

In this issue

Wildlife in Print Media

Wildlife conservation has evolved into a specialized field. While the design of conservation programmes can be left to experts, the success of the programme depends on pro-wildlife attitudes among people. To create awareness and knowledge of actionable issues related to wildlife conservation, media plays a large role.

India has a newspaper circulation of close to 300 million. What has the Indian print media done to actively catalyse this change? A General Article on **page 564** in this issue presents a study of 766 news items published in about 50 newspapers from January to May 2011.

The authors examine the species and issues reported, analyse the content and nature of the news and variations among regions and coverage type. They note that Indian newspapers have a tendency to report large, endangered, terrestrial mammals and do not pay adequate attention to most other wildlife issues.

While media reflects the cultural, historical contexts of the times, media is also a tool for provoking social and cultural change. Thus, the General Article is a wakeup call to media houses to make wildlife news less skewed.

Trends in Pharma Patents

The growth of the Indian pharmaceutical industry is phenomenal. Thanks to the Indian Patent Act 1970, there was a boom in the production of generic drugs and healthcare systems. As a result, patients, not only in India but also in many other parts of the world, benefitted immensely. But Indian pharmaceutical companies did not invest in R&D.

The Patents (Amendment) Act, 2005 came at a time when disciplines such as biotechnology and bioinformatics were paying research dividends. Indian companies started licensing arrangements with multinational companies to develop new drugs. The number of pharma patents published increased.

But it also led to an increase in drug prices. The Indian Government reacted and set up compulsory licensing of a

few drugs in 2012. The pharma industries followed the trend by voluntary licencing to bring in new drugs into the Indian market. This led to a decrease in pharma patenting. During 2013–15 there was not a single patent!

A Research Article on **page 725** in this issue examines the changing patterns of pharma patent filing through the years. The authors compare and contrast the Indian trends to global trends. They also look into the changing patterns of diseases and the emergence of life style diseases as a major cause of morbidity and mortality. Patents for drugs useful for cancer, diabetes, inflammatory, hypertensive and hyperthyroidism drugs, will determine the financial bottomline of pharmaceutical industries in the coming years – a trend that has become obvious in the past few years. Unless there is a surge in research and development of plant and marine based drugs, India will remain a generic drug producer for the world. Policy makers and the pharmaceutical industry may need to take the necessary steps so that we are not too out of step with the developed countries.

Offshore Wind Energy

Unlike solar energy, tapping wind energy is a noisy affair. So wind farms need to be located away from habitations. Far away on hills or in the sea.

Offshore wind energy development has advantages over onshore ones: powerful and consistent winds, and easy transportation of larger capacity turbines.

Scientists from the National Institute of Ocean Technology, Chennai, identify potential locations, select wind turbines of capacity suitable for these locations and suggest feasible incentives to promote offshore wind energy.

An earlier issue of *Current Science* had reported a significant amount of untapped wind power available off the coast of Gujarat. Now a Research Communication on **page 774** in this issue points out that the wind power from the coasts off Rameswaram and Kanyakumari will help reduce the energy deficits in the southern states.

Microbes Support Phytoremediation

Though phytoremediation of heavy metal contamination is slower than physical and chemical methods of decontamination, it is less costly and less harmful to the environment. Remediation of contamination by microbes, too, has been suggested by many scientists. Now researchers from the Babasaheb Bhimrao Ambedkar University, Lucknow suggest a combination. In a Review Article on **page 715**, they bring together the evidence to show that plant growth promoting rhizobacteria not only improve plant productivity but also help reduce heavy metal, especially cadmium, contamination.

Astronomical Growth

Manpower missing

After many centuries Indian Astronomy is once again poised to provide leadership to the world. The recent developments are a testimony. First AstroSat, the first Indian satellite fully dedicated to astronomy, then the Aditya-L1 mission to study the Sun from Space. Moreover, we will also have a Thirty Meter Telescope, the LIGO-India Gravitational Wave Observatory and the Square Kilometer Array Radio Telescope soon.

Meanwhile, the Giant Metrewave Radio Telescope was upgraded; a 3.6 Metre Optical Telescope is now in place in Devasthal and the MACE Gamma-ray Telescope as well as the Multi Application Solar Telescope (MAST), are also operational now.

The plans for a National Large Solar Telescope and an India-based Neutrino Observatory are also in the pipeline.

Without the availability of a large number of expert users, the scientific potential of these instruments may remain unrealized and the great investment in time and money would all be wasted. As a first step to overcome this problem, a special section on **page 578–714** in this issue gives us an overview of the new developments in Indian astronomy.

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