see science or scholarship getting prominence in our value system. We should not get carried away by so-called big science and ensure that we get real benefits from small science. Let us not forget that it is small science that has contributed to our overall welfare.

Has India lost by not being able to become a member of NSG

It would have been nice if India had become a member of the NSG, but I do not think that it is a calamity. I am sure that India will become a member in the near future. We can still do many things as an important nuclear power in the world.

Should politics be kept outside the realms of science?

Politics has to be outside the realm of science, but unfortunately this is easily said than done. Politicians do run the country and we have to work with them. A serious problem that I see is that in most of the state universities there is direct interference from politicians in running universities and other institutions. This has to be prevented.

How can Make in India phenomenon be a success in India?

India has to become a great global power in science and higher education. We have no choice. If India has to be a modern economic and industrial power, it also has to be a scientific power. No country has become an economic power or an industrial power without being highly advanced in science and technology. Look at U.S, China, South Korea and other examples.

I feel that with adequate support of the government, industry and society, there is nothing to prevent us from becoming one of the top countries in science in the next 10-15 years. I hope that we will do so. I will not be alive when that happens but my prayer is that such a thing happens.