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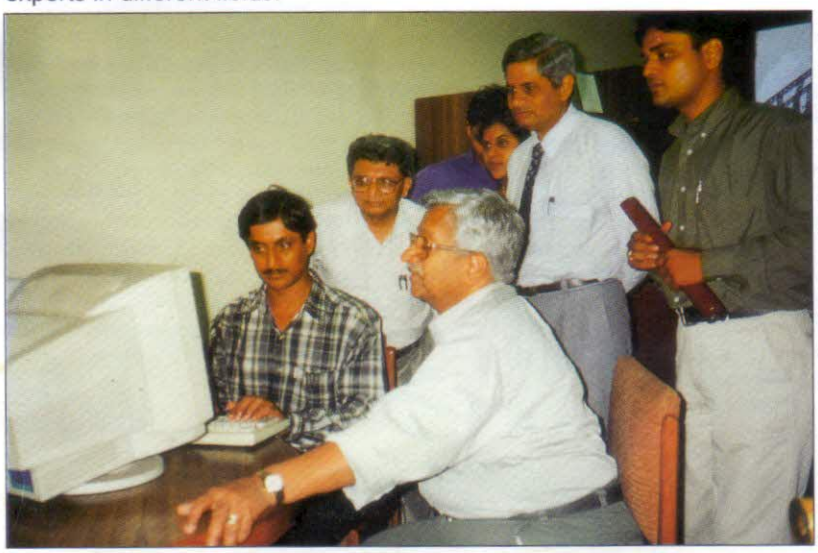
VP News

Inside

CHAT SESSIONS

Chat sessions on Vigyan Prasar Homepage www.vigyanprasar.com or www.vigyanprasar.org have turned out to be quite popular since we had the first one on May 26, 2001. The one hour on-line interactive chat session on different S&T topics are, by and large, held every fortnight. On June 06, 2001, the topic of the chat session was "Ham Radio in India". The expert was Shri Sahruddin, President, Amateur Radio Society of India, himself a ham of long standing and one who has contributed a great deal in popularising ham radio in the country. Shri Sahruddin answered some 25 questions on various aspects related to ham radio — from very elementary to those related to policy and technical details.

On July 13, 2001, Prof. V.S. Ramamurthy, Secretary, Department of Science & Technology and Chairman, Governing Body of Vigyan Prasar, answered questions on the theme "Thinking Scientifically". The response was overwhelming. Prof. Ramamurthy answered over 30 questions in one hour. As a matter of fact, due to paucity of time, questions from several participants could not be answered. We have received several questions through e-mail as well, which Professor Ramamurthy will answer later on. It is interesting to note that the participants ranged from the very young to grown-ups and experts in different fields.



Prof. V.S. Ramamurthy replying to the queries during the chat session. Also seen on are Dr. V.B. Kamble (second from left) and Shri Anuj Sinha, Head, NCSTC (fourth from left)

The next chat session would be on August 03, 2001, Friday, 11.00 a.m. and the expert will be Dr. Yatish Aggarwal, Doctor and popular Health Columnist. He was our expert for chat session on June 09, 2001 too. Due to public demand, Vigyan Prasar will be organising one more chat session with Dr. Aggarwal on the topic "Health and Medicine". Please do log on to www.vigyanprasar.com (or www.vigyanprasar.org).

Shri Sahruddin, President, Amateur Radio Society of India

In case, you are unable to access our homepage, you can e-mail you queries in advance or immediately after the session to vigyan@hub.nic.in, www.vigyanprasar.com or www.vigyanprasar.org.

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... think scientifically, act scientifically ... think scientifically, act scientifically ... think scientifically, act...

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Human Development – We still have a long way to go

Human development of a country does not necessarily imply the rise or fall of its national income. It is about creating an environment in which people can develop their full potential and lead productive, creative lives depending on their needs and interests. People are the real wealth of a nation. Development would hence relate to expanding the choices people can have enabling them to lead lives they value. It is much more than economic growth, which though important, is only a means of enlarging people's choices. How does one enlarge these choices? Well, it is through building capabilities – the range of things that people can do or be in life. The most basic capabilities that need to be built are those that would help people lead long and healthy lives, be knowledgeable, have access to resources needed for a decent standard of living, and help them participate in the community life. Obviously, in the absence of these, many choices are just not available, and many opportunities life remain only a distant dream.

The unprecedented gains in the last century in advancing human development and eradicating poverty came largely from technological breakthroughs. In India, over a period of 25 years, i.e., from 1975 to 2000, life expectancy at birth went up from 50 years to 62 years. This became possible through development of medical technology – vaccines and antibiotics. The green revolution helped treble the agricultural production since independence. This was made possible through the technological breakthroughs in plant breeding, fertilisers and pesticides during the sixties. However, there is no gainsaying the fact that development and technology enjoy an uneasy relationship. Quite often, development through a technology comes at a high cost, for example, chemical fertilisers having an adverse effect on the fertility of soil. However, one cannot overemphasize the fact that technology is a tool for growth and development.

While it is true that the modern technology can offer solutions to many of the problems of developing countries including ours, it is not a panacea for improvement of quality of life and removal of poverty. This is illustrated by the fact that a third of world's population is still without electricity and an equal number does not have access to low-cost essential medicines! Where do we stand in the world order today?

We now rank at 115 in the world Human Development Index (HDI) – elevated from the low human development group of countries last year to medium human development as listed in the Human Development Report 2001 (HDR 2001) brought out by the United Nations Development Programme. Incidentally, HDI is a summary of human development. It measures the average achievements in a country in three basic dimensions of human development, viz., a long and healthy life, as measured by life expectancy at birth, knowledge as measured by the adult literacy rate and the combined primary, secondary, and tertiary gross enrolment ratio, and a decent standard of living as measured by the per capita Gross Domestic Product. Last year we ranked at position 128. Is our elevation to rank 115 this year an ocassion to celebrate? Not really. As the HDR 2001 says, 21 per cent of India's population is malnourished and 53 per cent of its children are underweight. 35 per cent of Indians live below poverty line and an equal number does not have access to essential drugs. 410 women die per 100,000 child births. Adult literacy still stands at 56.5 per cent. Infant Mortality Rate (IMR) still hovers around 70 per 1000 live births, much higher than several other developing countries. At the same time, immunisation against diseases such as tuberculosis and measles continues to be poor. In India, only 55 per cent children are immunised against measles and 72 per cent against tuberculosis. As a matter of fact, some of our neighbours in the sub-continent have better HDI rankings.

The report also has come up with a Technology Achievement Index (TAI) for 72 countries. This is in view of the fact that the theme for this year's report is "Making New Technologies Work for Human Development". Though TAI is a measure of country's progress in global technology, it is aimed at assessing the creation and diffusion of technology in the society. On TAI, India ranks 63, at the bottom of the group of countries described as "dynamic adapters". Why is it so? The reason is that the new technologies (say, information technology) and hence the New Economy still needs old-world's infrastructure like electricity, phone-connections, and above all skilled human resources, which are still in short supply in our country. We may have the world's seventh-largest number of scientists and engineers, but, we also have 44 per cent of adult illiteracy and an average of 5.1 years of education, as HDR 2001 says.

HDR 2001 notes that throughout history, technology has been a powerful tool for human development and poverty reduction. Today, people all over the world have high hopes that new technologies such as information and communication technology and biotechnology will lead to healthier lives, greater social freedoms, improved knowledge and more productive livelihoods. The possibilities are great – new technologies and globalization are creating a "network age". This has the effect of simultaneously changing the way technology is created, diffused into society and used. Surely, no country at any level of development, can afford not to participate in these networks. But, what is important is to weigh the benefits against risks of any new technology. A case in point is the possible risks posed by the transgenic crops. It is imperative that we have a thorough risk assessment of the consequences of development of transgenic crop varieties, or any other new technology for that matter. In any case, basic standards of safety should never be allowed to be breached by new technologies. Further, we must ensure that there are no lax standards for poor societies and another set of stricter standards for rich societies.

The task before science communicators is now cut out. It is essential to plan campaigns to educate people as regards the adoption of new technologies. We shall need to initiate debates and communicate through different means and modes to the people the benefits of new technologies and accompanying risks if any, how safe they are and what could be the strategies for their diffusion in the society. At the same time, we shall need to watch if the new technologies have been helping people lead a long and healthy life, have access to knowledge and information, literacy, and also enjoy a decent standard of living. Let us start discussing among ourselves and in groups the ways and means of achieving it in a foreseeable future. Let us sit and think how to go about the same. Do write to us your views in this regard. We still have a long way to go.

❑ *V.B. Kamble*

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