

Repetitive and unpublished projects

Science and technology play an important role in the development of any country. For this, research in every field is important. Understanding this, our government is spending billions of rupees every year for research, a large sum being diverted to life sciences. Funding is allocated to institutions and universities for improving the existing facilities and to have renovative discoveries. Minor researches in the name of projects have become part of the courses in PG, UG and +2 levels. Most of these works are funded adequately and many are of good quality. But what about the fate of these works? Only a few in the PG level and almost none in the UG level get published in journals and periodicals. The vast majority gets stacked away in the shelves of the institutions. For instance, a large number of studies are conducted using plant hormones; in most cases, a particular concentration is found to have profound effect on a specific parameter. If translocated, these results would benefit the farmer and will help alleviate the already perishing agricultural sector, which is reeling under a

2.7% growth. However, there are many reasons that hinder this. First, the time that a student gets is too little that the work would not be sufficient to get published in journals. Lack of coordination among different colleges, universities and research institutions is another factor. Lastly, even published works do not reach the common man and are not implemented.

It has become a common practice to get the same work done many times, the result being decelerated growth in the field. This can be reduced by guidelines from the universities that departments get interconnected so that unnecessary repetition of work can be avoided. Copying a work without doing any, can be prevented through strict monitoring. In many institutions, projects are done towards the end of the course, when the students are busy with their studies. Instead, if the work starts early, probably at the beginning of the final year, good results can be obtained.

All our research institutions, colleges and schools should be interconnected, all

published works (at least a good abstract) and summary of unpublished works should be made available to everyone. This will not only reduce repetitions, but also pave the way for further work on the topic. Any work with the same results even after three or four trials should be terminated. A single test of the same at higher institutions or at the PG level will ensure credibility of the work. The government should also provide platforms for presentation of such works and publish these results at a nominal cost. The results of such works should be made available to farmers through agricultural organizations after enough field trials. All these, if implemented, would drastically change the research scenario in our country and will pave the way for development in the agricultural sector and thereby the economy.

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Urbanization – A potential threat to the fragile Himalayan environment

The Himalayas is one of the major centres of biological and cultural diversity, and a source of inspiration and spirituality. Maintaining the fragile Himalayan ecosystem is vital for the well-being of the present and future generations. Due to rapid decline in natural resources mass migration from hill villages to small towns in the hills, especially in the densely populated central Himalayan region, is taking place. Growth in trade and tourism has created more jobs with improved living standards, but development in the last few decades has created several environmental problems also. The Himalayas has low resilience and high vulnerability, and is therefore under serious threat from rapid urbanization. Mismanagement of urban development has resulted in unplanned settlements, increase in natural disasters and depletion in natural resources. The key environmental issues related to urbanization are unplanned settlements, waste management, degradation of

water resources, natural disaster preparedness, traffic management and air quality.

Real estate development is causing significant change in the mountain environment and local communities. Availability of agricultural land is decreasing due to want of flat land for construction. Often the interests of the local communities are ignored by the outsiders, who construct buildings destroying the natural resources. We need to study the real estate trends and challenges the local people face in dealing with rapid urbanization. Townships should be so designed so that the buildings become a part of the local landscape, capitalizing on the local ecology.

Managing solid waste and waste water is a daunting task, as urban areas have grown haphazardly without provisions or plans for appropriate infrastructure and services. Dumping of household solid waste directly into the rivers is deteriorating the quality of water.

Solid waste should be classified, decomposed to fertilizers and recycled. Sewage should be treated before discharging it directly into the rivers. The rivers are the key source of potable water and also the main repository of the valley's untreated sewage and solid waste. Aquifer depletion and diversion of water towards towns are contributing to deficit in irrigation water and reduced grain yield. Townships should live on recycled water. The 'flush and forget' water system should be discouraged. Efforts should be made for integrated water resource management by adopting a few towns for pilot testing of a programme on improving urban water governance capacities. There should be an assessment of town water requirement for developing well planned township for demonstration and capacity building.

Roads are being built extensively all across the hillstates to improve access and connectivity. Roads are being built

in remote and difficult regions running through pristine forested area, resulting in dumps of excavated forest soil. Similarly, construction activities such as building houses also involve digging the soil. In the hills, the excavated soil often does not find any sustainable utilization and is thrown down a valley. These soil heaps spoil the beauty as vegetation growing along the roads get buried. Landslides and soil erosion occur in such destabilized areas and the debris chokes the river below, causing flash floods. The excavated soil can be utilized efficiently by nearby agricultural fields for improving depth of the farm soil. Concepts like this need to be

researched and practised as the recycling of waste is important in sustainable low-input land management. The Himalayas falls in a seismically active zone, but the building architecture in the haphazardly growing townships does not comply with the norms of earthquake-resistant buildings.

Air quality is also deteriorating. This is likely to have a serious impact on public health and vegetation. Community places such as shopping malls should be designed such that people can walk or take public transportation to reach them. Awareness about urbanization threats and their remedial measures is important

for human health, tourism development and improving the quality of life. Accomplishing these will ensure that in spite of urbanization, the Himalayas continues to supply ecosystem services and many other benefits to humanity.

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Is *Corypha talliera* (Arecaceae), the most handsome palm of India, extinct?

The 'Talliera palm' (*Corypha talliera* Roxb.) – an endemic species of Birbhum District, West Bengal was declared as the most handsome palm of India by William W. Roxburgh. This species was seen growing till 1946 in the Indian Botanic Garden at Shibpur, Howrah, India and was also enlisted in the *Index seminum* of Singapore Botanical Garden. One of the authors (R.C.S.) invited information through a letter published in *Economic Botany* (USA) about any surviving plant of this species in any of the botanical



gardens. But, even after about a decade, no such report has been received/published so far. Hence, it appears that this palm of India has become extinct. A painting by Roxburgh is being reproduced here to invite the attention of people to relocate it even now.

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NEWS

Awards

The Indian Physics Association has announced the following awards:

R. D. Birla Memorial Award–2006

The R. D. Birla Memorial Award, given for excellence in pure physics was awarded for the year 2006 jointly to N. Kumar, Homi Bhabha Distinguished Professor at Raman Research Institute, Ban-

galore and S. S. Kapoor, DAE Homi Bhabha Chair at the Bhabha Atomic Research Centre (BARC), Mumbai.

M. M. Chugani Memorial Award–2004

The M. M. Chugani Memorial Award for the year 2004 was awarded to V. C. Sahni, Director, Raja Ramanna Centre for Advanced Technology and Director,

Physics Group, BARC for excellence in applied physics.

Buti Foundation Award–2006

The Buti Foundation Award for the year 2006 was awarded to Tarun Souradeep, IUCAA, Pune for outstanding contributions in the area of theoretical applied physics, astrophysics and biophysics.