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Monthly Newsletter of Vigyan Prasar

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VP News

Inside

Ham Radio Promotional Activities at Vigyan Prasar

Vigyan Prasar has been organizing lectures and demonstrations on amateur radio (Ham Radio) on a continuous basis with an aim to make the younger generation aware about this wonderful scientific hobby. On October 19, 2001, nearly two hundred school children from various age groups along with their teachers from the Bal Bharti Public School, Ghaziabad, participated in such a programme. Students got hands-on experience in operating the ham radio set up and talked to other ham radio stations. The demonstration programme was assisted by VU3FUN, VU2OB, VU2XD and VU2SUH. A talk on amateur radio was delivered by Shri Sandeep Baruah, VU2MUE.

Similar amateur radio promotional programmes have been organized for the following schools and institutions: Mother International School (on November 3, 2001), IIT (on November 4, 2001), Guru Harkishan Public School, India Gate (on November 12, 2001).

Vigyan Prasar had assisted the celebration of 44th Jamboree On The Air (JOTA) of Scouts & Guides on October 20 & 21, 2001. Scouts & Guides from Kendriya Vidyalaya (KV) Air Force School, Tughlakabad along with their teachers visited the Vigyan Prasar Ham Radio facility and celebrated by talking to their counterparts in different parts of the world using Ham Radio.

Ham Radio Demonstration programme at Bal Bharti Public School

VP has also taken up the task of bringing hams in Delhi together once a month for a periodical interaction and to evolve a programme for disaster preparedness. Till now, seven get-togethers have been organized by Vigyan Prasar in which talks on topics of interest to radio amateurs have also been arranged. The get-together on September 16, 2001, was hosted by Bharat Scouts & Guides National HQ, in which Shri Atanu Dasgupta (VU2ATN) delivered a talk on "Homebrewing". Shri Rahul Kapoor (VU2YK) and Shri Rakesh Kapoor (VU2RAK) hosted the next meet of the

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

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Editor : Dr. V.B. Kamble

Save That Drop

Water is a resource that defines not just the limits of sustainable development, but the very survival of human beings on this planet – the only planet known that supports life. The supply of fresh water is essentially limited, and the demands on available quantity of water have already reached precarious proportions. While the global population has tripled over the past seventy years, the use of water has grown six-fold! Only about 2.5 per cent of all water on the planet is fresh water which is essential for all human purposes – but only about 0.5 per cent is accessible ground water or surface water. World-wide, 54% of the annual available fresh water is being used at present. Assuming that the consumption per person remains steady, by 2025 we could be using 70% of the total because of population growth alone!

The World Population Report 2001 estimates that by 2025, as many as 3 billion people from 48 developing countries (India included!) will suffer from levels of water scarcity which may be acute to desperate! The world population today stands at 6.1 billion – twice the number it was in 1960. In 2000, 2.1 billion people from 61 countries were using less water than a basic daily requirement of 50 litres per capita per day. By 2050, 4.2 billion people accounting for about 45 per cent of the humanity will be living in countries that cannot meet the requirement of 50 litres of water per person each day! Incidentally, this minimal standard does not take into account other necessary uses of water – for agriculture, protection of ecosystem and industry.

There is no gainsaying the fact that the burden of the acute shortage of water is borne by the poor, especially in the far-flung rural areas. We continue to read the stories of our women in the rural areas trudging for several hours just for a pitcher or two of drinking water! The situation is worse in summer months. Cities are no exception either. With urban population increasing as a result of migration from rural areas, the municipal taps go dry for longer and longer periods every passing summer.

Why have we landed up in such a grim scenario? The reasons are not difficult to find. Despite the fact that the available ground water is limited, it has been recklessly exploited over the years. We have also forgotten the traditional methods of rainwater harvesting, with few attempts to recharge the aquifers. Many countries, including India, use unsustainable means to meet their water needs. If more water is drawn than is replenished by natural processes, the excess is essentially "mined" from reserves. Agriculture and industry, in particular, divert large amounts of water with disastrous effects at times. Finally, there is the additional problem of pollution, especially in the developing countries like India. 90 per cent of sewage and 70 per cent of industrial waste is dumped annually into the surface water sources, especially the rivers and lakes. Alarming, indeed! No technology can increase the amount of fresh water available naturally. The quantity of water available today is the same as it was some 2000 years ago, when the world population was barely 3 per cent of today's 6.1 billion! Purely technological solutions to water scarcity are unlikely to have any significant effect. Desalinized sea-water is expensive. It now accounts for less than one per cent of the water people consume.

What is the solution then? Protecting water supplies from pollutants, restoring natural flow patterns to river systems, managing irrigation and chemical use, and curbing industrial pollution are vital steps to improving water quality and availability. In addition, what is needed is the revival of traditional water harvesting techniques. Surely, it would be too much to expect Government alone to accomplish much. It would require a continued joint effort by the Government and the people - especially through those non-Government organisations which are already engaged in promoting traditional water conserving techniques. This is only one aspect. The other aspect concerns concerted efforts at controlling the growth of population, educating the people on the importance and use of conservation techniques, and minimizing the pollution of water. True, this is a formidable task and a formidable challenge of the present century to science communicators. Indeed, this needs to become a part of the People's Science Movement. Let us save that drop of water we have borrowed from our children!

❑ *V.B. Kamble*

Editor : V.B. Kamble

The team : Vigyan Prasar Staff

Vigyan Prasar

Address for correspondence : *C-24, Qutab Institutional Area, New Delhi-110 016*
Tel. : 6967532; Fax : 6965986
e-mail : vigyan@hub.nic.in
website : http://www.vigyanprasar.com