environment of the students both of general category and reservation category is the same during college education.

A student of final year undergraduate programme has to prepare for the entrance examination based on the syllabi issued by the concerned institutes for master's degree programme admission. A good preparation needs, on an average, a period of one year. So, he/she starts preparation at the end of his pre-final year. During this period, most of such students pay very little attention to their bachelor degree syllabi, semester examinations and make a rough study in their UG course. In degree programmes of agriculture, medicine, veterinary science as also in engineering, important courses come during pre-final and final year. If the student gets admission for master's degree after good preparation, well and good. If not, a serious condition arises as he is an ill-equipped student in his UG degree because of his careless study in pre-final and final year courses. So, if the syllabi are framed in such a way as to include more on general aspects along with the area of specialization, this can be averted.

The same problem as in undergraduate final year again arises in the final year master's degree programme. The master's degree final year student starts preparing for Ph D entrance examination from the beginning of his final year. Because of this preparation, the student chooses a relatively simple topic for his thesis work which needs less effort. This adversely affects his extent of specialization. In order to avoid this type of problem, research institutes can start integrated Ph D courses, where a UG student can join Ph D after clearing one good entrance examination. Very few institutes like IISc, NCBS and IIT offer integrated Ph D programmes, with limited number of seats. Such integrated Ph D courses have to be started at other institutes in our country so that the drain of students out of the master's degree and doctoral degree courses can be averted. A student, entering the integrated Ph D programme over a period of a minimum of five years, can concentrate fully on his area of specialization without diversions like preparing for entrance exam, so that it may be possible for him to submit a thesis of international impact during his Ph D itself.

Persons in administration, education and research institutes should evolve strategies that give more importance to knowledge in admission and avert these kinds of problems.

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Current Science

P. Balaram has given a short history of *Current Science*[1]. We learn that at the initial stage the journal got support from the editors of *Nature*, *Science* and *Die Naturwissenschaften*. Presumably the founders of *Current Science* wanted to have a journal like them.

In spite of many positive points (such as competent and hard working editorial team, regular publication, peer reviewers and referees, online availability), *Current Science* has not achieved the same international standard as *Nature* and *Science*. According to my modest knowledge, the following steps can be taken to achieve the goal:

- Contrary to *Current Science*, *Nature* and *Science* have an international editorial board. *Current Science* should not hesitate to have a few competent and well-known foreign scientists in its team.
- Like *Nature*, *Current Science* needs its editorial offices throughout the world. As a trial some offices can be established within Asia and Africa.
- Invited articles from famous persons such as the Nobel Laureates, Presidents of various Science Academies and Physical Societies, etc. should be published.
- Special issues can be brought out at regular intervals.
- To make possible sending short communications such as 'Correspondence' by e-mail.
- The journal is not the responsibility of editors and editorial team only but also of the Indian scientists. They should show a sense of patriotism by publishing in *Current Science* instead of in journals abroad.

I hope that more readers will give feedback to the editors to raise the standard of *our* journal. Also it will be worthwhile if the editors come forward to discuss their problems.

1. Balaram, P., *Curr. Sci.*, 2003, **85**, 837–838.

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Save O_3ur sky

The world has come far, but not far enough, on solutions to stratospheric ozone depletion. According to the United Nations Weather Organization, the ozone hole over the Antarctic this year has reached a record size of 10.8 million square miles. According to the World Meteorological Organization (WMO), measurements over and near Antarctica show that ozone has decreased more rapidly this year than in previous years and that the size of the ozone hole is now as large as it was in September 2000.

Ozone is rare in our atmosphere, averaging about three molecules of ozone for

every 10 million air molecules. Still, a layer of ozone in the stratosphere is protecting the earth by absorbing 99% of the deadly ultraviolet rays radiated from the sun.

India's per capita consumption of ozone depleting substances is at present less than 3 g: it did not cross 20 g between 1995 and 1997 as against 300 g permitted under the Protocol. India is self-sufficient in production of chlorofluorocarbons (CFCs).

To understand the importance of ozone-layer depletion at the stratosphere, and to create awareness, activity plans to bring maximum relevance in the content at the local level, the Gujarat Council of Science City (GCSC) conducted a one-day workshop on ozone awareness at Gujarat Science City, Ahmedabad to mark the World Ozone Day on 16 September 2003. The workshop was organized in collaboration with the Indian Association for Chemistry Teachers (IACT).

The United Nations has designated 16 September as World Ozone Day, with the goal of continuing the awareness and monitoring the condition of the ozone layer surrounding the earth. The theme for this year's celebration is 'Save O_3ur sky: There is a hole lot more to do for our children'.

On 19 December 1994, the United Nations General Assembly proclaimed 16 September the International Day for the Preservation of the Ozone Layer, commemorating the date in 1987, on which the Montreal Protocol on Substances that Deplete the Ozone Layer was signed. India signed the Montreal Protocol on 17 September 1992.

The workshop at GCSC focused on the chemistry of the ozone layer and the ozone-depleting substances (ODS). About 50 senior secondary school teachers and science communicators from different schools and colleges participated in the workshop that aimed to reiterate the commitments of the individuals and offered an opportunity to focus attention on the protection of the ozone layer.

Inaugurating the workshop, Manubhai Shah (Chairman Emeritus of Consumer Education and Research Centre, Ahmedabad) said, 'We are still using coal for generating electricity which is the main cause behind the depleting layer of ozone'. There is an urgent need to increase the awareness of government officials, business leaders and the public on the current state of the stratospheric ozone issue, informing them of the new technologies available in today's market place. Shah also illustrated how an appropriate mix of policies and incentives can motivate actions to mitigate ozone depletion.

Box 1. The price of ozone depletion.

For humans

Increase in skin cancer, snow blindness and cataract.

Less immunity to infectious disease, malaria, and herpes.

For plants

Smaller size, lower yields, increased toxicity and altered foam.

For marine life

Reduced plankton, reduced juvenile fish, and larval crabs and shrimps.

Box 2. Global problem and local solutions

- Do not buy products which are likely to contain CFCs.
- Use cotton mattresses and pillows instead of foam.
- Use conventional spray pumps for insecticides, rather than aerosol cans.
- Avoid using styrofoam glasses and plates and use traditional leaf plates or steel plates and glass vessels.
- Ensure that CFC in the compressor of a refrigerator is not released into the atmosphere.
- Turn-off appliances that are not being used; saving energy means coal-burning and other types of power plants will emit less pollution by not having to produce as much electricity.
- Use water-based paint instead of oil-based paint.
- Plant trees to help clean the air! Do not burn leaves or trash.

D. V. Prabhu (General Secretary, IACT), spoke on the chemistry of ozone formation and depletion in the stratosphere. Describing the genesis of the ozone-depletion process and the basics of the Montreal Protocol, Prabhu analysed the processes that are mainly responsible for the depletion.

Although climate change and urban smog have recently taken centre stage on the environmental platform, the issue of stratospheric ozone depletion remains a serious problem that continues to cause harm to human health and damage to the earth's ecosystems (Box 1).

Sunil Jacob (Centre for Environment Education) explained the different techniques and methods to educate children on the importance of ozone layer. In an interactive manner, he delivered an ozone lesson to the participating teachers and science communicators.

Sanjay Thakar (Shri M. N. Shukla Education College, Ahmedabad) talked about the concept and scope of an ozone-friendly society. Discussing this global problem, he also suggested some local solutions, which can be taken up in the regular school curriculum. He outlined some student-friendly activities like display, bulletin-board, elocution, painting, games, visits, exhibition, rally, drama or skits, etc. (Box 2).

T. J. Vinu (GCSC) described the role of activities in the regular school programmes. During the open-house discussion along with participants and resource persons, he finalized one complete ozone awareness package by integrating several activities for a group of schools. Each group along with GCSC and IACT can undertake the activities.

Narottam Sahoo (GCSC) discussed how to behave as an ozone-friendly citizen and to bring about awareness at every step. The workshop ended with a puppet show on the theme of the workshop by volunteers of GCSC.

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